

## C-A-F-S Series

Helical gear units C  
Helical bevel gear units A  
Shaft mounted gear units F  
Single stage gearboxes S



PRODUCTS &  
SOLUTIONS





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#### Revisions

Refer to page 572 for the catalogue revision index. Visit [www.bonfiglioli.com](http://www.bonfiglioli.com) to search for catalogues with up-to-date revisions.



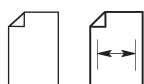
## GENERAL INFORMATION

### 1 SYMBOLS AND UNITS OF MEASURE

Symbols	Units of Measure	Description	Symbols	Units of Measure	Description
$A_{N1,2}$	[N]	Permissible axial force	$P_{1,2}$	[kW]	Power
$f_s$	–	Service factor	$P_{N1,2}$	[kW]	Rated power
$f_T$	–	Thermal factor	$P_{R1,2}$	[kW]	Power demand
$f_{TP}$	–	Temperature factor	$R_{C1,2}$	[N]	Calculated radial force
$i$	–	Gear ratio	$R_{N1,2}$	[N]	Permissible overhung load
$l$	–	Cyclic duration factor	$S$	–	Safety factor
$J_C$	[Kgm <sup>2</sup> ]	Mass moment of inertia to be driven	$t_a$	[°C]	Ambient temperature
$J_M$	[Kgm <sup>2</sup> ]	Motor mass moment of inertia	$t_s$	[°C]	Surface temperature
$J_R$	[Kgm <sup>2</sup> ]	Mass moment of inertia for the gear unit	$t_o$	[°C]	Oil temperature
$K$	–	Mass acceleration factor	$t_f$	[min]	Work time under constant load
$K_r$	–	Transmission element factor	$t_r$	[min]	Rest time
$M_{1,2}$	[Nm]	Torque	$\eta_d$	–	Dynamic efficiency
$M_{c1,2}$	[Nm]	Calculated torque	$\eta_s$	–	Static efficiency
$M_{n1,2}$	[Nm]	Rated torque	$\varphi$	[']	Output shaft angular backlash (with locked input shaft)
$M_{r1,2}$	[Nm]	Torque demand			
$n_{1,2}$	[min <sup>-1</sup> ]	Speed			

<sub>1</sub> value applies to input shaft  
<sub>2</sub> value applies to output shaft





The symbol shows the page the information can be sorted from.



This symbol refers to the angle the overhung load applies (viewing from drive end).



**DANGER - WARNING**  
This symbol indicates situations of danger, which if ignored, may result in serious injury to the operator.



Symbol refers to weight of gearmotors and speed reducers.  
Figure for gearmotors incorporates the weight of the 4-pole motor and for life lubricated units, where applicable, the weight of the oil.



**IMPORTANT**  
This symbol indicates important technical information.



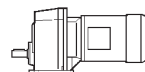
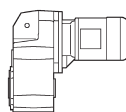
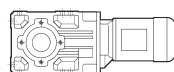
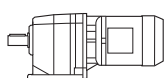
Apply to equipment complying with "ATEX" Directive.

**Series C**

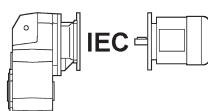
**Series A**

**Series F**

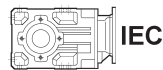
**Series S**



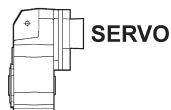
Gearmotor with compact motor.



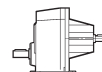
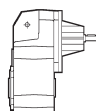
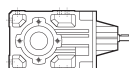
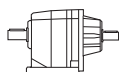
Gearmotor with IEC motor.



Gear unit with IEC motor interface.



Gear unit with servomotor input adapter.




Speed reducer with solid input shaft.




## 2 ALLOWED TEMPERATURE LIMITS

Symbols	Description / Condition	Value (*)	
		Synthetic Oil	Mineral Oil
$t_a$	Ambient temperature		
$t_{au \text{ min}}$	Minimum operating ambient temperature	<b>-30°C</b>	<b>-10°C</b>
$t_{au \text{ Max}}$	Maximum operating ambient temperature	<b>+50°C</b>	<b>+40°C</b>
$t_{as \text{ min}}$	Minimum storage ambient temperature	<b>-40°C</b>	<b>-10°C</b>
$t_{as \text{ Max}}$	Maximum storage ambient temperature	<b>+50°C</b>	<b>+50°C</b>
$t_s$	Surface temperature		
$t_{s \text{ min}}$	Minimum gearbox surface temperature starting with partial load (#)	<b>-25°C</b>	<b>-10°C</b>
$t_{sc \text{ min}}$	Minimum gearbox surface temperature starting with full load	<b>-10°C</b>	<b>-5°C</b>
$t_{s \text{ Max}}$	Maximum casing surface temperature during continuous operation (measured next to the gearbox input)	<b>+100°C</b>	<b>+100°C (@)</b>
$t_o$	Oil temperature		
$t_{o \text{ Max}}$	Maximum oil temperature during continuous operation	<b>+95°C</b>	<b>+95°C (@)</b>

(\*) = Refer to the table "Selection of the optimal oil viscosity" for further information about minimum and maximum values of different oil viscosity. For values of  $t_a < -20^\circ\text{C}$  and  $t_s, t_o > 80^\circ\text{C}$ , choose (as permitted in the product configuration stage) the sealing type of the most suitable material to the type of application. If needed contact Bonfiglioli Technical Service. 

(@) = Continuous operation it is not advised if  $t_s$  and  $t_o$  range is  $80^\circ\text{C}$  to  $95^\circ\text{C}$ .

(#) = For full load start-up it is recommended to ramp-up and provide for greater absorption of the motor. If needed, contact Bonfiglioli Technical Service. 



### 3 TORQUE

#### 3.1 Rated torque $M_{n2}$ [Nm]

The torque that can be transmitted continuously through the output shaft, with the gear unit operated under a service factor  $f_s = 1$ .  
Rating is speed sensitive.

#### 3.2 Required torque $M_{r2}$ [Nm]

The torque demand based on application requirement.  
It must always be equal to or less than torque  $M_{n2}$  the gearbox under study is rated for.

#### 3.3 Calculated torque $M_{c2}$ [Nm]

Computational torque value to be used when selecting the gearbox. It is calculated considering the required torque  $M_{r2}$  and service factor  $f_s$ , as per the equation here after:

$$M_{c2} = M_{r2} \cdot f_s < M_{n2} \quad (1)$$

### 4 POWER

#### 4.1 Rated power $P_{n1}$ [kW]

In the gearbox selection charts this is the power applicable to input shaft, based on input speed  $n_1$  and corresponding to service factor  $f_s = 1$ .

### 5 THERMAL CAPACITY $P_t$ [kW]

$P_t$  is the power that can be transmitted through the gear unit, under a continuous duty and an ambient temperature of 20 °C, without resulting into damage of the inner parts or degradation of the lubricant properties. Refer to chart (A1) for specific kW ratings.


In case of intermittent duty, or an operating ambient temperature other than the rated 20°C, the  $P_t$  value should be adjusted through the factor  $f_t$ , obtained from chart (A2), as per the following equation:


$$P_t' = P_t \times f_t$$





Gear units featuring more than 2 reductions and/or a gear ratio greater than  $i = 45$  do not normally require the thermal limit to be checked as in these cases the thermal rating usually exceeds the mechanical rating.

(A 1)

$P_t$ [kW] 20 °C		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
<b>C 05 2</b>	—	—
<b>C 12 2</b>	—	—
<b>C 22 2</b>	—	—
<b>C 32 2</b>	—	4.5
<b>C 36 2</b>	6.5	5.0
<b>C 41 2</b>	8.0	6.0
<b>C 51 2</b>	11.0	7.8
<b>C 61 2</b>	14.0	10.0
<b>C 70 2</b>	21	16.0
<b>C 80 2</b>	32	24
<b>C 90 2</b>	43	32
<b>C 100 2</b>	59	42

$P_t$ [kW] 20 °C		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
<b>A 05 2</b>	2.0	1.5
<b>A 10 2</b>	2.1	1.5
<b>A 20 2</b>	6.0	5.4
<b>A 30 2</b>	8.0	6.6
<b>A 35 2</b>	9.5	8.2
<b>A 41 2</b>	11.5	9.6
<b>A 50 2</b>	20	18.0
<b>A 55 2</b>	21	18.0
<b>A 60 2</b>	27	23
<b>A 70 3</b>	31	24
<b>A 80 3</b>	44	33
<b>A 90 3</b>	64	48

$P_t$ [kW] 20 °C		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
<b>F 10 2</b>	3.8	2.7
<b>F 20 2</b>	9.1	6.5
<b>F 25 2</b>	10.2	7.4
<b>F 31 2</b>	11.7	8.5
<b>F 41 2</b>	14.3	10.4
<b>F 51 2</b>	21.5	15.0
<b>F 60 3</b>	26.0	18.9
<b>F 70 3</b>	36.4	26.0
<b>F 80 3</b>	52	36
<b>F 90 3</b>	75	53

$P_t$ [kW] 20 °C		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
<b>S 10 1</b>	5.5	4.9
<b>S 20 1</b>	7.8	7.2
<b>S 30 1</b>	10.0	9.1
<b>S 40 1</b>	15.6	14.3
<b>S 50 1</b>	21	18.9



(A 2)

		$f_t$			
$t_a$ [°C]	Continuous duty	Intermittent duty			
		Degree of intermittence [I]			
		80%	60%	40%	20%
40	0.80	1.1	1.3	1.5	1.6
30	0.85	1.3	1.5	1.6	1.8
20	1.0	1.5	1.6	1.8	2.0
10	1.15	1.6	1.8	2.0	2.3

Where cyclic duration factor (I)% is the relationship of operating time under load  $t_f$  to total time ( $t_f + t_r$ ) expressed as a percentage.

$$I = \frac{t_f}{t_f + t_r} \cdot 100 \quad (2)$$

The condition to be verified is:

$$P_{r1} \leq P_t \times f_t \quad (3)$$

## 6 EFFICIENCY

### 6.1 Dynamic efficiency $\eta_d$

Obtained from the relationship of delivered power  $P_2$  to input power  $P_1$ , according to the following equation:

$$\eta_d = \frac{P_2}{P_1} \cdot 100 \quad [\%] \quad (4)$$

(A 3)

	2 x	3 x	4 x		2 x	3 x	4 x
$\eta_d$	95%	93%	90%	$\eta_d$	94%	91%	89%
	2 x	3 x	4 x		1 x		
$\eta_d$	95%	93%	90%	$\eta_d$	98%		



## 7 GEAR RATIO $i$

The value for the gear ratio is referred to with the letter [ $i$ ] and calculated through the relationship of the input speed  $n_1$  to the output speed  $n_2$ :

$$i = \frac{n_1}{n_2} \quad (5)$$

The gear ratio is usually a decimal number which in this catalogue is truncated at one digit after the comma (no decimals for  $i > 1000$ ).

If interested in knowing the exact value see also chapters "EXACT RATIOS".

## 8 ANGULAR VELOCITY

### 8.1 Input speed $n_1$ [min<sup>-1</sup>]

The speed is related to the prime mover selected. Catalogue values refer to speed of either single or double speed motors that are common in the industry.

If the gearbox is driven by an external transmission it is recommended to operate it with a speed of 1400 min<sup>-1</sup>, or lower, in order to optimise operating conditions and lifetime.

Higher input speeds are permitted, however in this case consider that torque rating  $M_{n2}$  is affected adversely.

Please consult a Bonfiglioli representative.

### 8.2 Output speed $n_2$ [min<sup>-1</sup>]

The output speed value  $n_2$  is calculated from the relationship of input speed  $n_1$  to the gear ratio  $i$ , as per the following equation:

$$n_2 = \frac{n_1}{i} \quad (6)$$

## 9 MOMENT OF INERTIA $J_r$ [Kgm<sup>2</sup>]

Moments of inertia specified in the catalogue refer to the gear unit input axis.

They are therefore related to motor speed, in the case of direct motor mounting.



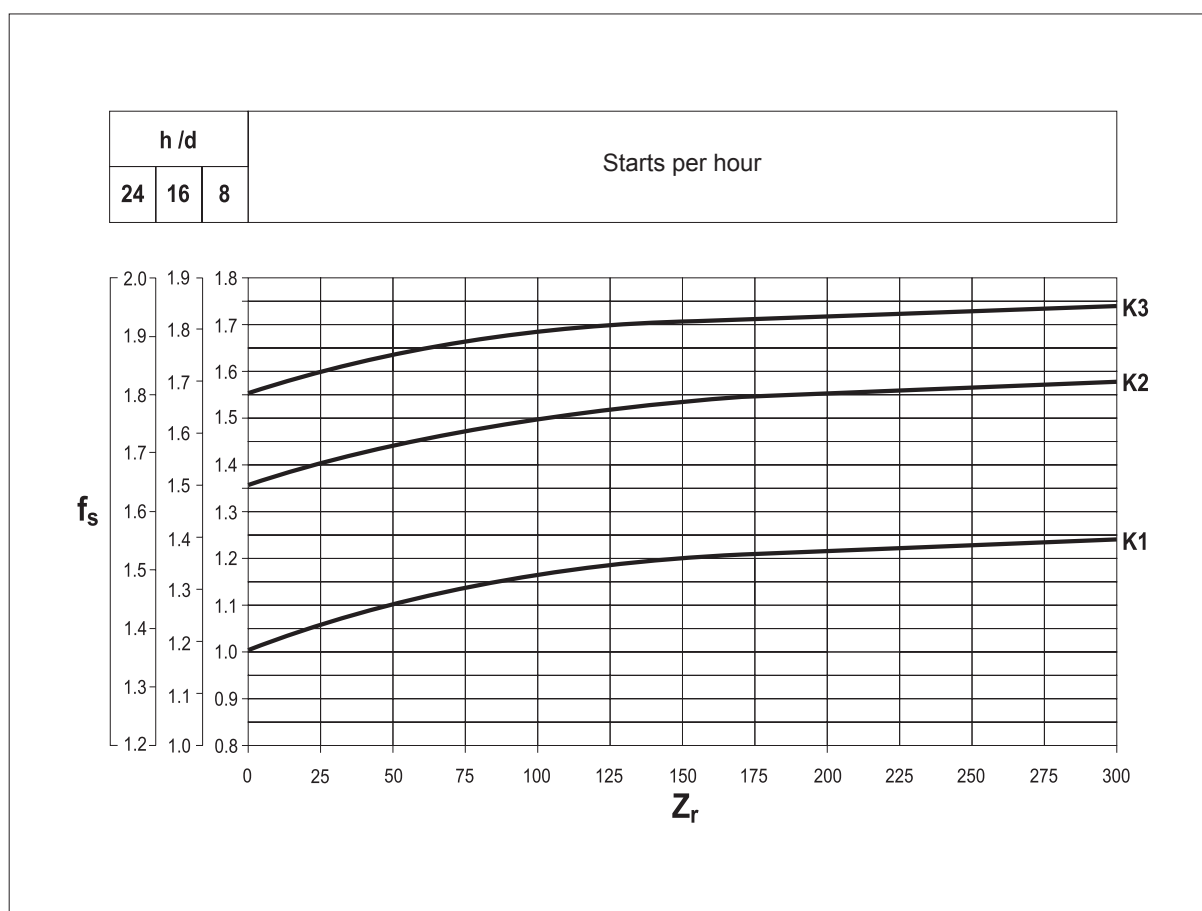
## 10 SERVICE FACTOR $f_s$

This factor is the numeric value describing reducer service duty. It takes into consideration, with unavoidable approximation, daily operating conditions, load variations and overloads connected with reducer application.

In the graph (A4) below, after selecting proper “daily working hours” column, the service factor is given by intersecting the number of starts per hour and one of the K1, K2 or K3 curves.

$K$  curves are linked with the service nature (approximately: uniform, medium and heavy) through the acceleration factor of masses  $K$ , connected to the ratio between driven masses and motor inertia values. Regardless of the value given for the service factor, we would like to remind that in some applications, which for example involve lifting of parts, failure of the reducer may expose the operators to the risk of injuries. If in doubt, please contact our Technical Service Department.

(A 4)



### 10.1 Acceleration factor of masses $K$

This parameter serves for selecting the right curve for the type of load.

The value is given by the following ratio:

(A 5)

$K = \frac{J_c}{J_m}$	→	$J_c$ = Moment of inertia of driven masses referred to motor drive shaft	$K \leq 0,25$ → <b>K1</b> Uniform load
	→	$J_m$ = Motor moment of inertia	$0,25 < K \leq 3$ → <b>K2</b> Moderate shock load
			$3 < K \leq 10$ → <b>K3</b> Heavy shock load
			$K > 10$ → Please consult Bonfiglioli Technical Service



## 11 LUBRICATION

Life lubricated gearboxes do not require any periodical oil changes.

Refer to the User's Manual available at [www.bonfiglioli.com](http://www.bonfiglioli.com) for indications about checking the oil level and its replacement for other types of gearboxes.

Do not mix mineral oils with synthetic oils and/or different brands.

However, oil level should be checked at regular intervals and topped up as required.

Check monthly if unit operates under intermittent duty, more frequently if duty is continuous.

### 11.1 Selection of the optimal oil viscosity (data relating to Shell Oils)

(A 6)

		Operating ambient temperature [C°]																			
		-40	-35	-30	-25	-20	-15	-10	-5	0	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50	
		suitability seals check				standard seals provided in the catalog															
Splash lubrication	Mineral oil	150 VG							*												
		220 VG	⊘						*											☎	
		320 VG		⊘						*											
		460 VG									*										
	Synthetic oil (PAG)	150 VG								*											☎
		220 VG	⊘							*											
		320 VG		⊘						*											
	Synthetic oil (PAO)	150 VG								*											☎
		220 VG	⊘							*											
		320 VG		⊘						*											

Recommended operating limits

Allowed operating limits. ☎

Forbidden operating limits.

\* = It is recommended to ramp-up and to provide for greater absorption of the motor.

If needed and in the event of impulse loads, contact Bonfiglioli Technical Service. ☎





## 11.2 Lubrication for C, A, F, S series gearboxes

The inner parts of Bonfiglioli gear units are oil-bath and splash lubricated.

Frame sizes C 05...C 41, A 05...A 41, F 10...F 41, S 10...S 40 are supplied by the factory, or by the authorized dealers, already filled with oil.

Unless otherwise specified, units size C 51, A 50, F 51, S 50 and larger are usually supplied unlubricated at it will be the customer care to fill them with oil prior to putting them into operation. In both cases, depending on the version, prior to putting the gear unit into operation may need to replace the closed plug used for transportation purposes with breather plug supplied with.

For the reference charts of oil plugs placement and quantity of lubricant, refer to the Installation, Operation and Maintenance Manual (available on [www.bonfiglioli.com](http://www.bonfiglioli.com)).

The “long life” polyglycol-based lubricant supplied by the factory, in the absence of contamination, does not require periodical oil changes throughout the lifetime of the gear unit.

## 11.3 Lubrication for A-EX (Atex) gearboxes


The inner parts of Bonfiglioli gear units are oil-bath and splash lubricated.

The ATEX version gear unit (with some exceptions see Table below) are factory-charged with “long-life” lubricant SHELL OMALA S4 WE 320 in the quantity suitable for the mounting position specified in the order.

(A 7)

A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 55 <sup>1)</sup>	A 60 2 <sup>2)</sup>	A 60 3 <sup>1)</sup>	A 60 4 <sup>1)</sup>	A 70 <sup>1)</sup>	A 80 <sup>1)</sup>	A 90 <sup>1)</sup>
------	------	------	------	------	------	------	--------------------	----------------------	----------------------	----------------------	--------------------	--------------------	--------------------

 Gearbox pre-filled with a synthetic “for life” lubricant

 Gearbox pre-filled with a synthetic lubricant

<sup>(1)</sup> Without lubricant for mounting positions B6 and B7

<sup>(2)</sup> Without lubricant for mounting positions B6, B7 and VB

Gearboxes are fitted with sealed filler plugs for transport purposes. Depending on version, they may be supplied with a vented plug which the user must fit before putting the gearbox into service. Refer to the installation, operation and maintenance manual to replace the filler plug correctly. (These manuals are available in a number of languages and can be downloaded in pdf format from the website [www.bonfiglioli.com](http://www.bonfiglioli.com).)

When a gearbox is supplied with no lubricant, it is recommended to fill it with a lubricant of a similar type, selected from those listed in its installation, operation and maintenance manual.



## 12 SELECTION

Some fundamental data are necessary to assist the correct selection of a gearbox or gearmotor. The table below (A8) briefly sums up this information.

To simplify selection, fill in the table and send a copy to our Technical Service which will select the most suitable drive unit for your application.

(A 8)

Type of application .....	<b>A<sub>c1</sub></b> Thrust load on input shaft (+/-)( <sup>***</sup> ) .....	N
<b>P<sub>r2</sub></b> Output power at n <sub>2</sub> max .....	<b>J<sub>c</sub></b> Moment of inertia of the load .....	Kgm <sup>2</sup>
<b>P<sub>r2'</sub></b> Output power at n <sub>2</sub> min .....	<b>t<sub>a</sub></b> Ambient temperature .....	C°
<b>M<sub>r2</sub></b> Output torque at n <sub>2</sub> max .....	Altitude above sea level .....	m
<b>n<sub>2</sub></b> Max.output speed .....	Duty type to IEC norms S...../.....%	
<b>n<sub>2'</sub></b> Min.output speed .....	<b>Z</b> Starting frequency .....	1/h
<b>n<sub>1</sub></b> Max.input speed .....	Motor voltage .....	V
<b>n<sub>1'</sub></b> Min.input speed .....	Brake voltage .....	V
<b>R<sub>c2</sub></b> Radial load on output shaft .....	Frequency .....	Hz
<b>x<sub>2</sub></b> Load application distance (*) .....	<b>M<sub>b</sub></b> Brake torque .....	Nm
Load orientation at output .....	Motor protection degree IP.....	
Output shaft rotation direction (CW-CCW) (**)	Insulation class .....	
<b>R<sub>c1</sub></b> Radial load on input shaft .....		
<b>x<sub>1</sub></b> Load application distance (*) .....		
Load orientation at input .....		
Input shaft rotation direction (CW-CCW) (**)		
<b>A<sub>c2</sub></b> Thrust load on output shaft (+/-)( <sup>***</sup> ) .....		N

(\*) Distance x1-2 is between force application point and shaft shoulder (if not indicated the force acting at mid-point of the shaft extension will be considered).

(\*\*) CW = clockwise;  
CCW = counterclockwise

(\*\*\*) + = push  
- = pull



For the selection of Series A gear units in ATEX configuration, see also the specific chapter on page 322.

## 12.1 Selection of a gearmotor

a) Determine service factor  $f_s$  according to type of duty (factor K), number of starts per hour  $Z_r$  and hours of operation.

$$P_{r1} = \frac{M_{r2} \cdot n_2}{9550 \cdot \eta_d} \text{ [kW]} \quad (7)$$

b) From values of torque  $M_{r2}$ , speed  $n_2$  and efficiency  $\eta_d$  the required input power can be calculated from the equation:

Value of  $\eta_d$  for the captioned gear unit can be sorted out from paragraph 6.

$$P_n \geq P_{r1} \quad (8)$$

c) Consult the gearmotor selection charts and locate the table corresponding to normalised power  $P_n$ :

Unless otherwise specified, power  $P_n$  of motors indicated in the catalogue refers to continuous duty S1. For motors used in conditions other than S1, the type of duty required by reference to CEI 2-3/IEC 34-1 Standards must be mentioned.

For duties from S2 to S8 in particular and for motor frame 132 or smaller, extra power output can be obtained with respect to continuous duty.

Accordingly the following condition must be satisfied:

$$P_n \geq \frac{P_{r1}}{f_m} \quad (9)$$

The adjusting factor  $f_m$  can be obtained from table (A9).

## 12.2 Intermittence ratio

$$I = \frac{t_f}{t_f + t_r} \cdot 100 \quad (10)$$

$t_f$  = work time at constant load

$t_r$  = rest time



(A 9)

	DUTY						Please contact us
	S2			S3*			
	Cycle duration [min]			Cyclic duration factor (I)			
	10	30	60	25%	40%	60%	
$f_m$	1.35	1.15	1.05	1.25	1.15	1.1	

\* Cycle duration, in any event, must be 10 minutes or less. If it is longer, please contact our Technical Service.

Next, refer to the appropriate  $P_n$  section within the gearmotor selection charts and locate the unit that features the desired output speed  $n_2$ , or closest to, along with a safety factor  $S$  that meets or exceeds the applicable service factor  $f_s$ .

The safety factor is so defined:

$$S = \frac{M_{n2}}{M_2} = \frac{P_{n1}}{P_1} \quad (11)$$

As standard, gear and motor combinations are implemented with 2, 4 and 6 pole motors, 50 Hz supplied.

Should the drive speed be different from 2800, 1400 or 900 min<sup>-1</sup>, base the selection on the gear unit nominal rating.

### 12.3 Selection of speed reducer and gearbox with IEC motor adapter

a) Determine service factor  $f_s$ .

b) Assuming the required output torque for the application  $M_{r2}$  is known, the calculation torque can be then defined as:

$$M_{c2} = M_{r2} \cdot f_s \quad (12)$$

c) The gear ratio is calculated according to requested output speed  $n_2$  and drive speed  $n_1$ :

$$i = \frac{n_1}{n_2} \quad (13)$$



Once values for  $M_{c2}$  and  $i$  are known consult the rating charts under the appropriate input speed  $n_1$  and locate the gear unit that features the gear ratio closest to  $[i]$  and at same time offers a rated torque value  $M_{n2}$  so that:

$$M_{n2} \geq M_{c2} \quad (14)$$

If a IEC normalized motor must be fitted check geometrical compatibility with the gear unit at paragraph "MOTOR AVAILABILITY".

### 13 VERIFICATION

After the selection of the speed reducer, or gearmotor, is complete it is recommended that the following verifications are conducted:

#### a) Thermal capacity

Make sure that the thermal capacity of the gearbox is equal to or greater than the power required by the application according to equation (3) on page 7.

If this condition is not verified, select a larger gearbox or apply a forced cooling system.

#### b) Maximum torque

The maximum torque (intended as instantaneous peak load) applicable to the gearbox must not, in general, exceed 200% of rated torque  $M_{n2}$ . Therefore, check that this limit is not exceeded, using suitable torque limiting devices, if necessary.

For three-phase double speed motors, it is important to pay attention to the switching torque which is generated when switching from high to low speed, because it could be significantly higher than maximum torque.

A simple, economical way to minimize overloading is to power only two phases of the motor during switch-over (power-up time on two phases can be controlled with a time-relay):

$$M_{g2} = 0.5 \cdot M_{g3}$$

$M_{g2}$  = Switching torque with two-phase power-up

$M_{g3}$  = Switching torque with three-phase power-up

We recommend, in any event, to contact our Technical Service.

#### c) Radial loads

Make sure that radial forces applying on input and/or output shaft are within permitted catalogue values.

If they were higher consider designing a different bearing arrangement before switching to a larger gear unit.

Catalogue values for rated overhung loads refer to mid-point of shaft under study.

Should application point of the overhung load be localised further out the revised loading capability must be adjusted as per instructions given in this manual.

Please refer to the paragraphs relating to radial loads.



d) Thrust loads

Actual thrust load must be found within 20% of the equivalent overhung load capacity.

Should an extremely high, or a combination of radial and axial load apply, consult Bonfiglioli Technical Service.

e) Starts per hour

For duties featuring a high number of switches the actual starting capability in loaded condition [Z] must be calculated.

Actual number of starts per hour must be lower than value so calculated.

## 14 INSTALLATION

The following installation instructions must be observed:

a) Make sure that the gearbox is correctly secured to avoid vibrations.

If shocks or overloads are expected, install hydraulic couplings, clutches, torque limiters, etc.

b) Before being paint coated, the machined surfaces and the outer face of the oil seals must be protected to prevent paint drying out the rubber and jeopardising the sealing function.

c) Parts fitted on the gearbox output shaft must be machined to ISO H7 tolerance to prevent interference fits that could damage the gearbox itself.

Further, to mount or remove such parts, use suitable pullers or extraction devices using the tapped hole located at the top of the shaft extension.

d) Mating surfaces must be cleaned and treated with suitable protective products before mounting to avoid oxidation and, as a result, seizure of parts.

e) Prior to putting the gear unit into operation make sure that the equipment that incorporates the same complies with the current revision of the Machines Directive 2006/42/EC.

f) Before starting up the machine, make sure that oil level conforms to the mounting position specified for the gear unit and the viscosity is adequate (refer to the User's Manual available at [www.bonfiglioli.com](http://www.bonfiglioli.com)).

g) For outdoor installation provide adequate guards in order to protect the drive from rainfalls as well as direct sun radiation.



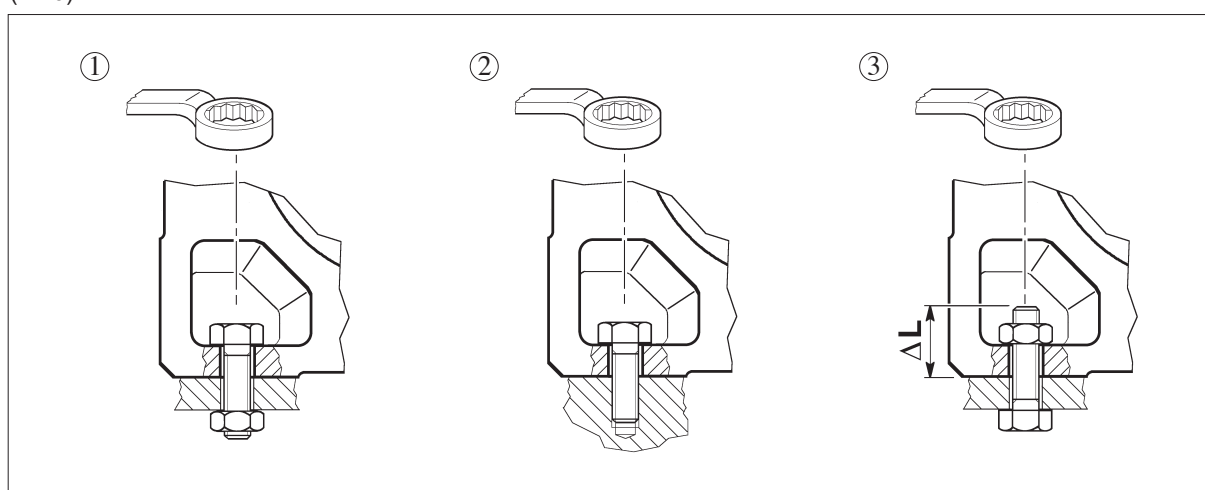
## 14.1 Fitting servomotors to gear heads featuring a clamping device (adapter type SC)

Turn the clamping device until its slot is aligned to those that are milled on the reducer input shaft. If the motor shaft features a key, this must be removed and the relevant keyway must also be aligned with the slots of clamping device and gear head input shaft, prior to inserting the servomotor into site. The keyway must be sitting on the same side as the locking screw. Tighten the bolts that hold the servomotor to the gear head, insert a torque wrench through the hole on the side of the flange and tighten the locking screw of the clamping device to the torque that is specified in the drawing section for the given adapter.

## 15 INSTALLATION INSTRUCTIONS

Schemes in table (A10) show the 3 possible installation patterns for A gear units to the machine frame. For each of these circumstances, table (A11) indicates exagonal head screw sizes to be used. Besides, to facilitate the installation, we suggest to use a wrench of the type shown in table (A10).

(A 10)



(A 11)

	Bolt type			
	①	②	③	$\Delta L$ (mm)
<b>A 05</b>	M8x22	M8x20	M8x ...	22
<b>A 10</b>	M8x25	M8x20	M8x ...	20
<b>A 20</b>	M8x25	M8x20	M8x ...	20
<b>A 30</b>	M10x30	M10x25	M10x ...	25
<b>A 35</b>	M10x30	M10x25	M10x ...	25
<b>A 41</b>	M12x35	M12x30	M12x ...	30

	Bolt type			
	①	②	③	$\Delta L$ (mm)
<b>A 50</b>	M14x45	M14x40	M14x ...	35
<b>A 55</b>	M14x40	M14x40	M14x ...	35
<b>A 60</b>	M16x50	M16x45	M16x ...	40
<b>A 70</b>	M20x60	M20x55	M20x ...	45
<b>A 80</b>	M24x70	M24x65	M24x ...	55
<b>A 90</b>	M24x90	M24x80	M24x ...	65



## 16 STORAGE

Observe the following instructions to ensure correct storage of the products:

- a) Do not store outdoors, in areas exposed to weather or with excessive humidity.
- b) Always place boards, wood or other material between the products and the floor. The gearboxes should not have direct contact with the floor.
- c) In case of long-term storage all machined surfaces such as flanges, shafts and couplings must be coated with a suitable rust inhibiting product (Mobilarma 248 or equivalent).

Furthermore gear units must be placed with the fill plug in the highest position and filled up with oil. Before putting the units into operation the appropriate quantity, and type, of oil must be restored (refer to the User's Manual available at [www.bonfiglioli.com](http://www.bonfiglioli.com)).

## 17 CONDITIONS OF SUPPLY

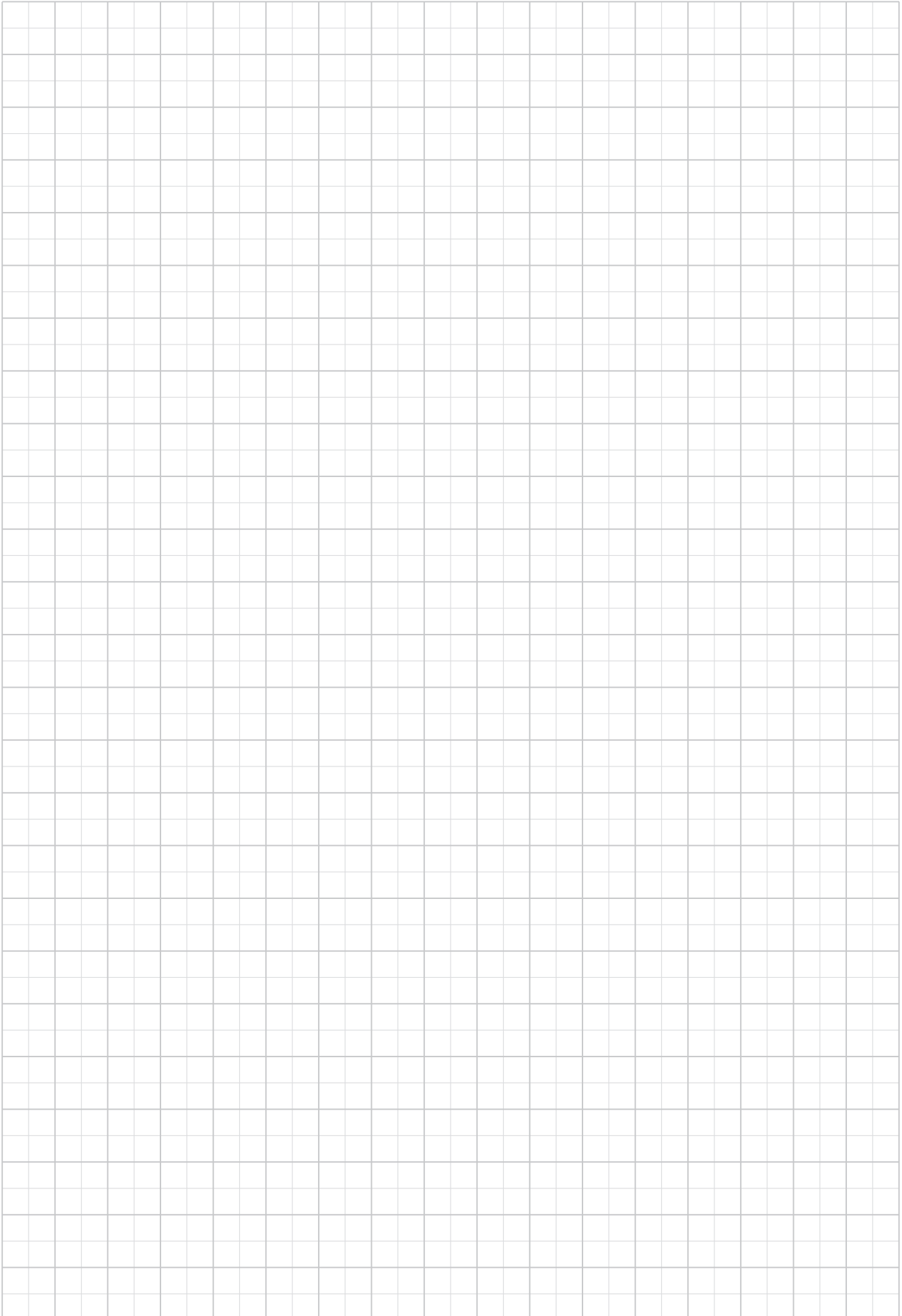
Gear units are supplied as follows:

- a) configured for installation in the mounting position specified when ordering;
- b) tested to manufacturer specifications;
- c) mating machined surfaces come unpainted;
- d) nuts and bolts for mounting motors are provided;
- e) shafts are protected during transportation by plastic caps;
- f) supplied with lifting lug (where applicable).

## 18 PAINT SPECIFICATIONS

Specifications for paint applied to gearboxes (where applicable) may be obtained from the branches or dealers that supplied the units.







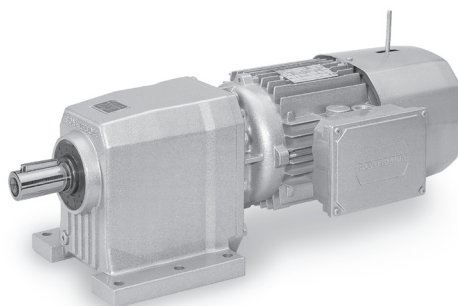
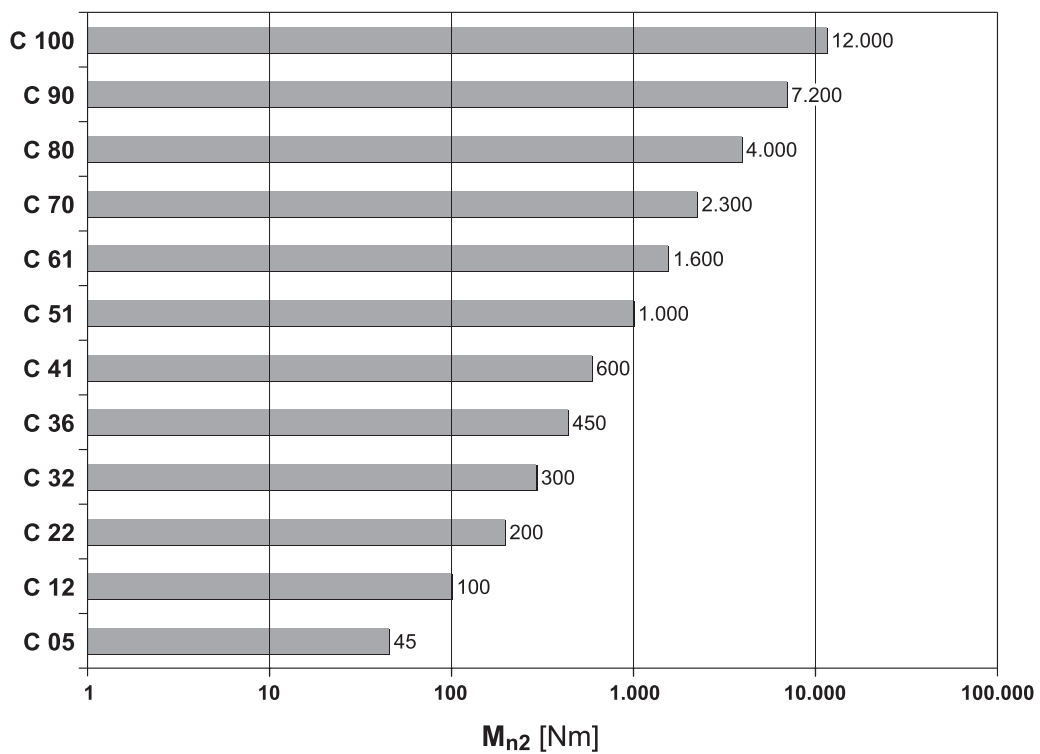
## HELICAL GEAR UNITS SERIES C

### 19 DESIGN FEATURES

The main design characteristics are:

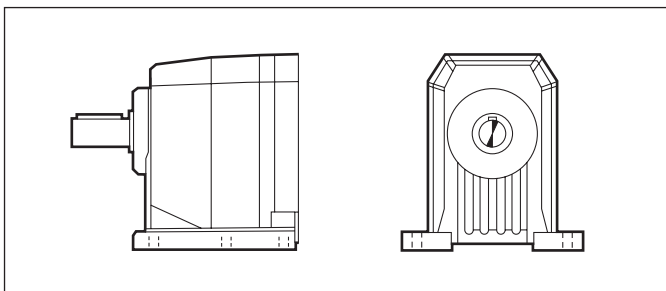
- modularity
  - space effective
  - universal mounting
  - high efficiency
  - quiet operation
  - gears in hardened and case-hardened steel
  - bare aluminium housing for sizes 05, 12, 22 and 32.
- Larger frame sizes come in sturdy cast iron housings
- input and output shafts from high grade steel.

(B 12)





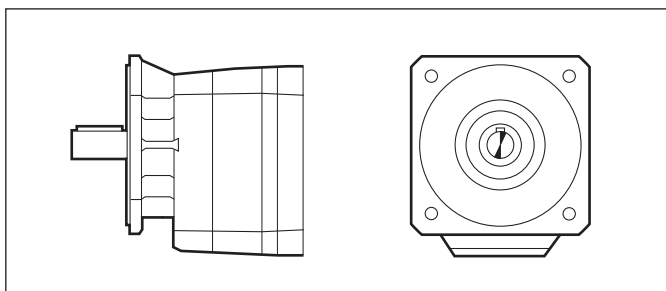
## 20 VERSIONS



**P**

Foot mount

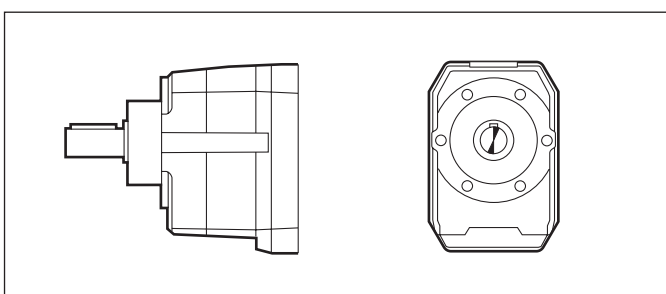
C 05 ... C 100



**F**

Flange mount

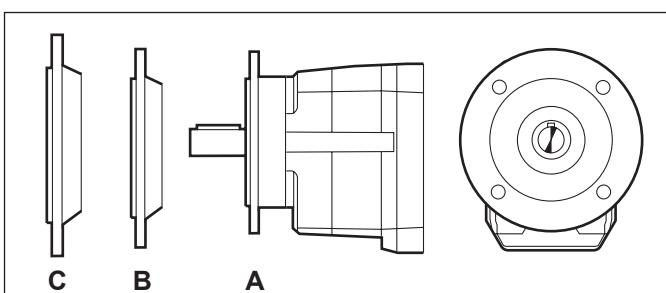
C 05 ... C 32  
C 70 ... C 100



**U**

UNIBOX- universal housing

C 12 ... C 61



**UF**

UNIBOX bolt-on flange

C 12 ... C 61



**21 DESIGNATION**

GEAR UNIT

**C 32 2 F 52.4 S1 B5** .....

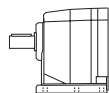
OPTIONS

MOUNTING POSITION

C...P: **B3** (Standard), B6, B7, B8, V5, V6

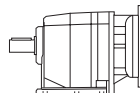
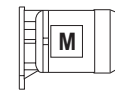
C...F/U/UF: **B5** (Standard), B51, B53, B52, V1, V3

INPUT CONFIGURATION



(C05...C100)

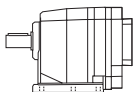
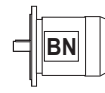
**S05 ... S5**



(C12...C100)

**IEC\_**

**P63 ... P280**

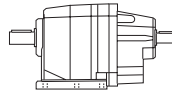
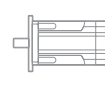


(C12...C61)

**SK\_**



**SC\_**

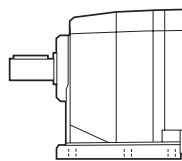


(C12...C100)

**HS**

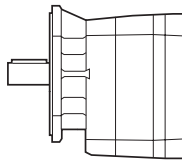
GEAR RATIO

VERSION



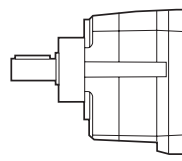
**P**

(C05...C100)



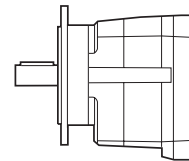
**F**

(C05...C32)  
(C70...C100)



**U**

(C12...C61)



**UFA**  
**UFB**  
**UFC**

(C12...C61)

REDUCTIONS

**2, 3, 4**

GEAR FRAME SIZE

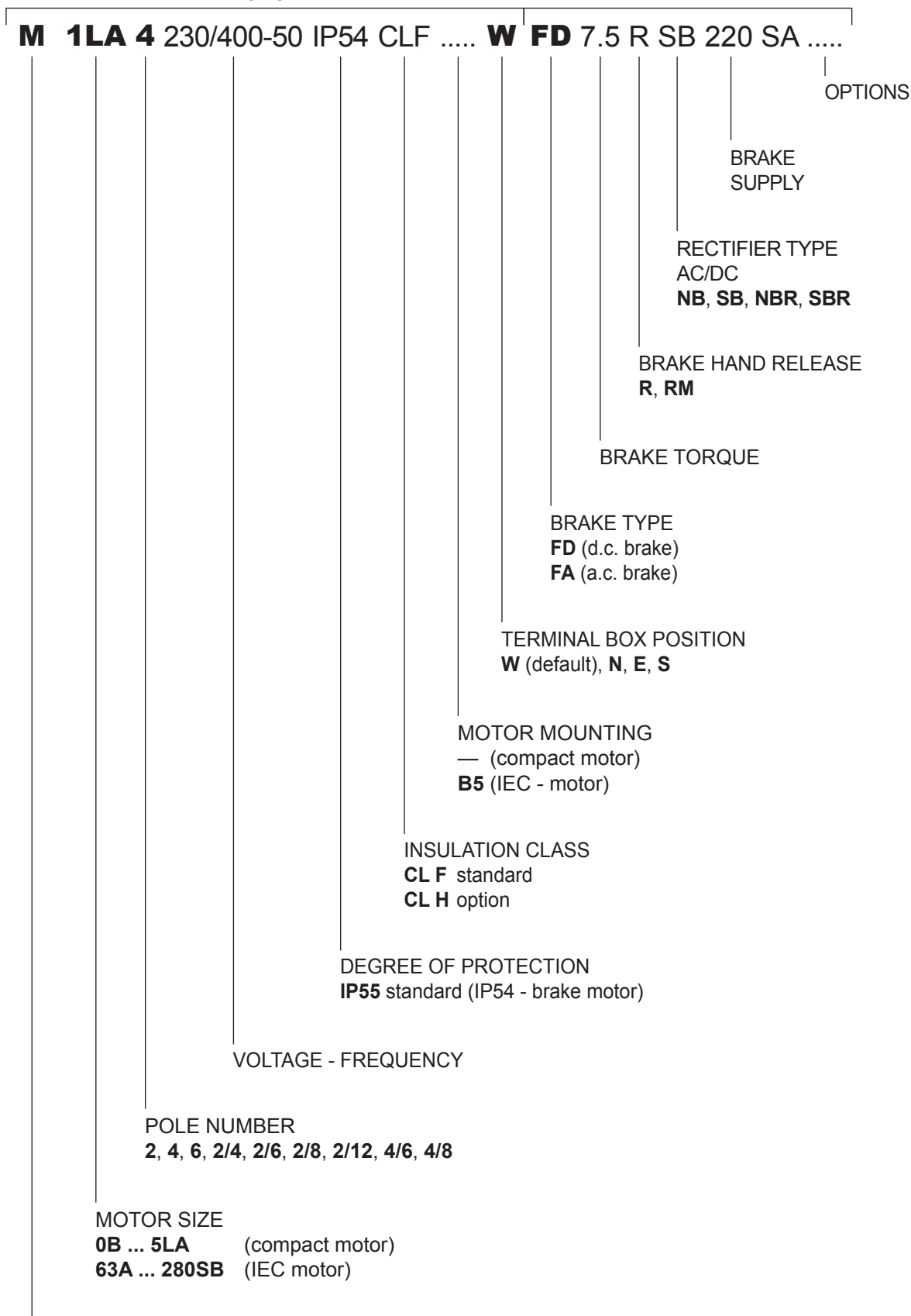
**05, 12, 22, 32, 36, 41, 51, 61, 70, 80, 90, 100**

TYPE: **C** = helical in-line gear units



MOTOR

BRAKE



MOTOR TYPE  
**M** = compact 3-phase  
**BN** = IEC 3-phase



## 21.1 Gearbox options

### SO

Gear units C05, C12, C22, C32, C36, C41, usually factory filled with oil, to be supplied unlubricated.

### LO

Gearboxes C51, C61, C70, C80, C90, C100 usually supplied without oil, to be supplied with synthetic oil currently used by BONFIGLIOLI RIDUTTORI and filled according to the mounting position specified.

### DL

The output shaft features a dual oil seal.

### DV

Dual oil seals on input shaft. (Only available for integral gearmotors).

### VV

Fluoro elastomer oil seal on input shaft.

### PV

Both input and output shafts feature Fluoro elastomer oil seals.

### RB

Gear units C12, C22, C32, C36, C41, C51 and C61, usually supplied with standard values of angular backlash, are, in this case, supplied with reduced angular backlash values. The following table specifies the corresponding figures of angular backlash.

(B 13)

		standard			RB	
C 05	i =	5.5 ; 9.3 ; 15.6 ; 27.1	6.7 ; 7.4 ; 11.2 ; 12.5 ; 18.9 ; 21.0 ; 32.8_44.7		—	
	φ [°]	34	29		—	
C 12	i =	2.8_6.2	7.6_66.2		2.8_6.2	7.6_66.2
	φ [°]	55	29		—	13
C 22	i =	2.7_6.1	7.1_261.0		2.7_6.1	7.1_261.0
	φ [°]	47	25		—	12
C 32	i =	2.9_6.3	7.2_274.7		2.9_6.3	7.2_274.7
	φ [°]	39	21		—	11
C 36	i =	2.7_5.8	6.8_19.0	22.1_848.5	2.7_5.8	6.8_848.5
	φ [°]	37	20	17	—	10
C 41 2	i =	2.7_6.0	6.4_44.8	—	2.7_6.0	6.4_44.8
	φ [°]	34	17	—	—	9
C 41 3/4	i =	—	—	28.5_855.5	—	28.5_855.5
	φ [°]	—	—	15	—	9
C 51 2	i =	2.6_5.6	7.0_57.0	—	2.6_5.6	7.0_57.0
	φ [°]	32	15	—	—	8
C 51 3/4	i =	—	—	21.8_884.9	—	21.8_884.9
	φ [°]	—	—	13	—	8
C 61 2	i =	2.8_6.0	6.7_38.0	—	2.8_6.0	6.7_38.0
	φ [°]	27	13	—	12	7
C 61 3/4	i =	—	—	26.8_796.1	—	26.8_796.1
	φ [°]	—	—	11	—	7
C 70	i =	4.6_34.7	41.3_1476		—	
	φ [°]	18	20		—	
C 80	i =	5.6_39.1	43.5_1481		—	
	φ [°]	16	18		—	
C 90	i =	5.2_35.1	39.4_1240		—	
	φ [°]	16	18		—	
C 100	i =	4.9_29.6	34.3_1081		—	
	φ [°]	14	16		—	

For the delivery timeframe contact the Bonfiglioli's sales network



## SURFACE PROTECTION

When no specific protection class is requested, the painted (ferrous) surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, gearboxes can be delivered with **C3** and **C4** surface protection, obtained by painting the complete gearbox.

(B 14)

<b>SURFACE PROTECTION</b>	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
<b>C3</b>	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
<b>C4</b>	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C	C4

Gearboxes with optional protection to class **C3** or **C4** are available in a choice of colours. If no specific colour is requested (see the “PAINTING” option) gearboxes are finished in RAL 7042. Gearboxes can also be supplied with surface protection for corrosivity class **C5** according to UNI EN ISO 12944-2. Contact our Technical Service for further details.

## PAINTING

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

(B 15)

<b>PAINTING</b>	Colour	RAL number
<b>RAL7042*</b>	Traffic Grey A	7042
<b>RAL5010</b>	Gentian Blue	5010
<b>RAL9005</b>	Jet Black	9005
<b>RAL9006</b>	White Aluminium	9006
<b>RAL9010</b>	Pure White	9010

\* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.



## CERTIFICATES

### AC - Certificate of compliance

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

### CC - Inspection certificate

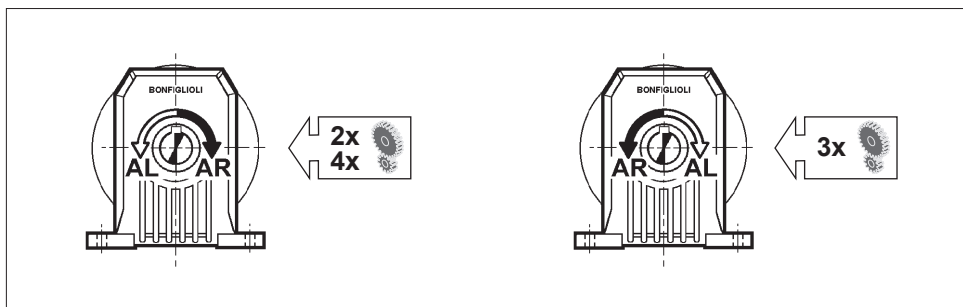
The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

## 21.2 Motor options

### AL, AR

A backstop device on the motor itself, as described in the electric motors section of this catalogue, is available for gearmotors with integral M Series motors. The following table shows the direction of free rotation of the gearbox, on the basis of which the correct option must be selected.

(B 16)



For further information on options, consult the electric motors section.

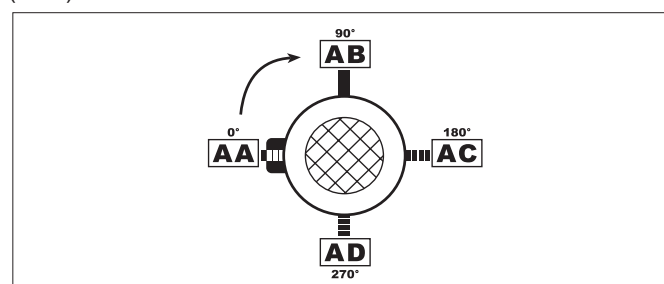
## 22 MOUNTING POSITION AND TERMINAL BOX ORIENTATION

Location of motor terminal box can be specified by viewing the motor from the fan side; standard location is shown in black (W).

### Angular position of the brake release lever.

Unless otherwise specified, brake motors have the manual device side located, 90° apart from terminal box. Different angles can be specified through the relevant options available.

(B 17)

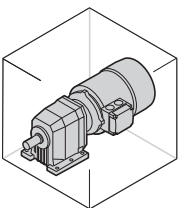




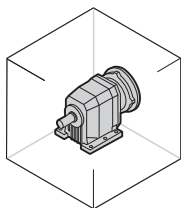


# C ... P

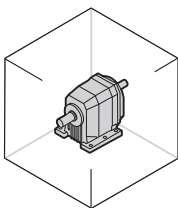
## B3



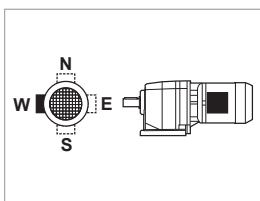
\_S



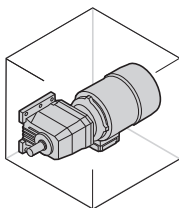
\_P(IEC) \_SK / \_SC



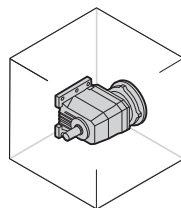
\_HS



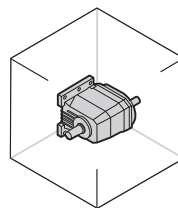
## B6



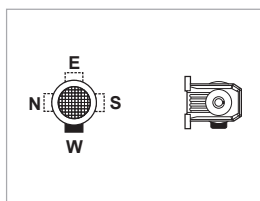
\_S



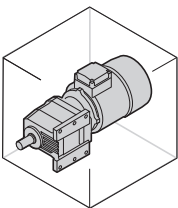
\_P(IEC) \_SK / \_SC



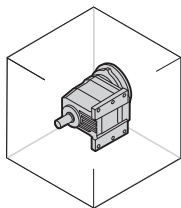
\_HS



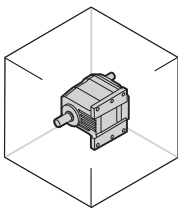
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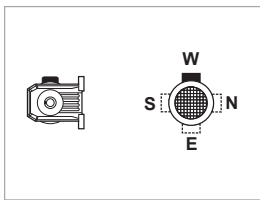
\_S



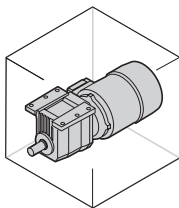
\_P(IEC) \_SK / \_SC



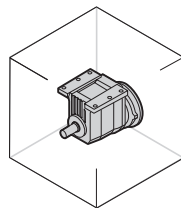
\_HS



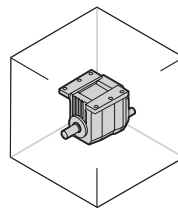
## B8



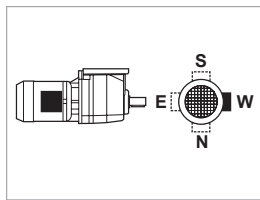
\_S



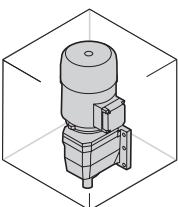
\_P(IEC) \_SK / \_SC



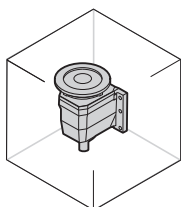
\_HS



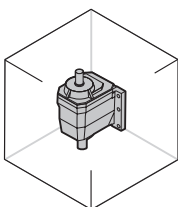
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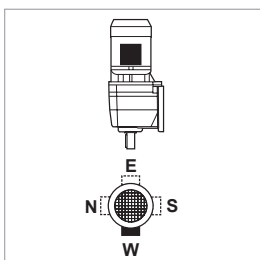
\_S



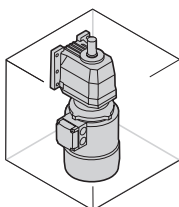
\_P(IEC) \_SK / \_SC



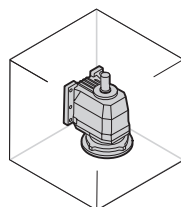
\_HS



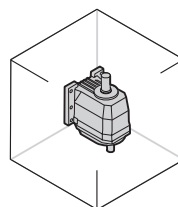
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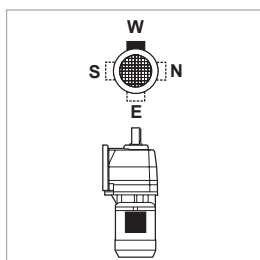
\_S



\_P(IEC) \_SK / \_SC



\_HS

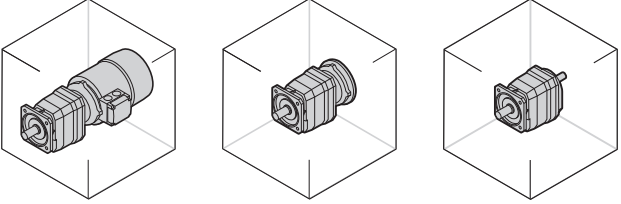


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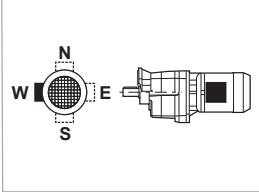


**C ... F                      C ... U                      C ... UF**

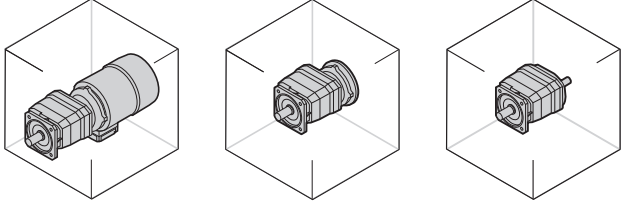
**B5**



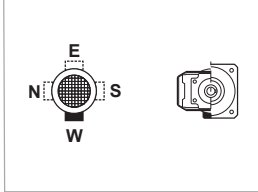
**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



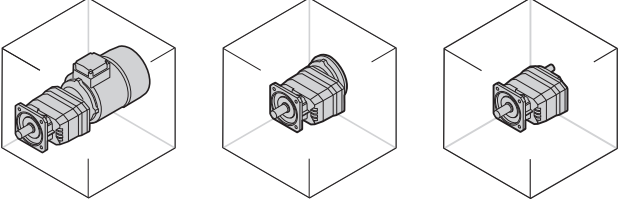
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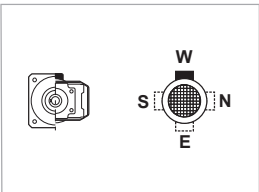
**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



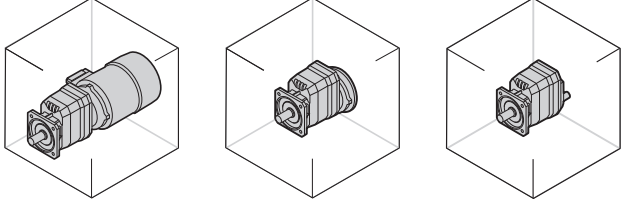
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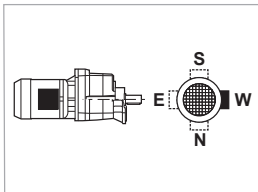
**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



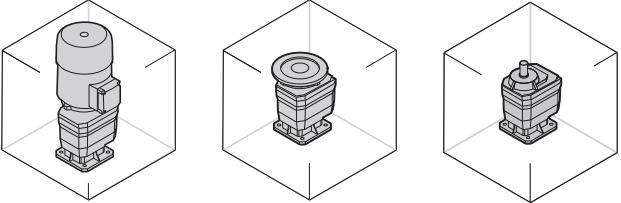
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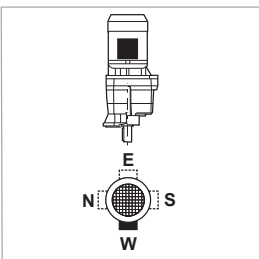
**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



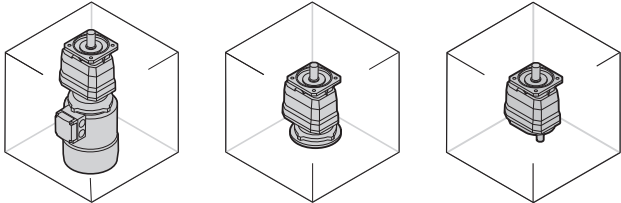
**V1**



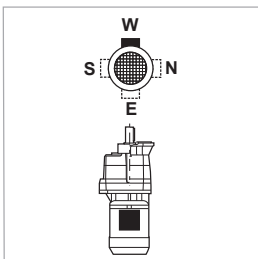
**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



**V3**



**\_S                      \_P(IEC) \_SK / \_SC                      \_HS**



W = Default



## 23 OVERHUNG LOADS

External transmissions keyed onto input and/or output shaft generate loads that act radially onto same shaft.

Resulting shaft loading must be compatible with both the bearing and the shaft capacity. Namely shaft loading ( $R_{c1}$  for input shaft,  $R_{c2}$  for output shaft), must be equal or lower than admissible overhung load capacity for shaft under study ( $R_{n1}$  for input shaft,  $R_{n2}$  for output shaft). OHL capability listed in the rating chart section.

In the formulas given below, index (1) applies to parameters relating to input shaft, whereas index (2) refers to output shaft.

The load generated by an external transmission can be calculated with close approximation by the following equations:

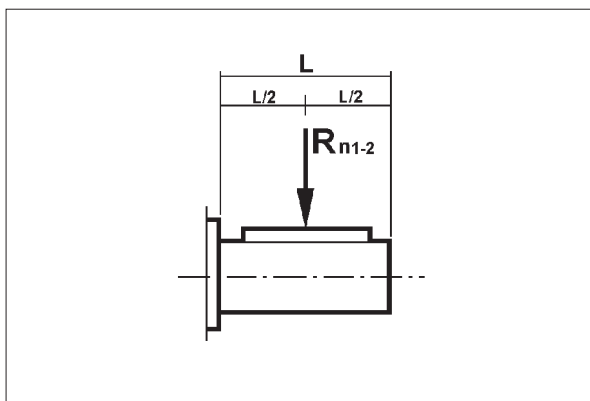
$$R_{c1} [N] = \frac{2000 \cdot M_1 [Nm] \cdot K_r}{d [mm]} \quad ; \quad R_{c2} [N] = \frac{2000 \cdot M_2 [Nm] \cdot K_r}{d [mm]} \quad (15)$$

(B 18)

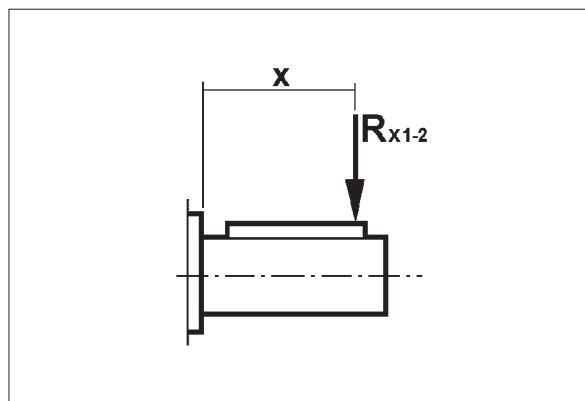
$M_1$ [Nm]	Torque applied to input shaft	$K_r = 1,25$	Gear transmission
$M_2$ [Nm]	Torque drawn at output shaft	$K_r = 1,5$	V-belt transmission
$d$ [mm]	Pitch diameter of element keyed onto shaft	$K_r = 2,0$	Flat belt transmission
$K_r = 1$	Chain transmission		

Verification of OHL capability varies depending on whether load applies at midpoint of shaft or it is shifted further out:

(B 19)



(B 20)





**a) Load applied at midpoint of shaft, tab. (B19)**

A comparison of shaft loading with catalogue OHL ratings should verify the following condition:

$$R_{c1} \leq R_{n1} \text{ [input shaft]}$$

or

$$R_{c2} \leq R_{n2} \text{ [output shaft]}$$

**b) Load off the midpoint tab. (B20)**

When load is shifted at an “x” distance from shaft shoulder, permissible load must be calculated for that distance.

Revised permissible overhung loads  $R_{x1}$  (input) and  $R_{x2}$  (output) are calculated respectively from original rated values  $R_{n1}$  and  $R_{n2}$  through factor:

$$\frac{a}{b+x} \quad (16)$$

(B 21)

	Load location factors					
	Output shaft			Input shaft		
	a	b	c	a	b	c
<b>C 05 2</b>	38	18	250	—	—	—
<b>C 12 2</b>	46	26	450	21	1	300
<b>C 22 2</b>	53	28	550	40	20	350
<b>C 22 3</b>	53	28	550	21	1	300
<b>C 32 2</b>	60.5	30.5	750	41.5	21.5	350
<b>C 32 3</b>	60.5	30.5	750	21	1	300
<b>C 36 2 - C 36 3</b>	69.5	34.5	800	51.5	26.5	450
<b>C 36 4</b>	69.5	34.5	800	21	1	300
<b>C 41 2 - C 41 3</b>	69.5	34.5	850	51.5	26.5	450
<b>C 41 4</b>	69.5	34.5	850	40	20	350
<b>C 51 2 - C 51 3</b>	76.5	36.5	900	51.5	26.5	450
<b>C 51 4</b>	76.5	36.5	900	41.5	21.5	350
<b>C 61 2 - C 61 3</b>	95.5	45.5	1000	57.5	27.5	450
<b>C 61 4</b>	95.5	45.5	1000	51.5	26.5	450
<b>C 70 2 - C 70 3</b>	114	54	1200	86	31	1000
<b>C 70 4</b>	114	54	1200	49.5	24.5	450
<b>C 80 2 - C 80 3</b>	131	61	1500	86	31	1000
<b>C 80 4</b>	131	61	1500	49.5	24.5	450
<b>C 90 2 - C 90 3</b>	161	76	2000	116	46	1400
<b>C 90 4</b>	161	76	2000	49.5	24.5	450
<b>C 100 2 - C 100 3</b>	163.5	58.5	2500	116	46	1400
<b>C 100 4</b>	163.5	58.5	2500	49.5	24.5	450



Verification procedure is described here after.

### INPUT SHAFT

1. Calculate:

$$R_{x1} = R_{n1} \cdot \frac{a}{b+x} \quad (17)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (18)$$

Finally, the following condition must be verified:

$$R_{c1} \leq R_{x1} \quad (19)$$

### OUTPUT SHAFT

1. Calculate:

$$R_{x2} = R_{n2} \cdot \frac{a}{b+x} \quad (20)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (21)$$

Finally, the following condition must be verified:

$$R_{c2} \leq R_{x2} \quad (22)$$



## 24 THRUST LOADS, $A_{n1}$ , $A_{n2}$

Permissible thrust loads on input [ $A_{n1}$ ] and output [ $A_{n2}$ ] shafts are obtained from the radial loading for the shaft under consideration [ $R_{n1}$ ] and [ $R_{n2}$ ] through the following equation:

$$\begin{aligned} A_{n1} &= R_{n1} \cdot 0.2 \\ A_{n2} &= R_{n2} \cdot 0.2 \end{aligned} \quad (23)$$

The thrust loads calculated through these formulas apply to thrust forces occurring at the same time as rated radial loads.

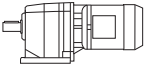




In the only case that no overhung load acts on the shaft the value of the admissible thrust load [ $A_n$ ] amounts to 50% of rated OHL [ $R_n$ ] on same shaft.

Where thrust loads exceed permissible value or largely prevail over radial loads, contact Bonfiglioli Riduttori for an in-depth analysis of the application.



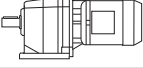



## 25 GEARMOTOR RATING CHARTS

### 0.09 kW

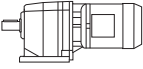



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N			 IEC 	
1.0	760	0.8	855.5	7000	C414_855.5 S05 M05A6	142	C414_855.5 P63 BN63A6	143
1.2	654	0.9	735.9	7000	C414_735.9 S05 M05A6	142	C414_735.9 P63 BN63A6	143
1.3	597	1.0	671.3	7000	C414_671.3 S05 M05A6	142	C414_671.3 P63 BN63A6	143
1.5	511	0.9	574.7	6500	C364_574.7 S05 M05A6	138	C364_574.7 P63 BN63A6	139
1.6	483	1.2	543.5	7000	C414_543.5 S05 M05A6	142	C414_543.5 P63 BN63A6	143
1.9	407	1.1	458.4	6500	C364_458.4 S05 M05A6	138	C364_458.4 P63 BN63A6	139
2.0	400	1.5	450.2	7000	C414_450.2 S05 M05A6	142	C414_450.2 P63 BN63A6	143
2.6	301	1.5	341.7	6500	C364_341.7 S05 M05A6	138	C364_341.7 P63 BN63A6	139
2.6	296	2.0	333.4	7000	C414_333.4 S05 M05A6	142	C414_333.4 P63 BN63A6	143
3.2	250	1.1	274.7	5500	C323_274.7 S05 M05A6	134	C323_274.7 P63 BN63A6	135
3.9	205	1.0	225.8	5000	C223_225.8 S05 M05A6	130	C223_225.8 P63 BN63A6	131
4.1	196	1.5	215.6	5500	C323_215.6 S05 M05A6	134	C323_215.6 P63 BN63A6	135
4.9	162	1.2	178.5	5000	C223_178.5 S05 M05A6	130	C223_178.5 P63 BN63A6	131
5.8	138	1.5	151.7	5000	C223_151.7 S05 M05A6	130	C223_151.7 P63 BN63A6	131
5.9	135	2.2	148.4	5500	C323_148.4 S05 M05A6	134	C323_148.4 P63 BN63A6	135
7.2	111	1.8	122.2	5000	C223_122.2 S05 M05A6	130	C223_122.2 P63 BN63A6	131
7.2	111	2.7	122.4	5500	C323_122.4 S05 M05A6	134	C323_122.4 P63 BN63A6	135
7.9	102	2.0	112.0	5000	C223_112.0 S05 M05A6	130	C223_112.0 P63 BN63A6	131
8.8	91	2.2	100.2	5000	C223_100.2 S05 M05A6	130	C223_100.2 P63 BN63A6	131
10.7	75	2.7	82.6	5000	C223_82.6 S05 M05A6	130	C223_82.6 P63 BN63A6	131
13.3	61	1.5	66.2	2000	C122_66.2 S05 M05A6	126	C122_66.2 P63 BN63A6	127
16.0	51	1.8	55.2	2000	C122_55.2 S05 M05A6	126	C122_55.2 P63 BN63A6	127
18.5	44	2.0	47.6	2000	C122_47.6 S05 M05A6	126	C122_47.6 P63 BN63A6	127
19.7	42	1.1	44.7	1170	C052_44.7 S05 M05A6	125		
20.8	39	2.3	42.3	2000	C122_42.3 S05 M05A6	126	C122_42.3 P63 BN63A6	127
21.8	38	1.2	40.3	1150	C052_40.3 S05 M05A6	125		
23.8	34	2.6	37.0	2000	C122_37.0 S05 M05A6	126	C122_37.0 P63 BN63A6	127
24.2	34	1.3	36.4	1140	C052_36.4 S05 M05A6	125		
26.8	31	1.5	32.8	1110	C052_32.8 S05 M05A6	125		
26.8	31	2.9	32.8	2000	C122_32.8 S05 M05A6	126	C122_32.8 P63 BN63A6	127
30	27	1.7	44.7	1170	C052_44.7 S0 M0B4	125		
33	25	1.8	40.3	990	C052_40.3 S0 M0B4	125		
37	22	2.0	36.4	980	C052_36.4 S0 M0B4	125		
41	20	2.3	32.8	960	C052_32.8 S0 M0B4	125		
42	19	2.3	21.0	1020	C052_21.0 S05 M05A6	125		
50	16	2.7	27.1	930	C052_27.1 S0 M0B4	125		
56	15	3.1	15.6	950	C052_15.6 S05 M05A6	125		
66	12	6.5	13.4	2000	C122_13.4 S05 M05A6	126	C122_13.4 P63 BN63A6	127
71	12	3.9	12.5	900	C052_12.5 S05 M05A6	125		
74	11	7.0	11.9	2000	C122_11.9 S05 M05A6	126	C122_11.9 P63 BN63A6	127
78	10	4.3	11.2	880	C052_11.2 S05 M05A6	125		
88	9	7.7	10.1	2000	C122_10.1 S05 M05A6	126	C122_10.1 P63 BN63A6	127



## 0.09 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
95	9	5.2	9.3	830	C052_9.3 S05 M05A6	125		
100	8	8.4	8.8	2000	C122_8.8 S05 M05A6	126	C122_8.8 P63 BN63A6	127
119	7	6.5	7.4	780	C052_7.4 S05 M05A6	125		
132	6	7.3	6.7	760	C052_6.7 S05 M05A6	125		
146	6	10.9	6.2	1960	C122_6.2 S05 M05A6	126	C122_6.2 P63 BN63A6	127
157	5	11.1	5.6	1850	C122_5.6 S05 M05A6	126	C122_5.6 P63 BN63A6	127
159	5	8.8	5.5	720	C052_5.5 S05 M05A6	125		
187	4	12.6	4.9	1810	C122_4.9 S05 M05A6	126	C122_4.9 P63 BN63A6	127
205	4	13.0	4.3	1730	C122_4.3 S05 M05A6	126	C122_4.3 P63 BN63A6	127
249	3	15.0	3.7	1650	C122_3.7 S05 M05A6	126	C122_3.7 P63 BN63A6	127
275	3	15.4	3.2	1580	C122_3.2 S05 M05A6	126	C122_3.2 P63 BN63A6	127
329	2	17.3	2.8	1510	C122_2.8 S05 M05A6	126	C122_2.8 P63 BN63A6	127

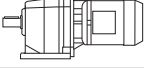



## 0.12 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
0.98	1061	0.9	884.9	10000			C514_884.9 P63 BN63B6	147
1.2	860	1.2	717.7	10000			C514_717.7 P63 BN63B6	147
1.5	681	0.9	855.5	7000	C414_855.5 S05 M05A4	142	C414_855.5 P63 BN63A4	143
1.6	643	1.6	808.0	10000			C514_808.0 P63 BN63A4	147
1.7	621	1.0	780.4	7000	C414_780.4 S05 M05A4	142	C414_780.4 P63 BN63A4	143
1.8	586	1.0	735.9	7000	C414_735.9 S05 M05A4	142	C414_735.9 P63 BN63A4	143
2.0	534	1.1	671.3	7000	C414_671.3 S05 M05A4	142	C414_671.3 P63 BN63A4	143
2.0	509	0.9	665.9	6500	C364_665.9 S05 M05A4	138	C364_665.9 P63 BN63A4	139
2.2	474	1.3	595.8	7000	C414_595.8 S05 M05A4	142	C414_595.8 P63 BN63A4	143
2.3	440	1.0	574.7	6500	C364_574.7 S05 M05A4	138	C364_574.7 P63 BN63A4	139
2.4	433	1.4	543.5	7000	C414_543.5 S05 M05A4	142	C414_543.5 P63 BN63A4	143
2.6	396	1.1	517.2	6500	C364_517.2 S05 M05A4	138	C364_517.2 P63 BN63A4	139
2.7	393	1.5	493.5	7000	C414_493.5 S05 M05A4	142	C414_493.5 P63 BN63A4	143
2.9	351	1.3	458.4	6500	C364_458.4 S05 M05A4	138	C364_458.4 P63 BN63A4	139
2.9	358	1.7	450.2	7000	C414_450.2 S05 M05A4	142	C414_450.2 P63 BN63A4	143
3.1	333	1.8	418.5	7000	C414_418.5 S05 M05A4	142	C414_418.5 P63 BN63A4	143
3.2	321	1.4	420.2	6500	C364_420.2 S05 M05A4	138	C364_420.2 P63 BN63A4	139
3.4	304	2.0	381.8	7000	C414_381.8 S05 M05A4	142	C414_381.8 P63 BN63A4	143
3.6	289	1.6	377.9	6500	C364_377.9 S05 M05A4	138	C364_377.9 P63 BN63A4	139
3.9	265	2.3	333.4	7000	C414_333.4 S05 M05A4	142	C414_333.4 P63 BN63A4	143
4.0	261	1.7	341.7	6500	C364_341.7 S05 M05A4	138	C364_341.7 P63 BN63A4	139
4.2	244	1.8	318.9	6500	C364_318.9 S05 M05A4	138	C364_318.9 P63 BN63A4	139
4.3	242	2.5	304.2	7000	C414_304.2 S05 M05A4	142	C414_304.2 P63 BN63A4	143
4.6	223	2.0	290.9	6500	C364_290.9 S05 M05A4	138	C364_290.9 P63 BN63A4	139
4.9	219	0.9	178.5	5000	C223_178.5 S05 M05B6	130	C223_178.5 P63 BN63B6	131
4.9	217	1.2	274.7	5500	C323_274.7 S05 M05A4	134	C323_274.7 P63 BN63A4	135
5.0	209	2.9	263.0	7000	C414_263.0 S05 M05A4	142	C414_263.0 P63 BN63A4	143



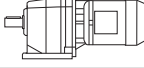





## 0.12 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC	
5.3	195	2.3	255.0	6500	C364_255.0 S05 M05A4	138	C364_255.0 P63 BN63A4	139
5.5	193	1.3	244.2	5500	C323_244.2 S05 M05A4	134	C323_244.2 P63 BN63A4	135
5.8	177	2.5	230.9	6500	C364_230.9 S05 M05A4	138	C364_230.9 P63 BN63A4	139
6.0	178	1.0	225.8	5000	C223_225.8 S05 M05A4	130	C223_225.8 P63 BN63A4	131
6.3	170	1.8	215.6	5500	C323_215.6 S05 M05A4	134	C323_215.6 P63 BN63A4	135
6.5	163	2.8	206.4	6500	C363_206.4 S05 M05A4	138	C363_206.4 P63 BN63A4	139
6.7	159	1.2	200.7	5000	C223_200.7 S05 M05A4	130	C223_200.7 P63 BN63A4	131
7.3	147	2.0	186.0	5500	C323_186.0 S05 M05A4	134	C323_186.0 P63 BN63A4	135
7.4	145	3.1	183.5	6500	C363_183.5 S05 M05A4	138	C363_183.5 P63 BN63A4	139
7.6	141	1.4	178.5	5000	C223_178.5 S05 M05A4	130	C223_178.5 P63 BN63A4	131
8.1	132	2.3	167.4	5500	C323_167.4 S05 M05A4	134	C323_167.4 P63 BN63A4	135
8.9	120	1.7	151.7	5000	C223_151.7 S05 M05A4	130	C223_151.7 P63 BN63A4	131
9.1	117	2.6	148.4	5500	C323_148.4 S05 M05A4	134	C323_148.4 P63 BN63A4	135
9.9	108	1.9	136.5	5000	C223_136.5 S05 M05A4	130	C223_136.5 P63 BN63A4	131
9.9	108	2.8	136.0	5500	C323_136.0 S05 M05A4	134	C323_136.0 P63 BN63A4	135
11.0	97	3.1	122.4	5500	C323_122.4 S05 M05A4	134	C323_122.4 P63 BN63A4	135
11.0	97	2.1	122.2	5000	C223_122.2 S05 M05A4	130	C223_122.2 P63 BN63A4	131
12.1	89	2.3	112.0	5000	C223_112.0 S05 M05A4	130	C223_112.0 P63 BN63A4	131
13.5	79	2.5	100.2	5000	C223_100.2 S05 M05A4	130	C223_100.2 P63 BN63A4	131
15.3	70	2.9	88.5	5000	C223_88.5 S05 M05A4	130	C223_88.5 P63 BN63A4	131
16.3	65	3.1	82.6	5000	C223_82.6 S05 M05A4	130	C223_82.6 P63 BN63A4	131
20.4	53	1.7	66.2	2000	C122_66.2 S05 M05A4	126	C122_66.2 P63 BN63A4	127
21.3	51	2.5	63.3	5000	C222_63.3 S05 M05A4	130	C222_63.3 P63 BN63A4	131
24.5	45	2.0	55.2	2000	C122_55.2 S05 M05A4	126	C122_55.2 P63 BN63A4	127
24.7	44	3.5	54.7	5000	C222_54.7 S05 M05A4	130	C222_54.7 P63 BN63A4	131
28.4	38	2.3	47.6	2000	C122_47.6 S05 M05A4	126	C122_47.6 P63 BN63A4	127
29.3	37	1.2	44.7	1010	C052_44.7 S05 M05A4	125		
32	34	2.6	42.3	2000	C122_42.3 S05 M05A4	126	C122_42.3 P63 BN63A4	127
33	34	1.3	40.3	990	C052_40.3 S05 M05A4	125		
36	30	1.5	36.4	980	C052_36.4 S05 M05A4	125		
36	30	3.0	37.0	2000	C122_37.0 S05 M05A4	126	C122_37.0 P63 BN63A4	127
40	27	1.6	32.8	960	C052_32.8 S05 M05A4	125		
41	26	3.4	32.8	2000	C122_32.8 S05 M05A4	126	C122_32.8 P63 BN63A4	127
48	23	2.0	27.1	930	C052_27.1 S05 M05A4	125		
56	20	2.3	15.6	900	C052_15.6 S05 M05B6	125		
62	18	2.6	21.0	890	C052_21.0 S05 M05A4	125		
69	16	2.5	18.9	860	C052_18.9 S05 M05A4	125		
78	14	3.2	11.2	850	C052_11.2 S05 M05B6	125		
84	13	3.1	15.6	820	C052_15.6 S05 M05A4	125		
105	10	3.8	12.5	780	C052_12.5 S05 M05A4	125		
117	9	4.3	11.2	760	C052_11.2 S05 M05A4	125		
130	8	5.4	6.7	740	C052_6.7 S05 M05B6	125		
141	8	3.9	9.3	720	C052_9.3 S05 M05A4	125		
177	6	4.8	7.4	680	C052_7.4 S05 M05A4	125		
196	6	5.4	6.7	660	C052_6.7 S05 M05A4	125		

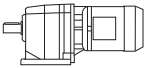





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$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N			 IEC	
<b>0.66</b>	2367	1.0	1362	25000			<b>C704_1362 P71 BN71A6</b>	155
<b>0.84</b>	1858	1.2	1069	25000			<b>C704_1069 P71 BN71A6</b>	155
<b>1.2</b>	1262	1.3	726.3	16000	<b>C614_726.3 S1 M1SC6</b>	150	<b>C614_726.3 P71 BN71A6</b>	151
<b>1.3</b>	1248	0.8	717.7	10000	<b>C514_717.7 S1 M1SC6</b>	146	<b>C514_717.7 P71 BN71A6</b>	147
<b>1.5</b>	1049	1.0	884.9	10000			<b>C514_884.9 P63 BN63B4</b>	147
<b>1.6</b>	958	1.0	808.0	10000			<b>C514_808.0 P63 BN63B4</b>	147
<b>1.6</b>	955	1.0	549.7	10000	<b>C514_549.7 S1 M1SC6</b>	146	<b>C514_549.7 P71 BN71A6</b>	147
<b>1.8</b>	861	1.9	726.3	16000			<b>C614_726.3 P63 BN63B4</b>	151
<b>1.8</b>	851	1.2	717.7	10000			<b>C514_717.7 P63 BN63B4</b>	147
<b>1.9</b>	806	1.2	463.9	10000	<b>C514_463.9 S1 M1SC6</b>	146	<b>C514_463.9 P71 BN71A6</b>	147
<b>1.9</b>	803	2.0	462.0	16000	<b>C614_462.0 S1 M1SC6</b>	150	<b>C614_462.0 P71 BN71A6</b>	151
<b>2.0</b>	796	0.8	671.3	7000	<b>C414_671.3 S05 M05B4</b>	142	<b>C414_671.3 P63 BN63B4</b>	143
<b>2.0</b>	783	0.8	450.2	7000	<b>C414_450.2 S1 M1SC6</b>	142	<b>C414_450.2 P71 BN71A6</b>	143
<b>2.0</b>	777	1.3	655.4	10000			<b>C514_655.4 P63 BN63B4</b>	147
<b>2.2</b>	727	0.8	418.5	7000	<b>C414_418.5 S1 M1SC6</b>	142	<b>C414_418.5 P71 BN71A6</b>	143
<b>2.2</b>	723	1.4	415.7	10000	<b>C514_415.7 S1 M1SC6</b>	146	<b>C514_415.7 P71 BN71A6</b>	147
<b>2.2</b>	706	0.8	595.8	7000	<b>C414_595.8 S05 M05B4</b>	142	<b>C414_595.8 P63 BN63B4</b>	143
<b>2.4</b>	660	1.5	379.6	10000	<b>C514_379.6 S1 M1SC6</b>	146	<b>C514_379.6 P71 BN71A6</b>	147
<b>2.4</b>	644	0.9	543.5	7000	<b>C414_543.5 S05 M05B4</b>	142	<b>C414_543.5 P63 BN63B4</b>	143
<b>2.6</b>	587	0.8	341.7	6300	<b>C364_341.7 S1 M1SC6</b>	138	<b>C364_341.7 P71 BN71A6</b>	139
<b>2.7</b>	585	1.0	493.5	7000	<b>C414_493.5 S05 M05B4</b>	142	<b>C414_493.5 P63 BN63B4</b>	143
<b>2.9</b>	534	1.1	450.2	7000	<b>C414_450.2 S05 M05B4</b>	142	<b>C414_450.2 P63 BN63B4</b>	143
<b>2.9</b>	536	0.8	458.4	6500	<b>C364_458.4 S05 M05B4</b>	138	<b>C364_458.4 P63 BN63B4</b>	139
<b>3.1</b>	492	0.9	420.2	6500	<b>C364_420.2 S05 M05B4</b>	138	<b>C364_420.2 P63 BN63B4</b>	139
<b>3.2</b>	496	1.2	418.5	7000	<b>C414_418.5 S05 M05B4</b>	142	<b>C414_418.5 P63 BN63B4</b>	143
<b>3.5</b>	452	1.3	381.8	7000	<b>C414_381.8 S05 M05B4</b>	142	<b>C414_381.8 P63 BN63B4</b>	143
<b>3.5</b>	442	1.0	377.9	6500	<b>C364_377.9 S05 M05B4</b>	138	<b>C364_377.9 P63 BN63B4</b>	139
<b>3.9</b>	400	1.1	341.7	6500	<b>C364_341.7 S05 M05B4</b>	138	<b>C364_341.7 P63 BN63B4</b>	139
<b>4.0</b>	395	1.5	333.4	7000	<b>C414_333.4 S05 M05B4</b>	142	<b>C414_333.4 P63 BN63B4</b>	143
<b>4.1</b>	373	1.2	318.9	6500	<b>C364_318.9 S05 M05B4</b>	138	<b>C364_318.9 P63 BN63B4</b>	139
<b>4.3</b>	371	1.6	209.1	7000	<b>C413_209.1 S1 M1SC6</b>	142	<b>C413_209.1 P71 BN71A6</b>	143
<b>4.3</b>	360	1.7	304.2	7000	<b>C414_304.2 S05 M05B4</b>	142	<b>C414_304.2 P63 BN63B4</b>	143
<b>4.5</b>	340	1.3	290.9	6500	<b>C364_290.9 S05 M05B4</b>	138	<b>C364_290.9 P63 BN63B4</b>	139
<b>4.7</b>	339	1.8	190.8	7000	<b>C413_190.8 S1 M1SC6</b>	142	<b>C413_190.8 P71 BN71A6</b>	143
<b>4.8</b>	330	0.9	186.0	5500	<b>C323_186.0 S1 M1SC6</b>	134	<b>C323_186.0 P71 BN71A6</b>	135
<b>5.0</b>	312	1.9	263.0	7000	<b>C414_263.0 S05 M05B4</b>	142	<b>C414_263.0 P63 BN63B4</b>	143
<b>5.2</b>	298	1.5	255.0	6500	<b>C364_255.0 S05 M05B4</b>	138	<b>C364_255.0 P63 BN63B4</b>	139
<b>5.4</b>	297	1.0	167.4	5500	<b>C323_167.4 S1 M1SC6</b>	134	<b>C323_167.4 P71 BN71A6</b>	135
<b>5.4</b>	295	0.9	244.2	5500	<b>C323_244.2 S05 M05B4</b>	134	<b>C323_244.2 P63 BN63B4</b>	135
<b>5.7</b>	270	1.7	230.9	6500	<b>C364_230.9 S05 M05B4</b>	138	<b>C364_230.9 P63 BN63B4</b>	139
<b>6.1</b>	261	1.2	215.6	5500	<b>C323_215.6 S05 M05B4</b>	134	<b>C323_215.6 P63 BN63B4</b>	135
<b>6.4</b>	250	1.8	206.4	6500	<b>C363_206.4 S05 M05B4</b>	138	<b>C363_206.4 P63 BN63B4</b>	139
<b>7.1</b>	225	1.3	186.0	5500	<b>C323_186.0 S05 M05B4</b>	134	<b>C323_186.0 P63 BN63B4</b>	135
<b>7.2</b>	222	2.0	183.5	6500	<b>C363_183.5 S05 M05B4</b>	138	<b>C363_183.5 P63 BN63B4</b>	139
<b>7.4</b>	216	0.9	178.5	5000	<b>C223_178.5 S05 M05B4</b>	130	<b>C223_178.5 P63 BN63B4</b>	131
<b>7.9</b>	202	1.5	167.4	5500	<b>C323_167.4 S05 M05B4</b>	134	<b>C323_167.4 P63 BN63B4</b>	135

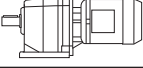





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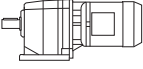



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
8.1	196	2.3	162.0	6500	C363_162.0 S05 M05B4	138	C363_162.0 P63 BN63B4	139
8.7	183	1.1	151.7	5000	C223_151.7 S05 M05B4	130	C223_151.7 P63 BN63B4	131
8.9	179	1.7	148.4	5500	C323_148.4 S05 M05B4	134	C323_148.4 P63 BN63B4	135
9.4	169	2.7	139.8	6500	C363_139.8 S05 M05B4	138	C363_139.8 P63 BN63B4	139
9.7	165	1.2	136.5	5000	C223_136.5 S05 M05B4	130	C223_136.5 P63 BN63B4	131
9.7	164	1.8	136.0	5500	C323_136.0 S05 M05B4	134	C323_136.0 P63 BN63B4	135
10.5	152	3.0	125.8	6500	C363_125.8 S05 M05B4	138	C363_125.8 P63 BN63B4	139
10.8	148	2.0	122.4	5500	C323_122.4 S05 M05B4	134	C323_122.4 P63 BN63B4	135
10.8	148	1.4	122.2	5000	C223_122.2 S05 M05B4	130	C223_122.2 P63 BN63B4	131
11.8	135	1.5	112.0	5000	C223_112.0 S05 M05B4	130	C223_112.0 P63 BN63B4	131
11.8	135	3.3	111.5	6500	C363_111.5 S05 M05B4	138	C363_111.5 P63 BN63B4	139
11.9	134	2.2	110.6	5500	C323_110.6 S05 M05B4	134	C323_110.6 P63 BN63B4	135
12.8	125	2.4	103.3	5500	C323_103.3 S05 M05B4	134	C323_103.3 P63 BN63B4	135
12.9	124	3.6	102.2	6500	C363_102.2 S05 M05B4	138	C363_102.2 P63 BN63B4	139
13.2	121	1.7	100.2	5000	C223_100.2 S05 M05B4	130	C223_100.2 P63 BN63B4	131
14.0	114	2.6	94.2	5500	C323_94.2 S05 M05B4	134	C323_94.2 P63 BN63B4	135
14.9	107	1.9	88.5	5000	C223_88.5 S05 M05B4	130	C223_88.5 P63 BN63B4	131
16.0	100	2.0	82.6	5000	C223_82.6 S05 M05B4	130	C223_82.6 P63 BN63B4	131
16.0	100	3.0	82.6	5500	C323_82.6 S05 M05B4	134	C323_82.6 P63 BN63B4	135
17.6	90	2.2	74.8	5000	C223_74.8 S05 M05B4	130	C223_74.8 P63 BN63B4	131
17.7	90	3.2	74.7	5500	C323_74.7 S05 M05B4	134	C323_74.7 P63 BN63B4	135
19.8	83	2.6	66.8	5500	C322_66.8 S05 M05B4	134	C322_66.8 P63 BN63B4	135
20.0	82	1.1	66.2	2000	C122_66.2 S05 M05B4	126	C122_66.2 P63 BN63B4	127
20.2	79	2.5	65.3	5000	C223_65.3 S05 M05B4	130	C223_65.3 P63 BN63B4	131
20.9	78	1.7	63.3	5000	C222_63.3 S05 M05B4	130	C222_63.3 P63 BN63B4	131
22.0	73	2.6	60.0	5000	C223_60.0 S05 M05B4	130	C223_60.0 P63 BN63B4	131
22.2	73	2.9	59.4	5500	C322_59.4 S05 M05B4	134	C322_59.4 P63 BN63B4	135
23.9	68	1.3	55.2	2000	C122_55.2 S05 M05B4	126	C122_55.2 P63 BN63B4	127
24.1	68	2.3	54.7	5000	C222_54.7 S05 M05B4	130	C222_54.7 P63 BN63B4	131
27.1	60	2.6	48.6	5000	C222_48.6 S05 M05B4	130	C222_48.6 P63 BN63B4	131
27.7	59	1.5	47.6	2000	C122_47.6 S05 M05B4	126	C122_47.6 P63 BN63B4	127
31	53	3.6	43.3	5000	C222_43.3 S05 M05B4	130	C222_43.3 P63 BN63B4	131
31	52	1.7	42.3	2000	C122_42.3 S05 M05B4	126	C122_42.3 P63 BN63B4	127
33	50	0.9	40.3	850	C052_40.3 S05 M05B4	125		
36	45	1.0	36.4	850	C052_36.4 S05 M05B4	125		
36	46	2.0	37.0	2000	C122_37.0 S05 M05B4	126	C122_37.0 P63 BN63B4	127
40	40	2.2	32.8	2000	C122_32.8 S05 M05B4	126	C122_32.8 P63 BN63B4	127
40	41	1.1	32.8	840	C052_32.8 S05 M05B4	125		
45	36	2.5	29.5	2000	C122_29.5 S05 M05B4	126	C122_29.5 P63 BN63B4	127
49	34	1.3	27.1	820	C052_27.1 S05 M05B4	125		
52	31	2.8	25.4	2000	C122_25.4 S05 M05B4	126	C122_25.4 P63 BN63B4	127
57	29	3.0	23.2	2000	C122_23.2 S05 M05B4	126	C122_23.2 P63 BN63B4	127
63	26	1.7	21.0	810	C052_21.0 S05 M05B4	125		
64	25	3.2	20.6	2000	C122_20.6 S05 M05B4	126	C122_20.6 P63 BN63B4	127
70	23	1.7	18.9	790	C052_18.9 S05 M05B4	125		
72	23	3.4	18.4	2000	C122_18.4 S05 M05B4	126	C122_18.4 P63 BN63B4	127



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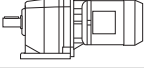




$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
77	21	3.6	17.2	2000	C122_17.2 S05 M05B4	126	C122_17.2 P63 BN63B4	127
85	19	2.1	15.6	760	C052_15.6 S05 M05B4	125		
106	15	2.6	12.5	740	C052_12.5 S05 M05B4	125		
118	14	2.9	11.2	720	C052_11.2 S05 M05B4	125		
142	11	2.6	9.3	690	C052_9.3 S05 M05B4	125		
178	9	3.3	7.4	650	C052_7.4 S05 M05B4	125		
197	8	3.6	6.7	640	C052_6.7 S05 M05B4	125		
229	7	7.4	11.9	1670	C122_11.9 S05 M05A2	126	C122_11.9 P63 BN63A2	127
240	7	4.4	5.5	600	C052_5.5 S05 M05B4	125		
268	6	8.1	10.1	1600	C122_10.1 S05 M05A2	126	C122_10.1 P63 BN63A2	127
310	5	8.9	8.8	1530	C122_8.8 S05 M05A2	126	C122_8.8 P63 BN63A2	127
354	5	9.8	7.6	1470	C122_7.6 S05 M05A2	126	C122_7.6 P63 BN63A2	127
440	4	11.3	6.2	1390	C122_6.2 S05 M05A2	126	C122_6.2 P63 BN63A2	127
488	3	11.9	5.6	1300	C122_5.6 S05 M05A2	126	C122_5.6 P63 BN63A2	127
577	3	13.4	4.9	1250	C122_4.9 S05 M05A2	126	C122_4.9 P63 BN63A2	127
635	3	14.0	4.3	1190	C122_4.3 S05 M05A2	126	C122_4.3 P63 BN63A2	127
770	2	16.0	3.7	1140	C122_3.7 S05 M05A2	126	C122_3.7 P63 BN63A2	127
853	2	16.7	3.2	1090	C122_3.2 S05 M05A2	126	C122_3.2 P63 BN63A2	127
1015	2	18.7	2.8	1040	C122_2.8 S05 M05A2	126	C122_2.8 P63 BN63A2	127

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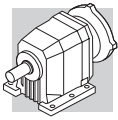
$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
0.61	3575	1.1	1481	35000			C804_1481 P71 BN71B6	158
0.77	2820	1.4	1168	35000			C804_1168 P71 BN71B6	158
1.2	1753	0.9	726.3	16000	C614_726.3 S1 M1SD6	150	C614_726.3 P71 BN71B6	151
1.6	1330	0.8	808.0	10000			C514_808.0 P63 BN63C4	147
1.6	1327	0.8	549.7	10000	C514_549.7 S1 M1SD6	146	C514_549.7 P71 BN71B6	147
1.9	1134	0.9	717.7	10000			C514_717.7 P71 BN71A4	147
1.9	1120	0.9	463.9	10000	C514_463.9 S1 M1SD6	146	C514_463.9 P71 BN71B6	147
2.0	1101	1.5	668.8	16000			C614_668.8 P63 BN63C4	151
2.4	894	1.8	370.1	16000	C614_370.1 S1 M1SD6	150	C614_370.1 P71 BN71B6	151
2.5	869	1.2	549.7	10000			C514_549.7 P71 BN71A4	147
2.9	741	0.8	450.2	7000	C414_450.2 S05 M05C4	142	C414_450.2 P71 BN71A4	143
3.2	689	0.9	418.5	7000	C414_418.5 S05 M05C4	142	C414_418.5 P71 BN71A4	143
3.2	684	1.5	415.7	10000			C514_415.7 P71 BN71A4	147
3.5	628	1.0	381.8	7000	C414_381.8 S05 M05C4	142	C414_381.8 P71 BN71A4	143
3.5	625	1.6	379.6	10000			C514_379.6 P71 BN71A4	147
3.8	567	0.8	344.3	6500	C364_344.3 S05 M05C4	138	C364_344.3 P71 BN71A4	139
4.0	549	1.1	333.4	7000	C414_333.4 S05 M05C4	142	C414_333.4 P71 BN71A4	143
4.0	537	1.9	326.1	10000			C514_326.1 P71 BN71A4	147
4.2	511	0.9	318.9	6500	C364_318.9 S05 M05C4	138	C364_318.9 P71 BN71A4	139
4.3	501	1.2	304.2	7000	C414_304.2 S05 M05C4	142	C414_304.2 P71 BN71A4	143
4.4	490	2.0	297.8	10000			C514_297.8 P71 BN71A4	147
4.6	466	1.0	290.9	6500	C364_290.9 S05 M05C4	138	C364_290.9 P71 BN71A4	139



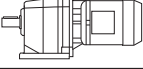



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$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
5.0	434	2.3	263.8	10000			C514_263.8 P71 BN71A4	147
5.0	433	1.4	263.0	7000	C414_263.0 S05 M05C4	142	C414_263.0 P71 BN71A4	143
5.3	409	1.1	255.0	6500	C364_255.0 S05 M05C4	138	C364_255.0 P71 BN71A4	139
5.5	395	1.5	239.9	7000	C414_239.9 S05 M05C4	142	C414_239.9 P71 BN71A4	143
5.8	370	1.2	230.9	6500	C364_230.9 S05 M05C4	138	C364_230.9 P71 BN71A4	139
6.3	350	2.9	216.7	10000			C513_216.7 P71 BN71A4	147
6.5	342	1.3	206.4	6500	C363_206.4 S05 M05C4	138	C363_206.4 P71 BN71A4	139
7.2	308	1.9	190.8	7000			C413_190.8 P71 BN71A4	143
7.2	308	1.0	186.0	5500	C323_186.0 S05 M05C4	134	C323_186.0 P71 BN71A4	135
7.3	304	1.5	183.5	6500	C363_183.5 S05 M05C4	138	C363_183.5 P71 BN71A4	139
8.0	277	1.1	167.4	5500	C323_167.4 S05 M05C4	134	C323_167.4 P71 BN71A4	135
8.3	268	1.7	162.0	6500	C363_162.0 S05 M05C4	138	C363_162.0 P71 BN71A4	139
8.4	265	2.3	164.1	7000			C413_164.1 P71 BN71A4	143
9.0	246	1.2	148.4	5500	C323_148.4 S05 M05C4	134	C323_148.4 P71 BN71A4	135
9.6	231	1.9	139.8	6500	C363_139.8 S05 M05C4	138	C363_139.8 P71 BN71A4	139
9.8	226	0.9	136.5	5000	C223_136.5 S05 M05C4	130	C223_136.5 P71 BN71A4	131
9.9	225	1.3	136.0	5500	C323_136.0 S05 M05C4	134	C323_136.0 P71 BN71A4	135
10.3	215	2.8	132.9	7000			C413_132.9 P71 BN71A4	143
10.7	208	2.2	125.8	6500	C363_125.8 S05 M05C4	138	C363_125.8 P71 BN71A4	139
11.0	203	1.5	122.4	5500	C323_122.4 S05 M05C4	134	C323_122.4 P71 BN71A4	135
11.0	202	1.0	122.2	5000	C223_122.2 S05 M05C4	130	C223_122.2 P71 BN71A4	131
12.0	185	1.1	112.0	5000	C223_112.0 S05 M05C4	130	C223_112.0 P71 BN71A4	131
12.0	185	2.4	111.5	6500	C363_111.5 S05 M05C4	138	C363_111.5 P71 BN71A4	139
12.1	183	1.6	110.6	5500	C323_110.6 S05 M05C4	134	C323_110.6 P71 BN71A4	135
13.0	171	1.8	103.3	5500	C323_103.3 S05 M05C4	134	C323_103.3 P71 BN71A4	135
13.1	169	2.7	102.2	6500	C363_102.2 S05 M05C4	138	C363_102.2 P71 BN71A4	139
13.4	166	1.2	100.2	5000	C223_100.2 S05 M05C4	130	C223_100.2 P71 BN71A4	131
14.2	156	1.9	94.2	5500	C323_94.2 S05 M05C4	134	C323_94.2 P71 BN71A4	135
14.6	152	3.0	91.9	6500	C363_91.9 S05 M05C4	138	C363_91.9 P71 BN71A4	139
15.1	147	1.4	88.5	5000	C223_88.5 S05 M05C4	130	C223_88.5 P71 BN71A4	131
16.2	137	1.5	82.6	5000	C223_82.6 S05 M05C4	130	C223_82.6 P71 BN71A4	131
16.2	137	2.2	82.6	5500	C323_82.6 S05 M05C4	134	C323_82.6 P71 BN71A4	135
17.9	124	1.6	74.8	5000	C223_74.8 S05 M05C4	130	C223_74.8 P71 BN71A4	131
17.9	124	2.3	74.7	5500	C323_74.7 S05 M05C4	134	C323_74.7 P71 BN71A4	135
20.1	113	1.9	66.8	5500	C322_66.8 S05 M05C4	134	C322_66.8 P71 BN71A4	135
20.3	112	0.8	66.2	2000	C122_66.2 S05 M05C4	126	C122_66.2 P71 BN71A4	127
20.5	108	1.8	65.3	5000	C223_65.3 S05 M05C4	130	C223_65.3 P71 BN71A4	131
21.2	107	1.2	63.3	5000	C222_63.3 S05 M05C4	130	C222_63.3 P71 BN71A4	131
22.3	99	1.9	60.0	5000	C223_60.0 S05 M05C4	130	C223_60.0 P71 BN71A4	131
22.6	100	2.1	59.4	5500	C322_59.4 S05 M05C4	134	C322_59.4 P71 BN71A4	135
24.3	93	1.0	55.2	2000	C122_55.2 S05 M05C4	126	C122_55.2 P71 BN71A4	127
24.5	93	1.7	54.7	5000	C222_54.7 S05 M05C4	130	C222_54.7 P71 BN71A4	131
25.6	89	3.4	52.4	5500	C322_52.4 S05 M05C4	134	C322_52.4 P71 BN71A4	135
27.5	82	1.9	48.6	5000	C222_48.6 S05 M05C4	130	C222_48.6 P71 BN71A4	131
28.1	80	1.1	47.6	2000	C122_47.6 S05 M05C4	126	C122_47.6 P71 BN71A4	127
31	73	2.6	43.3	4750	C222_43.3 S05 M05C4	130	C222_43.3 P71 BN71A4	131
32	72	1.3	42.3	2000	C122_42.3 S05 M05C4	126	C122_42.3 P71 BN71A4	127
36	63	1.4	37.0	2000	C122_37.0 S05 M05C4	126	C122_37.0 P71 BN71A4	127

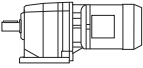







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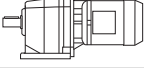




$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
36	62	3.2	36.8	4540	C222_36.8 S05 M05C4	130	C222_36.8 P71 BN71A4	131
40	56	3.6	33.1	4500	C222_33.1 S05 M05C4	130	C222_33.1 P71 BN71A4	131
41	55	1.6	32.8	2000	C122_32.8 S05 M05C4	126	C122_32.8 P71 BN71A4	127
45	50	1.8	29.5	2000	C122_29.5 S05 M05C4	126	C122_29.5 P71 BN71A4	127
49	47	1.0	27.1	700	C052_27.1 S05 M05C4	125		
53	43	2.1	25.4	2000	C122_25.4 S05 M05C4	126	C122_25.4 P71 BN71A4	127
58	39	2.2	23.2	2000	C122_23.2 S05 M05C4	126	C122_23.2 P71 BN71A4	127
63	36	1.2	21.0	720	C052_21.0 S05 M05C4	125		
65	35	2.4	20.6	2000	C122_20.6 S05 M05C4	126	C122_20.6 P71 BN71A4	127
70	33	1.2	18.9	710	C052_18.9 S05 M05C4	125		
73	31	2.5	18.4	2000	C122_18.4 S05 M05C4	126	C122_18.4 P71 BN71A4	127
78	29	2.6	17.2	2000	C122_17.2 S05 M05C4	126	C122_17.2 P71 BN71A4	127
85	27	1.5	15.6	700	C052_15.6 S05 M05C4	125		
87	26	2.8	15.4	2000	C122_15.4 S05 M05C4	126	C122_15.4 P71 BN71A4	127
100	23	3.1	13.4	2000	C122_13.4 S05 M05C4	126	C122_13.4 P71 BN71A4	127
106	22	1.9	12.5	690	C052_12.5 S05 M05C4	125		
113	20	3.3	11.9	2000	C122_11.9 S05 M05C4	126	C122_11.9 P71 BN71A4	127
118	19	2.1	11.2	670	C052_11.2 S05 M05C4	125		
133	17	3.7	10.1	1980	C122_10.1 S05 M05C4	126	C122_10.1 P71 BN71A4	127
142	16	1.9	9.3	650	C052_9.3 S05 M05C4	125		
157	14	4.2	17.2	1870	C122_17.2 S05 M05B2	126	C122_17.2 P63 BN63B2	127
178	13	2.4	7.4	620	C052_7.4 S05 M05C4	125		
197	12	2.6	6.7	610	C052_6.7 S05 M05C4	125		
204	11	5.0	13.4	1710	C122_13.4 S05 M05B2	126	C122_13.4 P63 BN63B2	127
230	10	5.4	11.9	1660	C122_11.9 S05 M05B2	126	C122_11.9 P63 BN63B2	127
240	9	3.2	5.5	580	C052_5.5 S05 M05C4	125		
268	8	5.8	10.1	1590	C122_10.1 S05 M05B2	126	C122_10.1 P63 BN63B2	127
311	7	6.5	8.8	1510	C122_8.8 S05 M05B2	126	C122_8.8 P63 BN63B2	127
354	6	7.0	7.6	1460	C122_7.6 S05 M05B2	126	C122_7.6 P63 BN63B2	127
442	5	8.2	6.2	1350	C122_6.2 S05 M05B2	126	C122_6.2 P63 BN63B2	127
489	5	8.6	5.6	1290	C122_5.6 S05 M05B2	126	C122_5.6 P63 BN63B2	127
577	4	9.7	4.9	1240	C122_4.9 S05 M05B2	126	C122_4.9 P63 BN63B2	127
637	4	10.1	4.3	1180	C122_4.3 S05 M05B2	126	C122_4.3 P63 BN63B2	127
770	3	11.5	3.7	1130	C122_3.7 S05 M05B2	126	C122_3.7 P63 BN63B2	127
856	3	12.1	3.2	1080	C122_3.2 S05 M05B2	126	C122_3.2 P63 BN63B2	127
979	2	13.0	2.8	1030	C122_2.8 S05 M05B2	126	C122_2.8 P63 BN63B2	127

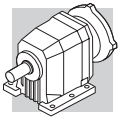
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0.73	4382	1.6	1240	60000	C904_1240 S1 M1LA6	160	C904_1240 P80 BN80A6	161
0.78	4127	1.0	1168	35000			C804_1168 P80 BN80A6	158
0.93	3476	1.2	1481	35000			C804_1481 P71 BN71B4	158
1.2	2741	1.5	1168	35000			C804_1168 P71 BN71B4	158
1.4	2220	1.8	945.7	35000			C804_945.7 P71 BN71B4	158
1.5	2165	1.1	922.6	25000			C704_922.6 P71 BN71B4	155

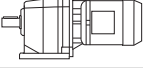





## 0.37 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
1.7	1869	0.9	796.1	16000	C614_796.1 S1 M1SD4	150	C614_796.1 P71 BN71B4	151
2.0	1570	1.0	668.8	16000	C614_668.8 S1 M1SD4	150	C614_668.8 P71 BN71B4	151
2.1	1543	1.5	657.3	25000			C704_657.3 P71 BN71B4	155
2.4	1341	1.2	571.2	16000	C614_571.2 S1 M1SD4	150	C614_571.2 P71 BN71B4	151
2.5	1302	1.8	554.7	25000			C704_554.7 P71 BN71B4	155
2.5	1290	0.8	549.7	10000	C514_549.7 S1 M1SD4	146	C514_549.7 P71 BN71B4	147
2.6	1223	1.3	521.1	16000	C614_521.1 S1 M1SD4	150	C614_521.1 P71 BN71B4	151
3.3	989	1.6	421.5	16000	C614_421.5 S1 M1SD4	150	C614_421.5 P71 BN71B4	151
3.3	976	1.0	415.7	10000	C514_415.7 S1 M1SD4	146	C514_415.7 P71 BN71B4	147
3.3	961	2.4	409.4	25000			C704_409.4 P71 BN71B4	155
3.6	891	1.1	379.6	10000	C514_379.6 S1 M1SD4	146	C514_379.6 P71 BN71B4	147
3.7	869	1.8	370.1	16000	C614_370.1 S1 M1SD4	150	C614_370.1 P71 BN71B4	151
4.1	793	2.0	337.7	16000	C614_337.7 S1 M1SD4	150	C614_337.7 P71 BN71B4	151
4.1	783	0.8	333.4	7000	C414_333.4 S1 M1SD4	142	C414_333.4 P71 BN71B4	143
4.2	765	1.3	326.1	10000	C514_326.1 S1 M1SD4	146	C514_326.1 P71 BN71B4	147
4.6	699	1.4	297.8	10000	C514_297.8 S1 M1SD4	146	C514_297.8 P71 BN71B4	147
5.2	619	1.6	263.8	10000	C514_263.8 S1 M1SD4	146	C514_263.8 P71 BN71B4	147
5.2	617	1.0	263.0	7000	C414_263.0 S1 M1SD4	142	C414_263.0 P71 BN71B4	143
5.9	540	0.8	230.9	6300	C364_230.9 S1 M1SD4	138	C364_230.9 P71 BN71B4	139
6.3	520	1.9	216.7	10000	C513_216.7 S1 M1SD4	146	C513_216.7 P71 BN71B4	147
6.6	502	1.2	209.1	7000	C413_209.1 S1 M1SD4	142	C413_209.1 P71 BN71B4	143
6.6	499	0.9	206.4	6500			C363_206.4 P71 BN71B4	139
6.9	475	2.1	197.9	10000	C513_197.9 S1 M1SD4	146	C513_197.9 P71 BN71B4	147
7.2	458	1.3	190.8	7000	C413_190.8 S1 M1SD4	142	C413_190.8 P71 BN71B4	143
7.5	444	1.0	183.5	6500			C363_183.5 P71 BN71B4	139
7.6	431	1.4	179.9	7000	C413_179.9 S1 M1SD4	142	C413_179.9 P71 BN71B4	143
7.8	422	2.4	175.8	10000	C513_175.8 S1 M1SD4	146	C513_175.8 P71 BN71B4	147
8.3	394	1.5	164.1	7000	C413_164.1 S1 M1SD4	142	C413_164.1 P71 BN71B4	143
8.5	385	2.6	160.5	10000	C513_160.5 S1 M1SD4	146	C513_160.5 P71 BN71B4	147
8.5	392	1.1	162.0	6500	C363_162.0 S1 M1SD4	138	C363_162.0 P71 BN71B4	139
9.4	349	1.7	145.6	7000	C413_145.6 S1 M1SD4	142	C413_145.6 P71 BN71B4	143
9.8	338	1.3	139.8	6500	C363_139.8 S1 M1SD4	138	C363_139.8 P71 BN71B4	139
10.1	329	0.9	136.0	5500	C323_136.0 S1 M1SD4	134	C323_136.0 P71 BN71B4	135
10.3	319	1.9	132.9	7000	C413_132.9 S1 M1SD4	142	C413_132.9 P71 BN71B4	143
10.9	304	1.5	125.8	6500	C363_125.8 S1 M1SD4	138	C363_125.8 P71 BN71B4	139
11.2	296	1.0	122.4	5500	C323_122.4 S1 M1SD4	134	C323_122.4 P71 BN71B4	135
11.4	289	2.1	120.6	7000	C413_120.6 S1 M1SD4	142	C413_120.6 P71 BN71B4	143
12.3	270	1.7	111.5	6500	C363_111.5 S1 M1SD4	138	C363_111.5 P71 BN71B4	139
12.4	264	2.3	110.1	7000	C413_110.1 S1 M1SD4	142	C413_110.1 P71 BN71B4	143
12.4	267	1.1	110.6	5500	C323_110.6 S1 M1SD4	134	C323_110.6 P71 BN71B4	135
13.3	250	1.2	103.3	5500	C323_103.3 S1 M1SD4	134	C323_103.3 P71 BN71B4	135
13.4	245	2.4	102.3	7000	C413_102.3 S1 M1SD4	142	C413_102.3 P71 BN71B4	143
13.4	247	1.8	102.2	6500	C363_102.2 S1 M1SD4	138	C363_102.2 P71 BN71B4	139
14.5	228	1.3	94.2	5500	C323_94.2 S1 M1SD4	134	C323_94.2 P71 BN71B4	135
14.7	224	2.7	93.3	7000	C413_93.3 S1 M1SD4	142	C413_93.3 P71 BN71B4	143
14.9	222	2.0	91.9	6500	C363_91.9 S1 M1SD4	138	C363_91.9 P71 BN71B4	139
15.5	214	0.9	88.5	4850	C223_88.5 S1 M1SD4	130	C223_88.5 P71 BN71B4	131
16.5	201	2.2	83.1	6500	C363_83.1 S1 M1SD4	138	C363_83.1 P71 BN71B4	139
16.6	200	1.0	82.6	5000	C223_82.6 S1 M1SD4	130	C223_82.6 P71 BN71B4	131
16.6	200	1.5	82.6	5500	C323_82.6 S1 M1SD4	134	C323_82.6 P71 BN71B4	135
16.8	196	3.1	81.5	7000	C413_81.5 S1 M1SD4	142	C413_81.5 P71 BN71B4	143



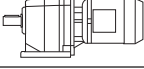



## 0.37 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC	
17.7	188	2.4	77.6	6500	C363_77.6 S1 M1SD4	138	C363_77.6 P71 BN71B4	139
18.3	181	1.1	74.8	5000	C223_74.8 S1 M1SD4	130	C223_74.8 P71 BN71B4	131
18.3	181	1.6	74.7	5500	C323_74.7 S1 M1SD4	134	C323_74.7 P71 BN71B4	135
18.4	178	3.4	74.4	7000	C413_74.4 S1 M1SD4	142	C413_74.4 P71 BN71B4	143
19.4	171	2.6	70.8	6500	C363_70.8 S1 M1SD4	138	C363_70.8 P71 BN71B4	139
20.5	165	1.3	66.8	5500			C322_66.8 P71 BN71B4	135
21.0	158	1.3	65.3	5000	C223_65.3 S1 M1SD4	130	C223_65.3 P71 BN71B4	131
21.7	156	0.8	63.3	4850			C222_63.3 P71 BN71B4	131
22.1	150	3.0	62.0	6500	C363_62.0 S1 M1SD4	138	C363_62.0 P71 BN71B4	139
22.8	145	1.3	60.0	5000	C223_60.0 S1 M1SD4	130	C223_60.0 P71 BN71B4	131
23.1	147	1.5	59.4	5500	C322_59.4 S1 M1SD4	134	C322_59.4 P71 BN71B4	135
25.0	135	1.1	54.7	5000			C222_54.7 P71 BN71B4	131
26.1	130	2.3	52.4	5500	C322_52.4 S1 M1SD4	134	C322_52.4 P71 BN71B4	135
28.2	120	1.3	48.6	4850		130	C222_48.6 P71 BN71B4	131
30	112	2.7	45.3	5500	C322_45.3 S1 M1SD4	134	C322_45.3 P71 BN71B4	135
32	107	1.8	43.3	4530	C222_43.3 S1 M1SD4	130	C222_43.3 P71 BN71B4	131
34	101	3.0	40.7	5500	C322_40.7 S1 M1SD4	134	C322_40.7 P71 BN71B4	135
37	91	1.0	37.0	2000	C122_37.0 S1 M1SD4	126	C122_37.0 P71 BN71B4	127
37	91	2.2	36.8	4360	C222_36.8 S1 M1SD4	130	C222_36.8 P71 BN71B4	131
38	89	3.4	36.1	5500	C322_36.1 S1 M1SD4	134	C322_36.1 P71 BN71B4	135
41	82	2.4	33.1	4240	C222_33.1 S1 M1SD4	130	C222_33.1 P71 BN71B4	131
42	81	1.1	32.8	2000	C122_32.8 S1 M1SD4	126	C122_32.8 P71 BN71B4	127
46	73	2.7	29.6	4130	C222_29.6 S1 M1SD4	130	C222_29.6 P71 BN71B4	131
46	73	1.2	29.5	2000	C122_29.5 S1 M1SD4	126	C122_29.5 P71 BN71B4	127
50	67	3.0	27.2	4100	C222_27.2 S1 M1SD4	130	C222_27.2 P71 BN71B4	131
54	63	1.4	25.4	2000	C122_25.4 S1 M1SD4	126	C122_25.4 P71 BN71B4	127
56	60	3.3	24.3	3920	C222_24.3 S1 M1SD4	130	C222_24.3 P71 BN71B4	131
59	57	1.5	23.2	2000	C122_23.2 S1 M1SD4	126	C122_23.2 P71 BN71B4	127
66	51	1.6	20.6	2000	C122_20.6 S1 M1SD4	126	C122_20.6 P71 BN71B4	127
74	45	1.7	18.4	2000	C122_18.4 S1 M1SD4	126	C122_18.4 P71 BN71B4	127
80	42	1.8	17.2	2000	C122_17.2 S1 M1SD4	126	C122_17.2 P71 BN71B4	127
88	39	1.0	15.6	580	C052_15.6 S1 M1SD4	125		
89	38	1.9	15.4	2000	C122_15.4 S1 M1SD4	126	C122_15.4 P71 BN71B4	127
102	33	2.1	13.4	2000	C122_13.4 S1 M1SD4	126	C122_13.4 P71 BN71B4	127
110	31	1.3	12.5	600	C052_12.5 S1 M1SD4	125		
115	29	2.3	11.9	2000	C122_11.9 S1 M1SD4	126	C122_11.9 P71 BN71B4	127
122	28	1.4	11.2	590	C052_11.2 S1 M1SD4	125		
136	25	2.5	10.1	1930	C122_10.1 S1 M1SD4	126	C122_10.1 P71 BN71B4	127
147	23	1.3	9.3	580	C052_9.3 S1 M1SD4	125		
155	22	2.7	8.8	1850	C122_8.8 S1 M1SD4	126	C122_8.8 P71 BN71B4	127
164	20	2.2	5.5	570	C052_5.5 S1 M1LA6	125		
180	19	3.0	7.6	1780	C122_7.6 S1 M1SD4	126	C122_7.6 P71 BN71B4	127
185	18	1.6	7.4	570	C052_7.4 S1 M1SD4	125		
204	17	1.8	6.7	560	C052_6.7 S1 M1SD4	125		
220	15	3.4	6.2	1650	C122_6.2 S1 M1SD4	126	C122_6.2 P71 BN71B4	127
235	14	3.7	11.9	1610	C122_11.9 S05 M05C2	126	C122_11.9 P71 BN71A2	127
249	14	2.2	5.5	540	C052_5.5 S1 M1SD4	125		
273	12	4.0	10.1	1570	C122_10.1 S05 M05C2	126	C122_10.1 P71 BN71A2	127
318	11	4.5	8.8	1500	C122_8.8 S05 M05C2	126	C122_8.8 P71 BN71A2	127
361	9	4.8	7.6	1440	C122_7.6 S05 M05C2	126	C122_7.6 P71 BN71A2	127
452	7	5.7	6.2	1350	C122_6.2 S05 M05C2	126	C122_6.2 P71 BN71A2	127

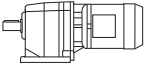







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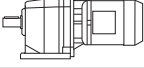




$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
500	7	6.0	5.6	1290	C122_5.6 S05 M05C2	126	C122_5.6 P71 BN71A2	127
577	6	6.5	4.9	1230	C122_4.9 S05 M05C2	126	C122_4.9 P71 BN71A2	127
651	5	7.0	4.3	1180	C122_3.2 S05 M05C2	126	C122_3.2 P71 BN71A2	127
770	4	7.8	3.7	1120	C122_3.7 S05 M05C2	126	C122_3.7 P71 BN71A2	127
875	4	8.4	3.2	1080	C122_3.2 S05 M05C2	126	C122_3.2 P71 BN71A2	127
1015	3	9.1	2.8	1030	C122_2.8 S05 M05C2	126	C122_2.8 P71 BN71A2	127

## 0.55 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
0.74	6442	1.1	1240	60000	C904_1240 S2 M2SA6	160	C904_1240 P80 BN80B6	161
0.85	5616	2.1	1081	85000	C1004_1081 S2 M2SA6	163	C1004_1081 P80 BN80B6	164
1.0	4792	1.5	922.3	60000	C904_922.3 S2 M2SA6	160	C904_922.3 P80 BN80B6	161
1.1	4381	0.9	1274	35000	C804_1274 S1 M1LA4	157	C804_1274 P80 BN80A4	158
1.1	4295	1.7	1240	60000	C904_1240 S1 M1LA4	160	C904_1240 P80 BN80A4	161
1.3	3549	1.1	1032	35000	C804_1032 S1 M1LA4	157	C804_1032 P80 BN80A4	158
1.4	3484	2.1	1006	60000	C904_1006 S1 M1LA4	160	C904_1006 P80 BN80A4	161
1.6	2939	1.4	854.6	35000	C804_854.6 S1 M1LA4	157	C804_854.6 P80 BN80A4	158
1.6	2923	2.5	844.0	65000	C904_844.0 S1 M1LA4	160	C904_844.0 P80 BN80A4	161
1.9	2531	0.9	736.0	25000	C704_736.0 S1 M1LA4	154	C704_736.0 P80 BN80A4	155
1.9	2492	1.6	724.7	35000	C804_724.7 S1 M1LA4	157	C804_724.7 P80 BN80A4	158
2.1	2284	1.8	664.3	35000	C804_664.3 S1 M1LA4	157	C804_664.3 P80 BN80A4	158
2.1	2260	1.0	657.3	25000	C704_657.3 S1 M1LA4	154	C704_657.3 P80 BN80A4	155
2.4	1978	0.8	571.2	16000	C614_571.2 S1 M1LA4	150	C614_571.2 P80 BN80A4	151
2.5	1907	1.2	554.7	25000	C704_554.7 S1 M1LA4	154	C704_554.7 P80 BN80A4	155
2.6	1820	2.2	529.3	35000	C804_529.3 S1 M1LA4	157	C804_529.3 P80 BN80A4	158
3.0	1600	1.0	462.0	16000	C614_462.0 S1 M1LA4	150	C614_462.0 P80 BN80A4	151
3.1	1566	2.6	455.4	35000	C804_455.4 S1 M1LA4	157	C804_455.4 P80 BN80A4	158
3.1	1525	1.5	443.5	25000	C704_443.5 S1 M1LA4	154	C704_443.5 P80 BN80A4	155
3.3	1460	1.1	421.5	16000	C614_421.5 S1 M1LA4	150	C614_421.5 P80 BN80A4	151
3.6	1315	0.8	379.6	10000	C514_379.6 S1 M1LA4	146	C514_379.6 P80 BN80A4	147
3.7	1282	1.2	370.1	16000	C614_370.1 S1 M1LA4	150	C614_370.1 P80 BN80A4	151
3.8	1254	3.2	364.7	35000	C804_364.7 S1 M1LA4	157	C804_364.7 P80 BN80A4	158
4.0	1184	1.9	344.3	25000	C704_344.3 S1 M1LA4	154	C704_344.3 P80 BN80A4	155
4.1	1170	1.4	337.7	16000	C614_337.7 S1 M1LA4	150	C614_337.7 P80 BN80A4	151
4.2	1130	0.9	326.1	10000	C514_326.1 S1 M1LA4	146	C514_326.1 P80 BN80A4	147
4.6	1031	1.0	297.8	10000	C514_297.8 S1 M1LA4	146	C514_297.8 P80 BN80A4	147
5.0	953	1.7	275.3	16000	C614_275.3 S1 M1LA4	150	C614_275.3 P80 BN80A4	151
5.1	936	2.5	272.2	25000	C704_272.2 S1 M1LA4	154	C704_272.2 P80 BN80A4	155
5.2	914	1.1	263.8	10000	C514_263.8 S1 M1LA4	146	C514_263.8 P80 BN80A4	147
5.7	834	1.2	240.9	10000	C514_240.9 S1 M1LA4	146	C514_240.9 P80 BN80A4	147
5.8	847	2.7	239.3	25000	C703_239.3 S1 M1LA4	150	C703_239.3 P80 BN80A4	155
5.8	825	1.9	238.3	16000	C614_238.3 S1 M1LA4	150	C614_238.3 P80 BN80A4	151
6.2	782	2.9	220.9	25000	C703_220.9 S1 M1LA4	150	C703_220.9 P80 BN80A4	155
6.3	753	2.1	217.4	16000	C614_217.4 S1 M1LA4	150	C614_217.4 P80 BN80A4	151
6.4	767	1.3	216.7	10000	C513_216.7 S1 M1LA4	146	C513_216.7 P80 BN80A4	147
7.0	700	1.4	197.9	10000	C513_197.9 S1 M1LA4	146	C513_197.9 P80 BN80A4	147
7.0	693	2.3	195.8	16000	C613_195.8 S1 M1LA4	146	C613_195.8 P80 BN80A4	151

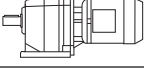





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$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
7.1	687	3.3	194.1	25000			C703_194.1 P80 BN80A4	155
7.7	637	0.9	179.9	7000	C413_179.9 S1 M1LA4	142	C413_179.9 P80 BN80A4	143
7.7	632	2.5	178.6	16000			C613_178.6 P80 BN80A4	151
7.9	622	1.6	175.8	10000	C513_175.8 S1 M1LA4	146	C513_175.8 P80 BN80A4	147
8.4	582	2.7	164.5	16000			C613_164.5 P80 BN80A4	151
8.4	581	1.0	164.1	7000	C413_164.1 S1 M1LA4	142	C413_164.1 P80 BN80A4	143
8.6	568	1.8	160.5	10000	C513_160.5 S1 M1LA4	146	C513_160.5 P80 BN80A4	147
9.2	531	3.0	150.0	16000			C613_150.0 P80 BN80A4	151
9.4	522	1.9	147.4	10000	C513_147.4 S1 M1LA4	146	C513_147.4 P80 BN80A4	147
9.5	516	1.2	145.6	7000	C413_145.6 S1 M1LA4	142	C413_145.6 P80 BN80A4	143
9.8	497	3.2	140.5	16000			C613_140.5 P80 BN80A4	151
9.9	494	0.9	139.8	6500	C363_139.8 S1 M1LA4	138	C363_139.8 P80 BN80A4	139
10.3	477	2.1	134.6	10000	C513_134.6 S1 M1LA4	146	C513_134.6 P80 BN80A4	147
10.4	470	1.3	132.9	7000	C413_132.9 S1 M1LA4	142	C413_132.9 P80 BN80A4	143
11.0	445	1.0	125.8	6500	C363_125.8 S1 M1LA4	138	C363_125.8 P80 BN80A4	139
11.1	440	2.3	124.4	10000	C513_124.4 S1 M1LA4	146	C513_124.4 P80 BN80A4	147
11.4	427	1.4	120.6	7000	C413_120.6 S1 M1LA4	142	C413_120.6 P80 BN80A4	143
12.1	402	2.5	113.6	10000	C513_113.6 S1 M1LA4	146	C513_113.6 P80 BN80A4	147
12.4	394	1.1	111.5	6500	C363_111.5 S1 M1LA4	138	C363_111.5 P80 BN80A4	139
12.5	390	1.5	110.1	7000	C413_110.1 S1 M1LA4	142	C413_110.1 P80 BN80A4	143
13.5	362	1.7	102.3	7000	C413_102.3 S1 M1LA4	142	C413_102.3 P80 BN80A4	143
13.5	361	1.2	102.2	6500	C363_102.2 S1 M1LA4	138	C363_102.2 P80 BN80A4	139
13.6	360	2.8	101.8	10000	C513_101.8 S1 M1LA4	146	C513_101.8 P80 BN80A4	147
14.7	333	0.9	94.2	5500	C323_94.2 S1 M1LA4	134	C323_94.2 P80 BN80A4	135
14.8	330	1.8	93.3	7000	C413_93.3 S1 M1LA4	142	C413_93.3 P80 BN80A4	143
14.8	329	3.0	93.0	10000	C513_93.0 S1 M1LA4	146	C513_93.0 P80 BN80A4	147
15.0	325	1.4	91.9	6500	C363_91.9 S1 M1LA4	138	C363_91.9 P80 BN80A4	139
16.6	294	1.5	83.1	6500	C363_83.1 S1 M1LA4	138	C363_83.1 P80 BN80A4	139
16.7	292	1.0	82.6	5500	C323_82.6 S1 M1LA4	134	C323_82.6 P80 BN80A4	135
16.9	289	2.1	81.5	7000	C413_81.5 S1 M1LA4	142	C413_81.5 P80 BN80A4	143
17.5	284	1.1	52.4	5500	C322_52.4 S2 M2SA6	134	C322_52.4 P80 BN80B6	135
17.8	274	1.6	77.6	6500	C363_77.6 S1 M1LA4	138	C363_77.6 P80 BN80A4	139
18.5	264	1.1	74.7	5500	C323_74.7 S1 M1LA4	134	C323_74.7 P80 BN80A4	135
18.6	263	2.3	74.4	7000	C413_74.4 S1 M1LA4	142	C413_74.4 P80 BN80A4	143
19.5	250	1.8	70.8	6500	C363_70.8 S1 M1LA4	138	C363_70.8 P80 BN80A4	139
20.7	241	0.9	66.8	5500			C322_66.8 P80 BN80A4	135
21.5	228	2.6	64.3	7000	C413_64.3 S1 M1LA4	142	C413_64.3 P80 BN80A4	143
22.2	219	2.1	62.0	6500	C363_62.0 S1 M1LA4	138	C363_62.0 P80 BN80A4	139
22.6	221	1.4	40.7	5500	C322_40.7 S2 M2SA6	134	C322_40.7 P80 BN80B6	135
23.0	212	0.9	60.0	4280	C223_60.0 S1 M1LA4	130	C223_60.0 P80 BN80A4	131
23.2	214	1.0	59.4	5500	C322_59.4 S1 M1LA4	134	C322_59.4 P80 BN80A4	135
23.5	208	2.9	58.7	7000	C413_58.7 S1 M1LA4	142	C413_58.7 P80 BN80A4	143
24.6	198	2.3	56.2	6500	C363_56.2 S1 M1LA4	138	C363_56.2 P80 BN80A4	139
26.3	189	1.6	52.4	5500	C322_52.4 S1 M1LA4	134	C322_52.4 P80 BN80A4	135
26.8	182	3.3	51.5	7000	C413_51.5 S1 M1LA4	142	C413_51.5 P80 BN80A4	143
27.8	180	1.1	33.1	4270	C222_33.1 S2 M2SA6	130	C222_33.1 P80 BN80B6	131
28.7	170	2.6	48.2	6500	C363_48.2 S1 M1LA4	138	C363_48.2 P80 BN80A4	139
30	163	1.8	45.3	5500	C322_45.3 S1 M1LA4	134	C322_45.3 P80 BN80A4	135
31	162	3.1	44.8	7000	C412_44.8 S1 M1LA4	142	C412_44.8 P80 BN80A4	143
32	154	2.9	43.5	6500	C363_43.5 S1 M1LA4	138	C363_43.5 P80 BN80A4	139
32	156	1.2	43.3	4190	C222_43.3 S1 M1LA4	130	C222_43.3 P80 BN80A4	131

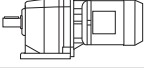






## 0.55 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC	
34	147	2.0	40.7	5500	C322_40.7 S1 M1LA4	134	C322_40.7 P80 BN80A4	135
36	135	3.3	38.1	6500	C363_38.1 S1 M1LA4	138	C363_38.1 P80 BN80A4	139
38	133	1.5	36.8	4070	C222_36.8 S1 M1LA4	130	C222_36.8 P80 BN80A4	131
38	130	2.3	36.1	5500	C322_36.1 S1 M1LA4	134	C322_36.1 P80 BN80A4	135
42	119	1.7	33.1	3970	C222_33.1 S1 M1LA4	130	C222_33.1 P80 BN80A4	131
42	119	2.5	33.1	5500	C322_33.1 S1 M1LA4	134	C322_33.1 P80 BN80A4	135
46	107	2.8	29.8	5500	C322_29.8 S1 M1LA4	134	C322_29.8 P80 BN80A4	135
47	107	1.9	29.6	3890	C222_29.6 S1 M1LA4	130	C222_29.6 P80 BN80A4	131
47	106	0.8	29.5	1820	C122_29.5 S1 M1LA4	126	C122_29.5 P80 BN80A4	127
51	98	2.0	27.2	3860	C222_27.2 S1 M1LA4	130	C222_27.2 P80 BN80A4	131
51	97	3.1	26.9	5500	C322_26.9 S1 M1LA4	134	C322_26.9 P80 BN80A4	135
54	92	1.0	25.4	2000	C122_25.4 S1 M1LA4	126	C122_25.4 P80 BN80A4	127
55	91	3.3	25.1	5500	C322_25.1 S1 M1LA4	134	C322_25.1 P80 BN80A4	135
57	88	2.3	24.3	3720	C222_24.3 S1 M1LA4	130	C222_24.3 P80 BN80A4	131
59	84	1.0	23.2	2000	C122_23.2 S1 M1LA4	126	C122_23.2 P80 BN80A4	127
64	77	2.5	21.5	3700	C222_21.5 S1 M1LA4	130	C222_21.5 P80 BN80A4	131
67	74	1.1	20.6	2000	C122_20.6 S1 M1LA4	126	C122_20.6 P80 BN80A4	127
69	72	2.6	20.0	3560	C222_20.0 S1 M1LA4	130	C222_20.0 P80 BN80A4	131
75	66	1.2	18.4	2000	C122_18.4 S1 M1LA4	126	C122_18.4 P80 BN80A4	127
76	65	2.8	18.1	3500	C222_18.1 S1 M1LA4	130	C222_18.1 P80 BN80A4	131
80	62	1.2	17.2	2000	C122_17.2 S1 M1LA4	126	C122_17.2 P80 BN80A4	127
87	57	3.1	15.8	3350	C222_15.8 S1 M1LA4	130	C222_15.8 P80 BN80A4	131
89	56	1.3	15.4	2000	C122_15.4 S1 M1LA4	126	C122_15.4 P80 BN80A4	127
95	53	3.2	14.5	3300	C222_14.5 S1 M1LA4	130	C222_14.5 P80 BN80A4	131
103	48	1.4	13.4	1990	C122_13.4 S1 M1LA4	126	C122_13.4 P80 BN80A4	127
116	43	1.6	11.9	1920	C122_11.9 S1 M1LA4	126	C122_11.9 P80 BN80A4	127
121	41	1.6	7.6	1910	C122_7.6 S2 M2SA6	126	C122_7.6 P80 BN80B6	127
123	40	1.0	11.2	480	C052_11.2 S1 M1LA4	125		
137	36	1.7	10.1	1850	C122_10.1 S1 M1LA4	126	C122_10.1 P80 BN80A4	127
151	33	3.3	6.1	2860	C222_6.1 S2 M2SA6	130	C222_6.1 P80 BN80B6	131
156	32	1.9	8.8	1780	C122_8.8 S1 M1LA4	126	C122_8.8 P80 BN80A4	127
181	28	2.0	7.6	1720	C122_7.6 S1 M1LA4	126	C122_7.6 P80 BN80A4	127
186	27	1.1	7.4	460	C052_7.4 S1 M1LA4	125		
206	24	1.2	6.7	450	C052_6.7 S1 M1LA4	125		
221	22	2.4	6.2	1590	C122_6.2 S1 M1LA4	126	C122_6.2 P80 BN80A4	127
237	21	2.5	11.9	1580	C122_11.9 S1 M1SD2	126	C122_11.9 P71 BN71B2	127
246	20	2.5	5.6	1540	C122_5.6 S1 M1LA4	126	C122_5.6 P80 BN80A4	127
251	20	1.5	5.5	430	C052_5.5 S1 M1LA4	125		
279	18	2.7	10.1	1530	C122_10.1 S1 M1SD2	126	C122_10.1 P71 BN71B2	127
283	18	2.7	4.9	1490	C122_4.9 S1 M1LA4	126	C122_4.9 P80 BN80A4	127
320	16	3.0	8.8	1470	C122_8.8 S1 M1SD2	126	C122_8.8 P71 BN71B2	127
320	16	2.9	4.3	1420	C122_4.3 S1 M1LA4	126	C122_4.3 P80 BN80A4	127
369	14	3.3	7.6	1410	C122_7.6 S1 M1SD2	126	C122_7.6 P71 BN71B2	127
378	13	3.2	3.7	1370	C122_3.7 S1 M1LA4	126	C122_3.7 P80 BN80A4	127
451	11	3.8	6.2	1300	C122_6.2 S1 M1SD2	126	C122_6.2 P71 BN71B2	127
504	10	4.0	5.6	1260	C122_5.6 S1 M1SD2	126	C122_5.6 P71 BN71B2	127
577	9	4.4	4.9	1210	C122_4.9 S1 M1SD2	126	C122_4.9 P71 BN71B2	127
656	8	4.7	4.3	1170	C122_4.3 S1 M1SD2	126	C122_4.3 P71 BN71B2	127
770	6	5.2	3.7	1110	C122_3.7 S1 M1SD2	126	C122_3.7 P71 BN71B2	127
881	6	5.7	3.2	990	C122_3.2 S1 M1SD2	126	C122_3.2 P71 BN71B2	127
1007	5	6.1	2.8	950	C122_2.8 S1 M1SD2	126	C122_2.8 P71 BN71B2	127



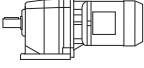



## 0.75 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
0.85	7659	1.6	1081	85000	C1004_1081 S2 M2SB6	163	C1004_1081 P90 BN90S6	164
0.91	7127	1.0	1006	60000	C904_1006 S2 M2SB6	160	C904_1006 P90 BN90S6	161
1.1	5773	1.2	1240	35000	C904_1240 S2 M2SA4	160	C904_1240 P80 BN80B4	161
1.5	4403	0.9	945.7	35000	C804_945.7 S2 M2SA4	157	C804_945.7 P80 BN80B4	158
1.5	4294	1.7	922.3	60000	C904_922.3 S2 M2SA4	160	C904_922.3 P80 BN80B4	161
1.8	3647	1.1	783.4	35000	C804_783.4 S2 M2SA4	157	C804_783.4 P80 BN80B4	158
1.8	3602	2.0	773.6	60000	C904_773.6 S2 M2SA4	160	C904_773.6 P80 BN80B4	161
2.1	3093	1.3	664.3	35000	C804_664.3 S2 M2SA4	157	C804_664.3 P80 BN80B4	158
2.1	3039	2.4	652.8	60000	C904_652.8 S2 M2SA4	160	C904_652.8 P80 BN80B4	161
2.6	2487	2.9	534.2	60000	C904_534.2 S2 M2SA4	160	C904_534.2 P80 BN80B4	161
2.6	2464	1.6	529.3	35000	C804_529.3 S2 M2SA4	157	C804_529.3 P80 BN80B4	158
3.1	2128	3.4	457.1	60000	C904_457.1 S2 M2SA4	160	C904_457.1 P80 BN80B4	161
3.1	2120	1.9	455.4	35000	C804_455.4 S2 M2SA4	157	C804_455.4 P80 BN80B4	158
3.2	2065	1.1	443.5	25000	C704_443.5 S2 M2SA4	154	C704_443.5 P80 BN80B4	155
3.3	1962	0.8	421.5	16000	C614_421.5 S2 M2SA4	150	C614_421.5 P80 BN80B4	151
3.4	1906	1.2	409.4	25000	C704_409.4 S2 M2SA4	154	C704_409.4 P80 BN80B4	155
3.8	1723	0.9	370.1	16000	C614_370.1 S2 M2SA4	150	C614_370.1 P80 BN80B4	151
3.8	1733	1.3	239.3	25000	C703_239.3 S2 M2SB6	154	C703_239.3 P90 BN90S6	155
4.1	1572	1.0	337.7	16000	C614_337.7 S2 M2SA4	150	C614_337.7 P80 BN80B4	151
4.3	1563	2.6	215.8	35000	C803_215.8 S2 M2SB6	157	C803_215.8 P90 BN90S6	158
4.4	1480	1.6	317.9	25000	C704_317.9 S2 M2SA4	154	C704_317.9 P80 BN80B4	155
4.6	1405	1.1	301.7	16000	C614_301.7 S2 M2SA4	150	C614_301.7 P80 BN80B4	151
4.7	1417	1.1	195.8	16000	C613_195.8 S2 M2SB6	150	C613_195.8 P90 BN90S6	151
5.1	1282	1.2	275.3	16000	C614_275.3 S2 M2SA4	150	C614_275.3 P80 BN80B4	151
5.1	1267	1.8	272.2	25000	C704_272.2 S2 M2SA4	154	C704_272.2 P80 BN80B4	155
5.2	1293	1.2	178.6	16000	C613_178.6 S2 M2SB6	150	C613_178.6 P90 BN90S6	151
5.3	1228	0.8	263.8	10000	C514_263.8 S2 M2SA4	146	C514_263.8 P80 BN80B4	147
5.6	1191	1.3	164.5	16000	C613_164.5 S2 M2SB6	150	C613_164.5 P90 BN90S6	151
5.8	1121	0.9	240.9	10000	C514_240.9 S2 M2SA4	146	C514_240.9 P80 BN80B4	147
5.8	1139	2.0	239.3	25000	C703_239.3 S2 M2SA4	154	C703_239.3 P80 BN80B4	155
6.3	1051	2.1	220.9	25000	C703_220.9 S2 M2SA4	154	C703_220.9 P80 BN80B4	155
6.4	1012	1.6	217.4	16000	C614_217.4 S2 M2SA4	150	C614_217.4 P80 BN80B4	151
6.5	1031	1.0	216.7	10000	C513_216.7 S2 M2SA4	146	C513_216.7 P80 BN80B4	147
7.1	941	1.1	197.9	10000	C513_197.9 S2 M2SA4	146	C513_197.9 P80 BN80B4	147
7.2	931	1.7	195.8	16000	C613_195.8 S2 M2SA4	150	C613_195.8 P80 BN80B4	151
7.2	924	2.5	194.1	25000	C703_194.1 S2 M2SA4	154	C703_194.1 P80 BN80B4	155
7.8	850	1.9	178.6	16000	C613_178.6 S2 M2SA4	150	C613_178.6 P80 BN80B4	151
8.0	836	1.2	175.8	10000	C513_175.8 S2 M2SA4	146	C513_175.8 P80 BN80B4	147
8.5	782	2.0	164.5	16000	C613_164.5 S2 M2SA4	150	C613_164.5 P80 BN80B4	151
8.6	775	3.0	162.8	25000	C703_162.8 S2 M2SA4	154	C703_162.8 P80 BN80B4	155
8.7	764	1.3	160.5	10000	C513_160.5 S2 M2SA4	146	C513_160.5 P80 BN80B4	147
9.3	714	2.2	150.0	16000	C613_150.0 S2 M2SA4	150	C613_150.0 P80 BN80B4	151
9.5	702	1.4	147.4	10000	C513_147.4 S2 M2SA4	146	C513_147.4 P80 BN80B4	147
10.0	668	2.4	140.5	16000	C613_140.5 S2 M2SA4	150	C613_140.5 P80 BN80B4	151
10.2	654	3.5	137.4	25000	C703_137.4 S2 M2SA4	154	C703_137.4 P80 BN80B4	155
10.4	641	1.6	134.6	10000	C513_134.6 S2 M2SA4	146	C513_134.6 P80 BN80B4	147
10.5	632	0.9	132.9	7000	C413_132.9 S2 M2SA4	142	C413_132.9 P80 BN80B4	143
10.9	610	2.6	128.1	16000	C613_128.1 S2 M2SA4	150	C613_128.1 P80 BN80B4	151
11.3	592	1.7	124.4	10000	C513_124.4 S2 M2SA4	146	C513_124.4 P80 BN80B4	147
11.6	574	1.0	120.6	7000	C413_120.6 S2 M2SA4	142	C413_120.6 P80 BN80B4	143
12.3	541	3.0	113.6	16000	C613_113.6 S2 M2SA4	150	C613_113.6 P80 BN80B4	151



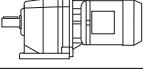





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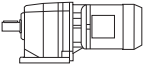



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC	
12.3	541	1.9	113.6	10000	C513_113.6 S2 M2SA4	146	C513_113.6 P80 BN80B4	147
12.7	524	1.1	110.1	7000	C413_110.1 S2 M2SA4	142	C413_110.1 P80 BN80B4	143
13.5	493	3.2	103.6	16000	C613_103.6 S2 M2SA4	150	C613_103.6 P80 BN80B4	151
13.7	487	1.2	102.3	7000	C413_102.3 S2 M2SA4	142	C413_102.3 P80 BN80B4	143
13.7	485	0.9	102.2	6500	C363_102.2 S2 M2SA4	138	C363_102.2 P80 BN80B4	139
13.8	484	2.1	101.8	10000	C513_101.8 S2 M2SA4	146	C513_101.8 P80 BN80B4	147
15.0	444	1.4	93.3	7000	C413_93.3 S2 M2SA4	142	C413_93.3 P80 BN80B4	143
15.1	442	2.3	93.0	10000	C513_93.0 S2 M2SA4	146	C513_93.0 P80 BN80B4	147
15.2	436	1.0	91.9	6500	C363_91.9 S2 M2SA4	138	C363_91.9 P80 BN80B4	139
16.8	394	1.1	83.1	6500	C363_83.1 S2 M2SA4	138	C363_83.1 P80 BN80B4	139
17.2	388	1.5	81.5	7000	C413_81.5 S2 M2SA4	142	C413_81.5 P80 BN80B4	143
17.5	380	2.6	79.9	10000	C513_79.9 S2 M2SA4	146	C513_79.9 P80 BN80B4	147
18.0	368	1.2	77.6	6500	C363_77.6 S2 M2SA4	138	C363_77.6 P80 BN80B4	139
18.8	354	1.7	74.4	7000	C413_74.4 S2 M2SA4	142	C413_74.4 P80 BN80B4	143
19.2	347	2.9	72.9	10000	C513_72.9 S2 M2SA4	146	C513_72.9 P80 BN80B4	147
19.8	336	1.3	70.8	6500	C363_70.8 S2 M2SA4	138	C363_70.8 P80 BN80B4	139
21.7	307	3.3	64.6	10000	C513_64.6 S2 M2SA4	146	C513_64.6 P80 BN80B4	147
21.8	306	2.0	64.3	7000	C413_64.3 S2 M2SA4	142	C413_64.3 P80 BN80B4	143
22.6	294	1.5	62.0	6500	C363_62.0 S2 M2SA4	138	C363_62.0 P80 BN80B4	139
22.6	301	1.0	40.7	5500	C322_40.7 S2 M2SB6	134	C322_40.7 P90 BN90S6	135
23.9	279	2.1	58.7	7000	C413_58.7 S2 M2SA4	142	C413_58.7 P80 BN80B4	143
24.6	277	2.8	57.0	10000	C512_57.0 S2 M2SA4	146	C512_57.0 P80 BN80B4	147
24.9	266	1.7	56.2	6500	C363_56.2 S2 M2SA4	138	C363_56.2 P80 BN80B4	139
26.7	254	1.2	52.4	5500	C322_52.4 S2 M2SA4	134	C322_52.4 P80 BN80B4	135
27.2	245	2.4	51.5	7000	C413_51.5 S2 M2SA4	142	C413_51.5 P80 BN80B4	143
27.2	250	2.8	51.4	10000	C512_51.4 S2 M2SA4	146	C512_51.4 P80 BN80B4	147
29.1	228	2.0	48.2	6500	C363_48.2 S2 M2SA4	138	C363_48.2 P80 BN80B4	139
29.3	232	3.4	47.8	10000	C512_47.8 S2 M2SA4	146	C512_47.8 P80 BN80B4	147
30	223	2.7	47.0	7000	C413_47.0 S2 M2SA4	142	C413_47.0 P80 BN80B4	143
31	218	2.3	44.8	7000	C412_44.8 S2 M2SA4	142	C412_44.8 P80 BN80B4	143
31	219	1.4	45.3	5500	C322_45.3 S2 M2SA4	134	C322_45.3 P80 BN80B4	135
32	206	2.2	43.5	6500	C363_43.5 S2 M2SA4	138	C363_43.5 P80 BN80B4	139
32	210	0.9	43.3	3810	C222_43.3 S2 M2SA4	130	C222_43.3 P80 BN80B4	131
34	197	1.5	40.7	5500	C322_40.7 S2 M2SA4	134	C322_40.7 P80 BN80B4	135
35	192	3.1	40.3	7000	C413_40.3 S2 M2SA4	142	C413_40.3 P80 BN80B4	143
37	181	2.5	38.1	6500	C363_38.1 S2 M2SA4	138	C363_38.1 P80 BN80B4	139
38	180	2.8	37.1	7000	C412_37.1 S2 M2SA4	142	C412_37.1 P80 BN80B4	143
38	178	1.1	36.8	3750	C222_36.8 S2 M2SA4	130	C222_36.8 P80 BN80B4	131
39	175	1.7	36.1	5500	C322_36.1 S2 M2SA4	134	C322_36.1 P80 BN80B4	135
40	164	2.7	34.6	6500	C363_34.6 S2 M2SA4	138	C363_34.6 P80 BN80B4	139
42	160	1.2	33.1	3680	C222_33.1 S2 M2SA4	130	C222_33.1 P80 BN80B4	131
42	160	1.9	33.1	5500	C322_33.1 S2 M2SA4	134	C322_33.1 P80 BN80B4	135
47	144	2.1	29.8	5500	C322_29.8 S2 M2SA4	134	C322_29.8 P80 BN80B4	135
47	144	1.4	29.6	3630	C222_29.6 S2 M2SA4	130	C222_29.6 P80 BN80B4	131
49	136	3.3	28.7	6490	C363_28.7 S2 M2SA4	138	C363_28.7 P80 BN80B4	139
52	132	1.5	27.2	3600	C222_27.2 S2 M2SA4	130	C222_27.2 P80 BN80B4	131
52	130	2.3	26.9	5500	C322_26.9 S2 M2SA4	134	C322_26.9 P80 BN80B4	135
56	122	2.5	25.1	5460	C322_25.1 S2 M2SA4	134	C322_25.1 P80 BN80B4	135
58	118	1.7	24.3	3510	C222_24.3 S2 M2SA4	130	C222_24.3 P80 BN80B4	131
61	111	2.7	22.9	5300	C322_22.9 S2 M2SA4	134	C322_22.9 P80 BN80B4	135
65	104	1.9	21.5	3480	C222_21.5 S2 M2SA4	130	C222_21.5 P80 BN80B4	131



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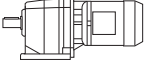




$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
70	97	3.0	20.1	5150	C322_20.1 S2 M2SA4	134	C322_20.1 P80 BN80B4	135
70	97	2.0	20.0	3380	C222_20.0 S2 M2SA4	130	C222_20.0 P80 BN80B4	131
77	88	2.1	18.1	3350	C222_18.1 S2 M2SA4	130	C222_18.1 P80 BN80B4	131
82	83	0.9	17.2	1750	C122_17.2 S2 M2SA4	126	C122_17.2 P80 BN80B4	127
88	77	2.3	15.8	3210	C222_15.8 S2 M2SA4	130	C222_15.8 P80 BN80B4	131
91	75	1.0	15.4	1920	C122_15.4 S2 M2SA4	126	C122_15.4 P80 BN80B4	127
96	70	2.4	14.5	3200	C222_14.5 S2 M2SA4	130	C222_14.5 P80 BN80B4	131
104	65	1.1	13.4	1870	C122_13.4 S2 M2SA4	126	C122_13.4 P80 BN80B4	127
113	60	2.7	12.4	3030	C222_12.4 S2 M2SA4	130	C222_12.4 P80 BN80B4	131
118	58	1.2	11.9	1780	C122_11.9 S2 M2SA4	126	C122_11.9 P80 BN80B4	127
126	54	2.9	11.1	2980	C222_11.1 S2 M2SA4	130	C222_11.1 P80 BN80B4	131
139	49	1.3	10.1	1760	C122_10.1 S2 M2SA4	126	C122_10.1 P80 BN80B4	127
145	47	3.1	9.6	2840	C222_9.6 S2 M2SA4	130	C222_9.6 P80 BN80B4	131
158	43	1.4	8.8	1700	C122_8.8 S2 M2SA4	126	C122_8.8 P80 BN80B4	127
162	42	3.3	8.7	2760	C222_8.7 S2 M2SA4	130	C222_8.7 P80 BN80B4	131
184	37	1.5	7.6	1650	C122_7.6 S2 M2SA4	126	C122_7.6 P80 BN80B4	127
225	30	1.8	6.2	1530	C122_6.2 S2 M2SA4	126	C122_6.2 P80 BN80B4	127
236	29	1.8	11.9	1520	C122_11.9 S1 M1LA2	126	C122_11.9 P80 BN80A2	127
250	27	1.9	5.6	1470	C122_5.6 S2 M2SA4	126	C122_5.6 P80 BN80B4	127
278	24	2.0	10.1	1490	C122_10.1 S1 M1LA2	126	C122_10.1 P80 BN80A2	127
288	24	2.0	4.9	1440	C122_4.9 S2 M2SA4	126	C122_4.9 P80 BN80B4	127
319	22	2.2	8.8	1420	C122_8.8 S1 M1LA2	126	C122_8.8 P80 BN80A2	127
325	21	2.2	4.3	1370	C122_4.3 S2 M2SA4	126	C122_4.3 P80 BN80B4	127
332	20	2.1	2.8	1390	C122_2.8 S2 M2SB6	126	C122_2.8 P90 BN90S6	127
367	19	2.4	7.6	1380	C122_7.6 S1 M1LA2	126	C122_7.6 P80 BN80A2	127
383	18	2.4	3.7	1330	C122_3.7 S2 M2SA4	126	C122_3.7 P80 BN80B4	127
436	16	2.6	3.2	1280	C122_3.2 S2 M2SA4	126	C122_3.2 P80 BN80B4	127
449	15	2.8	6.2	1280	C122_6.2 S1 M1LA2	126	C122_6.2 P80 BN80A2	127
506	13	2.8	2.8	1230	C122_2.8 S2 M2SA4	126	C122_2.8 P80 BN80B4	127
502	14	2.9	5.6	1240	C122_5.6 S1 M1LA2	126	C122_5.6 P80 BN80A2	127
575	12	3.2	4.9	1190	C122_4.9 S1 M1LA2	126	C122_4.9 P80 BN80A2	127
653	11	3.4	4.3	1050	C122_4.3 S1 M1LA2	126	C122_4.3 P80 BN80A2	127
767	9	3.8	3.7	1090	C122_3.7 S1 M1LA2	126	C122_3.7 P80 BN80A2	127
878	8	4.0	3.2	1050	C122_3.2 S1 M1LA2	126	C122_3.2 P80 BN80A2	127
1012	7	4.5	2.8	1010	C122_2.8 S1 M1LA2	126	C122_2.8 P80 BN80A2	127

## 1.1 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
0.85	11232	1.1	1081	85000	C1004_1081 S3 M3SA6	163	C1004_1081 P90 BN90L6	164
1.0	9437	1.3	908.2	85000	C1004_908.2 S3 M3SA6	163	C1004_908.2 P90 BN90L6	164
1.2	7764	0.9	1137	60000	C904_1137 S2 M2SB4	160	C904_1137 P90 BN90S4	161
1.3	7381	1.6	1081	85000	C1004_1081 S2 M2SB4	163	C1004_1081 P90 BN90S4	164
1.4	6869	1.0	1006	60000	C904_1006 S2 M2SB4	160	C904_1006 P90 BN90S4	161
1.4	6856	1.8	1004	85000	C1004_1004 S2 M2SB4	163	C1004_1004 P90 BN90S4	164
1.7	5763	1.2	844.0	60000	C904_844.0 S2 M2SB4	160	C904_844.0 P90 BN90S4	161
1.7	5758	2.1	843.3	85000	C1004_843.3 S2 M2SB4	163	C1004_843.3 P90 BN90S4	164
2.1	4457	1.6	652.8	60000	C904_652.8 S2 M2SB4	160	C904_652.8 P90 BN90S4	161

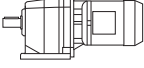






## 1.1 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
2.2	4284	2.8	627.4	85000	C1004_627.4 S2 M2SB4	163	C1004_627.4 P90 BN90S4	164
2.6	3648	2.0	534.2	60000	C904_534.2 S2 M2SB4	160	C904_534.2 P90 BN90S4	161
2.6	3614	1.1	529.3	35000	C804_529.3 S2 M2SB4	157	C804_529.3 P90 BN90S4	158
3.3	2861	2.5	419.0	60000	C904_419.0 S2 M2SB4	160	C904_419.0 P90 BN90S4	161
3.4	2851	1.4	417.5	35000	C804_417.5 S2 M2SB4	157	C804_417.5 P90 BN90S4	158
3.8	2490	1.6	364.7	35000	C804_364.7 S2 M2SB4	157	C804_364.7 P90 BN90S4	158
4.1	2351	1.0	344.3	25000	C704_344.3 S2 M2SB4	154	C704_344.3 P90 BN90S4	155
4.2	2283	1.8	334.3	35000	C804_334.3 S2 M2SB4	157	C804_334.3 P90 BN90S4	158
4.4	2171	1.1	317.9	25000	C704_317.9 S2 M2SB4	154	C704_317.9 P90 BN90S4	155
4.6	2060	0.8	301.7	16000	C614_301.7 S2 M2SB4	150	C614_301.7 P90 BN90S4	151
4.9	1951	2.1	285.7	35000	C804_285.7 S2 M2SB4	157	C804_285.7 P90 BN90S4	158
5.1	1880	0.9	275.3	16000	C614_275.3 S2 M2SB4	150	C614_275.3 P90 BN90S4	151
5.1	1859	1.2	272.2	25000	C704_272.2 S2 M2SB4	154	C704_272.2 P90 BN90S4	155
5.6	1716	1.3	251.3	25000	C704_251.3 S2 M2SB4	154	C704_251.3 P90 BN90S4	155
5.6	1746	0.9	164.5	16000	C613_164.5 S3 M3SA6	150	C613_164.5 P90 BN90L6	151
6.1	1593	1.0	150.0	16000	C613_150.0 S3 M3SA6	150	C613_150.0 P90 BN90L6	151
6.3	1542	1.5	220.9	25000	C703_220.9 S2 M2SB4	154	C703_220.9 P90 BN90S4	155
7.2	1366	1.2	195.8	16000	C613_195.8 S2 M2SB4	150	C613_195.8 P90 BN90S4	151
7.8	1250	1.8	179.2	25000	C703_179.2 S2 M2SB4	154	C703_179.2 P90 BN90S4	155
7.8	1246	1.3	178.6	16000	C613_178.6 S2 M2SB4	150	C613_178.6 P90 BN90S4	151
8.5	1148	1.4	164.5	16000	C613_164.5 S2 M2SB4	150	C613_164.5 P90 BN90S4	151
9.3	1049	2.2	150.3	25000	C703_150.3 S2 M2SB4	154	C703_150.3 P90 BN90S4	155
9.3	1047	1.5	150.0	16000	C613_150.0 S2 M2SB4	150	C613_150.0 P90 BN90S4	151
9.5	1029	1.0	147.4	10000	C513_147.4 S2 M2SB4	146	C513_147.4 P90 BN90S4	147
10.0	980	1.6	140.5	16000	C613_140.5 S2 M2SB4	150	C613_140.5 P90 BN90S4	151
10.4	939	1.1	134.6	10000	C513_134.6 S2 M2SB4	146	C513_134.6 P90 BN90S4	147
10.9	894	1.8	128.1	16000	C613_128.1 S2 M2SB4	150	C613_128.1 P90 BN90S4	151
11.0	885	2.6	126.8	25000	C703_126.8 S2 M2SB4	154	C703_126.8 P90 BN90S4	155
11.3	868	1.2	124.4	10000	C513_124.4 S2 M2SB4	146	C513_124.4 P90 BN90S4	147
12.3	793	2.0	113.6	16000	C613_113.6 S2 M2SB4	150	C613_113.6 P90 BN90S4	151
12.3	793	1.3	113.6	10000	C513_113.6 S2 M2SB4	146	C513_113.6 P90 BN90S4	147
12.5	785	2.9	112.4	25000	C703_112.4 S2 M2SB4	154	C703_112.4 P90 BN90S4	155
13.5	723	2.2	103.6	16000	C613_103.6 S2 M2SB4	150	C613_103.6 P90 BN90S4	151
13.8	710	1.4	101.8	10000	C513_101.8 S2 M2SB4	146	C513_101.8 P90 BN90S4	147
15.0	651	0.9	93.3	7000	C413_93.3 S2 M2SB4	142	C413_93.3 P90 BN90S4	143
15.1	649	1.5	93.0	10000	C513_93.0 S2 M2SB4	146	C513_93.0 P90 BN90S4	147
15.4	635	2.5	91.0	16000	C613_91.0 S2 M2SB4	150	C613_91.0 P90 BN90S4	151
16.9	579	2.8	83.0	16000	C613_83.0 S2 M2SB4	150	C613_83.0 P90 BN90S4	151
17.2	569	1.1	81.5	7000	C413_81.5 S2 M2SB4	142	C413_81.5 P90 BN90S4	143
17.5	557	1.8	79.9	10000	C513_79.9 S2 M2SB4	146	C513_79.9 P90 BN90S4	147
18.8	519	1.2	74.4	7000	C413_74.4 S2 M2SB4	142	C413_74.4 P90 BN90S4	143
18.9	518	3.1	74.2	16000	C613_74.2 S2 M2SB4	150	C613_74.2 P90 BN90S4	151
19.2	509	2.0	72.9	10000	C513_72.9 S2 M2SB4	146	C513_72.9 P90 BN90S4	147
19.8	494	0.9	70.8	6500	C363_70.8 S2 M2SB4	138	C363_70.8 P90 BN90S4	139
20.7	472	3.4	67.7	16000	C613_67.7 S2 M2SB4	150	C613_67.7 P90 BN90S4	151
21.7	451	2.2	64.6	10000	C513_64.6 S2 M2SB4	146	C513_64.6 P90 BN90S4	147
21.8	449	1.3	64.3	7000	C413_64.3 S2 M2SB4	142	C413_64.3 P90 BN90S4	143
22.6	433	1.0	62.0	6500	C363_62.0 S2 M2SB4	138	C363_62.0 P90 BN90S4	139
23.7	412	2.4	59.0	10000	C513_59.0 S2 M2SB4	146	C513_59.0 P90 BN90S4	147
23.9	409	1.5	58.7	7000	C413_58.7 S2 M2SB4	142	C413_58.7 P90 BN90S4	143
24.6	406	1.9	57.0	10000	C512_57.0 S2 M2SB4	146	C512_57.0 P90 BN90S4	147



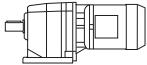



## 1.1 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
24.9	392	1.1	56.2	6500	C363_56.2 S2 M2SB4	138	C363_56.2 P90 BN90S4	139
27.2	359	1.7	51.5	7000	C413_51.5 S2 M2SB4	142	C413_51.5 P90 BN90S4	143
27.2	366	1.9	51.4	10000	C512_51.4 S2 M2SB4	146	C512_51.4 P90 BN90S4	147
27.4	357	2.8	51.2	10000	C513_51.2 S2 M2SB4	146	C513_51.2 P90 BN90S4	147
29.1	336	1.3	48.2	6500	C363_48.2 S2 M2SB4	138	C363_48.2 P90 BN90S4	139
29.3	341	2.3	47.8	10000	C512_47.8 S2 M2SB4	146	C512_47.8 P90 BN90S4	147
29.8	328	1.8	47.0	7000	C413_47.0 S2 M2SB4	142	C413_47.0 P90 BN90S4	143
30	326	3.1	46.7	10000	C513_46.7 S2 M2SB4	146	C513_46.7 P90 BN90S4	147
31	319	1.6	44.8	7000	C412_44.8 S2 M2SB4	142	C412_44.8 P90 BN90S4	143
31	322	0.9	45.3	5500	C322_45.3 S2 M2SB4	134	C322_45.3 P90 BN90S4	135
32	307	2.5	43.1	10000	C512_43.1 S2 M2SB4	146	C512_43.1 P90 BN90S4	147
32	303	1.5	43.5	6500	C363_43.5 S2 M2SB4	138	C363_43.5 P90 BN90S4	139
34	290	1.0	40.7	5500	C322_40.7 S2 M2SB4	134	C322_40.7 P90 BN90S4	135
35	288	2.8	40.4	10000	C512_40.4 S2 M2SB4	146	C512_40.4 P90 BN90S4	147
35	281	2.1	40.3	7000	C413_40.3 S2 M2SB4	142	C413_40.3 P90 BN90S4	143
37	266	1.7	38.1	6500	C363_38.1 S2 M2SB4	138	C363_38.1 P90 BN90S4	139
38	257	2.3	36.8	7000	C413_36.8 S2 M2SB4	142	C413_36.8 P90 BN90S4	143
38	264	1.9	37.1	7000	C412_37.1 S2 M2SB4	142	C412_37.1 P90 BN90S4	143
39	257	1.2	36.1	5500	C322_36.1 S2 M2SB4	134	C322_36.1 P90 BN90S4	135
40	241	1.9	34.6	6300	C363_34.6 S2 M2SB4	138	C363_34.6 P90 BN90S4	139
42	238	2.1	33.4	7000	C412_33.4 S2 M2SB4	142	C412_33.4 P90 BN90S4	143
42	236	1.3	33.1	5420	C322_33.1 S2 M2SB4	134	C322_33.1 P90 BN90S4	135
45	224	2.2	31.4	7000	C412_31.4 S2 M2SB4	142	C412_31.4 P90 BN90S4	143
45	218	2.6	31.2	7000	C413_31.2 S2 M2SB4	142	C413_31.2 P90 BN90S4	143
47	212	1.4	29.8	5360	C322_29.8 S2 M2SB4	134	C322_29.8 P90 BN90S4	135
47	211	0.9	29.6	3190	C222_29.6 S2 M2SB4	130	C222_29.6 P90 BN90S4	131
49	199	2.8	28.5	7000	C413_28.5 S2 M2SB4	142	C413_28.5 P90 BN90S4	143
49	202	2.5	28.3	7000	C412_28.3 S2 M2SB4	142	C412_28.3 P90 BN90S4	143
49	200	2.2	28.7	6190	C363_28.7 S2 M2SB4	138	C363_28.7 P90 BN90S4	139
52	193	1.0	27.2	3160	C222_27.2 S2 M2SB4	130	C222_27.2 P90 BN90S4	131
52	192	1.6	26.9	5220	C322_26.9 S2 M2SB4	134	C322_26.9 P90 BN90S4	135
53	183	2.4	26.2	5930	C363_26.2 S2 M2SB4	138	C363_26.2 P90 BN90S4	139
56	179	1.7	25.1	5180	C322_25.1 S2 M2SB4	134	C322_25.1 P90 BN90S4	135
58	173	1.2	24.3	3150	C222_24.3 S2 M2SB4	130	C222_24.3 P90 BN90S4	131
61	163	1.8	22.9	5050	C322_22.9 S2 M2SB4	134	C322_22.9 P90 BN90S4	135
62	161	3.1	22.6	6810	C412_22.6 S2 M2SB4	142	C412_22.6 P90 BN90S4	143
63	154	2.8	22.1	5680	C363_22.1 S2 M2SB4	138	C363_22.1 P90 BN90S4	139
65	153	1.3	21.5	3120	C222_21.5 S2 M2SB4	130	C222_21.5 P90 BN90S4	131
70	143	2.1	20.1	4920	C322_20.1 S2 M2SB4	134	C322_20.1 P90 BN90S4	135
70	143	1.3	20.0	3080	C222_20.0 S2 M2SB4	130	C222_20.0 P90 BN90S4	131
74	135	2.8	19.0	5580	C362_19.0 S2 M2SB4	138	C362_19.0 P90 BN90S4	139
77	130	2.1	18.2	4760	C322_18.2 S2 M2SB4	134	C322_18.2 P90 BN90S4	135
77	129	1.4	18.1	3020	C222_18.1 S2 M2SB4	130	C222_18.1 P90 BN90S4	131
81	123	3.1	17.2	5300	C362_17.2 S2 M2SB4	138	C362_17.2 P90 BN90S4	139
88	113	1.6	15.8	2970	C222_15.8 S2 M2SB4	130	C222_15.8 P90 BN90S4	131
90	111	2.4	15.6	4630	C322_15.6 S2 M2SB4	134	C322_15.6 P90 BN90S4	135
96	104	1.6	14.5	2940	C222_14.5 S2 M2SB4	130	C222_14.5 P90 BN90S4	131
99	100	2.5	14.1	4480	C322_14.1 S2 M2SB4	134	C322_14.1 P90 BN90S4	135
113	88	1.8	12.4	2840	C222_12.4 S2 M2SB4	130	C222_12.4 P90 BN90S4	131
114	88	2.8	12.3	4350	C322_12.3 S2 M2SB4	134	C322_12.3 P90 BN90S4	135
125	80	2.9	11.2	4200	C322_11.2 S2 M2SB4	134	C322_11.2 P90 BN90S4	135

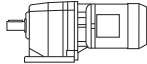







## 1.1 kW






$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
126	79	1.9	11.1	2800	C222_11.1 S2 M2SB4	130	C222_11.1 P90 BN90S4	131
139	72	0.9	10.1	1400	C122_10.1 S2 M2SB4	126	C122_10.1 P90 BN90S4	127
145	69	2.1	9.6	2700	C222_9.6 S2 M2SB4	130	C222_9.6 P90 BN90S4	131
151	66	3.3	9.3	4030	C322_9.3 S2 M2SB4	134	C322_9.3 P90 BN90S4	135
158	63	0.9	8.8	1560	C122_8.8 S2 M2SB4	126	C122_8.8 P90 BN90S4	127
162	62	2.2	8.7	2630	C222_8.7 S2 M2SB4	130	C222_8.7 P90 BN90S4	131
184	54	1.0	7.6	1550	C122_7.6 S2 M2SB4	126	C122_7.6 P90 BN90S4	127
198	50	2.6	7.1	2510	C222_7.1 S2 M2SB4	130	C222_7.1 P90 BN90S4	131
225	44	1.2	6.2	1220	C122_6.2 S2 M2SB4	126	C122_6.2 P90 BN90S4	127
230	43	2.4	6.1	2380	C222_6.1 S2 M2SB4	130	C222_6.1 P90 BN90S4	131
235	43	1.2	11.9	1420	C122_11.9 S2 M2SA2	126	C122_11.9 P80 BN80B2	127
250	40	1.3	5.6	1270	C122_5.6 S2 M2SB4	126	C122_5.6 P90 BN90S4	127
250	40	2.6	5.6	2350	C222_5.6 S2 M2SB4	130	C222_5.6 P90 BN90S4	131
252	40	3.0	11.1	2980	C222_11.1 S2 M2SA2	130	C222_11.1 P80 BN80B2	131
252	40	1.2	3.7	1320	C122_3.7 S3 M3SA6	126	C122_3.7 P90 BN90L6	127
278	36	1.4	10.1	1420	C122_10.1 S2 M2SA2	126	C122_10.1 P80 BN80B2	127
288	35	1.4	4.9	1370	C122_4.9 S2 M2SB4	126	C122_4.9 P90 BN90S4	127
294	34	2.9	4.8	2240	C222_4.8 S2 M2SB4	130	C222_4.8 P90 BN90S4	131
318	32	1.5	8.8	1370	C122_8.8 S2 M2SA2	126	C122_8.8 P80 BN80B2	127
325	31	1.5	4.3	1320	C122_4.3 S2 M2SB4	126	C122_4.3 P90 BN90S4	127
329	30	3.1	4.3	2200	C222_4.3 S2 M2SB4	130	C222_4.3 P90 BN90S4	131
332	30	1.4	2.8	1320	C122_2.8 S3 M3SA6	126	C122_2.8 P90 BN90L6	127
338	30	3.2	2.7	2160	C222_2.7 S3 M3SA6	130	C222_2.7 P90 BN90L6	131
367	27	1.7	7.6	1330	C122_7.6 S2 M2SA2	126	C122_7.6 P80 BN80B2	127
378	26	3.4	3.7	2090	C222_3.7 S2 M2SB4	130	C222_3.7 P90 BN90S4	131
383	26	1.6	3.7	1280	C122_3.7 S2 M2SB4	126	C122_3.7 P90 BN90S4	127
436	23	1.8	3.2	1230	C122_3.2 S2 M2SB4	126	C122_3.2 P90 BN90S4	127
449	22	1.9	6.2	1230	C122_6.2 S2 M2SA2	126	C122_6.2 P80 BN80B2	127
500	20	2.0	5.6	1190	C122_5.6 S2 M2SA2	126	C122_5.6 P80 BN80B2	127
506	20	1.9	2.8	1190	C122_2.8 S2 M2SB4	126	C122_2.8 P90 BN90S4	127
575	17	2.2	4.9	1150	C122_4.9 S2 M2SA2	126	C122_4.9 P80 BN80B2	127
651	16	2.3	4.3	1110	C122_4.3 S2 M2SA2	126	C122_4.3 P80 BN80B2	127
767	13	2.6	3.7	1070	C122_3.7 S2 M2SA2	126	C122_3.7 P80 BN80B2	127
875	12	1.5	3.2	1020	C122_3.2 S2 M2SA2	126	C122_3.2 P80 BN80B2	127
1012	10	3.0	2.8	980	C122_2.8 S2 M2SA2	126	C122_2.8 P80 BN80B2	127

## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
1.0	12595	1.0	908.2	85000	C1004_908.2 S3 M3LA6	163	C1004_908.2 P100 BN100LA6	164
1.3	9994	1.2	1081	85000	C1004_1081 S3 M3SA4	163	C1004_1081 P90 BN90LA4	164
1.6	8397	1.4	908.2	85000	C1004_908.2 S3 M3SA4	163	C1004_908.2 P90 BN90LA4	164
1.7	7803	0.9	844.0	60000	C904_844.0 S3 M3SA4	160	C904_844.0 P90 BN90LA4	161
2.0	6659	1.8	720.3	85000	C1004_720.3 S3 M3SA4	163	C1004_720.3 P90 BN90LA4	164
2.0	6584	1.1	712.2	60000	C904_712.2 S3 M3SA4	160	C904_712.2 P90 BN90LA4	161
2.6	4939	1.5	534.2	60000	C904_534.2 S3 M3SA4	160	C904_534.2 P90 BN90LA4	161
3.1	4226	1.7	457.1	60000	C904_457.1 S3 M3SA4	160	C904_457.1 P90 BN90LA4	161
3.1	4210	1.0	455.4	35000	C804_455.4 S3 M3SA4	157	C804_455.4 P90 BN90LA4	158

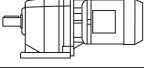





## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
3.4	3874	1.9	419.0	60000	C904_419.0 S3 M3SA4	160	C904_419.0 P90 BN90LA4	161
3.4	3860	1.0	417.5	35000	C804_417.5 S3 M3SA4	157	C804_417.5 P90 BN90LA4	158
4.2	3134	2.3	339.0	60000	C904_339.0 S3 M3SA4	160	C904_339.0 P90 BN90LA4	161
4.2	3091	1.3	334.3	35000	C804_334.3 S3 M3SA4	157	C804_334.3 P90 BN90LA4	158
4.8	2708	2.7	292.9	60000	C904_292.9 S3 M3SA4	160	C904_292.9 P90 BN90LA4	161
4.9	2641	1.5	285.7	35000	C804_285.7 S3 M3SA4	157	C804_285.7 P90 BN90LA4	158
5.2	2517	0.9	272.2	25000	C704_272.2 S3 M3SA4	154	C704_272.2 P90 BN90LA4	155
5.4	2421	1.7	261.9	35000	C804_261.9 S3 M3SA4	157	C804_261.9 P90 BN90LA4	158
5.6	2323	1.0	251.3	25000	C704_251.3 S3 M3SA4	154	C704_251.3 P90 BN90LA4	155
5.9	2261	1.0	239.3	25000	C703_239.3 S3 M3SA4	154	C703_239.3 P90 BN90LA4	155
6.5	2010	0.8	217.4	16000	C614_217.4 S3 M3SA4	150	C614_217.4 P90 BN90LA4	151
6.5	2039	2.0	215.8	35000	C803_215.8 S3 M3SA4	157	C803_215.8 P90 BN90LA4	158
7.3	1834	1.3	194.1	25000	C703_194.1 S3 M3SA4	154	C703_194.1 P90 BN90LA4	155
7.9	1693	1.4	179.2	25000	C703_179.2 S3 M3SA4	154	C703_179.2 P90 BN90LA4	155
7.9	1687	0.9	178.6	16000	C613_178.6 S3 M3SA4	150	C613_178.6 P90 BN90LA4	151
8.3	1597	2.5	169.0	35000	C803_169.0 S3 M3SA4	157	C803_169.0 P90 BN90LA4	158
8.6	1554	1.0	164.5	16000	C613_164.5 S3 M3SA4	150	C613_164.5 P90 BN90LA4	151
9.4	1420	1.6	150.3	25000	C703_150.3 S3 M3SA4	154	C703_150.3 P90 BN90LA4	155
9.4	1418	1.1	150.0	16000	C613_150.0 S3 M3SA4	150	C613_150.0 P90 BN90LA4	151
9.5	1409	2.8	149.1	35000	C803_149.1 S3 M3SA4	157	C803_149.1 P90 BN90LA4	158
10.0	1327	1.2	140.5	16000	C613_140.5 S3 M3SA4	150	C613_140.5 P90 BN90LA4	151
10.3	1298	1.8	137.4	25000	C703_137.4 S3 M3SA4	154	C703_137.4 P90 BN90LA4	155
10.3	1291	3.1	136.7	35000	C803_136.7 S3 M3SA4	157	C803_136.7 P90 BN90LA4	158
11.0	1211	1.3	128.1	16000	C613_128.1 S3 M3SA4	150	C613_128.1 P90 BN90LA4	151
11.1	1198	1.9	126.8	25000	C703_126.8 S3 M3SA4	154	C703_126.8 P90 BN90LA4	155
12.4	1073	1.5	113.6	16000	C613_113.6 S3 M3SA4	150	C613_113.6 P90 BN90LA4	151
12.4	1073	0.9	113.6	10000	C513_113.6 S3 M3SA4	146	C513_113.6 P90 BN90LA4	147
13.6	981	2.3	103.8	25000	C703_103.8 S3 M3SA4	154	C703_103.8 P90 BN90LA4	155
13.6	979	1.6	103.6	16000	C613_103.6 S3 M3SA4	150	C613_103.6 P90 BN90LA4	151
13.8	962	1.0	101.8	10000	C513_101.8 S3 M3SA4	146	C513_101.8 P90 BN90LA4	147
15.2	878	1.1	93.0	10000	C513_93.0 S3 M3SA4	146	C513_93.0 P90 BN90LA4	147
15.5	860	1.9	91.0	16000	C613_91.0 S3 M3SA4	150	C613_91.0 P90 BN90LA4	151
16.0	833	2.8	88.2	25000	C703_88.2 S3 M3SA4	154	C703_88.2 P90 BN90LA4	155
16.5	826	1.0	57.0	10000	C512_57.0 S3 M3LA6	146	C512_57.0 P100 BN100LA6	147
17.0	785	2.0	83.0	16000	C613_83.0 S3 M3SA4	150	C613_83.0 P90 BN90LA4	151
17.3	769	3.0	81.4	25000	C703_81.4 S3 M3SA4	154	C703_81.4 P90 BN90LA4	155
17.7	755	1.3	79.9	10000	C513_79.9 S3 M3SA4	146	C513_79.9 P90 BN90LA4	147
18.3	744	1.0	51.4	10000	C512_51.4 S3 M3LA6	146	C512_51.4 P100 BN100LA6	147
19.0	701	2.3	74.2	16000	C613_74.2 S3 M3SA4	150	C613_74.2 P90 BN90LA4	151
19.3	689	1.5	72.9	10000	C513_72.9 S3 M3SA4	146	C513_72.9 P90 BN90LA4	147
19.7	692	1.2	47.8	10000	C512_47.8 S3 M3LA6	146	C512_47.8 P100 BN100LA6	147
19.8	674	3.4	71.3	25000	C703_71.3 S3 M3SA4	154	C703_71.3 P90 BN90LA4	155
20.8	640	2.5	67.7	16000	C613_67.7 S3 M3SA4	150	C613_67.7 P90 BN90LA4	151
21.8	624	1.3	43.1	10000	C512_43.1 S3 M3LA6	146	C512_43.1 P100 BN100LA6	147
21.8	610	1.6	64.6	10000	C513_64.6 S3 M3SA4	146	C513_64.6 P90 BN90LA4	147
21.9	607	1.0	64.3	7000	C413_64.3 S3 M3SA4	142	C413_64.3 P90 BN90LA4	143
23.9	557	1.8	59.0	10000	C513_59.0 S3 M3SA4	146	C513_59.0 P90 BN90LA4	147
24.0	554	1.1	58.7	7000	C413_58.7 S3 M3SA4	142	C413_58.7 P90 BN90LA4	143
24.1	554	2.9	58.6	16000	C613_58.6 S3 M3SA4	150	C613_58.6 P90 BN90LA4	151
24.7	550	1.4	57.0	10000	C512_57.0 S3 M3SA4	146	C512_57.0 P90 BN90LA4	147
26.4	505	3.2	53.5	16000	C613_53.5 S3 M3SA4	150	C613_53.5 P90 BN90LA4	151

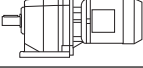





## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
27.4	486	1.2	51.5	7000	C413_51.5 S3 M3SA4	142	C413_51.5 P90 BN90LA4	143
27.4	496	1.4	51.4	10000	C512_51.4 S3 M3SA4	146	C512_51.4 P90 BN90LA4	147
27.6	483	2.1	51.2	10000	C513_51.2 S3 M3SA4	146	C513_51.2 P90 BN90LA4	147
29.3	457	1.0	48.2	6290	C363_48.2 S3 M3SA4	138	C363_48.2 P90 BN90LA4	139
29.5	462	1.7	47.8	10000	C512_47.8 S3 M3SA4	146	C512_47.8 P90 BN90LA4	147
30	444	1.4	47.0	7000	C413_47.0 S3 M3SA4	142	C413_47.0 P90 BN90LA4	143
30	441	2.3	46.7	10000	C513_46.7 S3 M3SA4	146	C513_46.7 P90 BN90LA4	147
32	432	1.2	44.8	7000	C412_44.8 S3 M3SA4	142	C412_44.8 P90 BN90LA4	143
32	412	1.1	43.5	6110	C363_43.5 S3 M3SA4	138	C363_43.5 P90 BN90LA4	139
33	416	1.9	43.1	10000	C512_43.1 S3 M3SA4	146	C512_43.1 P90 BN90LA4	147
35	382	2.6	40.5	10000	C513_40.5 S3 M3SA4	146	C513_40.5 P90 BN90LA4	147
35	390	2.0	40.4	10000	C512_40.4 S3 M3SA4	146	C512_40.4 P90 BN90LA4	147
35	381	1.6	40.3	7000	C413_40.3 S3 M3SA4	142	C413_40.3 P90 BN90LA4	143
37	361	1.2	38.1	6110	C363_38.1 S3 M3SA4	138	C363_38.1 P90 BN90LA4	139
38	358	1.4	37.1	7000	C412_37.1 S3 M3SA4	142	C412_37.1 P90 BN90LA4	143
38	348	1.7	36.8	7000	C413_36.8 S3 M3SA4	142	C413_36.8 P90 BN90LA4	143
39	351	2.2	36.4	10000	C512_36.4 S3 M3SA4	146	C512_36.4 P90 BN90LA4	147
39	350	0.9	36.1	5100	C322_36.1 S3 M3SA4	134	C322_36.1 P90 BN90LA4	135
41	328	1.4	34.6	5950	C363_34.6 S3 M3SA4	138	C363_34.6 P90 BN90LA4	139
42	322	1.6	33.4	7000	C412_33.4 S3 M3SA4	142	C412_33.4 P90 BN90LA4	143
43	319	2.5	33.0	10000	C512_33.0 S3 M3SA4	146	C512_33.0 P90 BN90LA4	147
43	321	0.9	33.1	5050	C322_33.1 S3 M3SA4	134	C322_33.1 P90 BN90LA4	135
45	303	1.6	31.4	6990	C412_31.4 S3 M3SA4	142	C412_31.4 P90 BN90LA4	143
45	295	1.9	31.2	7000	C413_31.2 S3 M3SA4	142	C413_31.2 P90 BN90LA4	143
47	287	2.8	29.8	10000	C512_29.8 S3 M3SA4	146	C512_29.8 P90 BN90LA4	147
47	288	1.0	29.8	4970	C322_29.8 S3 M3SA4	134	C322_29.8 P90 BN90LA4	135
49	272	1.7	28.7	5830	C363_28.7 S3 M3SA4	138	C363_28.7 P90 BN90LA4	139
50	273	1.8	28.3	6830	C412_28.3 S3 M3SA4	142	C412_28.3 P90 BN90LA4	143
52	261	1.2	26.9	4890	C322_26.9 S3 M3SA4	134	C322_26.9 P90 BN90LA4	135
54	250	3.2	25.9	10000	C512_25.9 S3 M3SA4	146	C512_25.9 P90 BN90LA4	147
54	249	1.8	26.2	5710	C363_26.2 S3 M3SA4	138	C363_26.2 P90 BN90LA4	139
56	242	2.1	25.0	6680	C412_25.0 S3 M3SA4	142	C412_25.0 P90 BN90LA4	143
56	243	1.2	25.1	4840	C322_25.1 S3 M3SA4	134	C322_25.1 P90 BN90LA4	135
62	222	1.3	22.9	4750	C322_22.9 S3 M3SA4	134	C322_22.9 P90 BN90LA4	135
63	218	2.3	22.6	6510	C412_22.6 S3 M3SA4	142	C412_22.6 P90 BN90LA4	143
64	210	2.0	22.1	5530	C363_22.1 S3 M3SA4	138	C363_22.1 P90 BN90LA4	139
66	208	0.9	21.5	2600	C222_21.5 S3 M3SA4	130	C222_21.5 P90 BN90LA4	131
70	195	1.5	20.1	4650	C322_20.1 S3 M3SA4	134	C322_20.1 P90 BN90LA4	135
70	194	1.0	20.0	2740	C222_20.0 S3 M3SA4	130	C222_20.0 P90 BN90LA4	131
71	191	2.5	19.8	6330	C412_19.8 S3 M3SA4	142	C412_19.8 P90 BN90LA4	143
74	184	2.1	19.0	5330	C362_19.0 S3 M3SA4	138	C362_19.0 P90 BN90LA4	139
78	176	1.6	18.2	4520	C322_18.2 S3 M3SA4	134	C322_18.2 P90 BN90LA4	135
78	176	1.0	18.1	2700	C222_18.1 S3 M3SA4	130	C222_18.1 P90 BN90LA4	131
79	172	2.8	17.8	6160	C412_17.8 S3 M3SA4	142	C412_17.8 P90 BN90LA4	143
82	167	2.3	17.2	5140	C362_17.2 S3 M3SA4	138	C362_17.2 P90 BN90LA4	139
89	153	2.9	15.8	6000	C412_15.8 S3 M3SA4	142	C412_15.8 P90 BN90LA4	143
89	153	1.1	15.8	2700	C222_15.8 S3 M3SA4	130	C222_15.8 P90 BN90LA4	131
90	151	1.8	15.6	4410	C322_15.6 S3 M3SA4	134	C322_15.6 P90 BN90LA4	135
96	143	2.7	14.8	5030	C362_14.8 S3 M3SA4	138	C362_14.8 P90 BN90LA4	139
97	141	1.2	14.5	2700	C222_14.5 S3 M3SA4	130	C222_14.5 P90 BN90LA4	131
99	137	3.2	14.2	5830	C412_14.2 S3 M3SA4	142	C412_14.2 P90 BN90LA4	143



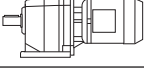



## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
100	136	1.8	14.1	4280	C322_14.1 S3 M3SA4	134	C322_14.1 P90 BN90LA4	135
106	129	2.9	13.3	4890	C362_13.3 S3 M3SA4	138	C362_13.3 P90 BN90LA4	139
114	120	1.3	12.4	2630	C222_12.4 S3 M3SA4	130	C222_12.4 P90 BN90LA4	131
114	119	2.1	12.3	4180	C322_12.3 S3 M3SA4	134	C322_12.3 P90 BN90LA4	135
121	113	3.4	11.7	4740	C362_11.7 S3 M3SA4	138	C362_11.7 P90 BN90LA4	139
126	109	2.1	11.2	4050	C322_11.2 S3 M3SA4	134	C322_11.2 P90 BN90LA4	135
127	107	1.4	11.1	2600	C222_11.1 S3 M3SA4	130	C222_11.1 P90 BN90LA4	131
146	93	1.6	9.6	2530	C222_9.6 S3 M3SA4	130	C222_9.6 P90 BN90LA4	131
152	90	2.4	9.3	3900	C322_9.3 S3 M3SA4	134	C322_9.3 P90 BN90LA4	135
163	84	1.6	8.7	2470	C222_8.7 S3 M3SA4	130	C222_8.7 P90 BN90LA4	131
166	82	2.5	8.5	3790	C322_8.5 S3 M3SA4	134	C322_8.5 P90 BN90LA4	135
177	77	1.8	15.8	2440	C222_15.8 S2 M2SB2	130	C222_15.8 P90 BN90SA2	131
190	72	2.3	5.0	3610	C322_5.0 S3 M3LA6	134	C322_5.0 P100 BN100LA6	135
197	69	2.9	7.2	3640	C322_7.2 S3 M3SA4	134	C322_7.2 P90 BN90LA4	135
199	69	1.9	7.1	2380	C222_7.1 S3 M3SA4	130	C222_7.1 P90 BN90LA4	131
203	67	3.0	4.6	4050	C362_4.6 S3 M3LA6	138	C362_4.6 P100 BN100LA6	139
225	61	2.6	6.3	3450	C322_6.3 S3 M3SA4	134	C322_6.3 P90 BN90LA4	135
226	60	0.9	6.2	600	C122_6.2 S3 M3SA4	126	C122_6.2 P90 BN90LA4	127
232	59	1.8	6.1	2250	C222_6.1 S3 M3SA4	130	C222_6.1 P90 BN90LA4	131
235	58	0.9	11.9	1250	C122_11.9 S2 M2SB2	126	C122_11.9 P90 BN90SA2	127
249	55	2.8	5.7	3320	C322_5.7 S3 M3SA4	134	C322_5.7 P90 BN90LA4	135
252	54	0.9	5.6	720	C122_5.6 S3 M3SA4	126	C122_5.6 P90 BN90LA4	127
252	54	1.9	5.6	2200	C222_5.6 S3 M3SA4	130	C222_5.6 P90 BN90LA4	131
254	54	2.0	3.7	2210	C222_3.7 S3 M3LA6	130	C222_3.7 P100 BN100LA6	131
278	49	1.0	10.1	1340	C122_10.1 S2 M2SB2	126	C122_10.1 P90 BN90SA2	127
285	48	3.2	5.0	3240	C322_5.0 S3 M3SA4	134	C322_5.0 P90 BN90LA4	135
285	48	2.1	3.3	2120	C222_3.7 S3 M3LA6	130	C222_3.7 P100 BN100LA6	131
290	47	1.0	4.9	840	C122_4.9 S3 M3SA4	126	C122_4.9 P90 BN90LA4	127
296	46	2.2	4.8	2140	C222_4.8 S3 M3SA4	130	C222_4.8 P90 BN90LA4	131
318	43	1.1	8.8	1300	C122_8.8 S2 M2SB2	126	C122_8.8 P90 BN90SA2	127
322	42	2.6	8.7	2130	C222_8.7 S2 M2SB2	130	C222_8.7 P90 BN90SA2	131
327	42	1.1	4.3	930	C122_4.3 S3 M3SA4	126	C122_4.3 P90 BN90LA4	127
331	41	2.3	4.3	2100	C222_4.3 S3 M3SA4	130	C222_4.3 P90 BN90LA4	131
340	40	1.1	2.8	1000	C122_2.8 S3 M3LA6	126	C122_2.8 P100 BN100LA6	127
345	39	2.4	2.7	2060	C222_2.7 S3 M3LA6	130	C222_2.7 P100 BN100LA6	131
367	37	1.2	7.6	1270	C122_7.6 S2 M2SB2	126	C122_7.6 P90 BN90SA2	127
380	36	2.5	3.7	2020	C222_3.7 S3 M3SA4	130	C222_3.7 P90 BN90LA4	131
386	35	1.2	3.7	1100	C122_3.7 S3 M3SA4	126	C122_3.7 P90 BN90LA4	127
395	34	3.1	7.1	2030	C222_7.1 S2 M2SB2	130	C222_7.1 P90 BN90SA2	131
424	32	2.6	3.3	2000	C222_3.3 S3 M3SA4	130	C222_3.3 P90 BN90LA4	131
440	31	1.3	3.2	1120	C122_3.2 S3 M3SA4	126	C122_3.2 P90 BN90LA4	127
449	30	1.4	6.2	1180	C122_6.2 S2 M2SB2	126	C122_6.2 P90 BN90SA2	127
460	30	2.9	6.1	1920	C222_6.1 S2 M2SB2	130	C222_6.1 P90 BN90SA2	131
500	27	3.0	5.6	1860	C222_5.6 S2 M2SB2	130	C222_5.6 P90 BN90SA2	131
500	27	1.5	5.6	1140	C122_5.6 S2 M2SB2	126	C122_5.6 P90 BN90SA2	127
510	27	1.4	2.8	1140	C122_2.8 S3 M3SA4	126	C122_2.8 P90 BN90LA4	127
518	26	3.0	2.7	1870	C222_2.7 S3 M3SA4	130	C222_2.7 P90 BN90LA4	131
575	24	1.6	4.9	1110	C122_4.9 S2 M2SB2	126	C122_4.9 P90 BN90SA2	127
587	23	3.5	4.8	1810	C222_4.8 S2 M2SB2	130	C222_4.8 P90 BN90SA2	131
651	21	1.7	4.3	1070	C122_4.3 S2 M2SB2	126	C122_4.3 P90 BN90SA2	127
767	18	1.9	3.7	1030	C122_3.7 S2 M2SB2	126	C122_3.7 P90 BN90SA2	127

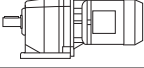







## 1.5 kW





$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
875	16	2.1	3.2	990	C122_3.2 S2 M2SB2	126	C122_3.2 P90 BN90SA2	127
1012	13	2.2	2.8	960	C122_2.8 S2 M2SB2	126	C122_2.8 P90 BN90SA2	127

## 2.2 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
1.6	12315	1.0	908.2	85000	C1004_908.2 S3 M3LA4	163	C1004_908.2 P100 BN100LA4	164
2.0	9767	1.2	720.3	85000	C1004_720.3 S3 M3LA4	163	C1004_720.3 P100 BN100LA4	164
2.4	7900	1.5	582.6	85000	C1004_582.6 S3 M3LA4	163	C1004_582.6 P100 BN100LA4	164
2.6	7244	1.0	534.2	60000	C904_534.2 S3 M3LA4	160	C904_534.2 P100 BN100LA4	161
3.1	6198	1.2	457.1	60000	C904_457.1 S3 M3LA4	160	C904_457.1 P100 BN100LA4	161
3.7	5159	2.3	380.5	85000	C1004_380.5 S3 M3LA4	163	C1004_380.5 P100 BN100LA4	164
3.8	5014	1.4	369.8	60000	C904_369.8 S3 M3LA4	160	C904_369.8 P100 BN100LA4	161
4.8	3972	1.8	292.9	60000	C904_292.9 S3 M3LA4	160	C904_292.9 P100 BN100LA4	161
4.9	3874	1.0	285.7	35000	C804_285.7 S3 M3LA4	157	C804_285.7 P100 BN100LA4	158
5.4	3551	1.1	261.9	35000	C804_261.9 S3 M3LA4	157	C804_261.9 P100 BN100LA4	158
6.1	3142	2.3	231.7	60000	C904_231.7 S3 M3LA4	160	C904_231.7 P100 BN100LA4	161
6.5	2991	1.3	215.8	35000	C803_215.8 S3 M3LA4	157	C803_215.8 P100 BN100LA4	158
7.6	2555	1.6	184.4	35000	C803_184.4 S3 M3LA4	157	C803_184.4 P100 BN100LA4	158
7.9	2483	0.9	179.2	25000	C703_179.2 S3 M3LA4	154	C703_179.2 P100 BN100LA4	155
8.7	2256	1.0	162.8	25000	C703_162.8 S3 M3LA4	154	C703_162.8 P100 BN100LA4	155
10.3	1904	1.2	137.4	25000	C703_137.4 S3 M3LA4	154	C703_137.4 P100 BN100LA4	155
10.3	1894	2.1	136.7	35000	C803_136.7 S3 M3LA4	157	C803_136.7 P100 BN100LA4	158
11.0	1776	0.9	128.1	16000	C613_128.1 S3 M3LA4	150	C613_128.1 P100 BN100LA4	151
12.4	1574	1.0	113.6	16000	C613_113.6 S3 M3LA4	150	C613_113.6 P100 BN100LA4	151
12.5	1558	1.5	112.4	25000	C703_112.4 S3 M3LA4	154	C703_112.4 P100 BN100LA4	155
12.9	1517	2.6	109.5	35000	C803_109.5 S3 M3LA4	157	C803_109.5 P100 BN100LA4	158
13.6	1438	1.6	103.8	25000	C703_103.8 S3 M3LA4	154	C703_103.8 P100 BN100LA4	155
13.6	1436	1.1	103.6	16000	C613_103.6 S3 M3LA4	150	C613_103.6 P100 BN100LA4	151
14.5	1350	3.0	97.4	35000	C803_97.4 S3 M3LA4	157	C803_97.4 P100 BN100LA4	158
15.5	1261	1.3	91.0	16000	C613_91.0 S3 M3LA4	150	C613_91.0 P100 BN100LA4	151
15.8	1237	3.2	89.3	35000	C803_89.3 S3 M3LA4	157	C803_89.3 P100 BN100LA4	158
16.0	1222	1.9	88.2	25000	C703_88.2 S3 M3LA4	154	C703_88.2 P100 BN100LA4	155
17.0	1151	1.4	83.0	16000	C613_83.0 S3 M3LA4	150	C613_83.0 P100 BN100LA4	151
17.3	1128	2.0	81.4	25000	C703_81.4 S3 M3LA4	154	C703_81.4 P100 BN100LA4	155
17.7	1107	0.9	79.9	10000	C513_79.9 S3 M3LA4	146	C513_79.9 P100 BN100LA4	147
19.0	1028	1.6	74.2	16000	C613_74.2 S3 M3LA4	150	C613_74.2 P100 BN100LA4	151
19.3	1011	1.0	72.9	10000	C513_72.9 S3 M3LA4	146	C513_72.9 P100 BN100LA4	147
19.8	989	2.3	71.3	25000	C703_71.3 S3 M3LA4	154	C703_71.3 P100 BN100LA4	155
20.8	938	1.7	67.7	16000	C613_67.7 S3 M3LA4	150	C613_67.7 P100 BN100LA4	151
21.4	913	2.5	65.9	25000	C703_65.9 S3 M3LA4	154	C703_65.9 P100 BN100LA4	155
21.8	895	1.1	64.6	10000	C513_64.6 S3 M3LA4	146	C513_64.6 P100 BN100LA4	147
23.9	817	1.2	59.0	10000	C513_59.0 S3 M3LA4	146	C513_59.0 P100 BN100LA4	147
24.1	812	2.0	58.6	16000	C613_58.6 S3 M3LA4	150	C613_58.6 P100 BN100LA4	151
24.7	807	1.0	57.0	10000	C512_57.0 S3 M3LA4	146	C512_57.0 P100 BN100LA4	147
25.0	783	2.9	56.5	25000	C703_56.5 S3 M3LA4	154	C703_56.5 P100 BN100LA4	155
26.4	741	2.2	53.5	16000	C613_53.5 S3 M3LA4	150	C613_53.5 P100 BN100LA4	151
27.4	728	1.0	51.4	10000	C512_51.4 S3 M3LA4	146	C512_51.4 P100 BN100LA4	147

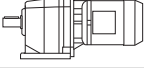






## 2.2 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
27.6	709	1.4	51.2	10000	C513_51.2 S3 M3LA4	146	C513_51.2 P100 BN100LA4	147
29.5	677	1.2	47.8	10000	C512_47.8 S3 M3LA4	146	C512_47.8 P100 BN100LA4	147
29.6	660	2.4	47.6	16000	C613_47.6 S3 M3LA4	150	C613_47.6 P100 BN100LA4	151
30	651	0.9	47.0	6440	C413_47.0 S3 M3LA4	142	C413_47.0 P100 BN100LA4	143
30	647	1.5	46.7	10000	C513_46.7 S3 M3LA4	146	C513_46.7 P100 BN100LA4	147
32	602	2.7	43.4	16000	C613_43.4 S3 M3LA4	150	C613_43.4 P100 BN100LA4	151
33	610	1.3	43.1	10000	C512_43.1 S3 M3LA4	146	C512_43.1 P100 BN100LA4	147
35	561	1.8	40.5	10000	C513_40.5 S3 M3LA4	146	C513_40.5 P100 BN100LA4	147
35	571	1.4	40.4	10000	C512_40.4 S3 M3LA4	146	C512_40.4 P100 BN100LA4	147
35	559	1.1	40.3	6460	C413_40.3 S3 M3LA4	142	C413_40.3 P100 BN100LA4	143
37	538	2.5	38.0	16000	C612_38.0 S3 M3LA4	150	C612_38.0 P100 BN100LA4	151
38	525	1.0	37.1	6370	C412_37.1 S3 M3LA4	142	C412_37.1 P100 BN100LA4	143
38	512	2.0	37.0	10000	C513_37.0 S3 M3LA4	146	C513_37.0 P100 BN100LA4	147
38	510	1.2	36.8	6390	C413_36.8 S3 M3LA4	142	C413_36.8 P100 BN100LA4	143
39	515	1.5	36.4	10000	C512_36.4 S3 M3LA4	146	C512_36.4 P100 BN100LA4	147
39	501	3.1	36.1	16000	C613_36.1 S3 M3LA4	150	C613_36.1 P100 BN100LA4	151
41	484	2.5	34.2	16000	C612_34.2 S3 M3LA4	150	C612_34.2 P100 BN100LA4	151
41	479	0.9	34.6	5350	C363_34.6 S3 M3LA4	138	C363_34.6 P100 BN100LA4	139
42	473	1.1	33.4	6290	C412_33.4 S3 M3LA4	142	C412_33.4 P100 BN100LA4	143
43	468	1.7	33.0	10000	C512_33.0 S3 M3LA4	146	C512_33.0 P100 BN100LA4	147
43	457	3.3	33.0	16000	C613_33.0 S3 M3LA4	150	C613_33.0 P100 BN100LA4	151
45	445	1.1	31.4	6290	C412_31.4 S3 M3LA4	142	C412_31.4 P100 BN100LA4	143
46	431	3.1	30.4	16000	C612_30.4 S3 M3LA4	150	C612_30.4 P100 BN100LA4	151
47	421	1.9	29.8	10000	C512_29.8 S3 M3LA4	146	C512_29.8 P100 BN100LA4	147
49	398	1.1	28.7	5220	C363_28.7 S3 M3LA4	138	C363_28.7 P100 BN100LA4	139
50	401	1.2	28.3	6190	C412_28.3 S3 M3LA4	142	C412_28.3 P100 BN100LA4	143
51	388	3.5	27.4	15900	C612_27.4 S3 M3LA4	150	C612_27.4 P100 BN100LA4	151
54	367	2.2	25.9	10000	C512_25.9 S3 M3LA4	146	C512_25.9 P100 BN100LA4	147
54	363	1.2	26.2	5140	C363_26.2 S3 M3LA4	138	C363_26.2 P100 BN100LA4	139
56	355	0.8	25.1	4270	C322_25.1 S3 M3LA4	134	C322_25.1 P100 BN100LA4	135
56	355	1.4	25.0	6120	C412_25.0 S3 M3LA4	142	C412_25.0 P100 BN100LA4	143
60	331	2.4	23.4	10000	C512_23.4 S3 M3LA4	146	C512_23.4 P100 BN100LA4	147
62	324	0.9	22.9	4240	C322_22.9 S3 M3LA4	134	C322_22.9 P100 BN100LA4	135
63	319	1.6	22.6	6000	C412_22.6 S3 M3LA4	142	C412_22.6 P100 BN100LA4	143
64	307	1.4	22.1	5060	C363_22.1 S3 M3LA4	138	C363_22.1 P100 BN100LA4	139
66	308	0.9	14.1	4170	C322_14.1 S3 M3LC6	134	C322_14.1 P112 BN112M6	135
67	297	2.7	21.0	10000	C512_21.0 S3 M3LA4	146	C512_21.0 P100 BN100LA4	147
70	284	1.0	20.1	4200	C322_20.1 S3 M3LA4	134	C322_20.1 P100 BN100LA4	135
71	280	1.7	19.8	5890	C412_19.8 S3 M3LA4	142	C412_19.8 P100 BN100LA4	143
74	269	1.4	19.0	4920	C362_19.0 S3 M3LA4	138	C362_19.0 P100 BN100LA4	139
75	267	3.0	18.9	10000	C512_18.9 S3 M3LA4	146	C512_18.9 P100 BN100LA4	147
76	269	1.1	12.3	4100	C322_12.3 S3 M3LC6	134	C322_12.3 P112 BN112M6	135
78	257	1.1	18.2	4120	C322_18.2 S3 M3LA4	134	C322_18.2 P100 BN100LA4	135
79	252	1.9	17.8	5760	C412_17.8 S3 M3LA4	142	C412_17.8 P100 BN100LA4	143
82	244	1.6	17.2	4800	C362_17.2 S3 M3LA4	138	C362_17.2 P100 BN100LA4	139
83	245	1.1	11.2	4060	C322_11.2 S3 M3LC6	134	C322_11.2 P112 BN112M6	135
85	235	3.4	16.6	10000	C512_16.6 S3 M3LA4	146	C512_16.6 P100 BN100LA4	147
89	224	2.0	15.8	5650	C412_15.8 S3 M3LA4	142	C412_15.8 P100 BN100LA4	143
90	221	1.2	15.6	4060	C322_15.6 S3 M3LA4	134	C322_15.6 P100 BN100LA4	135
96	209	1.8	14.8	4710	C362_14.8 S3 M3LA4	138	C362_14.8 P100 BN100LA4	139
99	202	2.2	14.2	5510	C412_14.2 S3 M3LA4	142	C412_14.2 P100 BN100LA4	143

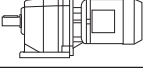





## 2.2 kW

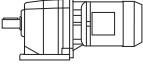



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
100	203	1.3	9.3	3960	C322_9.3 S3 M3LC6	134	C322_9.3 P112 BN112M6	135
100	199	1.3	14.1	3980	C322_14.1 S3 M3LA4	134	C322_14.1 P100 BN100LA4	135
106	189	2.0	13.3	4590	C362_13.3 S3 M3LA4	138	C362_13.3 P100 BN100LA4	139
114	175	2.4	12.4	5360	C412_12.4 S3 M3LA4	142	C412_12.4 P100 BN100LA4	143
114	176	0.9	12.4	2270	C222_12.4 S3 M3LA4	130	C222_12.4 P100 BN100LA4	131
114	174	1.4	12.3	3900	C322_12.3 S3 M3LA4	134	C322_12.3 P100 BN100LA4	135
109	186	1.3	8.5	3890	C322_8.5 S3 M3LC6	134	C322_8.5 P112 BN112M6	135
121	165	2.3	11.7	4490	C362_11.7 S3 M3LA4	138	C362_11.7 P100BN100LA4	139
126	158	2.7	11.2	5220	C412_11.2 S3 M3LA4	142	C412_11.2 P100 BN100LA4	143
126	159	1.5	11.2	3800	C322_11.2 S3 M3LA4	134	C322_11.2 P100 BN100LA4	135
127	157	1.0	11.1	2250	C222_11.1 S3 M3LA4	130	C222_11.1 P100 BN100LA4	131
130	154	1.5	7.2	3810	C322_7.2 S3 M3LC6	134	C322_7.2 P112 BN112M6	135
131	152	1.0	7.1	2260	C222_7.1 S3 M3LC6	130	C222_7.1 P112 BN112M6	131
133	150	2.5	10.6	4320	C362_10.6 S3 M3LA4	138	C362_10.6 P100 BN100LA4	139
146	137	1.1	9.6	2250	C222_9.6 S3 M3LA4	130	C222_9.6 P100 BN100LA4	131
147	136	2.9	9.6	5050	C412_9.6 S3 M3LA4	142	C412_9.6 P100 BN100LA4	143
148	138	1.3	6.3	3510	C322_6.3 S3 M3LC6	134	C322_6.3 P112 BN112M6	135
152	132	1.7	9.3	3690	C322_9.3 S3 M3LA4	134	C322_9.3 P100 BN100LA4	135
160	125	3.1	8.8	4210	C362_8.8 S3 M3LA4	138	C362_8.8 P100 BN100LA4	139
163	123	1.1	8.7	2220	C222_8.7 S3 M3LA4	130	C222_8.7 P100 BN100LA4	131
163	125	1.4	5.7	3450	C322_5.7 S3 M3LC6	134	C322_5.7 P112 BN112M6	135
166	120	1.7	8.5	3600	C322_8.5 S3 M3LA4	134	C322_8.5 P100 BN100LA4	135
188	106	1.5	5.0	3410	C322_5.0 S3 M3LC6	134	C322_5.0 P112 BN112M6	135
197	101	2.0	7.2	3480	C322_7.2 S3 M3LA4	134	C322_7.2 P100 BN100LA4	135
199	100	1.3	7.1	2180	C222_7.1 S3 M3LA4	130	C222_7.1 P100 BN100LA4	131
225	89	1.7	6.3	3250	C322_6.3 S3 M3LA4	134	C322_6.3 P100 BN100LA4	135
232	86	1.2	6.1	2040	C222_6.1 S3 M3LA4	130	C222_6.1 P100 BN100LA4	131
241	83	2.4	5.8	3710	C362_5.8 S3 M3LA4	138	C362_5.8 P100 BN100LA4	139
249	80	1.9	5.7	3180	C322_5.7 S3 M3LA4	134	C322_5.7 P100 BN100LA4	135
252	79	1.3	5.6	2050	C222_5.6 S3 M3LA4	130	C222_5.6 P100 BN100LA4	131
267	75	2.7	5.3	3550	C362_5.3 S3 M3LA4	138	C362_5.3 P100 BN100LA4	139
285	70	2.2	5.0	3100	C322_5.0 S3 M3LA4	134	C322_5.0 P100 BN100LA4	135
296	68	1.5	4.8	1970	C222_4.8 S3 M3LA4	130	C222_4.8 P100 BN100LA4	131
302	66	2.7	9.3	3130	C322_9.3 S3 M3SA2	134	C322_9.3 P90 BN90L2	135
305	65	3.1	4.6	3490	C362_4.6 S3 M3LA4	138	C362_4.6 P100 BN100LA4	139
313	64	2.4	4.5	3000	C322_4.5 S3 M3LA4	134	C322_4.5 P100 BN100LA4	135
328	61	1.8	8.7	2000	C222_8.7 S3 M3SA2	130	C222_8.7 P90 BN90L2	131
331	60	1.6	4.3	1970	C222_4.3 S3 M3LA4	130	C222_4.3 P100 BN100LA4	131
335	60	2.8	8.5	3010	C322_8.5 S3 M3SA2	134	C322_8.5 P90 BN90L2	135
346	58	3.5	2.7	3380	C362_2.7 S3 M3LC6	138	C362_2.7 P112 BN112M6	139
369	54	0.8	7.6	930	C122_7.6 S3 M3SA2	126	C122_7.6 P90 BN90L2	127
377	53	2.8	3.7	2890	C322_3.7 S3 M3LA4	134	C322_3.7 P100 BN100LA4	135
380	52	1.7	3.7	1890	C222_3.7 S3 M3LA4	130	C222_3.7 P100 BN100LA4	131
392	51	3.1	7.2	2920	C322_7.2 S3 M3SA2	134	C322_7.2 P90 BN90L2	135
397	50	2.1	7.1	1920	C222_7.1 S3 M3SA2	130	C222_7.1 P90 BN90L2	131
414	48	2.9	3.4	2800	C322_3.4 S3 M3LA4	134	C322_3.4 P100 BN100LA4	135
424	47	1.8	3.3	1890	C222_3.3 S3 M3LA4	130	C222_3.3 P100 BN100LA4	131
440	45	0.9	3.2	580	C122_3.2 S3 M3LA4	126	C122_3.2 P100 BN100LA4	127
449	44	3.4	6.3	2760	C322_6.3 S3 M3SA2	134	C322_6.3 P90 BN90L2	135
462	43	2.0	6.1	1820	C222_6.1 S3 M3SA2	130	C222_6.1 P90 BN90L2	131
663	30	2.1	5.6	1770	C222_5.6 S3 M3SA2	130	C222_5.6 P90 BN90L2	131



## 2.2 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
490	41	3.2	2.9	2700	C322_2.9 S3 M3LA4	134	C322_2.9 P100 BN100LA4	135
510	39	0.9	2.8	690	C122_2.8 S3 M3LA4	126	C122_2.8 P100 BN100LA4	127
518	39	2.1	2.7	1770	C222_2.7 S3 M3LA4	130	C222_2.7 P100 BN100LA4	131
589	34	2.4	4.8	1720	C222_4.8 S3 M3SA2	130	C222_4.8 P90 BN90L2	131
663	30	2.5	4.3	1670	C222_4.3 S3 M3SA2	130	C222_4.3 P90 BN90L2	131
758	26	2.7	3.7	1620	C222_3.7 S3 M3SA2	130	C222_3.7 P90 BN90L2	131
770	26	1.3	3.7	970	C122_3.7 S3 M3SA2	126	C122_3.7 P90 BN90L2	127
864	23	2.9	3.3	1550	C222_3.3 S3 M3SA2	130	C222_3.3 P90 BN90L2	131
891	22	1.4	3.2	940	C122_3.2 S3 M3SA2	126	C122_3.2 P90 BN90L2	127
1015	20	1.5	2.8	920	C122_2.8 S3 M3SA2	126	C122_2.8 P90 BN90L2	127
1032	19	3.4	2.7	1490	C222_2.7 S3 M3SA2	130	C222_2.7 P90 BN90L2	131

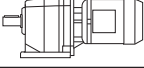



## 3 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
2.0	13319	0.9	720.3	85000	C1004_720.3 S3 M3LB4	163	C1004_720.3 P100 BN100LB4	164
2.4	10773	1.1	582.6	85000	C1004_582.6 S3 M3LB4	163	C1004_582.6 P100 BN100LB4	164
3.4	7747	0.9	419.0	60000	C904_419.0 S3 M3LB4	160	C904_419.0 P100 BN100LB4	161
3.4	7577	1.6	409.8	85000	C1004_409.8 S3 M3LB4	163	C1004_409.8 P100 BN100LB4	164
4.2	6268	1.1	339.0	60000	C904_339.0 S3 M3LB4	160	C904_339.0 P100 BN100LB4	161
4.4	5984	2.0	323.6	85000	C1004_323.6 S3 M3LB4	163	C1004_323.6 P100 BN100LB4	164
5.3	4965	1.5	268.5	60000	C904_268.5 S3 M3LB4	160	C904_268.5 P100 BN100LB4	161
5.4	4863	2.5	263.0	85000	C1004_263.0 S3 M3LB4	163	C1004_263.0 P100 BN100LB4	164
6.5	4079	1.0	215.8	35000	C803_215.8 S3 M3LB4	157	C803_215.8 P100 BN100LB4	158
6.6	3927	1.8	212.4	60000	C904_212.4 S3 M3LB4	160	C904_212.4 P100 BN100LB4	161
7.1	3739	1.0	197.9	35000	C803_197.9 S3 M3LB4	157	C803_197.9 P100 BN100LB4	158
8.2	3252	2.2	172.1	60000	C903_172.1 S3 M3LB4	160	C903_172.1 P100 BN100LB4	161
8.3	3193	1.3	169.0	35000	C803_169.0 S3 M3LB4	157	C803_169.0 P100 BN100LB4	158
9.5	2818	1.4	149.1	35000	C803_149.1 S3 M3LB4	157	C803_149.1 P100 BN100LB4	158
9.6	2765	2.6	146.3	60000	C903_146.3 S3 M3LB4	160	C903_146.3 P100 BN100LB4	161
10.5	2535	2.8	134.1	60000	C903_134.1 S3 M3LB4	160	C903_134.1 P100 BN100LB4	161
12.1	2206	3.3	116.7	60000	C903_116.7 S3 M3LB4	160	C903_116.7 P100 BN100LB4	161
12.5	2125	1.1	112.4	25000	C703_112.4 S3 M3LB4	154	C703_112.4 P100 BN100LB4	155
12.9	2069	1.9	109.5	35000	C803_109.5 S3 M3LB4	157	C803_109.5 P100 BN100LB4	158
13.6	1961	1.2	103.8	25000	C703_103.8 S3 M3LB4	154	C703_103.8 P100 BN100LB4	155
14.5	1840	2.2	97.4	35000	C803_97.4 S3 M3LB4	157	C803_97.4 P100 BN100LB4	158
15.5	1720	0.9	91.0	16000	C613_91.0 S3 M3LB4	150	C613_91.0 P100 BN100LB4	151
15.8	1687	2.4	89.3	35000	C803_89.3 S3 M3LB4	157	C803_89.3 P100 BN100LB4	158
16.0	1667	1.4	88.2	25000	C703_88.2 S3 M3LB4	154	C703_88.2 P100 BN100LB4	155
17.0	1569	1.0	83.0	16000	C613_83.0 S3 M3LB4	150	C613_83.0 P100 BN100LB4	151
17.3	1538	1.5	81.4	25000	C703_81.4 S3 M3LB4	154	C703_81.4 P100 BN100LB4	155
18.3	1453	2.8	76.9	35000	C803_76.9 S3 M3LB4	157	C803_76.9 P100 BN100LB4	158
19.0	1402	1.1	74.2	16000	C613_74.2 S3 M3LB4	150	C613_74.2 P100 BN100LB4	151
19.8	1348	1.7	71.3	25000	C703_71.3 S3 M3LB4	154	C703_71.3 P100 BN100LB4	155
20.0	1332	3.0	70.5	35000	C803_70.5 S3 M3LB4	157	C803_70.5 P100 BN100LB4	158
20.8	1279	1.3	67.7	16000	C613_67.7 S3 M3LB4	150	C613_67.7 P100 BN100LB4	151
24.1	1107	1.4	58.6	16000	C613_58.6 S3 M3LB4	150	C613_58.6 P100 BN100LB4	151
25.0	1068	2.2	56.5	25000	C703_56.5 S3 M3LB4	154	C703_56.5 P100 BN100LB4	155



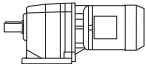





## 3 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
26.4	1010	1.6	53.5	16000	C613_53.5 S3 M3LB4	150	C613_53.5 P100 BN100LB4	151
27.6	967	1.0	51.2	10000	C513_51.2 S3 M3LB4	146	C513_51.2 P100 BN100LB4	147
29.6	900	1.8	47.6	16000	C613_47.6 S3 M3LB4	150	C613_47.6 P100 BN100LB4	151
30	883	1.1	46.7	10000	C513_46.7 S3 M3LB4	146	C513_46.7 P100 BN100LB4	147
32	845	2.7	44.7	25000	C703_44.7 S3 M3LB4	154	C703_44.7 P100 BN100LB4	155
32	821	1.9	43.4	16000	C613_43.4 S3 M3LB4	150	C613_43.4 P100 BN100LB4	151
33	832	0.9	43.1	10000	C512_43.1 S3 M3LB4	146	C512_43.1 P100 BN100LB4	147
34	780	2.9	41.3	25000	C703_41.3 S3 M3LB4	154	C703_41.3 P100 BN100LB4	155
35	765	1.3	40.5	10000	C513_40.5 S3 M3LB4	146	C513_40.5 P100 BN100LB4	147
35	779	1.0	40.4	10000	C512_40.4 S3 M3LB4	146	C512_40.4 P100 BN100LB4	147
37	734	1.8	38.0	16000	C612_38.0 S3 M3LB4	150	C612_38.0 P100 BN100LB4	151
38	698	1.4	37.0	10000	C513_37.0 S3 M3LB4	146	C513_37.0 P100 BN100LB4	147
39	702	1.1	36.4	10000	C512_36.4 S3 M3LB4	146	C512_36.4 P100 BN100LB4	147
39	683	2.3	36.1	16000	C613_36.1 S3 M3LB4	150	C613_36.1 P100 BN100LB4	151
41	661	1.9	34.2	16000	C612_34.2 S3 M3LB4	150	C612_34.2 P100 BN100LB4	151
43	638	1.2	33.0	10000	C512_33.0 S3 M3LB4	146	C512_33.0 P100 BN100LB4	147
43	623	2.4	33.0	16000	C613_33.0 S3 M3LB4	150	C613_33.0 P100 BN100LB4	151
45	590	1.0	31.2	5550	C413_31.2 S3 M3LB4	142	C413_31.2 P100 BN100LB4	143
46	588	2.3	30.4	15900	C612_30.4 S3 M3LB4	150	C612_30.4 P100 BN100LB4	151
47	575	1.4	29.8	10000	C512_29.8 S3 M3LB4	146	C512_29.8 P100 BN100LB4	147
50	546	0.9	28.3	5460	C412_28.3 S3 M3LB4	142	C412_28.3 P100 BN100LB4	143
51	519	1.9	27.4	10000	C513_27.4 S3 M3LB4	146	C513_27.4 P100 BN100LB4	147
51	529	2.6	27.4	15400	C612_27.4 S3 M3LB4	150	C612_27.4 P100 BN100LB4	151
54	500	1.6	25.9	10000	C512_25.9 S3 M3LB4	146	C512_25.9 P100 BN100LB4	147
54	487	0.9	26.2	4500	C363_26.2 S3 M3LB4	138	C363_26.2 P100 BN100LB4	139
56	483	1.0	25.0	5480	C412_25.0 S3 M3LB4	142	C412_25.0 P100 BN100LB4	143
57	479	2.8	24.8	15100	C612_24.8 S3 M3LB4	150	C612_24.8 P100 BN100LB4	151
59	451	2.0	23.9	10000	C513_23.9 S3 M3LB4	146	C513_23.9 P100 BN100LB4	147
60	451	1.8	23.4	10000	C512_23.4 S3 M3LB4	146	C512_23.4 P100 BN100LB4	147
63	435	1.1	22.6	5420	C412_22.6 S3 M3LB4	142	C412_22.6 P100 BN100LB4	143
63	431	3.1	22.4	14600	C612_22.4 S3 M3LB4	150	C612_22.4 P100 BN100LB4	151
64	412	1.0	22.1	4530	C363_22.1 S3 M3LB4	138	C363_22.1 P100 BN100LB4	139
65	412	2.2	21.8	10000	C513_21.8 S3 M3LB4	146	C513_21.8 P100 BN100LB4	147
67	405	2.0	21.0	10000	C512_21.0 S3 M3LB4	146	C512_21.0 P100 BN100LB4	147
71	381	1.3	19.8	5390	C412_19.8 S3 M3LB4	142	C412_19.8 P100 BN100LB4	143
74	361	1.1	19.0	4450	C362_19.0 S3 M3LB4	138	C362_19.0 P100 BN100LB4	139
75	365	2.2	18.9	10000	C512_18.9 S3 M3LB4	146	C512_18.9 P100 BN100LB4	147
79	343	1.4	17.8	5300	C412_17.8 S3 M3LB4	142	C412_17.8 P100 BN100LB4	143
82	327	1.2	17.2	4400	C362_17.2 S3 M3LB4	138	C362_17.2 P100 BN100LB4	139
85	320	2.5	16.6	9790	C512_16.6 S3 M3LB4	146	C512_16.6 P100 BN100LB4	147
89	305	1.5	15.8	5240	C412_15.8 S3 M3LB4	142	C412_15.8 P100 BN100LB4	143
90	296	0.9	15.6	3680	C322_15.6 S3 M3LB4	134	C322_15.6 P100 BN100LB4	135
94	289	2.8	15.0	9540	C512_15.0 S3 M3LB4	146	C512_15.0 P100 BN100LB4	147
96	280	1.4	14.8	4340	C362_14.8 S3 M3LB4	138	C362_14.8 P100 BN100LB4	139
99	275	1.6	14.2	5140	C412_14.2 S3 M3LB4	142	C412_14.2 P100 BN100LB4	143
100	267	0.9	14.1	3650	C322_14.1 S3 M3LB4	134	C322_14.1 P100 BN100LB4	135
106	253	1.5	13.3	4260	C362_13.3 S3 M3LB4	138	C362_13.3 P100 BN100LB4	139
107	253	3.0	13.1	9200	C512_13.1 S3 M3LB4	146	C512_13.1 P100 BN100LB4	147
114	239	1.8	12.4	5040	C412_12.4 S3 M3LB4	142	C412_12.4 P100 BN100LB4	143
114	234	1.0	12.3	3580	C322_12.3 S3 M3LB4	134	C322_12.3 P100 BN100LB4	135
119	228	3.4	11.8	8950	C512_11.8 S3 M3LB4	146	C512_11.8 P100 BN100LB4	147

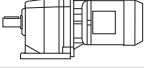





### 3 kW

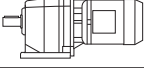



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
121	222	1.7	11.7	4200	C362_11.7 S3 M3LB4	138	C362_11.7 P100 BN100LB4	139
126	215	1.9	11.2	4930	C412_11.2 S3 M3LB4	142	C412_11.2 P100 BN100LB4	143
126	213	1.1	11.2	3520	C322_11.2 S3 M3LB4	134	C322_11.2 P100 BN100LB4	135
133	201	1.9	10.6	4100	C362_10.6 S3 M3LB4	138	C362_10.6 P100 BN100LB4	139
142	191	1.2	20.1	3480	C322_20.1 S3 M3LA2	134	C322_20.1 P100 BN100L2	135
147	185	2.1	9.6	4800	C412_9.6 S3 M3LB4	142	C412_9.6 P100 BN100LB4	143
152	177	1.2	9.3	3450	C322_9.3 S3 M3LB4	134	C322_9.3 P100 BN100LB4	135
157	173	1.3	18.2	3410	C322_18.2 S3 M3LA2	134	C322_18.2 P100 BN100L2	135
160	167	2.3	8.8	3990	C362_8.8 S3 M3LB4	138	C362_8.8 P100 BN100LB4	139
166	161	1.3	8.5	3400	C322_8.5 S3 M3LB4	134	C322_8.5 P100 BN100LB4	135
176	153	2.4	8.0	3840	C362_8.0 S3 M3LB4	138	C362_8.0 P100 BN100LB4	139
181	151	0.9	15.8	1940	C222_15.8 S3 M3LA2	130	C222_15.8 P100 BN100L2	131
183	148	1.4	15.6	3340	C322_15.6 S3 M3LA2	134	C322_15.6 P100 BN100L2	135
197	136	1.5	7.2	3300	C322_7.2 S3 M3LB4	134	C322_7.2 P100 BN100LB4	135
199	135	1.0	7.1	1940	C222_7.1 S3 M3LB4	130	C222_7.1 P100 BN100LB4	131
200	136	2.6	7.1	4490	C412_7.1 S3 M3LB4	142	C412_7.1 P100 BN100LB4	143
203	134	1.5	14.1	3250	C322_14.1 S3 M3LA2	134	C322_14.1 P100 BN100L2	135
208	129	2.8	6.8	3780	C362_6.8 S3 M3LB4	138	C362_6.8 P100 BN100LB4	139
222	123	2.8	6.4	4370	C412_6.4 S3 M3LB4	142	C412_6.4 P100 BN100LB4	143
225	119	1.3	6.3	3100	C322_6.3 S3 M3LB4	134	C322_6.3 P100 BN100LB4	135
232	117	1.7	12.3	3190	C322_12.3 S3 M3LA2	134	C322_12.3 P100 BN100L2	135
232	116	0.9	6.1	1600	C222_6.1 S3 M3LB4	130	C222_6.1 P100 BN100LB4	131
237	115	2.3	6.0	4090	C412_6.0 S3 M3LB4	142	C412_6.0 P100 BN100LB4	143
241	111	1.8	5.8	3530	C362_5.8 S3 M3LB4	138	C362_5.8 P100 BN100LB4	139
249	107	1.4	5.7	3040	C322_5.7 S3 M3LB4	134	C322_5.7 P100 BN100LB4	135
252	106	1.0	5.6	1750	C222_5.6 S3 M3LB4	130	C222_5.6 P100 BN100LB4	131
258	105	1.1	11.1	1850	C222_11.1 S3 M3LA2	130	C222_11.1 P100 BN100L2	131
255	106	1.8	11.2	3090	C322_11.2 S3 M3LA2	134	C322_11.2 P100 BN100L2	135
267	100	2.0	5.3	3380	C362_5.3 S3 M3LB4	138	C362_5.3 P100 BN100LB4	139
285	94	1.6	5.0	2950	C322_5.0 S3 M3LB4	134	C322_5.0 P100 BN100LB4	135
296	91	1.1	4.8	1780	C222_4.8 S3 M3LB4	130	C222_4.8 P100 BN100LB4	131
298	91	1.3	9.6	1880	C222_9.6 S3 M3LA2	130	C222_9.6 P100 BN100L2	131
302	90	2.9	4.7	3880	C412_4.7 S3 M3LB4	142	C412_4.7 P100 BN100LB4	143
305	88	2.3	4.6	3270	C362_4.6 S3 M3LB4	138	C362_4.6 P100 BN100LB4	139
308	88	2.0	9.3	2990	C322_9.3 S3 M3LA2	134	C322_9.3 P100 BN100L2	135
313	85	1.8	4.5	2880	C322_4.5 S3 M3LB4	134	C322_4.5 P100 BN100LB4	135
329	83	1.3	8.7	1840	C222_8.7 S3 M3LA2	130	C222_8.7 P100 BN100L2	131
331	81	1.2	4.3	1800	C222_4.3 S3 M3LB4	130	C222_4.3 P100 BN100LB4	131
336	80	2.5	4.2	3190	C362_4.2 S3 M3LB4	138	C362_4.2 P100 BN100LB4	139
336	81	2.1	8.5	2900	C322_8.5 S3 M3LA2	134	C322_8.5 P100 BN100L2	135
377	71	2.1	3.7	2780	C322_3.7 S3 M3LB4	134	C322_3.7 P100 BN100LB4	135
380	70	1.3	3.7	1740	C222_3.7 S3 M3LB4	130	C222_3.7 P100 BN100LB4	131
399	68	2.3	7.2	2810	C322_7.2 S3 M3LA2	134	C322_7.2 P100 BN100L2	135
404	66	3.0	3.5	3130	C362_3.5 S3 M3LB4	138	C362_3.5 P100 BN100LB4	139
404	67	1.6	7.1	1800	C222_7.1 S3 M3LA2	130	C222_7.1 P100 BN100L2	131
414	65	2.1	3.4	2690	C322_3.4 S3 M3LB4	134	C322_3.4 P100 BN100LB4	135
424	63	1.3	3.3	1740	C222_3.3 S3 M3LB4	130	C222_3.3 P100 BN100LB4	131
457	60	2.5	6.3	2650	C322_6.3 S3 M3LA2	134	C322_6.3 P100 BN100L2	135
470	58	1.5	6.1	1690	C222_6.1 S3 M3LA2	130	C222_6.1 P100 BN100L2	131
490	55	2.4	2.9	2610	C322_2.9 S3 M3LB4	134	C322_2.9 P100 BN100LB4	135
502	54	2.6	5.7	2570	C322_5.7 S3 M3LA2	134	C322_5.7 P100 BN100L2	135



### 3 kW





$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
511	53	1.5	5.6	1650	C222_5.6 S3 M3LA2	130	C222_5.6 P100 BN100L2	131
518	52	1.5	2.7	1660	C222_2.7 S3 M3LB4	130	C222_2.7 P100 BN100LB4	131
578	47	2.9	5.0	2500	C322_5.0 S3 M3LA2	134	C322_5.0 P100 BN100L2	135
636	54	2.4	4.5	2400	C322_4.5 S3 M3LA2	134	C322_4.5 P100 BN100L2	135
600	45	1.8	4.8	1620	C222_4.8 S3 M3LA2	130	C222_4.8 P100 BN100L2	131
665	41	1.8	4.3	1580	C222_4.3 S3 M3LA2	130	C222_4.3 P100 BN100L2	131
766	36	3.4	3.7	2320	C322_3.7 S3 M3LA2	134	C322_3.7 P100 BN100L2	135
771	35	2.0	3.7	1540	C222_3.7 S3 M3LA2	130	C222_3.7 P100 BN100L2	131
783	35	1.0	3.7	560	C122_3.7 S3 M3LA2	126	C122_3.7 P100 BN100L2	127
867	83	2.2	3.3	1480	C222_3.3 S3 M3LA2	130	C222_3.3 P100 BN100L2	131
894	30	1.1	3.2	630	C122_3.2 S3 M3LA2	126	C122_3.2 P100 BN100L2	127
1033	26	1.1	2.8	750	C122_2.8 S3 M3LA2	126	C122_2.8 P100 BN100L2	127
1051	26	2.5	2.7	1430	C222_2.7 S3 M3LA2	130	C222_2.7 P100 BN100L2	131

### 4 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
2.8	12569	1.0	502.6	85000	C1004_502.6 S3 M3LC4	163	C1004_502.6 P112 BN112M4	164
3.4	10249	1.2	409.8	85000	C1004_409.8 S3 M3LC4	163	C1004_409.8 P112 BN112M4	164
4.3	8093	1.5	323.6	85000	C1004_323.6 S3 M3LC4	163	C1004_323.6 P112 BN112M4	164
4.7	7325	1.0	292.9	60000	C904_292.9 S3 M3LC4	160	C904_292.9 P112 BN112M4	161
5.2	6715	1.1	268.5	60000	C904_268.5 S3 M3LC4	160	C904_268.5 P112 BN112M4	161
5.7	6107	2.0	244.2	85000	C1004_244.2 S3 M3LC4	163	C1004_244.2 P112 BN112M4	164
6.0	5795	1.2	231.7	60000	C904_231.7 S3 M3LC4	160	C904_231.7 P112 BN112M4	161
7.5	4637	2.6	185.4	85000	C1004_185.4 S3 M3LC4	163	C1004_185.4 P112 BN112M4	164
8.1	4399	1.6	172.1	60000	C903_172.1 S3 M3LC4	160	C903_172.1 P112 BN112M4	161
8.2	4319	0.9	169.0	35000	C803_169.0 S3 M3LC4	157	C803_169.0 P112 BN112M4	158
10.2	3493	1.1	136.7	35000	C803_136.7 S3 M3LC4	157	C803_136.7 P112 BN112M4	158
10.4	3428	2.1	134.1	60000	C903_134.1 S3 M3LC4	160	C903_134.1 P112 BN112M4	161
11.9	2983	2.4	116.7	60000	C903_116.7 S3 M3LC4	160	C903_116.7 P112 BN112M4	161
12.7	2799	1.4	109.5	35000	C803_109.5 S3 M3LC4	157	C803_109.5 P112 BN112M4	158
14.3	2489	1.6	97.4	35000	C803_97.4 S3 M3LC4	157	C803_97.4 P112 BN112M4	158
14.4	2460	2.9	96.2	60000	C903_96.2 S3 M3LC4	160	C903_96.2 P112 BN112M4	161
15.6	2282	1.8	89.3	35000	C803_89.3 S3 M3LC4	157	C803_89.3 P112 BN112M4	158
15.8	2254	1.0	88.2	25000	C703_88.2 S3 M3LC4	154	C703_88.2 P112 BN112M4	155
17.1	2081	1.1	81.4	25000	C703_81.4 S3 M3LC4	154	C703_81.4 P112 BN112M4	155
19.5	1823	1.3	71.3	25000	C703_71.3 S3 M3LC4	154	C703_71.3 P112 BN112M4	155
19.7	1802	2.2	70.5	35000	C803_70.5 S3 M3LC4	157	C803_70.5 P112 BN112M4	158
20.5	1730	0.9	67.7	16000	C613_67.7 S3 M3LC4	150	C613_67.7 P112 BN112M4	151
23.7	1498	1.1	58.6	16000	C613_58.6 S3 M3LC4	150	C613_58.6 P112 BN112M4	151
24.3	1464	2.7	57.3	35000	C803_57.3 S3 M3LC4	157	C803_57.3 P112 BN112M4	158
24.6	1444	1.6	56.5	25000	C703_56.5 S3 M3LC4	154	C703_56.5 P112 BN112M4	155
26.0	1366	1.2	53.5	16000	C613_53.5 S3 M3LC4	150	C613_53.5 P112 BN112M4	151
26.6	1333	1.7	52.2	25000	C703_52.2 S3 M3LC4	154	C703_52.2 P112 BN112M4	155
29.2	1217	1.3	47.6	16000	C613_47.6 S3 M3LC4	150	C613_47.6 P112 BN112M4	151
29.3	1213	3.1	47.4	35000	C803_47.4 S3 M3LC4	157	C803_47.4 P112 BN112M4	158
31	1142	2.0	44.7	25000	C703_44.7 S3 M3LC4	154	C703_44.7 P112 BN112M4	155
32	1112	3.4	43.5	35000	C803_43.5 S3 M3LC4	157	C803_43.5 P112 BN112M4	158



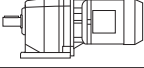



## 4 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
32	1110	1.4	43.4	16000	C613_43.4 S3 M3LC4	150	C613_43.4 P112 BN112M4	151
34	1055	2.2	41.3	25000	C703_41.3 S3 M3LC4	154	C703_41.3 P112 BN112M4	155
34	1035	1.0	40.5	10000	C513_40.5 S3 M3LC4	146	C513_40.5 P112 BN112M4	147
37	992	1.4	38.0	16000	C612_38.0 S3 M3LC4	150	C612_38.0 P112 BN112M4	151
38	945	1.1	37.0	10000	C513_37.0 S3 M3LC4	146	C513_37.0 P112 BN112M4	147
40	907	2.3	34.7	23400	C702_34.7 S3 M3LC4	154	C702_34.7 P112 BN112M4	155
41	893	1.4	34.2	15700	C612_34.2 S3 M3LC4	150	C612_34.2 P112 BN112M4	151
42	862	0.9	33.0	10000	C512_33.0 S3 M3LC4	146	C512_33.0 P112 BN112M4	147
46	795	1.7	30.4	15300	C612_30.4 S3 M3LC4	150	C612_30.4 P112 BN112M4	151
47	777	1.0	29.8	10000	C512_29.8 S3 M3LC4	146	C512_29.8 P112 BN112M4	147
50	724	2.9	27.7	22300	C702_27.7 S3 M3LC4	154	C702_27.7 P112 BN112M4	155
51	716	1.9	27.4	14900	C612_27.4 S3 M3LC4	150	C612_27.4 P112 BN112M4	151
54	676	1.2	25.9	10000	C512_25.9 S3 M3LC4	146	C512_25.9 P112 BN112M4	147
56	648	2.1	24.8	14600	C612_24.8 S3 M3LC4	150	C612_24.8 P112 BN112M4	151
60	610	1.3	23.4	10000	C512_23.4 S3 M3LC4	146	C512_23.4 P112 BN112M4	147
62	584	2.3	22.4	14200	C612_22.4 S3 M3LC4	150	C612_22.4 P112 BN112M4	151
66	547	1.5	21.0	9920	C512_21.0 S3 M3LC4	146	C512_21.0 P112 BN112M4	147
70	516	0.9	19.8	4760	C412_19.8 S3 M3LC4	142	C412_19.8 P112 BN112M4	143
71	512	2.6	19.6	13800	C612_19.6 S3 M3LC4	150	C612_19.6 P112 BN112M4	151
74	493	1.6	18.9	9730	C512_18.9 S3 M3LC4	146	C512_18.9 P112 BN112M4	147
78	465	1.0	17.8	4720	C412_17.8 S3 M3LC4	142	C412_17.8 P112 BN112M4	143
79	461	2.9	17.7	13400	C612_17.7 S3 M3LC4	150	C612_17.7 P112 BN112M4	151
84	433	1.8	16.6	9440	C512_16.6 S3 M3LC4	146	C512_16.6 P112 BN112M4	147
87	416	3.2	15.9	13100	C612_15.9 S3 M3LC4	150	C612_15.9 P112 BN112M4	151
88	413	1.1	15.8	4740	C412_15.8 S3 M3LC4	142	C412_15.8 P112 BN112M4	143
93	391	2.0	15.0	9230	C512_15.0 S3 M3LC4	146	C512_15.0 P112 BN112M4	147
95	378	1.0	14.8	3880	C362_14.8 S3 M3LC4	138	C362_14.8 P112 BN112M4	139
98	372	1.2	14.2	4690	C412_14.2 S3 M3LC4	142	C412_14.2 P112 BN112M4	143
105	342	1.1	13.3	3840	C362_13.3 S3 M3LC4	138	C362_13.3 P112 BN112M4	139
106	343	2.2	13.1	8930	C512_13.1 S3 M3LC4	146	C512_13.1 P112 BN112M4	147
112	324	1.3	12.4	4660	C412_12.4 S3 M3LC4	142	C412_12.4 P112 BN112M4	143
117	309	2.5	11.8	8720	C512_11.8 S3 M3LC4	146	C512_11.8 P112 BN112M4	147
120	299	1.3	11.7	3840	C362_11.7 S3 M3LC4	138	C362_11.7 P112 BN112M4	139
125	291	1.4	11.2	4580	C412_11.2 S3 M3LC4	142	C412_11.2 P112 BN112M4	143
132	272	1.4	10.6	3780	C362_10.6 S3 M3LC4	138	C362_10.6 P112 BN112M4	139
143	255	2.7	9.8	8290	C512_9.8 S3 M3LC4	146	C512_9.8 P112 BN112M4	147
145	251	1.6	9.6	4510	C412_9.6 S3 M3LC4	142	C412_9.6 P112 BN112M4	143
151	238	0.9	9.3	3150	C322_9.3 S3 M3LC4	134	C322_9.3 P112 BN112M4	135
158	229	3.0	8.8	8070	C512_8.8 S3 M3LC4	146	C512_8.8 P112 BN112M4	147
159	226	1.7	8.8	3720	C362_8.8 S3 M3LC4	138	C362_8.8 P112 BN112M4	139
161	226	1.7	8.6	4420	C412_8.6 S3 M3LC4	142	C412_8.6 P112 BN112M4	143
165	218	1.0	8.5	3110	C322_8.5 S3 M3LC4	134	C322_8.5 P112 BN112M4	135
174	206	1.8	8.0	3650	C362_8.0 S3 M3LC4	138	C362_8.0 P112 BN112M4	139
179	202	3.2	7.8	7800	C512_7.8 S3 M3LC4	146	C512_7.8 P112 BN112M4	147
184	197	1.1	15.6	3090	C322_15.6 S3 M3LB2	134	C322_15.6 P112 BN112M2	135
195	184	1.1	7.2	3070	C322_7.2 S3 M3LC4	134	C322_7.2 P112 BN112M4	135
197	184	1.9	7.1	4280	C412_7.1 S3 M3LC4	142	C412_7.1 P112 BN112M4	143
199	182	3.5	7.0	7580	C512_7.0 S3 M3LC4	146	C512_7.0 P112 BN112M4	147
204	178	1.2	14.1	3040	C322_14.1 S3 M3LB2	134	C322_14.1 P112 BN112M2	135
206	174	2.0	6.8	3580	C362_6.8 S3 M3LC4	138	C362_6.8 P112 BN112M4	139
218	166	2.1	6.4	4180	C412_6.4 S3 M3LC4	142	C412_6.4 P112 BN112M4	143

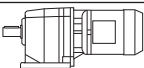







## 4 kW

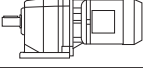



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
223	161	1.0	6.3	2840	C322_6.3 S3 M3LC4	134	C322_6.3 P112 BN112M4	135
233	156	1.3	12.3	2990	C322_12.3 S3 M3LB2	134	C322_12.3 P112 BN112M2	135
234	155	1.7	6.0	3840	C412_6.0 S3 M3LC4	142	C412_6.0 P112 BN112M4	143
239	150	1.3	5.8	3310	C362_5.8 S3 M3LC4	138	C362_5.8 P112 BN112M4	139
248	145	1.1	5.7	2780	C322_5.7 S3 M3LC4	134	C322_5.7 P112 BN112M4	135
256	142	1.3	11.2	2900	C322_11.2 S3 M3LB2	134	C322_11.2 P112 BN112M2	135
265	135	1.5	5.3	3200	C362_5.3 S3 M3LC4	138	C362_5.3 P112 BN112M4	139
283	127	1.2	5.0	2760	C322_5.0 S3 M3LC4	134	C322_5.0 P112 BN112M4	135
298	122	0.9	9.6	1680	C222_9.6 S3 M3LB2	130	C222_9.6 P112 BN112M2	131
303	119	1.7	4.6	3180	C362_4.6 S3 M3LC4	138	C362_4.6 P112 BN112M4	139
309	118	1.5	9.3	2840	C322_9.3 S3 M3LB2	134	C322_9.3 P112 BN112M2	135
311	115	1.3	4.5	2690	C322_4.5 S3 M3LC4	134	C322_4.5 P112 BN112M4	135
330	110	1.0	8.7	1660	C222_8.7 S3 M3LB2	130	C222_8.7 P112 BN112M2	131
333	108	1.9	4.2	3060	C362_4.2 S3 M3LC4	138	C362_4.2 P112 BN112M4	139
336	109	0.9	4.3	1300	C222_4.3 S3 M3LC4	130	C222_4.3 P112 BN112M4	131
338	107	1.6	8.5	2750	C322_8.5 S3 M3LB2	134	C322_8.5 P112 BN112M2	135
375	96	1.6	3.7	2640	C322_3.7 S3 M3LC4	134	C322_3.7 P112 BN112M4	135
378	95	0.9	3.7	1560	C222_3.7 S3 M3LC4	130	C222_3.7 P112 BN112M4	131
401	91	1.8	7.2	2690	C322_7.2 S3 M3LB2	134	C322_7.2 P112 BN112M2	135
402	89	2.2	3.5	3010	C362_3.5 S3 M3LC4	138	C362_3.5 P112 BN112M4	139
405	90	1.2	7.1	1650	C222_7.1 S3 M3LB2	130	C222_7.1 P112 BN112M2	131
411	87	1.6	3.4	2580	C322_3.4 S3 M3LC4	134	C322_3.4 P112 BN112M4	135
421	85	1.0	3.3	1540	C222_3.3 S3 M3LC4	130	C222_3.3 P112 BN112M4	131
440	82	2.5	3.2	2890	C362_3.2 S3 M3LC4	138	C362_3.2 P112 BN112M4	139
458	79	1.9	6.3	2530	C322_6.3 S3 M3LB2	134	C322_6.3 P112 BN112M2	135
471	77	1.1	6.1	1540	C222_6.1 S3 M3LB2	130	C222_6.1 P112 BN112M2	131
486	74	1.8	2.9	2500	C322_2.9 S3 M3LC4	134	C322_2.9 P112 BN112M4	135
513	54	1.5	5.6	1520	C222_5.6 S3 M3LB2	130	C222_5.6 P112 BN112M2	131
514	70	1.1	2.7	1530	C222_2.7 S3 M3LC4	130	C222_2.7 P112 BN112M4	131
521	69	2.9	2.7	2840	C362_2.7 S3 M3LC4	138	C362_2.7 P112 BN112M4	139
580	63	2.2	5.0	2410	C322_5.0 S3 M3LB2	134	C322_5.0 P112 BN112M2	135
602	60	1.3	4.8	1500	C222_4.8 S3 M3LB2	130	C222_4.8 P112 BN112M2	131
638	56	2.3	4.5	2330	C322_4.5 S3 M3LB2	134	C322_4.5 P112 BN112M2	135
667	54	1.4	4.3	1470	C222_4.3 S3 M3LB2	130	C222_4.3 P112 BN112M2	131
768	47	2.5	3.7	2250	C322_3.7 S3 M3LB2	134	C322_3.7 P112 BN112M2	135
774	47	1.5	3.7	1450	C222_3.7 S3 M3LB2	130	C222_3.7 P112 BN112M2	131
844	43	2.7	3.4	2170	C322_3.4 S3 M3LB2	134	C322_3.4 P112 BN112M2	135
870	42	1.6	3.3	1410	C222_3.3 S3 M3LB2	130	C222_3.3 P112 BN112M2	131
997	36	2.9	2.9	2100	C322_2.9 S3 M3LB2	134	C322_2.9 P112 BN112M2	135
1054	34	1.9	2.7	1370	C222_2.7 S3 M3LB2	130	C222_2.7 P112 BN112M2	131

## 5.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
3.8	12630	1.0	380.5	85000	C1004_380.5 S4 M4SA4	163	C1004_380.5 P132 BN132S4	164
4.4	10741	1.1	323.6	85000	C1004_323.6 S4 M4SA4	163	C1004_323.6 P132 BN132S4	164
4.8	9974	1.2	300.5	85000	C1004_300.5 S4 M4SA4	163	C1004_300.5 P132 BN132S4	164
5.5	8730	1.4	263.0	85000	C1004_263.0 S4 M4SA4	163	C1004_263.0 P132 BN132S4	164

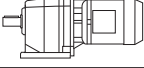





## 5.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
5.9	8106	1.5	244.2	85000	C1004_244.2 S4 M4SA4	163	C1004_244.2 P132 BN132S4	164
6.2	7691	0.9	231.7	60000	C904_231.7 S4 M4SA4	160	C904_231.7 P132 BN132S4	161
6.8	7050	1.0	212.4	60000	C904_212.4 S4 M4SA4	160	C904_212.4 P132 BN132S4	161
7.2	6625	1.8	199.6	85000	C1004_199.6 S4 M4SA4	163	C1004_199.6 P132 BN132S4	164
8.4	5838	1.2	172.1	60000	C903_172.1 S4 M4SA4	160	C903_172.1 P132 BN132S4	161
9.6	5103	2.4	150.4	85000	C1003_150.4 S4 M4SA4	163	C1003_150.4 P132 BN132S4	164
9.8	4964	1.5	146.3	60000	C903_146.3 S4 M4SA4	160	C903_146.3 P132 BN132S4	161
12.1	4052	1.0	119.5	35000	C803_119.5 S4 M4SA4	157	C803_119.5 P132 BN132S4	158
12.3	3960	1.8	116.7	60000	C903_116.7 S4 M4SA4	160	C903_116.7 P132 BN132S4	161
14.8	3304	1.2	97.4	35000	C803_97.4 S4 M4SA4	157	C803_97.4 P132 BN132S4	158
15.0	3265	2.2	96.2	60000	C903_96.2 S4 M4SA4	160	C903_96.2 P132 BN132S4	161
17.7	2755	2.6	81.2	59100	C903_81.2 S4 M4SA4	160	C903_81.2 P132 BN132S4	161
18.7	2609	1.5	76.9	35000	C803_76.9 S4 M4SA4	157	C803_76.9 P132 BN132S4	158
20.2	2420	1.0	71.3	25000	C703_71.3 S4 M4SA4	154	C703_71.3 P132 BN132S4	155
20.4	2392	1.7	70.5	35000	C803_70.5 S4 M4SA4	157	C803_70.5 P132 BN132S4	158
21.9	2234	1.0	65.9	25000	C703_65.9 S4 M4SA4	154	C703_65.9 P132 BN132S4	155
25.1	1944	2.1	57.3	35000	C803_57.3 S4 M4SA4	157	C803_57.3 P132 BN132S4	158
25.5	1917	1.2	56.5	25000	C703_56.5 S4 M4SA4	154	C703_56.5 P132 BN132S4	155
27.6	1770	1.3	52.2	24700	C703_52.2 S4 M4SA4	154	C703_52.2 P132 BN132S4	155
30	1616	1.0	47.6	15300	C613_47.6 S4 M4SA4	150	C613_47.6 P132 BN132S4	151
30	1609	2.4	47.4	35000	C803_47.4 S4 M4SA4	157	C803_47.4 P132 BN132S4	158
32	1516	1.5	44.7	24100	C703_44.7 S4 M4SA4	154	C703_44.7 P132 BN132S4	155
33	1475	2.6	43.5	35000	C803_43.5 S4 M4SA4	157	C803_43.5 P132 BN132S4	158
33	1474	1.1	43.4	15000	C613_43.4 S4 M4SA4	150	C613_43.4 P132 BN132S4	151
35	1400	1.6	41.3	23800	C703_41.3 S4 M4SA4	154	C703_41.3 P132 BN132S4	155
37	1355	2.4	39.1	35000	C802_39.1 S4 M4SA4	157	C802_39.1 P132 BN132S4	158
38	1317	1.0	38.0	14800	C612_38.0 S4 M4SA4	150	C612_38.0 P132 BN132S4	151
41	1204	1.7	34.7	22100	C702_34.7 S4 M4SA4	154	C702_34.7 P132 BN132S4	155
42	1186	1.0	34.2	14500	C612_34.2 S4 M4SA4	150	C612_34.2 P132 BN132S4	151
46	1086	3.4	31.3	33400	C802_31.3 S4 M4SA4	157	C802_31.3 P132 BN132S4	158
47	1055	1.3	30.4	14300	C612_30.4 S4 M4SA4	150	C612_30.4 P132 BN132S4	151
48	1020	1.0	30.1	9610	C513_30.1 S4 M4SA4	146	C513_30.1 P132 BN132S4	147
52	961	2.2	27.7	21200	C702_27.7 S4 M4SA4	154	C702_27.7 P132 BN132S4	155
52	931	1.0	27.4	9490	C513_27.4 S4 M4SA4	146	C513_27.4 P132 BN132S4	147
53	950	1.4	27.4	13900	C612_27.4 S4 M4SA4	150	C612_27.4 P132 BN132S4	151
58	860	1.6	24.8	13700	C612_24.8 S4 M4SA4	150	C612_24.8 P132 BN132S4	151
62	809	1.0	23.4	9310	C512_23.4 S4 M4SA4	146	C512_23.4 P132 BN132S4	147
63	792	2.7	22.9	20400	C702_22.9 S4 M4SA4	154	C702_22.9 P132 BN132S4	155
64	775	1.7	22.4	13400	C612_22.4 S4 M4SA4	150	C612_22.4 P132 BN132S4	151
69	726	1.1	21.0	9150	C512_21.0 S4 M4SA4	146	C512_21.0 P132 BN132S4	147
73	679	2.0	19.6	13100	C612_19.6 S4 M4SA4	150	C612_19.6 P132 BN132S4	151
75	668	3.1	19.3	19700	C702_19.3 S4 M4SA4	154	C702_19.3 P132 BN132S4	155
76	655	1.2	18.9	9030	C512_18.9 S4 M4SA4	146	C512_18.9 P132 BN132S4	147
82	612	2.2	17.7	12700	C612_17.7 S4 M4SA4	150	C612_17.7 P132 BN132S4	151
87	575	1.4	16.6	8810	C512_16.6 S4 M4SA4	146	C512_16.6 P132 BN132S4	147
90	552	2.4	15.9	12500	C612_15.9 S4 M4SA4	150	C612_15.9 P132 BN132S4	151
96	519	1.5	15.0	8660	C512_15.0 S4 M4SA4	146	C512_15.0 P132 BN132S4	147
100	497	2.7	14.3	12100	C612_14.3 S4 M4SA4	150	C612_14.3 P132 BN132S4	151
101	494	0.9	14.2	4000	C412_14.2 S4 M4SA4	142	C412_14.2 P132 BN132S4	143
110	455	1.6	13.1	8420	C512_13.1 S4 M4SA4	146	C512_13.1 P132 BN132S4	147
116	429	1.0	12.4	4060	C412_12.4 S4 M4SA4	142	C412_12.4 P132 BN132S4	143

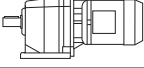





## 5.5 kW

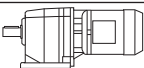



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N			 IEC	
<b>119</b>	419	3.2	12.1	11600	<b>C612_12.1 S4 M4SA4</b>	150	<b>C612_12.1 P132 BN132S4</b>	151
<b>122</b>	410	1.9	11.8	8250	<b>C512_11.8 S4 M4SA4</b>	146	<b>C512_11.8 P132 BN132S4</b>	147
<b>123</b>	399	1.0	11.7	3380	<b>C362_11.7 S4 M4SA4</b>	138	<b>C362_11.7 P132 BN132S4</b>	139
<b>129</b>	387	1.1	11.2	4030	<b>C412_11.2 S4 M4SA4</b>	142	<b>C412_11.2 P132 BN132S4</b>	143
<b>136</b>	363	1.0	10.6	3350	<b>C362_10.6 S4 M4SA4</b>	138	<b>C362_10.6 P132 BN132S4</b>	139
<b>148</b>	338	2.0	9.8	7890	<b>C512_9.8 S4 M4SA4</b>	146	<b>C512_9.8 P132 BN132S4</b>	147
<b>150</b>	333	1.2	9.6	4030	<b>C412_9.6 S4 M4SA4</b>	142	<b>C412_9.6 P132 BN132S4</b>	143
<b>164</b>	305	2.2	8.8	7700	<b>C512_8.8 S4 M4SA4</b>	146	<b>C512_8.8 P132 BN132S4</b>	147
<b>164</b>	301	1.3	8.8	3350	<b>C362_8.8 S4 M4SA4</b>	138	<b>C362_8.8 P132 BN132S4</b>	139
<b>167</b>	299	1.3	8.6	3980	<b>C412_8.6 S4 M4SA4</b>	142	<b>C412_8.6 P132 BN132S4</b>	143
<b>179</b>	275	1.3	8.0	3330	<b>C362_8.0 S4 M4SA4</b>	138	<b>C362_8.0 P132 BN132S4</b>	139
<b>186</b>	269	2.4	7.8	7460	<b>C512_7.8 S4 M4SA4</b>	146	<b>C512_7.8 P132 BN132S4</b>	147
<b>204</b>	245	1.4	7.1	3920	<b>C412_7.1 S4 M4SA4</b>	142	<b>C412_7.1 P132 BN132S4</b>	143
<b>206</b>	242	2.6	7.0	7280	<b>C512_7.0 S4 M4SA4</b>	146	<b>C512_7.0 P132 BN132S4</b>	147
<b>212</b>	232	1.5	6.8	3280	<b>C362_6.8 S4 M4SA4</b>	138	<b>C362_6.8 P132 BN132S4</b>	139
<b>226</b>	221	1.6	6.4	3840	<b>C412_6.4 S4 M4SA4</b>	142	<b>C412_6.4 P132 BN132S4</b>	143
<b>240</b>	208	3.2	6.0	9480	<b>C612_6.0 S4 M4SA4</b>	150	<b>C612_6.0 P132 BN132S4</b>	151
<b>242</b>	206	1.3	6.0	3430	<b>C412_6.0 S4 M4SA4</b>	142	<b>C412_6.0 P132 BN132S4</b>	143
<b>246</b>	200	1.0	5.8	3020	<b>C362_5.8 S4 M4SA4</b>	138	<b>C362_5.8 P132 BN132S4</b>	139
<b>256</b>	195	2.2	5.6	6720	<b>C512_5.6 S4 M4SA4</b>	146	<b>C512_5.6 P132 BN132S4</b>	147
<b>259</b>	193	1.7	11.2	3770	<b>C412_11.2 S4 M4SA2</b>	142	<b>C412_11.2 P132 BN132SA2</b>	143
<b>262</b>	191	1.3	3.6	3410	<b>C412_3.6 S4 M4LB6</b>	142	<b>C412_3.6 P132 BN132MB6</b>	143
<b>273</b>	181	1.1	5.3	2930	<b>C362_5.3 S4 M4SA4</b>	138	<b>C362_5.3 P132 BN132S4</b>	139
<b>286</b>	175	2.4	3.3	6530	<b>C512_3.3 S4 M4LB6</b>	146	<b>C512_3.3 P132 BN132MB6</b>	147
<b>291</b>	169	0.9	5.0	2480	<b>C322_5.0 S4 M4SA4</b>	134	<b>C322_5.0 P132 BN132S4</b>	135
<b>301</b>	166	1.9	9.6	3680	<b>C412_9.6 S4 M4SA2</b>	142	<b>C412_9.6 P132 BN132SA2</b>	143
<b>309</b>	162	1.6	4.7	3360	<b>C412_4.7 S4 M4SA4</b>	142	<b>C412_4.7 P132 BN132S4</b>	143
<b>312</b>	158	1.3	4.6	2860	<b>C362_4.6 S4 M4SA4</b>	138	<b>C362_4.6 P132 BN132S4</b>	139
<b>320</b>	154	1.0	4.5	2500	<b>C322_4.5 S4 M4SA4</b>	134	<b>C322_4.5 P132 BN132S4</b>	135
<b>323</b>	154	2.8	4.5	6330	<b>C512_4.5 S4 M4SA4</b>	146	<b>C512_4.5 P132 BN132S4</b>	147
<b>334</b>	149	2.0	8.6	3600	<b>C412_8.6 S4 M4SA2</b>	142	<b>C412_8.6 P132 BN132SA2</b>	143
<b>343</b>	144	1.4	4.2	2830	<b>C362_4.2 S4 M4SA4</b>	138	<b>C362_4.2 P132 BN132S4</b>	139
<b>355</b>	140	1.7	2.7	3300	<b>C412_2.7 S4 M4LB6</b>	142	<b>C412_2.7 P132 BN132MB6</b>	143
<b>359</b>	139	2.9	2.6	6150	<b>C512_2.6 S4 M4LB6</b>	146	<b>C512_2.6 P132 BN132MB6</b>	147
<b>361</b>	138	2.1	8.0	2850	<b>C362_8.0 S4 M4SA2</b>	138	<b>C362_8.0 P132 BN132SA2</b>	139
<b>386</b>	128	1.2	3.7	2410	<b>C322_3.7 S4 M4SA4</b>	134	<b>C322_3.7 P132 BN132S4</b>	135
<b>399</b>	125	2.0	3.6	3240	<b>C412_3.6 S4 M4SA4</b>	142	<b>C412_3.6 P132 BN132S4</b>	143
<b>409</b>	122	2.3	7.1	3460	<b>C412_7.1 S4 M4SA2</b>	142	<b>C412_7.1 P132 BN132SA2</b>	143
<b>413</b>	119	1.7	3.5	2750	<b>C362_3.5 S4 M4SA4</b>	138	<b>C362_3.5 P132 BN132S4</b>	139
<b>422</b>	117	1.2	3.4	2370	<b>C322_3.4 S4 M4SA4</b>	134	<b>C322_3.4 P132 BN132S4</b>	135
<b>425</b>	118	2.4	6.8	2750	<b>C362_6.8 S4 M4SA2</b>	138	<b>C362_6.8 P132 BN132SA2</b>	139
<b>453</b>	109	1.8	3.2	2700	<b>C362_3.2 S4 M4SA4</b>	138	<b>C362_3.2 P132 BN132S4</b>	139
<b>454</b>	110	2.5	6.4	3370	<b>C412_6.4 S4 M4SA2</b>	142	<b>C412_6.4 P132 BN132SA2</b>	143
<b>485</b>	103	2.5	6.0	3140	<b>C412_6.0 S4 M4SA2</b>	142	<b>C412_6.0 P132 BN132SA2</b>	143
<b>498</b>	100	2.0	5.8	2620	<b>C362_5.8 S4 M4SA2</b>	138	<b>C362_5.8 P132 BN132SA2</b>	139
<b>500</b>	98	1.3	2.9	2310	<b>C322_2.9 S4 M4SA4</b>	134	<b>C322_2.9 P132 BN132S4</b>	135
<b>536</b>	92	2.2	2.7	2620	<b>C362_2.7 S4 M4SA4</b>	138	<b>C362_2.7 P132 BN132S4</b>	139
<b>542</b>	92	2.7	2.7	3070	<b>C412_2.7 S4 M4SA4</b>	142	<b>C412_2.7 P132 BN132S4</b>	143
<b>545</b>	92	2.2	5.3	2550	<b>C362_5.3 S4 M4SA2</b>	138	<b>C362_5.3 P132 BN132SA2</b>	139
<b>578</b>	86	1.6	5.0	2230	<b>C322_5.0 S4 M4SA2</b>	134	<b>C322_5.0 P132 BN132SA2</b>	135
<b>620</b>	81	3.2	4.7	2990	<b>C412_4.7 S4 M4SA2</b>	142	<b>C412_4.7 P132 BN132SA2</b>	143



## 5.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
<b>642</b>	78	1.7	4.5	2190	<b>C322_4.5 S4 M4SA2</b>	134	<b>C322_4.5 P132 BN132SA2</b>	135
<b>781</b>	64	1.9	3.7	2120	<b>C322_3.7 S4 M4SA2</b>	134	<b>C322_3.7 P132 BN132SA2</b>	135
<b>850</b>	59	2.0	3.4	2080	<b>C322_3.4 S4 M4SA2</b>	134	<b>C322_3.4 P132 BN132SA2</b>	135
<b>1004</b>	50	2.1	2.9	2000	<b>C322_2.9 S4 M4SA2</b>	134	<b>C322_2.9 P132 BN132SA2</b>	135

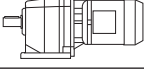



## 7.5 kW

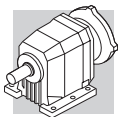
$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
<b>5.5</b>	11904	1.0	263.0	85000	<b>C1004_263.0 S4 M4LA4</b>	163	<b>C1004_263.0 P132 BN132MA4</b>	164
<b>7.2</b>	9034	1.3	199.6	85000	<b>C1004_199.6 S4 M4LA4</b>	163	<b>C1004_199.6 P132 BN132MA4</b>	164
<b>8.4</b>	7961	0.9	172.1	60000	<b>C903_172.1 S4 M4LA4</b>	160	<b>C903_172.1 P132 BN132MA4</b>	161
<b>9.6</b>	6958	1.7	150.4	85000	<b>C1003_150.4 S4 M4LA4</b>	163	<b>C1003_150.4 P132 BN132MA4</b>	164
<b>9.8</b>	6769	1.1	146.3	59600	<b>C903_146.3 S4 M4LA4</b>	160	<b>C903_146.3 P132 BN132MA4</b>	161
<b>12.3</b>	5400	1.3	116.7	58600	<b>C903_116.7 S4 M4LA4</b>	160	<b>C903_116.7 P132 BN132MA4</b>	161
<b>12.9</b>	5176	2.3	111.9	85000	<b>C1003_111.9 S4 M4LA4</b>	163	<b>C1003_111.9 P132 BN132MA4</b>	164
<b>16.1</b>	4129	1.0	89.3	35000	<b>C803_89.3 S4 M4LA4</b>	157	<b>C803_89.3 P132 BN132MA4</b>	158
<b>16.3</b>	4081	1.7	88.2	56600	<b>C903_88.2 S4 M4LA4</b>	160	<b>C903_88.2 P132 BN132MA4</b>	161
<b>16.8</b>	3958	3.0	85.6	85000	<b>C1003_85.6 S4 M4LA4</b>	163	<b>C1003_85.6 P132 BN132MA4</b>	164
<b>19.3</b>	3444	2.1	74.4	55200	<b>C903_74.4 S4 M4LA4</b>	160	<b>C903_74.4 P132 BN132MA4</b>	161
<b>20.4</b>	3261	1.2	70.5	35000	<b>C803_70.5 S4 M4LA4</b>	157	<b>C803_70.5 P132 BN132MA4</b>	158
<b>23.0</b>	2891	1.4	62.5	35000	<b>C803_62.5 S4 M4LA4</b>	157	<b>C803_62.5 P132 BN132MA4</b>	158
<b>24.3</b>	2738	2.6	59.2	53000	<b>C903_59.2 S4 M4LA4</b>	160	<b>C903_59.2 P132 BN132MA4</b>	161
<b>27.6</b>	2413	1.0	52.2	22900	<b>C703_52.2 S4 M4LA4</b>	154	<b>C703_52.2 P132 BN132MA4</b>	155
<b>30</b>	2195	1.7	47.4	35000	<b>C803_47.4 S4 M4LA4</b>	157	<b>C803_47.4 P132 BN132MA4</b>	158
<b>32</b>	2068	1.1	44.7	22500	<b>C703_44.7 S4 M4LA4</b>	154	<b>C703_44.7 P132 BN132MA4</b>	155
<b>35</b>	1909	1.2	41.3	22300	<b>C703_41.3 S4 M4LA4</b>	154	<b>C703_41.3 P132 BN132MA4</b>	155
<b>37</b>	1848	1.7	39.1	33600	<b>C802_39.1 S4 M4LA4</b>	157	<b>C802_39.1 P132 BN132MA4</b>	158
<b>40</b>	1672	0.9	36.1	13300	<b>C613_36.1 S4 M4LA4</b>	150	<b>C613_36.1 P132 BN132MA4</b>	151
<b>41</b>	1642	1.3	34.7	20500	<b>C702_34.7 S4 M4LA4</b>	154	<b>C702_34.7 P132 BN132MA4</b>	155
<b>44</b>	1525	1.0	33.0	13100	<b>C613_33.0 S4 M4LA4</b>	150	<b>C613_33.0 P132 BN132MA4</b>	151
<b>46</b>	1481	2.5	31.3	32200	<b>C802_31.3 S4 M4LA4</b>	157	<b>C802_31.3 P132 BN132MA4</b>	158
<b>47</b>	1439	0.9	30.4	13000	<b>C612_30.4 S4 M4LA4</b>	150	<b>C612_30.4 P132 BN132MA4</b>	151
<b>49</b>	1358	1.1	29.4	13100	<b>C613_29.4 S4 M4LA4</b>	150	<b>C613_29.4 P132 BN132MA4</b>	151
<b>52</b>	1310	1.6	27.7	20000	<b>C702_27.7 S4 M4LA4</b>	154	<b>C702_27.7 P132 BN132MA4</b>	155
<b>53</b>	1296	1.0	27.4	12800	<b>C612_27.4 S4 M4LA4</b>	150	<b>C612_27.4 P132 BN132MA4</b>	151
<b>55</b>	1226	3.0	25.9	31000	<b>C802_25.9 S4 M4LA4</b>	157	<b>C802_25.9 P132 BN132MA4</b>	158
<b>58</b>	1173	1.2	24.8	12700	<b>C612_24.8 S4 M4LA4</b>	150	<b>C612_24.8 P132 BN132MA4</b>	151
<b>60</b>	1132	3.1	24.0	30500	<b>C802_24.0 S4 M4LA4</b>	157	<b>C802_24.0 P132 BN132MA4</b>	158
<b>63</b>	1080	1.9	22.9	19400	<b>C702_22.9 S4 M4LA4</b>	154	<b>C702_22.9 P132 BN132MA4</b>	155
<b>64</b>	1056	1.3	22.4	12500	<b>C612_22.4 S4 M4LA4</b>	150	<b>C612_22.4 P132 BN132MA4</b>	151
<b>65</b>	1051	3.5	22.2	30000	<b>C802_22.2 S4 M4LA4</b>	157	<b>C802_22.2 P132 BN132MA4</b>	158
<b>73</b>	926	1.5	19.6	12300	<b>C612_19.6 S4 M4LA4</b>	150	<b>C612_19.6 P132 BN132MA4</b>	151
<b>75</b>	911	2.3	19.3	18900	<b>C702_19.3 S4 M4LA4</b>	154	<b>C702_19.3 P132 BN132MA4</b>	155
<b>82</b>	834	1.6	17.7	12000	<b>C612_17.7 S4 M4LA4</b>	150	<b>C612_17.7 P132 BN132MA4</b>	151
<b>86</b>	789	2.6	16.7	18200	<b>C702_16.7 S4 M4LA4</b>	154	<b>C702_16.7 P132 BN132MA4</b>	155
<b>87</b>	784	1.0	16.6	8070	<b>C512_16.6 S4 M4LA4</b>	146	<b>C512_16.6 P132 BN132MA4</b>	147
<b>90</b>	753	1.8	15.9	11800	<b>C612_15.9 S4 M4LA4</b>	150	<b>C612_15.9 P132 BN132MA4</b>	151
<b>96</b>	707	1.1	15.0	8000	<b>C512_15.0 S4 M4LA4</b>	146	<b>C512_15.0 P132 BN132MA4</b>	147



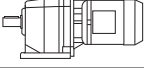






## 7.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
100	678	2.0	14.3	11500	C612_14.3 S4 M4LA4	150	C612_14.3 P132 BN132MA4	151
110	620	1.2	13.1	7840	C512_13.1 S4 M4LA4	146	C512_13.1 P132 BN132MA4	147
111	616	3.4	13.0	17500	C702_13.0 S4 M4LA4	154	C702_13.0 P132 BN132MA4	155
119	571	2.4	12.1	11100	C612_12.1 S4 M4LA4	150	C612_12.1 P132 BN132MA4	151
122	559	1.4	11.8	7730	C512_11.8 S4 M4LA4	146	C512_11.8 P132 BN132MA4	147
132	515	2.6	10.9	10900	C612_10.9 S4 M4LA4	150	C612_10.9 P132 BN132MA4	151
147	464	2.9	9.8	10600	C612_9.8 S4 M4LA4	150	C612_9.8 P132 BN132MA4	151
148	461	1.5	9.8	7450	C512_9.8 S4 M4LA4	146	C512_9.8 P132 BN132MA4	147
163	418	3.2	8.8	10300	C612_8.8 S4 M4LA4	150	C612_8.8 P132 BN132MA4	151
164	415	1.6	8.8	7320	C512_8.8 S4 M4LA4	146	C512_8.8 P132 BN132MA4	147
164	418	0.9	8.8	2880	C362_8.8 S4 M4LA4	138	C362_8.8 P132 BN132MA4	139
167	408	0.9	8.6	3430	C412_8.6 S4 M4LA4	142	C412_8.6 P132 BN132MA4	143
179	381	1.0	8.0	2900	C362_8.0 S4 M4LA4	138	C362_8.0 P132 BN132MA4	139
186	366	1.7	7.8	7120	C512_7.8 S4 M4LA4	146	C512_7.8 P132 BN132MA4	147
204	334	1.1	7.1	3470	C412_7.1 S4 M4LA4	142	C412_7.1 P132 BN132MA4	143
206	330	1.9	7.0	6970	C512_7.0 S4 M4LA4	146	C512_7.0 P132 BN132MA4	147
212	322	1.1	6.8	2900	C362_6.8 S4 M4LA4	138	C362_6.8 P132 BN132MA4	139
226	301	1.1	6.4	3440	C412_6.4 S4 M4LA4	142	C412_6.4 P132 BN132MA4	143
240	284	2.3	6.0	9180	C612_6.0 S4 M4LA4	150	C612_6.0 P132 BN132MA4	151
242	281	0.9	6.0	2920	C412_6.0 S4 M4LA4	142	C412_6.0 P132 BN132MA4	143
256	266	1.6	5.6	6410	C512_5.6 S4 M4LA4	146	C512_5.6 P132 BN132MA4	147
309	220	1.2	4.7	2960	C412_4.7 S4 M4LA4	142	C412_4.7 P132 BN132MA4	143
312	220	0.9	4.6	2600	C362_4.6 S4 M4LA4	138	C362_4.6 P132 BN132MA4	139
316	215	3.1	4.6	8550	C612_4.6 S4 M4LA4	150	C612_4.6 P132 BN132MA4	151
323	210	2.1	4.5	6090	C512_4.5 S4 M4LA4	146	C512_4.5 P132 BN132MA4	147
339	201	3.3	2.8	8390	C612_2.8 S5 M5SA6	150	C612_2.8 P160 BN160M6	151
343	199	1.0	4.2	2550	C362_4.2 S4 M4LA4	138	C362_4.2 P132 BN132MA4	139
363	187	2.1	2.6	5920	C512_2.6 S5 M5SA6	146	C512_2.6 P160 BN160M6	147
399	171	1.5	3.6	2930	C412_3.6 S4 M4LA4	142	C412_3.6 P132 BN132MA4	143
410	166	1.7	7.1	3240	C412_7.1 S4 M4SB2	142	C412_7.1 P132 BN132SB2	143
413	166	1.2	3.5	2500	C362_3.5 S4 M4LA4	138	C362_3.5 P132 BN132MA4	139
435	156	2.7	3.3	5660	C512_3.3 S4 M4LA4	146	C512_3.3 P132 BN132MA4	147
453	151	1.3	3.2	2500	C362_3.2 S4 M4LA4	138	C362_3.2 P132 BN132MA4	139
456	149	1.8	6.4	3170	C412_6.4 S4 M4SB2	142	C412_6.4 P132 BN132SB2	143
487	140	1.9	6.0	2880	C412_6.0 S4 M4SB2	142	C412_6.0 P132 BN132SB2	143
500	137	1.0	2.9	2100	C322_2.9 S4 M4LA4	134	C322_2.9 P132 BN132MA4	135
515	132	3.1	5.6	5420	C512_5.6 S4 M4SB2	146	C512_5.6 P132 BN132SB2	147
536	128	1.6	2.7	2440	C362_2.7 S4 M4LA4	138	C362_2.7 P132 BN132MA4	139
542	126	1.9	2.7	2840	C412_2.7 S4 M4LA4	142	C412_2.7 P132 BN132MA4	143
547	126	1.6	5.3	2370	C362_5.3 S4 M4SB2	138	C362_5.3 P132 BN132SB2	139
548	124	3.2	2.6	5330	C512_2.6 S4 M4LA4	146	C512_2.6 P132 BN132MA4	147
622	109	2.4	4.7	2790	C412_4.7 S4 M4SB2	142	C412_4.7 P132 BN132SB2	143
630	109	1.8	4.6	2330	C362_4.6 S4 M4SB2	138	C362_4.6 P132 BN132SB2	139
690	100	2.0	4.2	2290	C362_4.2 S4 M4SB2	138	C362_4.2 P132 BN132SB2	139
803	85	3.0	3.6	2670	C412_3.6 S4 M4SB2	142	C412_3.6 P132 BN132SB2	143
829	83	2.4	3.5	2210	C362_3.5 S4 M4SB2	138	C362_3.5 P132 BN132SB2	139
906	76	2.6	3.2	2170	C362_3.2 S4 M4SB2	138	C362_3.2 P132 BN132SB2	139
1074	64	3.1	2.7	2100	C362_2.7 S4 M4SB2	138	C362_2.7 P132 BN132SB2	139







## 9.2 kW

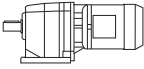



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
7.2	11082	1.1	199.6	85000	C1004_199.6 S4 M4LB4	163	C1004_199.6 P132 BN132MB4	164
7.8	10294	1.2	185.4	85000	C1004_185.4 S4 M4LB4	163	C1004_185.4 P132 BN132MB4	164
9.6	8536	1.4	150.4	85000	C1003_150.4 S4 M4LB4	163	C1003_150.4 P132 BN132MB4	164
10.7	7611	0.9	134.1	54900	C903_134.1 S4 M4LB4	160	C903_134.1 P132 BN132MB4	161
13.5	6072	1.2	107.0	54600	C903_107.0 S4 M4LB4	160	C903_107.0 P132 BN132MB4	161
15.0	5461	1.3	96.2	54200	C903_96.2 S4 M4LB4	160	C903_96.2 P132 BN132MB4	161
15.5	5259	2.3	92.7	85000	C1003_92.7 S4 M4LB4	163	C1003_92.7 P132 BN132MB4	164
17.7	4608	1.6	81.2	53300	C903_81.2 S4 M4LB4	160	C903_81.2 P132 BN132MB4	161
19.3	4224	1.7	74.4	52700	C903_74.4 S4 M4LB4	160	C903_74.4 P132 BN132MB4	161
20.4	4001	1.0	70.5	35000	C803_70.5 S4 M4LB4	157	C803_70.5 P132 BN132MB4	158
24.3	3359	2.1	59.2	51100	C903_59.2 S4 M4LB4	160	C903_59.2 P132 BN132MB4	161
25.1	3251	1.2	57.3	35000	C803_57.3 S4 M4LB4	157	C803_57.3 P132 BN132MB4	158
28.6	2854	2.5	50.3	49700	C903_50.3 S4 M4LB4	160	C903_50.3 P132 BN132MB4	161
30	2692	1.4	47.4	34900	C803_47.4 S4 M4LB4	157	C803_47.4 P132 BN132MB4	158
32	2536	0.9	44.7	21100	C703_44.7 S4 M4LB4	154	C703_44.7 P132 BN132MB4	155
33	2468	1.5	43.5	34400	C803_43.5 S4 M4LB4	157	C803_43.5 P132 BN132MB4	158
35	2341	1.0	41.3	21000	C703_41.3 S4 M4LB4	154	C703_41.3 P132 BN132MB4	155
37	2267	1.4	39.1	32300	C802_39.1 S4 M4LB4	157	C802_39.1 P132 BN132MB4	158
41	2034	2.7	35.1	46200	C902_35.1 S4 M4LB4	160	C902_35.1 P132 BN132MB4	161
41	2014	1.0	34.7	19200	C702_34.7 S4 M4LB4	154	C702_34.7 P132 BN132MB4	155
46	1816	2.0	31.3	31100	C802_31.3 S4 M4LB4	157	C802_31.3 P132 BN132MB4	158
49	1706	3.5	29.4	44600	C902_29.4 S4 M4LB4	160	C902_29.4 P132 BN132MB4	161
52	1607	1.3	27.7	18900	C702_27.7 S4 M4LB4	154	C702_27.7 P132 BN132MB4	155
58	1439	0.9	24.8	11800	C612_24.8 S4 M4LB4	150	C612_24.8 P132 BN132MB4	151
63	1325	1.6	22.9	18500	C702_22.9 S4 M4LB4	154	C702_22.9 P132 BN132MB4	155
64	1296	1.0	22.4	11700	C612_22.4 S4 M4LB4	150	C612_22.4 P132 BN132MB4	151
65	1289	2.9	22.2	29200	C802_22.2 S4 M4LB4	157	C802_22.2 P132 BN132MB4	158
73	1136	1.2	19.6	11600	C612_19.6 S4 M4LB4	150	C612_19.6 P132 BN132MB4	151
75	1118	1.9	19.3	18100	C702_19.3 S4 M4LB4	154	C702_19.3 P132 BN132MB4	155
82	1023	1.3	17.7	11400	C612_17.7 S4 M4LB4	150	C612_17.7 P132 BN132MB4	151
86	968	2.1	16.7	17500	C702_16.7 S4 M4LB4	154	C702_16.7 P132 BN132MB4	155
90	923	1.5	15.9	11200	C612_15.9 S4 M4LB4	150	C612_15.9 P132 BN132MB4	151
94	889	2.4	15.3	17500	C702_15.3 S4 M4LB4	154	C702_15.3 P132 BN132MB4	155
96	867	0.9	15.0	7430	C512_15.0 S4 M4LB4	146	C512_15.0 P132 BN132MB4	147
100	832	1.6	14.3	11000	C612_14.3 S4 M4LB4	150	C612_14.3 P132 BN132MB4	151
102	817	2.6	14.1	17000	C702_14.1 S4 M4LB4	154	C702_14.1 P132 BN132MB4	155
110	761	1.0	13.1	7340	C512_13.1 S4 M4LB4	146	C512_13.1 P132 BN132MB4	147
111	755	2.8	13.0	17000	C702_13.0 S4 M4LB4	154	C702_13.0 P132 BN132MB4	155
119	701	1.9	12.1	10700	C612_12.1 S4 M4LB4	150	C612_12.1 P132 BN132MB4	151
122	686	1.1	11.8	7280	C512_11.8 S4 M4LB4	146	C512_11.8 P132 BN132MB4	147
127	658	3.2	22.9	16500	C702_22.9 S4 M4LA2	154	C702_22.9 P132 BN132M2	155
132	631	2.1	10.9	10500	C612_10.9 S4 M4LB4	150	C612_10.9 P132 BN132MB4	151
147	569	2.4	9.8	10300	C612_9.8 S4 M4LB4	150	C612_9.8 P132 BN132MB4	151
148	565	1.2	9.8	7080	C512_9.8 S4 M4LB4	146	C512_9.8 P132 BN132MB4	147
163	513	2.6	8.8	10000	C612_8.8 S4 M4LB4	150	C612_8.8 P132 BN132MB4	151
164	510	1.3	8.8	6990	C512_8.8 S4 M4LB4	146	C512_8.8 P132 BN132MB4	147
186	449	1.4	7.8	6820	C512_7.8 S4 M4LB4	146	C512_7.8 P132 BN132MB4	147
192	434	3.1	7.5	9670	C612_7.5 S4 M4LB4	150	C612_7.5 P132 BN132MB4	151
206	405	1.6	7.0	6710	C512_7.0 S4 M4LB4	146	C512_7.0 P132 BN132MB4	147
212	393	0.9	6.8	2600	C362_6.8 S4 M4LB4	138	C362_6.8 P132 BN132MB4	139
214	391	3.5	6.7	9410	C612_6.7 S4 M4LB4	150	C612_6.7 P132 BN132MB4	151



## 9.2 kW

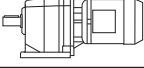



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
226	369	0.9	6.4	3100	C412_6.4 S4 M4LB4	142	C412_6.4 P132 BN132MB4	143
240	348	1.9	6.0	8930	C612_6.0 S4 M4LB4	150	C612_6.0 P132 BN132MB4	151
256	326	1.3	5.6	6150	C512_5.6 S4 M4LB4	146	C512_5.6 P132 BN132MB4	147
260	321	1.0	11.2	3110	C412_11.2 S4 M4LA2	142	C412_11.2 P132 BN132M2	143
309	270	1.0	4.7	2620	C412_4.7 S4 M4LB4	142	C412_4.7 P132 BN132MB4	143
316	264	2.5	4.6	8360	C612_4.6 S4 M4LB4	150	C612_4.6 P132 BN132MB4	151
323	258	1.7	4.5	5880	C512_4.5 S4 M4LB4	146	C512_4.5 P132 BN132MB4	147
336	249	1.2	8.6	3090	C412_8.6 S4 M4LA2	142	C412_8.6 P132 BN132M2	143
374	223	2.3	7.8	5870	C512_7.8 S4 M4LA2	146	C512_7.8 P132 BN132M2	147
399	209	1.2	3.6	2670	C412_3.6 S4 M4LB4	142	C412_3.6 P132 BN132MB4	143
410	203	1.4	7.1	3050	C412_7.1 S4 M4LA2	142	C412_7.1 P132 BN132M2	143
413	202	1.0	3.5	2300	C362_3.5 S4 M4LB4	138	C362_3.5 P132 BN132MB4	139
415	201	2.5	7.0	5730	C512_7.0 S4 M4LA2	146	C512_7.0 P132 BN132M2	147
435	192	2.2	3.3	5510	C512_3.3 S4 M4LB4	146	C512_3.3 P132 BN132MB4	147
453	184	1.1	3.2	2300	C362_3.2 S4 M4LB4	138	C362_3.2 P132 BN132MB4	139
456	183	1.5	6.4	3000	C412_6.4 S4 M4LA2	142	C412_6.4 P132 BN132M2	143
487	171	1.5	6.0	2660	C412_6.0 S4 M4LA2	142	C412_6.0 P132 BN132M2	143
515	162	2.6	5.6	5290	C512_5.6 S4 M4LA2	146	C512_5.6 P132 BN132M2	147
536	156	1.3	2.7	2280	C362_2.7 S4 M4LB4	138	C362_2.7 P132 BN132MB4	139
542	154	1.6	2.7	2650	C412_2.7 S4 M4LB4	142	C412_2.7 P132 BN132MB4	143
548	152	2.6	2.6	5210	C512_2.6 S4 M4LB4	146	C512_2.6 P132 BN132MB4	147
622	134	1.9	4.7	2620	C412_4.7 S4 M4LA2	142	C412_4.7 P132 BN132M2	143
651	128	3.4	4.5	4980	C512_4.5 S4 M4LA2	146	C512_4.5 P132 BN132M2	147
698	120	1.7	4.2	2180	C362_4.2 S4 M4LA2	138	C362_4.2 P132 BN132M2	139
803	104	2.5	3.6	2540	C412_3.6 S4 M4LA2	142	C412_3.6 P132 BN132M2	143
837	100	2.0	3.5	2120	C362_3.5 S4 M4LA2	138	C362_3.5 P132 BN132M2	139
916	91	2.2	3.2	2090	C362_3.2 S4 M4LA2	138	C362_3.2 P132 BN132M2	139
1091	77	3.2	2.7	2410	C412_2.7 S4 M4LA2	142	C412_2.7 P132 BN132M2	143
1091	77	2.6	2.7	2020	C362_2.7 S4 M4LA2	138	C362_2.7 P132 BN132M2	139

## 11 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
7.2	13251	0.9	199.6	85000	C1004_199.6 S4 M4LC4	163	C1004_199.6 P160 BN160MR4	164
9.6	10206	1.2	150.4	85000	C1003_150.4 S4 M4LC4	163	C1003_150.4 P160 BN160MR4	164
12.3	7920	0.9	116.7	50800	C903_116.7 S4 M4LC4	160	C903_116.7 P160 BN160MR4	161
12.9	7592	1.6	111.9	85000	C1003_111.9 S4 M4LC4	163	C1003_111.9 P160 BN160MR4	164
15.5	6287	1.9	92.7	85000	C1003_92.7 S4 M4LC4	163	C1003_92.7 P160 BN160MR4	164
16.3	5985	1.2	88.2	50700	C903_88.2 S4 M4LC4	160	C903_88.2 P160 BN160MR4	161
19.3	5051	1.4	74.4	50200	C903_74.4 S4 M4LC4	160	C903_74.4 P160 BN160MR4	161
20.7	4710	2.5	69.4	84800	C1003_69.4 S4 M4LC4	163	C1003_69.4 P160 BN160MR4	164
24.3	4016	1.8	59.2	49000	C903_59.2 S4 M4LC4	160	C903_59.2 P160 BN160MR4	161
25.1	3887	1.0	57.3	34200	C803_57.3 S4 M4LC4	157	C803_57.3 P160 BN160MR4	158
28.6	3413	2.1	50.3	48000	C903_50.3 S4 M4LC4	160	C903_50.3 P160 BN160MR4	161
30	3219	1.2	47.4	33500	C803_47.4 S4 M4LC4	157	C803_47.4 P160 BN160MR4	158
33	2951	1.3	43.5	33100	C803_43.5 S4 M4LC4	157	C803_43.5 P160 BN160MR4	158
37	2673	2.7	39.4	46100	C903_39.4 S4 M4LC4	160	C903_39.4 P160 BN160MR4	161
37	2711	1.2	39.1	30900	C802_39.1 S4 M4LC4	157	C802_39.1 P160 BN160MR4	158







## 11 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
41	2432	2.2	35.1	45000	C902_35.1 S4 M4LC4	160	C902_35.1 P160 BN160MR4	161
46	2172	1.7	31.3	30000	C802_31.3 S4 M4LC4	157	C802_31.3 P160 BN160MR4	158
52	1921	1.1	27.7	17800	C702_27.7 S4 M4LC4	154	C702_27.7 P160 BN160MR4	155
55	1798	2.1	25.9	29200	C802_25.9 S4 M4LC4	157	C802_25.9 P160 BN160MR4	158
63	1584	1.3	22.9	17600	C702_22.9 S4 M4LC4	154	C702_22.9 P160 BN160MR4	155
65	1542	2.4	22.2	28400	C802_22.2 S4 M4LC4	157	C802_22.2 P160 BN160MR4	158
70	1423	2.5	20.5	28000	C802_20.5 S4 M4LC4	157	C802_20.5 P160 BN160MR4	158
73	1358	1.0	19.6	10800	C612_19.6 S4 M4LC4	150	C612_19.6 P160 BN160MR4	151
75	1337	1.6	19.3	17300	C702_19.3 S4 M4LC4	154	C702_19.3 P160 BN160MR4	155
80	1251	3.0	18.1	27300	C802_18.1 S4 M4LC4	157	C802_18.1 P160 BN160MR4	158
82	1223	1.1	17.7	10700	C612_17.7 S4 M4LC4	150	C612_17.7 P160 BN160MR4	151
86	1158	1.8	16.7	16800	C702_16.7 S4 M4LC4	154	C702_16.7 P160 BN160MR4	155
86	1155	3.0	16.7	26900	C802_16.7 S4 M4LC4	157	C802_16.7 P160 BN160MR4	158
90	1104	1.2	15.9	10700	C612_15.9 S4 M4LC4	150	C612_15.9 P160 BN160MR4	151
94	1063	2.0	15.3	16800	C702_15.3 S4 M4LC4	154	C702_15.3 P160 BN160MR4	155
100	994	1.4	14.3	10500	C612_14.3 S4 M4LC4	150	C612_14.3 P160 BN160MR4	151
102	977	2.2	14.1	16400	C702_14.1 S4 M4LC4	154	C702_14.1 P160 BN160MR4	155
111	903	2.3	13.0	16400	C702_13.0 S4 M4LC4	154	C702_13.0 P160 BN160MR4	155
119	838	1.6	12.1	10300	C612_12.1 S4 M4LC4	150	C612_12.1 P160 BN160MR4	151
122	820	0.9	11.8	6810	C512_11.8 S4 M4LC4	146	C512_11.8 P160 BN160MR4	147
128	777	2.8	11.2	15800	C702_11.2 S4 M4LC4	154	C702_11.2 P160 BN160MR4	155
132	755	1.8	10.9	10100	C612_10.9 S4 M4LC4	150	C612_10.9 P160 BN160MR4	151
141	707	3.0	10.2	15700	C702_10.2 S4 M4LC4	154	C702_10.2 P160 BN160MR4	155
147	680	2.0	9.8	9910	C612_9.8 S4 M4LC4	150	C612_9.8 P160 BN160MR4	151
148	676	1.0	9.8	6690	C512_9.8 S4 M4LC4	146	C512_9.8 P160 BN160MR4	147
151	660	3.3	9.5	15400	C702_9.5 S4 M4LC4	154	C702_9.5 P160 BN160MR4	155
163	613	2.2	8.8	9690	C612_8.8 S4 M4LC4	150	C612_8.8 P160 BN160MR4	151
164	609	1.1	8.8	6640	C512_8.8 S4 M4LC4	146	C512_8.8 P160 BN160MR4	147
186	537	1.2	7.8	6510	C512_7.8 S4 M4LC4	146	C512_7.8 P160 BN160MR4	147
192	519	2.6	7.5	9390	C612_7.5 S4 M4LC4	150	C612_7.5 P160 BN160MR4	151
206	484	1.3	7.0	6430	C512_7.0 S4 M4LC4	146	C512_7.0 P160 BN160MR4	147
214	467	2.9	6.7	9150	C612_6.7 S4 M4LC4	150	C612_6.7 P160 BN160MR4	151
240	416	1.6	6.0	8670	C612_6.0 S4 M4LC4	150	C612_6.0 P160 BN160MR4	151
256	390	1.1	5.6	5880	C512_5.6 S4 M4LC4	146	C512_5.6 P160 BN160MR4	147
290	344	1.2	3.3	5770	C512_3.3 S5 M5SA6	146	C512_3.3 P160 BN160L6	147
316	316	2.1	4.6	8160	C612_4.6 S4 M4LC4	150	C612_4.6 P160 BN160MR4	151
323	309	1.4	4.5	5660	C512_4.5 S4 M4LC4	146	C512_4.5 P160 BN160MR4	147
338	295	1.0	8.6	2850	C412_8.6 S4 M4LC2	142		
365	273	1.5	2.6	5540	C512_2.6 S5 M5SA6	146	C512_2.6 P160 BN160L6	147
389	256	2.6	3.7	7760	C612_3.7 S4 M4LC4	150	C612_3.7 P160 BN160MR4	151
399	250	1.0	3.6	2390	C412_3.6 S4 M4LC4	142		
413	242	1.2	7.1	2860	C412_7.1 S4 M4LC2	142		
435	229	1.8	3.3	5340	C512_3.3 S4 M4LC4	146	C512_3.3 P160 BN160MR4	147
459	217	1.3	6.4	2820	C412_6.4 S4 M4LC2	142		
491	203	1.3	6.0	2440	C412_6.0 S4 M4LC2	142		
511	195	3.4	2.8	7240	C612_2.8 S4 M4LC4	150	C612_2.8 P160 BN160MR4	151
519	192	2.2	5.6	5140	C512_5.6 S4 M4LC2	146	C512_5.6 P160 BN160MA2	147
542	184	1.3	2.7	2440	C412_2.7 S4 M4LC4	142		
548	182	2.2	2.6	5080	C512_2.6 S4 M4LC4	146	C512_2.6 P160 BN160MR4	147
626	159	1.6	4.7	2440	C412_4.7 S4 M4LC2	142		
656	152	2.9	4.5	4870	C512_4.5 S4 M4LC2	146	C512_4.5 P160 BN160MA2	147

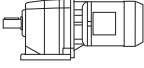







## 11 kW

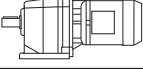



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N			 IEC	
<b>809</b>	123	2.1	3.6	2400	<b>C412_3.6 S4 M4LC2</b>	142		
<b>1098</b>	91	2.7	2.7	2300	<b>C412_2.7 S4 M4LC2</b>	142		

## 15 kW

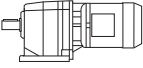



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N			 IEC	
<b>10.5</b>	12728	0.9	92.7	83900			<b>C1003_92.7 P180 BN180L6</b>	164
<b>12.1</b>	10997	1.1	120.5	83800	<b>C1003_120.5 S5 M5SB4</b>	163	<b>C1003_120.5 P160 BN160L4</b>	164
<b>15.2</b>	8782	0.8	96.2	43600	<b>C903_96.2 S5 M5SB4</b>	160	<b>C903_96.2 P160 BN160L4</b>	161
<b>15.8</b>	8456	1.4	92.7	82400	<b>C1003_92.7 S5 M5SB4</b>	163	<b>C1003_92.7 P160 BN160L4</b>	164
<b>18.0</b>	7411	1.0	81.2	44300	<b>C903_81.2 S5 M5SB4</b>	160	<b>C903_81.2 P160 BN160L4</b>	161
<b>18.4</b>	7249	1.7	79.4	81000	<b>C1003_79.4 S5 M5SB4</b>	163	<b>C1003_79.4 P160 BN160L4</b>	164
<b>24.7</b>	5402	1.3	59.2	44400	<b>C903_59.2 S5 M5SB4</b>	160	<b>C903_59.2 P160 BN160L4</b>	161
<b>25.5</b>	5233	2.3	57.4	77400	<b>C1003_57.4 S5 M5SB4</b>	163	<b>C1003_57.4 P160 BN160L4</b>	164
<b>29.0</b>	4590	1.5	50.3	44100	<b>C903_50.3 S5 M5SB4</b>	160	<b>C903_50.3 P160 BN160L4</b>	161
<b>32</b>	4218	2.8	46.2	74500	<b>C1003_46.2 S5 M5SB4</b>	163	<b>C1003_46.2 P160 BN160L4</b>	164
<b>34</b>	3968	1.0	43.5	30300	<b>C803_43.5 S5 M5SB4</b>	157	<b>C803_43.5 P160 BN160L4</b>	158
<b>37</b>	3595	2.0	39.4	43000	<b>C903_39.4 S5 M5SB4</b>	160	<b>C903_39.4 P160 BN160L4</b>	161
<b>42</b>	3272	1.7	35.1	42200	<b>C902_35.1 S5 M5SB4</b>	160	<b>C902_35.1 P160 BN160L4</b>	161
<b>47</b>	2921	1.3	31.3	27500	<b>C802_31.3 S5 M5SB4</b>	157	<b>C802_31.3 P160 BN160L4</b>	158
<b>54</b>	2533	2.2	27.2	40700	<b>C902_27.2 S5 M5SB4</b>	160	<b>C902_27.2 P160 BN160L4</b>	161
<b>56</b>	2419	1.5	25.9	27100	<b>C802_25.9 S5 M5SB4</b>	157	<b>C802_25.9 P160 BN160L4</b>	158
<b>64</b>	2136	2.9	22.9	39500	<b>C902_22.9 S5 M5SB4</b>	160	<b>C902_22.9 P160 BN160L4</b>	161
<b>66</b>	2073	1.8	22.2	26600	<b>C802_22.2 S5 M5SB4</b>	157	<b>C802_22.2 P160 BN160L4</b>	158
<b>76</b>	1798	1.2	19.3	15600	<b>C702_19.3 S5 M5SB4</b>	154	<b>C702_19.3 P160 BN160L4</b>	155
<b>81</b>	1683	2.2	18.1	25800	<b>C802_18.1 S5 M5SB4</b>	157	<b>C802_18.1 P160 BN160L4</b>	158
<b>92</b>	1485	0.9	15.9	9350	<b>C612_15.9 S5 M5SB4</b>	150	<b>C612_15.9 P160 BN160L4</b>	151
<b>95</b>	1429	1.5	15.3	15400	<b>C702_15.3 S5 M5SB4</b>	154	<b>C702_15.3 P160 BN160L4</b>	155
<b>98</b>	1390	2.7	14.9	25000	<b>C802_14.9 S5 M5SB4</b>	157	<b>C802_14.9 P160 BN160L4</b>	158
<b>102</b>	1337	1.0	14.3	9280	<b>C612_14.3 S5 M5SB4</b>	150	<b>C612_14.3 P160 BN160L4</b>	151
<b>112</b>	1215	1.7	13.0	15200	<b>C702_13.0 S5 M5SB4</b>	154	<b>C702_13.0 P160 BN160L4</b>	155
<b>121</b>	1127	1.2	12.1	9270	<b>C612_12.1 S5 M5SB4</b>	150	<b>C612_12.1 P160 BN160L4</b>	151
<b>121</b>	1120	3.3	12.0	24000	<b>C802_12.0 S5 M5SB4</b>	157	<b>C802_12.0 P160 BN160L4</b>	158
<b>130</b>	1045	2.1	11.2	14700	<b>C702_11.2 S5 M5SB4</b>	154	<b>C702_11.2 P160 BN160L4</b>	155
<b>134</b>	1015	1.3	10.9	9140	<b>C612_10.9 S5 M5SB4</b>	150	<b>C612_10.9 P160 BN160L4</b>	151
<b>149</b>	915	1.5	9.8	9090	<b>C612_9.8 S5 M5SB4</b>	150	<b>C612_9.8 P160 BN160L4</b>	151
<b>153</b>	888	2.4	9.5	14400	<b>C702_9.5 S5 M5SB4</b>	154	<b>C702_9.5 P160 BN160L4</b>	155
<b>165</b>	824	1.6	8.8	8930	<b>C612_8.8 S5 M5SB4</b>	150	<b>C612_8.8 P160 BN160L4</b>	151
<b>182</b>	746	2.8	8.0	14200			<b>C702_8.0 P160 BN160L4</b>	155
<b>195</b>	698	1.9	7.5	8760	<b>C612_7.5 S5 M5SB4</b>	150	<b>C612_7.5 P160 BN160L4</b>	151
<b>209</b>	651	1.0	7.0	5810			<b>C512_7.0 P160 BN160L4</b>	147
<b>217</b>	628	2.1	6.7	8570	<b>C612_6.7 S5 M5SB4</b>	150	<b>C612_6.7 P160 BN160L4</b>	151
<b>223</b>	610	1.0	13.1	5760			<b>C512_13.1 P160 BN160MB2</b>	147
<b>242</b>	562	2.4	12.1	8430	<b>C612_12.1 S5 M5SB2</b>	150	<b>C612_12.1 P160 BN160MB2</b>	151
<b>248</b>	550	1.1	11.8	5720			<b>C512_11.8 P160 BN160MB2</b>	147
<b>269</b>	506	2.7	10.9	8230	<b>C612_10.9 S5 M5SB2</b>	150	<b>C612_10.9 P160 BN160MB2</b>	151
<b>298</b>	456	2.9	9.8	8090	<b>C612_9.8 S5 M5SB2</b>	150	<b>C612_9.8 P160 BN160MB2</b>	151
<b>300</b>	453	1.2	9.8	5570			<b>C512_9.8 P160 BN160MB2</b>	147



## 15 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
<b>320</b>	425	1.6	4.6	7690	<b>C612_4.6 S5 M5SB4</b>	150	<b>C612_4.6 P160 BN160L4</b>	151
<b>328</b>	415	1.0	4.5	5170			<b>C512_4.5 P160 BN160L4</b>	147
<b>331</b>	411	3.2	8.8	7880	<b>C612_8.8 S5 M5SB2</b>	150	<b>C612_8.8 P160 BN160MB2</b>	151
<b>333</b>	408	1.3	8.8	5490			<b>C512_8.8 P160 BN160MB2</b>	147
<b>378</b>	360	1.4	7.8	5370	<b>C612_3.7 S5 M5SB4</b>	150	<b>C512_7.8 P160 BN160MB2</b>	147
<b>395</b>	345	1.9	3.7	7370			<b>C612_3.7 P160 BN160L4</b>	151
<b>419</b>	325	1.5	7.0	5280			<b>C512_7.0 P160 BN160MB2</b>	147
<b>441</b>	308	1.4	3.3	4970			<b>C512_3.3 P160 BN160L4</b>	147
<b>488</b>	279	2.4	6.0	7030			<b>C612_6.0 S5 M5SB2</b>	150
<b>518</b>	263	2.5	2.8	6940	<b>C612_2.8 S5 M5SB4</b>	150	<b>C612_2.8 P160 BN160L4</b>	151
<b>520</b>	262	1.6	5.6	4840			<b>C512_5.6 P160 BN160MB2</b>	147
<b>555</b>	245	1.6	2.6	4780	<b>C612_4.6 S5 M5SB2</b>	150	<b>C512_2.6 P160 BN160L4</b>	147
<b>643</b>	212	3.1	4.6	6580			<b>C612_4.6 P160 BN160MB2</b>	151
<b>658</b>	207	2.1	4.5	4630			<b>C512_4.5 P160 BN160MB2</b>	147
<b>886</b>	154	2.7	3.3	4330			<b>C512_3.3 P160 BN160MB2</b>	147
<b>1115</b>	122	3.3	2.6	4100			<b>C512_2.6 P160 BN160MB2</b>	147

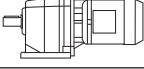



## 18.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
<b>13.0</b>	12594	1.0	111.9	76600	<b>C1003_111.9 S5 M5LA4</b>	163	<b>C1003_111.9 P180 BN180M4</b>	164
<b>15.8</b>	10429	1.2	92.7	76700	<b>C1003_92.7 S5 M5LA4</b>	163	<b>C1003_92.7 P180 BN180M4</b>	164
<b>21.0</b>	7813	1.5	69.4	75400	<b>C1003_69.4 S5 M5LA4</b>	163	<b>C1003_69.4 P180 BN180M4</b>	164
<b>22.6</b>	7268	1.0	64.6	40300	<b>C903_64.6 S5 M5LA4</b>	160	<b>C903_64.6 P180 BN180M4</b>	161
<b>26.6</b>	6175	1.2	54.9	40700	<b>C903_54.9 S5 M5LA4</b>	160	<b>C903_54.9 P180 BN180M4</b>	161
<b>27.4</b>	5993	2.0	53.3	73100	<b>C1003_53.3 S5 M5LA4</b>	163	<b>C1003_53.3 P180 BN180M4</b>	164
<b>34</b>	4837	1.5	43.0	40600	<b>C903_43.0 S5 M5LA4</b>	160	<b>C903_43.0 P180 BN180M4</b>	161
<b>34</b>	4831	2.5	42.9	70800	<b>C1003_42.9 S5 M5LA4</b>	163	<b>C1003_42.9 P180 BN180M4</b>	164
<b>42</b>	4035	1.3	35.1	39800	<b>C902_35.1 S5 M5LA4</b>	160	<b>C902_35.1 P180 BN180M4</b>	161
<b>43</b>	3860	3.0	34.3	68100	<b>C1003_34.3 S5 M5LA4</b>	163	<b>C1003_34.3 P180 BN180M4</b>	164
<b>50</b>	3384	1.7	29.4	39100	<b>C902_29.4 S5 M5LA4</b>	160	<b>C902_29.4 P180 BN180M4</b>	161
<b>56</b>	2983	1.2	25.9	25300	<b>C802_25.9 S5 M5LA4</b>	157	<b>C802_25.9 P180 BN180M4</b>	158
<b>66</b>	2557	1.4	22.2	25100	<b>C802_22.2 S5 M5LA4</b>	157	<b>C802_22.2 P180 BN180M4</b>	158
<b>76</b>	2217	0.9	19.3	14100	<b>C702_19.3 S5 M5LA4</b>	154	<b>C702_19.3 P180 BN180M4</b>	155
<b>87</b>	1920	1.1	16.7	13800	<b>C702_16.7 S5 M5LA4</b>	154	<b>C702_16.7 P180 BN180M4</b>	155
<b>88</b>	1916	1.8	16.7	24400	<b>C802_16.7 S5 M5LA4</b>	157	<b>C802_16.7 P180 BN180M4</b>	158
<b>104</b>	1620	1.3	14.1	13900	<b>C702_14.1 S5 M5LA4</b>	154	<b>C702_14.1 P180 BN180M4</b>	155
<b>106</b>	1582	2.2	13.8	23700	<b>C802_13.8 S5 M5LA4</b>	157	<b>C802_13.8 P180 BN180M4</b>	158
<b>121</b>	1390	1.0	12.1	8420	<b>C612_12.1 S5 M5LA4</b>	150	<b>C612_12.1 P180 BN180M4</b>	151
<b>130</b>	1289	1.7	11.2	13800	<b>C702_11.2 S5 M5LA4</b>	154	<b>C702_11.2 P180 BN180M4</b>	155
<b>132</b>	1275	2.7	11.1	22900	<b>C802_11.1 S5 M5LA4</b>	157	<b>C802_11.1 P180 BN180M4</b>	158
<b>134</b>	1252	1.1	10.9	8360	<b>C612_10.9 S5 M5LA4</b>	150	<b>C612_10.9 P180 BN180M4</b>	151
<b>149</b>	1129	1.2	9.8	8400	<b>C612_9.8 S5 M5LA4</b>	150	<b>C612_9.8 P180 BN180M4</b>	151
<b>153</b>	1095	2.0	9.5	13600	<b>C702_9.5 S5 M5LA4</b>	154	<b>C702_9.5 P180 BN180M4</b>	155
<b>165</b>	1019	3.4	8.9	21900	<b>C802_8.9 S5 M5LA4</b>	157	<b>C802_8.9 P180 BN180M4</b>	158
<b>165</b>	1016	1.3	8.8	8300	<b>C612_8.8 S5 M5LA4</b>	150	<b>C612_8.8 P180 BN180M4</b>	151
<b>195</b>	860	1.6	7.5	8230	<b>C612_7.5 S5 M5LA4</b>	150	<b>C612_7.5 P180 BN180M4</b>	151
<b>217</b>	775	1.7	6.7	8090	<b>C612_6.7 S5 M5LA4</b>	150	<b>C612_6.7 P180 BN180M4</b>	151

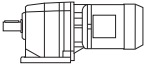







## 18.5 kW

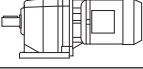



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
233	719	2.7	6.3	13100			<b>C702_6.3 P180 BN180M4</b>	155
243	690	1.0	6.0	7550	<b>C612_6.0 S5 M5LA4</b>	150	<b>C612_6.0 P180 BN180M4</b>	151
250	673	2.8	5.9	12800			<b>C702_5.9 P180 BN180M4</b>	155
269	624	2.2	10.9	7840	<b>C612_10.9 S5 M5SC2</b>	150	<b>C612_10.9 P160BN160L2</b>	151
298	562	2.4	9.8	7740	<b>C612_9.8 S5 M5SC2</b>	150	<b>C612_9.8 P160BN160L2</b>	151
300	559	1.0	9.8	5190			<b>C512_9.8 P160BN160L2</b>	147
319	526	3.2	4.6	12300			<b>C702_4.6 P180 BN180M4</b>	155
320	524	1.3	4.6	7300	<b>C612_4.6 S5 M5LA4</b>	150	<b>C612_4.6 P180 BN180M4</b>	151
331	507	2.6	8.8	7570	<b>C612_8.8 S5 M5SC2</b>	150	<b>C612_8.8 P160BN160L2</b>	151
333	504	1.1	8.8	5160			<b>C512_8.8 P160BN160L2</b>	147
378	444	1.1	7.8	5070			<b>C512_7.8 P160BN160L2</b>	147
391	429	2.9	7.5	7350	<b>C612_7.5 S5 M5SC2</b>	150	<b>C612_7.5 P160BN160L2</b>	151
395	425	1.6	3.7	7060	<b>C612_3.7 S5 M5LA4</b>	150	<b>C612_3.7 P180 BN180M4</b>	151
419	400	1.2	7.0	5010			<b>C512_7.0 P160BN160L2</b>	147
435	386	3.1	6.7	7170	<b>C612_6.7 S5 M5SC2</b>	150	<b>C612_6.7 P160BN160L2</b>	151
441	380	1.1	3.3	4660			<b>C512_3.3 P180 BN180M4</b>	147
488	344	1.9	6.0	6780	<b>C612_6.0 S5 M5SC2</b>	150	<b>C612_6.0 P160BN160L2</b>	151
518	324	2.1	2.8	6700	<b>C612_2.8 S5 M5LA4</b>	150	<b>C612_2.8 P180 BN180M4</b>	151
520	323	1.3	5.6	4580			<b>C512_5.6 P160BN160L2</b>	147
555	302	1.3	2.6	4540			<b>C512_2.6 P180 BN180M4</b>	147
643	261	2.5	4.6	6390	<b>C612_4.6 S5 M5SC2</b>	150	<b>C612_4.6 P160BN160L2</b>	151
658	255	1.7	4.5	4420			<b>C512_4.5 P160BN160L2</b>	147
792	212	3.1	3.7	6080	<b>C612_3.7 S5 M5SC2</b>	150	<b>C612_3.7 P160BN160L2</b>	151
886	189	2.2	3.3	4180			<b>C512_3.3 P160BN160L2</b>	147
1115	151	2.7	2.6	3980			<b>C512_2.6 P160BN160L2</b>	147

## 22 kW

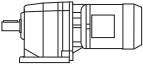



$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
14.7	13266	0.9	99.8	70600			<b>C1003_99.8 P180 BN180L4</b>	164
18.5	10560	1.1	79.4	71200			<b>C1003_79.4 P180 BN180L4</b>	164
24.8	7869	0.9	59.2	36700			<b>C903_59.2 P180 BN180L4</b>	161
25.6	7623	1.6	57.4	70300			<b>C1003_57.4 P180 BN180L4</b>	164
29.2	6686	1.1	50.3	37400			<b>C903_50.3 P180 BN180L4</b>	161
32	6144	2.0	46.2	68800			<b>C1003_46.2 P180 BN180L4</b>	164
40	4909	2.4	36.9	66700			<b>C1003_36.9 P180 BN180L4</b>	164
42	4766	1.1	35.1	37400			<b>C902_35.1 P180 BN180L4</b>	161
50	4013	2.3	29.6	64100			<b>C1002_29.6 P180 BN180L4</b>	164
50	3997	1.5	29.4	37100			<b>C902_29.4 P180 BN180L4</b>	161
61	3252	1.1	24.0	23700			<b>C802_24.0 P180 BN180L4</b>	158
64	3112	2.0	22.9	36400			<b>C902_22.9 P180 BN180L4</b>	161
81	2451	1.5	18.1	23300			<b>C802_18.1 P180 BN180L4</b>	158
85	2350	2.8	17.3	34900			<b>C902_17.3 P180 BN180L4</b>	161
88	2268	0.9	16.7	12400			<b>C702_16.7 P180 BN180L4</b>	155
99	2025	1.8	14.9	22900			<b>C802_14.9 P180 BN180L4</b>	158
104	1914	1.1	14.1	12700			<b>C702_14.1 P180 BN180L4</b>	155
106	1881	3.2	13.9	33700			<b>C902_13.9 P180 BN180L4</b>	161
131	1522	1.4	11.2	12900			<b>C702_11.2 P180 BN180L4</b>	155



## 22 kW

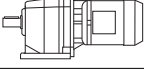



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
133	1506	2.3	11.1	22100			C802_11.1 P180 BN180L4	158
135	1478	0.9	10.9	7580			C612_10.9 P180 BN180L4	151
150	1333	1.0	9.8	7710			C612_9.8 P180 BN180L4	151
154	1293	1.7	9.5	12800			C702_9.5 P180 BN180L4	155
166	1204	2.9	8.9	21300			C802_8.9 P180 BN180L4	158
166	1201	1.1	8.8	7660			C612_8.8 P180 BN180L4	151
184	1085	1.2	15.9	7710			C612_15.9 P180 BN180M2	151
196	1016	1.3	7.5	7690			C612_7.5 P180 BN180L4	151
197	1013	2.0	7.5	12700			C702_7.5 P180 BN180L4	155
209	956	3.5	7.0	20400			C802_7.0 P180 BN180L4	158
218	915	1.5	6.7	7600			C612_6.7 P180 BN180L4	151
251	794	2.4	5.9	12300			C702_5.9 P180 BN180L4	155
269	742	1.8	10.9	7460			C612_10.9 P180 BN180M2	151
298	669	2.0	9.8	7390			C612_9.8 P180 BN180M2	151
322	621	2.7	4.6	11900			C702_4.6 P180 BN180L4	155
323	619	1.1	4.6	6910			C612_4.6 P180 BN180L4	151
331	602	2.2	8.8	7250			C612_8.8 P180 BN180M2	151
333	599	0.9	8.8	4820			C512_8.8 P180 BN180M2	147
378	528	1.0	7.8	4770			C512_7.8 P180 BN180M2	147
391	510	2.4	7.5	7080			C612_7.5 P180 BN180M2	151
397	502	1.3	3.7	6740			C612_3.7 P180 BN180L4	151
419	476	1.1	7.0	4740			C512_7.0 P180 BN180M2	147
435	459	2.6	6.7	6920			C612_6.7 P180 BN180M2	151
444	449	0.9	3.3	4350			C512_3.3 P180 BN180L4	147
488	409	1.6	6.0	6530			C612_6.0 P180 BN180M2	151
520	384	1.1	5.6	4310			C512_5.6 P180 BN180M2	147
521	383	1.7	2.8	6450			C612_2.8 P180 BN180L4	151
559	357	1.1	2.6	4290			C512_2.6 P180 BN180L4	147
643	310	2.1	4.6	6200			C612_4.6 P180 BN180M2	151
658	303	1.4	4.5	4210			C512_4.5 P180 BN180M2	147
792	252	2.6	3.7	5930			C612_3.7 P180 BN180M2	151
886	225	1.9	3.3	4030			C512_3.3 P180 BN180M2	147
1039	192	3.5	2.8	5560			C612_2.8 P180 BN180M2	151
1115	179	2.2	2.6	3860			C512_2.6 P180 BN180M2	147

## 30 kW

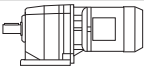



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
21.2	12584	1.0	69.4	61300			C1003_69.4 P200 BN200L4	164
25.6	10395	1.2	57.4	62200			C1003_57.4 P200 BN200L4	164
32	8379	1.4	46.2	62300			C1003_46.2 P200 BN200L4	164
37	7142	1.0	39.4	31900			C903_39.4 P200 BN200L4	161
50	5472	1.7	29.6	59800			C1002_29.6 P200 BN200L4	164
50	5450	1.1	29.4	32600			C902_29.4 P200 BN200L4	161
64	4243	1.5	22.9	32900			C902_22.9 P200 BN200L4	161
66	4119	2.4	22.2	57700			C1002_22.2 P200 BN200L4	164
79	3459	1.8	18.7	32600			C902_18.7 P200 BN200L4	161
79	3456	3.1	18.7	56000			C1002_18.7 P200 BN200L4	164



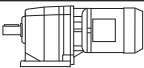



## 30 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC	
99	2761	1.3	14.9	20600			C802_14.9 P200 BN200L4	158
106	2566	2.4	13.9	31500			C902_13.9 P200 BN200L4	161
122	2225	1.7	12.0	20500			C802_12.0 P200 BN200L4	158
131	2079	2.7	11.2	30600			C902_11.2 P200 BN200L4	161
153	1778	2.1	9.6	20100			C802_9.6 P200 BN200L4	158
154	1763	1.2	9.5	11000			C702_9.5 P200 BN200L4	155
184	1482	1.4	8.0	11600			C702_8.0 P200 BN200L4	155
193	1412	2.4	7.6	19500			C802_7.6 P200 BN200L4	158
209	1303	2.6	7.0	19300			C802_7.0 P200 BN200L4	158
235	1158	1.7	6.3	11500			C702_6.3 P200 BN200L4	155
241	1131	2.8	6.1	18900			C802_6.1 P200 BN200L4	158
261	1044	3.0	5.6	18600			C802_5.6 P200 BN200L4	158
322	846	2.0	4.6	11000			C702_4.6 P200 BN200L4	155

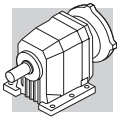
## 37 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC (*)	
25.8	12734	0.9	57.4	55300			C1003_57.4 P225 IEC225S4	164
32	10264	1.2	46.2	56600			C1003_46.2 P225 IEC225S4	164
40	8201	1.4	36.9	57000			C1003_36.9 P225 IEC225S4	164
60	5631	1.2	24.8	29500			C902_24.8 P225 IEC225S4	161
61	5467	2.0	24.1	55200			C1002_24.1 P225 IEC225S4	164
79	4237	1.5	18.7	30100			C902_18.7 P225 IEC225S4	161
79	4234	2.5	18.7	53600			C1002_18.7 P225 IEC225S4	164
89	3779	0.9	16.7	18500			C802_16.7 P225 IEC225S4	158
107	3143	1.9	13.9	29700			C902_13.9 P225 IEC225S4	161
108	3122	1.1	13.8	18800			C802_13.8 P225 IEC225S4	158
123	2726	1.4	12.0	18800			C802_12.0 P225 IEC225S4	158
132	2546	2.2	11.2	29100			C902_11.2 P225 IEC225S4	161
154	2178	1.7	9.6	18800			C802_9.6 P225 IEC225S4	158
164	2046	2.5	9.0	28300			C902_9.0 P225 IEC225S4	161
194	1730	2.0	7.6	18500			C802_7.6 P225 IEC225S4	158
202	1661	2.9	7.3	27400			C902_7.3 P225 IEC225S4	161
242	1386	2.3	6.1	18000			C802_6.1 P225 IEC225S4	158
264	1271	3.5	5.6	26100			C902_5.6 P225 IEC225S4	161
286	1173	3.7	5.2	25700			C902_5.2 P225 IEC225S4	161

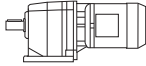

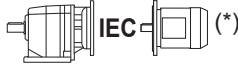

## 45 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC (*)	
32	12483	1.0	46.2	50200			C1003_46.2 P225 IEC225M4	164
40	9974	1.2	36.9	51900			C1003_36.9 P225 IEC225M4	164
50	8153	1.1	29.6	51900			C1002_29.6 P225 IEC225M4	164
65	6322	1.0	22.9	26400			C902_22.9 P225 IEC225M4	161
67	6137	1.6	22.2	51700			C1002_22.2 P225 IEC225M4	164

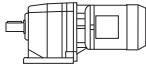

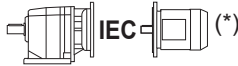

\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



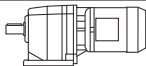



## 45 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC (*)	
79	5153	1.2	18.7	27200			C902_18.7 P225 IEC225M4	161
79	5149	2.1	18.7	51000			C1002_18.7 P225 IEC225M4	164
107	3822	1.6	13.9	27600			C902_13.9 P225 IEC225M4	161
108	3797	0.9	13.8	16700			C802_13.8 P225 IEC225M4	158
123	3315	1.1	12.0	17000			C802_12.0 P225 IEC225M4	158
132	3097	1.8	11.2	27400			C902_11.2 P225 IEC225M4	161
154	2649	1.4	9.6	17300			C802_9.6 P225 IEC225M4	158
164	2488	2.1	9.0	26900			C902_9.0 P225 IEC225M4	161
194	2104	1.6	7.6	17300			C802_7.6 P225 IEC225M4	158
202	2020	2.4	7.3	26300			C902_7.3 P225 IEC225M4	161
262	1556	2.0	5.6	17000			C802_5.6 P225 IEC225M4	158
264	1546	2.8	5.6	25200			C902_5.6 P225 IEC225M4	161
279	1464	2.9	5.2	25200			C902_5.2 P225 IEC225M4	161

## 55 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC (*)	
40	12191	1.0	36.9	45400			C1003_36.9 P250 IEC250M4	164
50	9965	0.9	29.6	46700			C1002_29.6 P250 IEC250M4	164
61	8126	1.3	24.1	47500			C1002_24.1 P250 IEC250M4	164
79	6298	1.0	18.7	22200			C902_18.7 P250 IEC250M4	161
79	6294	1.7	18.7	47700			C1002_18.7 P250 IEC250M4	164
107	4672	1.3	13.9	24900			C902_13.9 P250 IEC250M4	161
110	4549	2.1	13.5	46500			C1002_13.5 P250 IEC250M4	164
135	3686	2.4	10.9	45400			C1002_10.9 P250 IEC250M4	164
164	3050	2.7	9.0	44100			C1002_9.0 P250 IEC250M4	164
164	3041	1.7	9.0	25200			C902_9.0 P250 IEC250M4	161
202	2468	2.0	7.3	24900			C902_7.3 P250 IEC250M4	161
209	2383	3.2	7.1	42300			C1002_7.1 P250 IEC250M4	164
264	1889	2.3	5.6	24200			C902_5.6 P250 IEC250M4	161
286	1744	2.5	5.2	24000			C902_5.2 P250 IEC250M4	161

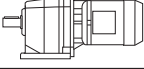




## 75 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC (*)	
62	11044	1.0	24.1	38100			C1002_24.1 P280 IEC280S4	164
67	10194	1.0	22.2	40000			C1002_22.2 P280 IEC280S4	164
73	9266	1.2	20.2	40500			C1002_20.2 P280 IEC280S4	164
80	8553	1.3	18.7	41100			C1002_18.7 P280 IEC280S4	164
90	7552	1.3	16.5	41400			C1002_16.5 P280 IEC280S4	164
98	6971	1.4	15.2	41800			C1002_15.2 P280 IEC280S4	164
110	6182	1.5	13.5	41700			C1002_13.5 P280 IEC280S4	164
119	5707	1.6	12.5	41800			C1002_12.5 P280 IEC280S4	164
136	5010	1.8	10.9	41500			C1002_10.9 P280 IEC280S4	164
147	4624	1.9	10.1	41400			C1002_10.1 P280 IEC280S4	164

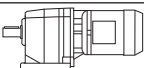




\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



## 75 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC  (*)	
164	4146	2.0	9.0	40900			C1002_9.0 P280 IEC280S4	164
178	3827	2.1	8.4	40600			C1002_8.4 P280 IEC280S4	164
210	3238	2.4	7.1	39700			C1002_7.1 P280 IEC280S4	164
228	2989	2.5	6.5	39300			C1002_6.5 P280 IEC280S4	164
278	2444	2.8	5.3	38100			C1002_5.3 P280 IEC280S4	164
302	2256	3.0	4.9	37600			C1002_4.9 P280 IEC280S4	164

## 90 kW

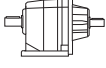

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC  (*)	
73	11119	1.0	20.2	30600			C1002_20.2 P280 IEC280M4	164
80	10264	1.0	18.7	35500			C1002_18.7 P280 IEC280M4	164
90	9062	1.1	16.5	37100			C1002_16.5 P280 IEC280M4	164
98	8365	1.2	15.2	37800			C1002_15.2 P280 IEC280M4	164
110	7419	1.3	13.5	38100			C1002_13.5 P280 IEC280M4	164
119	6848	1.4	12.5	38500			C1002_12.5 P280 IEC280M4	164
136	6012	1.5	10.9	38600			C1002_10.9 P280 IEC280M4	164
147	5549	1.6	10.1	38700			C1002_10.1 P280 IEC280M4	164
164	4975	1.7	9.0	38500			C1002_9.0 P280 IEC280M4	164
178	4592	1.8	8.4	38400			C1002_8.4 P280 IEC280M4	164
210	3886	2.0	7.1	37800			C1002_7.1 P280 IEC280M4	164
228	3587	2.1	6.5	37600			C1002_6.5 P280 IEC280M4	164
278	2933	2.4	5.3	36600			C1002_5.3 P280 IEC280M4	164
302	2707	2.5	4.9	36300			C1002_4.9 P280 IEC280M4	164

\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



**C 12**

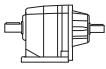

**100 Nm**

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 12 2_2.8	2.8	1012	30	3.3	750	600	506	37	2.1	990	790	129
C 12 2_3.2	3.2	873	32	3.1	730	600	436	40	1.9	960	790	
C 12 2_3.7	3.7	767	34	2.9	720	610	383	42	1.8	960	800	
C 12 2_4.3	4.3	649	36	2.6	710	630	325	45	1.6	890	800	
C 12 2_4.9	4.9	575	38	2.4	710	640	288	48	1.5	880	800	
C 12 2_5.6	5.6	500	40	2.2	680	650	250	51	1.4	840	810	
C 12 2_6.2	6.2	449	42	2.1	650	660	225	53	1.3	810	830	
C 12 2_7.6	7.6	367	45	1.8	1140	1220	184	56	1.1	1300	1540	
C 12 2_8.8	8.8	317	47	1.6	1140	1280	158	59	1.0	1300	1620	
C 12 2_10.1	10.1	278	49	1.5	1150	1340	139	63	0.97	1300	1680	
C 12 2_11.9	11.9	236	53	1.4	1140	1390	118	67	0.87	1300	1760	
C 12 2_13.4	13.4	209	55	1.3	1140	1460	104	70	0.81	1300	1840	
C 12 2_15.4	15.4	182	58	1.2	1130	1500	91	73	0.73	1300	1930	
C 12 2_17.2	17.2	163	60	1.1	1130	1590	82	76	0.68	1300	2000	
C 12 2_18.4	18.4	152	62	1.0	1120	1620	76	78	0.65	1300	2000	
C 12 2_20.6	20.6	136	65	1.0	1110	1670	68	82	0.61	1300	2000	
C 12 2_23.2	23.2	120	67	0.89	1110	1720	60	85	0.56	1300	2000	
C 12 2_25.4	25.4	110	69	0.84	1110	1800	55	88	0.54	1300	2000	
C 12 2_29.5	29.5	95	74	0.77	1100	1880	47	93	0.49	1300	2000	
C 12 2_32.8	32.8	85	75	0.71	1090	1970	43	90	0.42	1300	2000	
C 12 2_37.0	37.0	76	79	0.66	1070	2000	38	90	0.38	1300	2000	
C 12 2_42.3	42.3	66	84	0.61	1060	2000	33	100	0.36	1300	2000	
C 12 2_47.6	47.6	59	85	0.55	1050	2000	29.4	90	0.29	1300	2000	
C 12 2_55.2	55.2	51	89	0.50	1030	2000	25.4	90	0.25	1300	2000	
C 12 2_66.2	66.2	42	86	0.40	1060	2000	21.2	90	0.21	1300	2000	





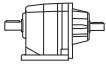

# C 12 100 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 12 2_2.8	2.8	325	43	1.5	1140	910	181	53	1.1	1300	1080	129
C 12 2_3.2	3.2	281	46	1.4	1100	910	156	57	1.0	1300	1080	
C 12 2_3.7	3.7	246	49	1.3	1090	920	137	60	0.91	1300	1100	
C 12 2_4.3	4.3	209	52	1.2	1050	920	116	64	0.82	1280	1100	
C 12 2_4.9	4.9	185	55	1.1	1050	960	103	67	0.76	1280	1160	
C 12 2_5.6	5.6	161	58	1.0	1000	980	89	69	0.68	1300	1280	
C 12 2_6.2	6.2	144	61	1.0	960	980	80	70	0.62	1300	1390	
C 12 2_7.6	7.6	118	65	0.85	1300	1780	66	79	0.57	1300	2000	
C 12 2_8.8	8.8	102	69	0.77	1300	1830	57	84	0.52	1300	2000	
C 12 2_10.1	10.1	89	72	0.71	1300	1950	50	88	0.48	1300	2000	
C 12 2_11.9	11.9	76	77	0.64	1300	2000	42	89	0.41	1300	2000	
C 12 2_13.4	13.4	67	81	0.60	1300	2000	37	90	0.37	1300	2000	
C 12 2_15.4	15.4	58	85	0.55	1300	2000	32	89	0.32	1300	2000	
C 12 2_17.2	17.2	52	88	0.51	1300	2000	29.1	90	0.29	1300	2000	
C 12 2_18.4	18.4	49	88	0.47	1300	2000	27.2	89	0.27	1300	2000	
C 12 2_20.6	20.6	44	89	0.43	1300	2000	24.2	89	0.24	1300	2000	
C 12 2_23.2	23.2	39	89	0.38	1300	2000	21.5	89	0.21	1300	2000	
C 12 2_25.4	25.4	35	89	0.35	1300	2000	19.7	89	0.19	1300	2000	
C 12 2_29.5	29.5	31	100	0.34	1300	2000	16.9	100	0.19	1300	2000	
C 12 2_32.8	32.8	27.5	90	0.27	1300	2000	15.3	90	0.15	1300	2000	
C 12 2_37.0	37.0	24.3	90	0.24	1300	2000	13.5	90	0.13	1300	2000	
C 12 2_42.3	42.3	21.3	100	0.23	1300	2000	11.8	100	0.13	1300	2000	
C 12 2_47.6	47.6	18.9	90	0.19	1300	2000	10.5	90	0.10	1300	2000	
C 12 2_55.2	55.2	16.3	90	0.16	1300	2000	9.1	90	0.09	1300	2000	
C 12 2_66.2	66.2	13.6	90	0.13	1300	2000	7.6	90	0.07	1300	2000	



# C 22

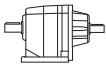

# 200 Nm

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 22 2_2.7	2.7	1029	65	7.4	—	1150	514	80	4.5	—	1460	133
C 22 2_3.3	3.3	842	68	6.3	—	1230	421	85	3.9	—	1560	
C 22 2_3.7	3.7	755	70	5.8	—	1290	378	90	3.7	—	1610	
C 22 2_4.3	4.3	658	75	5.4	—	1320	329	94	3.4	—	1650	
C 22 2_4.8	4.8	587	80	5.2	—	1370	294	100	3.2	—	1730	
C 22 2_5.6	5.6	501	82	4.5	—	1410	250	102	2.8	—	1790	
C 22 2_6.1	6.1	460	85	4.3	—	1500	230	105	2.7	—	1900	
C 22 2_7.1	7.1	395	105	4.6	1090	1570	198	130	2.8	1420	1990	
C 22 2_8.7	8.7	324	110	3.9	1130	1680	162	138	2.5	1430	2090	
C 22 2_9.6	9.6	290	115	3.7	1160	1750	145	145	2.3	1460	2200	
C 22 2_11.1	11.1	253	120	3.3	1130	1820	126	153	2.1	1390	2270	
C 22 2_12.4	12.4	226	125	3.1	1160	1900	113	160	2.0	1420	2380	
C 22 2_14.5	14.5	193	133	2.8	1090	1980	96	168	1.8	1360	2450	
C 22 2_15.8	15.8	177	140	2.7	1030	2030	88	175	1.7	1320	2570	
C 22 2_18.1	18.1	154	145	2.5	1000	2140	77	183	1.6	1250	2650	
C 22 2_20.0	20.0	140	150	2.3	1000	2210	70	190	1.5	1250	2770	
C 22 2_21.5	21.5	131	153	2.2	970	2250	65	194	1.4	1190	2820	
C 22 2_24.3	24.3	115	160	2.0	980	2350	58	200	1.3	1250	2970	
C 22 2_27.2	27.2	103	166	1.9	960	2420	52	200	1.1	1340	3110	
C 22 2_29.6	29.6	95	175	1.8	850	2490	47	200	1.0	1350	3270	
C 22 2_33.1	33.1	85	178	1.7	840	2590	42	200	0.93	1390	3400	
C 22 2_36.8	36.8	76	185	1.6	750	2690	38	200	0.84	1400	3610	
C 22 2_43.3	43.3	65	185	1.3	830	2910	32	190	0.68	1610	3950	
C 22 2_48.6	48.6	58	150	0.95	1300	3300	28.8	155	0.49	1740	4400	
C 22 2_54.7	54.7	51	150	0.85	1320	3470	25.6	155	0.44	1770	4600	
C 22 2_63.3	63.3	44	125	0.61	1400	3860	22.1	130	0.32	1820	5000	
C 22 3_60.0	60.0	47	180	0.93	840	3400	23.3	190	0.49	1230	4500	
C 22 3_65.3	65.3	43	200	0.94	880	3440	21.4	200	0.47	1270	4670	
C 22 3_74.8	74.8	37	200	0.83	940	3600	18.7	200	0.41	1270	4800	
C 22 3_82.6	82.6	34	200	0.75	1010	3820	16.9	200	0.37	1300	5000	
C 22 3_88.5	88.5	32	200	0.70	1040	3900	15.8	200	0.35	1300	5000	
C 22 3_100.2	100.2	28.0	200	0.62	1090	4160	14.0	200	0.31	1300	5000	
C 22 3_112.0	112.0	25.0	200	0.55	1130	4300	12.5	200	0.28	1300	5000	
C 22 3_122.2	122.2	22.9	200	0.51	1160	4540	11.5	200	0.25	1300	5000	
C 22 3_136.5	136.5	20.5	200	0.45	1180	4700	10.3	200	0.23	1300	5000	
C 22 3_151.7	151.7	18.5	200	0.41	1220	4980	9.2	200	0.20	1300	5000	
C 22 3_178.5	178.5	15.7	200	0.35	1260	5000	7.8	200	0.17	1300	5000	
C 22 3_200.7	200.7	14.0	190	0.29	1280	5000	7.0	190	0.15	1300	5000	
C 22 3_225.8	225.8	12.4	180	0.25	1300	5000	6.2	185	0.13	1300	5000	
C 22 3_261.0	261.0	10.7	145	0.17	1300	5000	5.4	155	0.09	1300	5000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



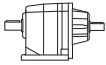

# C 22 200 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 22 2_2.7	2.7	331	95	3.5	—	1670	184	100	2.0	400	2150	133
C 22 2_3.3	3.3	271	100	3.0	—	1760	150	103	1.7	570	2300	
C 22 2_3.7	3.7	243	105	2.8	—	1850	135	105	1.6	800	2430	
C 22 2_4.3	4.3	211	105	2.4	—	1980	117	105	1.4	940	2550	
C 22 2_4.8	4.8	189	105	2.2	170	2090	105	105	1.2	1200	2710	
C 22 2_5.6	5.6	161	105	1.9	200	2250	89	112	1.1	1020	2850	
C 22 2_6.1	6.1	148	110	1.8	200	2290	82	116	1.1	980	2930	
C 22 2_7.1	7.1	127	150	2.1	1650	2310	71	180	1.4	2060	2820	
C 22 2_8.7	8.7	104	160	1.8	1650	2440	58	190	1.2	2100	3000	
C 22 2_9.6	9.6	93	170	1.7	1650	2530	52	200	1.1	2130	3130	
C 22 2_11.1	11.1	81	176	1.6	1640	2650	45	200	0.99	2170	3270	
C 22 2_12.4	12.4	73	185	1.5	1650	2760	40	200	0.89	2200	3520	
C 22 2_14.5	14.5	62	193	1.3	1610	2850	34	200	0.76	2200	3670	
C 22 2_15.8	15.8	57	200	1.3	1580	2990	32	200	0.70	2200	3920	
C 22 2_18.1	18.1	50	200	1.1	1650	3150	27.6	200	0.61	2200	4200	
C 22 2_20.0	20.0	45	200	0.99	1750	3340	25.0	200	0.55	2200	4350	
C 22 2_21.5	21.5	42	200	0.92	1760	3450	23.3	200	0.51	2200	4550	
C 22 2_24.3	24.3	37	200	0.82	1900	3650	20.6	200	0.45	2200	4720	
C 22 2_27.2	27.2	33	200	0.73	1950	3820	18.4	200	0.41	2200	5000	
C 22 2_29.6	29.6	30	200	0.67	1980	3990	16.9	200	0.37	2200	5000	
C 22 2_33.1	33.1	27.2	200	0.60	1970	4200	15.1	200	0.33	2200	5000	
C 22 2_36.8	36.8	24.5	200	0.54	1990	4390	13.6	200	0.30	2200	5000	
C 22 2_43.3	43.3	20.8	190	0.44	2020	4770	11.6	190	0.24	2200	5000	
C 22 2_48.6	48.6	18.5	160	0.33	2050	5000	10.3	170	0.19	2200	5000	
C 22 2_54.7	54.7	16.4	160	0.29	2090	5000	9.1	170	0.17	2200	5000	
C 22 2_63.3	63.3	14.2	135	0.21	2140	5000	7.9	140	0.12	2200	5000	
C 22 3_60.0	60.0	15.0	190	0.31	1300	5000	8.3	200	0.18	1300	5000	
C 22 3_65.3	65.3	13.8	200	0.31	1300	5000	7.7	200	0.17	1300	5000	
C 22 3_74.8	74.8	12.0	200	0.27	1300	5000	6.7	200	0.15	1300	5000	
C 22 3_82.6	82.6	10.9	200	0.25	1300	5000	6.1	200	0.14	1300	5000	
C 22 3_88.5	88.5	10.2	200	0.22	1300	5000	5.6	200	0.12	1300	5000	
C 22 3_100.2	100.2	9.0	200	0.20	1300	5000	5.0	200	0.11	1300	5000	
C 22 3_112.0	112.0	8.0	200	0.18	1300	5000	4.5	200	0.10	1300	5000	
C 22 3_122.2	122.2	7.4	200	0.17	1300	5000	4.1	200	0.09	1300	5000	
C 22 3_136.5	136.5	6.6	200	0.15	1300	5000	3.7	200	0.08	1300	5000	
C 22 3_151.7	151.7	5.9	200	0.13	1300	5000	3.3	200	0.07	1300	5000	
C 22 3_178.5	178.5	5.0	200	0.11	1300	5000	2.8	200	0.06	1300	5000	
C 22 3_200.7	200.7	4.5	195	0.10	1300	5000	2.5	200	0.05	1300	5000	
C 22 3_225.8	225.8	4.0	195	0.09	1300	5000	2.2	200	0.05	1300	5000	
C 22 3_261.0	261.0	3.4	160	0.06	1300	5000	1.9	165	0.04	1300	5000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)

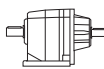



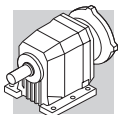
# C 32 300 Nm

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
<b>C 32 2_2.9</b>	2.9	973	105	11.3	670	1710	486	130	7.0	940	2170	137
<b>C 32 2_3.4</b>	3.4	821	116	10.5	480	1770	411	138	6.2	900	2280	
<b>C 32 2_3.7</b>	3.7	750	120	9.9	560	1830	375	150	6.2	750	2310	
<b>C 32 2_4.5</b>	4.5	622	129	8.8	450	1930	311	152	5.2	970	2500	
<b>C 32 2_5.0</b>	5.0	565	135	8.4	470	1990	283	155	4.8	1100	2600	
<b>C 32 2_5.7</b>	5.7	495	141	7.7	380	2080	248	155	4.2	1250	2760	
<b>C 32 2_6.3</b>	6.3	447	150	7.4	300	2130	223	155	3.8	1450	2890	
<b>C 32 2_7.2</b>	7.2	391	160	6.9	1890	2370	195	200	4.3	2200	2990	
<b>C 32 2_8.5</b>	8.5	330	168	6.1	1900	2510	165	209	3.8	2200	3180	
<b>C 32 2_9.3</b>	9.3	301	175	5.8	1910	2580	151	220	3.7	2200	3260	
<b>C 32 2_11.2</b>	11.2	250	187	5.2	1910	2740	125	231	3.2	2200	3480	
<b>C 32 2_12.3</b>	12.3	227	195	4.9	1910	2820	114	245	3.1	2200	3560	
<b>C 32 2_14.1</b>	14.1	199	205	4.5	1900	2940	99	251	2.8	2200	3750	
<b>C 32 2_15.6</b>	15.6	180	215	4.3	1900	3030	90	270	2.7	2200	3820	
<b>C 32 2_18.2</b>	18.2	154	223	3.8	1900	3210	77	275	2.3	2200	4070	
<b>C 32 2_20.1</b>	20.1	139	235	3.6	1900	3290	70	295	2.3	2200	4160	
<b>C 32 2_22.9</b>	22.9	122	240	3.2	1880	3470	61	295	2.0	2200	4400	
<b>C 32 2_25.1</b>	25.1	111	250	3.1	1890	3560	56	300	1.8	2200	4570	
<b>C 32 2_26.9</b>	26.9	104	255	2.9	1880	3650	52	300	1.7	2200	4700	
<b>C 32 2_29.8</b>	29.8	94	265	2.7	1880	3770	47	300	1.6	2200	4920	
<b>C 32 2_33.1</b>	33.1	85	270	2.5	1880	3920	42	300	1.4	2200	5150	
<b>C 32 2_36.1</b>	36.1	78	280	2.4	1870	4030	39	300	1.3	2200	5350	
<b>C 32 2_40.7</b>	40.7	69	290	2.2	1860	4200	34	300	1.1	2200	5500	
<b>C 32 2_45.3</b>	45.3	62	300	2.0	1860	4360	31	300	1.0	2200	5500	
<b>C 32 2_52.4</b>	52.4	53	300	1.8	1860	4650	26.7	300	0.88	2200	5500	
<b>C 32 2_59.4</b>	59.4	47	205	1.1	2020	5000	23.6	215	0.56	2200	5500	
<b>C 32 2_66.8</b>	66.8	42	205	0.95	2020	5500	21.0	215	0.50	2200	5500	
<b>C 32 3_74.7</b>	74.7	37	280	1.2	750	5500	18.7	290	0.60	1170	5500	
<b>C 32 3_82.6</b>	82.6	34	300	1.1	820	5500	17.0	300	0.56	1240	5500	
<b>C 32 3_94.2</b>	94.2	29.7	300	0.98	900	5500	14.9	300	0.49	1270	5500	
<b>C 32 3_103.3</b>	103.3	27.1	300	0.90	980	5500	13.6	300	0.45	1300	5500	
<b>C 32 3_110.6</b>	110.6	25.3	300	0.84	1000	5500	12.7	300	0.42	1300	5500	
<b>C 32 3_122.4</b>	122.4	22.9	300	0.76	1060	5500	11.4	300	0.38	1300	5500	
<b>C 32 3_136.0</b>	136.0	20.6	300	0.68	1110	5500	10.3	300	0.34	1300	5500	
<b>C 32 3_148.4</b>	148.4	18.9	300	0.62	1130	5500	9.4	300	0.31	1300	5500	
<b>C 32 3_167.4</b>	167.4	16.7	300	0.55	1180	5500	8.4	300	0.28	1300	5500	
<b>C 32 3_186.0</b>	186.0	15.1	300	0.50	1200	5500	7.5	300	0.25	1300	5500	
<b>C 32 3_215.6</b>	215.6	13.0	300	0.43	1240	5500	6.5	300	0.21	1300	5500	
<b>C 32 3_244.2</b>	244.2	11.5	240	0.30	1280	5500	5.7	255	0.16	1300	5500	
<b>C 32 3_274.7</b>	274.7	10.2	240	0.27	1300	5500	5.1	255	0.14	1300	5500	



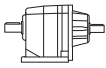

# C 32 300 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 32 2_2.9	2.9	313	150	5.2	1120	2510	174	155	3.0	2200	3220	137
C 32 2_3.4	3.4	264	152	4.4	1390	2690	147	167	2.7	2200	3390	
C 32 2_3.7	3.7	241	155	4.1	1570	2790	134	175	2.6	2200	3480	
C 32 2_4.5	4.5	200	158	3.5	1750	3010	111	188	2.3	2200	3690	
C 32 2_5.0	5.0	182	162	3.2	1870	3120	101	198	2.2	2200	3790	
C 32 2_5.7	5.7	159	171	3.0	1730	3250	88	198	1.9	2200	4010	
C 32 2_6.3	6.3	144	178	2.8	1730	3350	80	200	1.8	2200	4180	
C 32 2_7.2	7.2	126	235	3.3	2200	3450	70	285	2.2	2200	4200	
C 32 2_8.5	8.5	106	246	2.9	2200	3660	59	288	1.9	2200	4520	
C 32 2_9.3	9.3	97	260	2.8	2200	3750	54	300	1.8	2200	4640	
C 32 2_11.2	11.2	80	272	2.4	2200	4010	45	300	1.5	2200	5030	
C 32 2_12.3	12.3	73	285	2.3	2200	4120	41	300	1.3	2200	5250	
C 32 2_14.1	14.1	64	290	2.0	2200	4340	36	300	1.2	2200	5500	
C 32 2_15.6	15.6	58	300	1.9	2200	4500	32	300	1.1	2200	5500	
C 32 2_18.2	18.2	50	300	1.6	2200	4810	27.5	300	0.91	2200	5500	
C 32 2_20.1	20.1	45	300	1.5	2200	5030	24.9	300	0.82	2200	5500	
C 32 2_22.9	22.9	39	300	1.3	2200	5300	21.8	300	0.72	2200	5500	
C 32 2_25.1	25.1	36	300	1.2	2200	5500	19.9	300	0.66	2200	5500	
C 32 2_26.9	26.9	33	300	1.1	2200	5500	18.6	300	0.61	2200	5500	
C 32 2_29.8	29.8	30	300	1.0	2200	5500	16.8	300	0.56	2200	5500	
C 32 2_33.1	33.1	27.2	300	0.90	2200	5500	15.1	300	0.50	2200	5500	
C 32 2_36.1	36.1	24.9	300	0.82	2200	5500	13.9	300	0.46	2200	5500	
C 32 2_40.7	40.7	22.1	300	0.73	2200	5500	12.3	300	0.41	2200	5500	
C 32 2_45.3	45.3	19.9	300	0.66	2200	5500	11.0	300	0.37	2200	5500	
C 32 2_52.4	52.4	17.2	300	0.57	2200	5500	9.5	300	0.32	2200	5500	
C 32 2_59.4	59.4	15.2	220	0.37	2200	5500	8.4	230	0.21	2200	5500	
C 32 2_66.8	66.8	13.5	220	0.33	2200	5500	7.5	230	0.19	2200	5500	
C 32 3_74.7	74.7	12.0	290	0.38	1300	5500	6.7	300	0.22	1300	5500	
C 32 3_82.6	82.6	10.9	300	0.36	1300	5500	6.1	300	0.20	1300	5500	
C 32 3_94.2	94.2	9.6	300	0.32	1300	5500	5.3	300	0.18	1300	5500	
C 32 3_103.3	103.3	8.7	300	0.29	1300	5500	4.8	300	0.16	1300	5500	
C 32 3_110.6	110.6	8.1	300	0.27	1300	5500	4.5	300	0.15	1300	5500	
C 32 3_122.4	122.4	7.4	300	0.24	1300	5500	4.1	300	0.14	1300	5500	
C 32 3_136.0	136.0	6.6	300	0.22	1300	5500	3.7	300	0.12	1300	5500	
C 32 3_148.4	148.4	6.1	300	0.20	1300	5500	3.4	300	0.11	1300	5500	
C 32 3_167.4	167.4	5.4	300	0.18	1300	5500	3.0	300	0.10	1300	5500	
C 32 3_186.0	186.0	4.8	300	0.16	1300	5500	2.7	300	0.09	1300	5500	
C 32 3_215.6	215.6	4.2	300	0.14	1300	5500	2.3	300	0.08	1300	5500	
C 32 3_244.2	244.2	3.7	260	0.11	1300	5500	2.0	275	0.06	1300	5500	
C 32 3_274.7	274.7	3.3	260	0.09	1300	5500	1.8	275	0.06	1300	5500	



# C 36

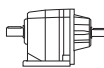

# 450 Nm

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 36 2_2.7	2.7	1042	140	16.1	670	1750	521	170	9.8	1150	2240	141
C 36 2_3.2	3.2	880	145	14.1	790	1870	440	177	8.6	1240	2380	
C 36 2_3.5	3.5	803	150	13.3	910	1920	402	185	8.2	1320	2440	
C 36 2_4.2	4.2	667	157	11.5	920	2050	333	192	7.1	1410	2620	
C 36 2_4.6	4.6	606	165	11.0	920	2110	303	200	6.7	1470	2700	
C 36 2_5.3	5.3	530	167	9.8	990	2230	265	200	5.8	1650	2870	
C 36 2_5.8	5.8	479	170	9.0	1160	2330	239	200	5.3	1990	3020	
C 36 2_6.8	6.8	413	285	13.0	1750	2130	206	355	8.1	2220	2710	
C 36 2_8.0	8.0	349	297	11.4	1770	2270	174	365	7.0	2250	2910	
C 36 2_8.8	8.8	318	310	10.9	1780	2330	159	380	6.7	2270	3000	
C 36 2_10.6	10.6	264	325	9.5	1790	2500	132	380	5.5	2320	3290	
C 36 2_11.7	11.7	240	340	9.0	1790	2560	120	380	5.0	2370	3460	
C 36 2_13.3	13.3	210	350	8.1	1800	2700	105	380	4.4	2400	3670	
C 36 2_14.8	14.8	190	360	7.5	1800	2810	95	380	4.0	2440	3890	
C 36 2_17.2	17.2	163	370	6.6	1810	3000	81	380	3.4	2460	4200	
C 36 2_19.0	19.0	147	380	6.2	1820	3110	74	380	3.1	2500	4400	
C 36 3_22.1	22.1	127	340	4.7	2300	3570	63	430	3.0	2900	4490	
C 36 3_26.2	26.2	107	355	4.2	2300	3790	53	440	2.6	2910	4810	
C 36 3_28.7	28.7	98	385	4.1	2300	3820	49	450	2.4	2930	4980	
C 36 3_34.6	34.6	81	400	3.6	2300	4100	40	450	2.0	2950	5420	
C 36 3_38.1	38.1	74	435	3.5	2300	4140	37	450	1.8	2970	5690	
C 36 3_43.5	43.5	64	440	3.1	2300	4450	32	450	1.6	2980	6050	
C 36 3_48.2	48.2	58	450	2.9	2310	4580	29.1	450	1.4	2990	6330	
C 36 3_56.2	56.2	50	450	2.5	2320	4970	24.9	450	1.2	2990	6500	
C 36 3_62.0	62.0	45	450	2.2	2330	5170	22.6	450	1.1	3000	6500	
C 36 3_70.8	70.8	40	450	2.0	2340	5520	19.8	450	0.98	3000	6500	
C 36 3_77.6	77.6	36	450	1.8	2350	5740	18.0	450	0.90	3000	6500	
C 36 3_83.1	83.1	34	450	1.7	2350	5930	16.8	450	0.84	3000	6500	
C 36 3_91.9	91.9	30	450	1.5	2360	6200	15.2	450	0.76	3000	6500	
C 36 3_102.2	102.2	27.4	450	1.4	2360	6400	13.7	450	0.68	3000	6500	
C 36 3_111.5	111.5	25.1	450	1.2	2360	6500	12.6	450	0.62	3000	6500	
C 36 3_125.8	125.8	22.3	450	1.1	2370	6500	11.1	450	0.55	3000	6500	
C 36 3_139.8	139.8	20.0	450	0.99	2370	6500	10.0	450	0.50	3000	6500	
C 36 3_162.0	162.0	17.3	450	0.86	2380	6500	8.6	450	0.43	3000	6500	
C 36 3_183.5	183.5	15.3	450	0.76	2380	6500	7.6	450	0.38	3000	6500	
C 36 3_206.4	206.4	13.6	450	0.67	2380	6500	6.8	450	0.34	3000	6500	
C 36 4_230.9	230.9	12.1	450	0.60	1150	6500	6.1	450	0.30	1300	6500	
C 36 4_255.0	255.0	11.0	450	0.54	1190	6500	5.5	450	0.27	1300	6500	
C 36 4_290.9	290.9	9.6	450	0.48	1210	6500	4.8	450	0.24	1300	6500	
C 36 4_318.9	318.9	8.8	450	0.44	1230	6500	4.4	450	0.22	1300	6500	
C 36 4_341.7	341.7	8.2	450	0.41	1240	6500	4.1	450	0.20	1300	6500	
C 36 4_377.9	377.9	7.4	450	0.37	1260	6500	3.7	450	0.18	1300	6500	
C 36 4_420.2	420.2	6.7	450	0.33	1270	6500	3.3	450	0.17	1300	6500	
C 36 4_458.4	458.4	6.1	450	0.30	1280	6500	3.1	450	0.15	1300	6500	
C 36 4_517.2	517.2	5.4	450	0.27	1300	6500	2.7	450	0.13	1300	6500	
C 36 4_574.7	574.7	4.9	450	0.24	1300	6500	2.4	450	0.12	1300	6500	
C 36 4_665.9	665.9	4.2	450	0.21	1300	6500	2.1	450	0.10	1300	6500	
C 36 4_754.2	754.2	3.7	450	0.18	1300	6500	1.9	450	0.09	1300	6500	
C 36 4_848.5	848.5	3.3	450	0.16	1300	6500	1.6	450	0.08	1300	6500	





# C 36 450 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 36 2_2.7	2.7	335	190	7.0	1670	2640	186	200	4.1	3000	3390	
C 36 2_3.2	3.2	283	190	5.9	2080	2790	157	200	3.5	3000	3650	
C 36 2_3.5	3.5	258	200	5.7	2160	2920	143	200	3.2	3000	3810	
C 36 2_4.2	4.2	214	200	4.7	2410	3170	119	200	2.6	3000	4100	
C 36 2_4.6	4.6	195	200	4.3	2590	3320	108	200	2.4	3000	4300	
C 36 2_5.3	5.3	171	200	3.8	2630	3500	95	200	2.1	3000	4520	
C 36 2_5.8	5.8	154	200	3.4	2680	3690	86	200	1.9	3000	4740	
C 36 2_6.8	6.8	133	380	5.6	2660	3290	74	380	3.1	3000	4400	
C 36 2_8.0	8.0	112	380	4.7	2720	3580	62	380	2.6	3000	4750	
C 36 2_8.8	8.8	102	380	4.3	2790	3750	57	380	2.4	3000	4960	
C 36 2_10.6	10.6	85	380	3.6	2850	4110	47	380	2.0	3000	5360	
C 36 2_11.7	11.7	77	380	3.2	2900	4300	43	380	1.8	3000	5630	
C 36 2_13.3	13.3	68	380	2.8	2930	4590	38	380	1.6	3000	5930	
C 36 2_14.8	14.8	61	380	2.6	2970	4800	34	380	1.4	3000	6240	
C 36 2_17.2	17.2	52	380	2.2	2980	5100	29.1	380	1.2	3000	6330	
C 36 2_19.0	19.0	47	380	2.0	3000	5390	26.3	380	1.1	3000	6500	
C 36 3_22.1	22.1	41	450	2.0	3000	5430	22.6	450	1.1	3000	6500	
C 36 3_26.2	26.2	34	450	1.7	3000	5850	19.1	450	0.95	3000	6500	
C 36 3_28.7	28.7	31	450	1.6	3000	6120	17.4	450	0.86	3000	6500	
C 36 3_34.6	34.6	26.0	450	1.3	3000	6500	14.5	450	0.72	3000	6500	
C 36 3_38.1	38.1	23.6	450	1.2	3000	6500	13.1	450	0.65	3000	6500	
C 36 3_43.5	43.5	20.7	450	1.0	3000	6500	11.5	450	0.57	3000	6500	
C 36 3_48.2	48.2	18.7	450	0.93	3000	6500	10.4	450	0.52	3000	6500	
C 36 3_56.2	56.2	16.0	450	0.79	3000	6500	8.9	450	0.44	3000	6500	
C 36 3_62.0	62.0	14.5	450	0.72	3000	6500	8.1	450	0.40	3000	6500	
C 36 3_70.8	70.8	12.7	450	0.63	3000	6500	7.1	450	0.35	3000	6500	
C 36 3_77.6	77.6	11.6	450	0.58	3000	6500	6.4	450	0.32	3000	6500	
C 36 3_83.1	83.1	10.8	450	0.54	3000	6500	6.0	450	0.30	3000	6500	
C 36 3_91.9	91.9	9.8	450	0.49	3000	6500	5.4	450	0.27	3000	6500	
C 36 3_102.2	102.2	8.8	450	0.44	3000	6500	4.9	450	0.24	3000	6500	
C 36 3_111.5	111.5	8.1	450	0.40	3000	6500	4.5	450	0.22	3000	6500	
C 36 3_125.8	125.8	7.2	450	0.35	3000	6500	4.0	450	0.20	3000	6500	
C 36 3_139.8	139.8	6.4	450	0.32	3000	6500	3.6	450	0.18	3000	6500	
C 36 3_162.0	162.0	5.6	450	0.28	3000	6500	3.1	450	0.15	3000	6500	
C 36 3_183.5	183.5	4.9	450	0.24	3000	6500	2.7	450	0.14	3000	6500	
C 36 3_206.4	206.4	4.4	450	0.22	3000	6500	2.4	450	0.12	3000	6500	
C 36 4_230.9	230.9	3.9	450	0.19	1300	6500	2.2	450	0.11	1300	6500	
C 36 4_255.0	255.0	3.5	450	0.18	1300	6500	2.0	450	0.10	1300	6500	
C 36 4_290.9	290.9	3.1	450	0.15	1300	6500	1.7	450	0.09	1300	6500	
C 36 4_318.9	318.9	2.8	450	0.14	1300	6500	1.6	450	0.08	1300	6500	
C 36 4_341.7	341.7	2.6	450	0.13	1300	6500	1.5	450	0.07	1300	6500	
C 36 4_377.9	377.9	2.4	450	0.12	1300	6500	1.3	450	0.07	1300	6500	
C 36 4_420.2	420.2	2.1	450	0.11	1300	6500	1.2	450	0.06	1300	6500	
C 36 4_458.4	458.4	2.0	450	0.10	1300	6500	1.1	450	0.05	1300	6500	
C 36 4_517.2	517.2	1.7	450	0.09	1300	6500	1.0	450	0.05	1300	6500	
C 36 4_574.7	574.7	1.6	450	0.08	1300	6500	0.9	450	0.04	1300	6500	
C 36 4_665.9	665.9	1.4	450	0.07	1300	6500	0.8	450	0.04	1300	6500	
C 36 4_754.2	754.2	1.2	450	0.06	1300	6500	0.7	450	0.03	1300	6500	
C 36 4_848.5	848.5	1.1	450	0.05	1300	6500	0.6	450	0.03	1300	6500	

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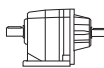



# C 41 600 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>						
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N		
C 41 2_2.7	2.7	1037	245	28	980	1290	519	245	14.0	1390	2060	145	
C 41 2_3.6	3.6	778	255	22	1070	1540	389	255	10.9	1650	2390		
C 41 2_4.7	4.7	596	260	17.1	1170	1800	298	260	8.5	2010	2730		
C 41 2_6.0	6.0	467	260	13.4	1290	2100	233	260	6.7	2400	3110		
C 41 2_6.4	6.4	438	275	13.3	2270	2590	219	345	8.3	2860	3260		
C 41 2_7.1	7.1	394	285	12.4	2360	2700	197	355	7.7	2980	3420		
C 41 2_8.6	8.6	326	305	10.9	2300	2860	163	385	6.9	2900	3600		
C 41 2_9.6	9.6	292	310	10.0	2410	3010	146	390	6.3	3030	3800		
C 41 2_11.2	11.2	250	335	9.2	2310	3100	125	420	5.8	2910	3920		
C 41 2_12.4	12.4	226	340	8.5	2440	3270	113	425	5.3	3070	4140		
C 41 2_14.2	14.2	197	355	7.7	2330	3410	99	445	4.8	2980	4300		
C 41 2_15.8	15.8	177	360	7.0	2460	3590	89	450	4.4	3120	4540		
C 41 2_17.8	17.8	157	380	6.6	2330	3680	79	480	4.2	3050	4630		
C 41 2_19.8	19.8	141	385	6.0	2460	3880	71	485	3.8	3180	4890		
C 41 2_22.6	22.6	124	410	5.6	2320	3990	62	500	3.4	3110	5110		
C 41 2_25.0	25.0	112	415	5.1	2460	4210	56	500	3.1	3230	5420		
C 41 2_28.3	28.3	99	445	4.9	2310	4290	49	500	2.7	3180	5710		
C 41 2_31.4	31.4	89	445	4.4	2440	4550	45	500	2.5	3300	6040		
C 41 2_33.4	33.4	84	465	4.3	2390	4560	42	500	2.3	3220	6170		
C 41 2_37.1	37.1	75	470	3.9	2440	4810	38	500	2.1	3320	6520		
C 41 2_44.8	44.8	63	500	3.4	2660	5130	31	500	1.7	3500	7000		
C 41 3_28.5	28.5	98	445	4.9	3060	4300	49	560	3.1	3500	5420		
C 41 3_31.2	31.2	90	450	4.5	3090	4510	45	570	2.9	3500	5670		
C 41 3_36.8	36.8	76	480	4.1	3070	4710	38	600	2.6	3500	5960		
C 41 3_40.3	40.3	69	485	3.8	3100	4940	35	600	2.3	3500	6280		
C 41 3_47.0	47.0	60	515	3.5	3070	5140	29.8	600	2.0	3500	6720		
C 41 3_51.5	51.5	54	525	3.2	3090	5360	27.2	600	1.8	3500	7000		
C 41 3_58.7	58.7	48	550	3.0	3070	5550	23.9	600	1.6	3500	7000		
C 41 3_64.3	64.3	44	560	2.7	3090	5800	21.8	600	1.5	3500	7000		
C 41 3_74.4	74.4	38	590	2.5	3060	6040	18.8	600	1.3	3500	7000		
C 41 3_81.5	81.5	34	600	2.3	3090	6310	17.2	600	1.2	3500	7000		
C 41 3_93.3	93.3	30	600	2.0	3080	6700	15.0	600	1.0	3500	7000		
C 41 3_102.3	102.3	27.4	600	1.8	3110	7000	13.7	600	0.92	3500	7000		
C 41 3_110.1	110.1	25.4	600	1.7	3090	7000	12.7	600	0.86	3500	7000		
C 41 3_120.6	120.6	23.2	600	1.6	3110	7000	11.6	600	0.78	3500	7000		
C 41 3_132.9	132.9	21.1	600	1.4	3090	7000	10.5	600	0.71	3500	7000		
C 41 3_145.6	145.6	19.2	600	1.3	3120	7000	9.6	600	0.65	3500	7000		
C 41 3_164.1	164.1	17.1	600	1.2	3100	7000	8.5	600	0.58	3500	7000		
C 41 3_179.9	179.9	15.6	600	1.1	3120	7000	7.8	600	0.53	3500	7000		
C 41 3_190.8	190.8	14.7	600	0.99	3110	7000	7.3	600	0.50	3500	7000		
C 41 3_209.1	209.1	13.4	600	0.90	3130	7000	6.7	600	0.45	3500	7000		
C 41 4_239.9	239.9	11.7	600	0.81	1480	7000	5.8	600	0.40	1910	7000		
C 41 4_263.0	263.0	10.6	600	0.74	1500	7000	5.3	600	0.37	1920	7000		
C 41 4_304.2	304.2	9.2	600	0.64	1520	7000	4.6	600	0.32	1950	7000		
C 41 4_333.4	333.4	8.4	600	0.58	1530	7000	4.2	600	0.29	1960	7000		
C 41 4_381.8	381.8	7.3	600	0.51	1540	7000	3.7	600	0.25	1970	7000		
C 41 4_418.5	418.5	6.7	600	0.46	1550	7000	3.3	600	0.23	1980	7000		
C 41 4_450.2	450.2	6.2	600	0.43	1560	7000	3.1	600	0.21	1990	7000		
C 41 4_493.5	493.5	5.7	600	0.39	1570	7000	2.8	600	0.20	2000	7000		
C 41 4_543.5	543.5	5.2	600	0.36	1570	7000	2.6	600	0.18	2000	7000		
C 41 4_595.8	595.8	4.7	600	0.32	1580	7000	2.3	600	0.16	2010	7000		
C 41 4_671.3	671.3	4.2	600	0.29	1590	7000	2.1	600	0.14	2020	7000		
C 41 4_735.9	735.9	3.8	600	0.26	1590	7000	1.9	600	0.13	2020	7000		
C 41 4_780.4	780.4	3.6	600	0.25	1600	7000	1.8	600	0.12	2030	7000		
C 41 4_855.5	855.5	3.3	600	0.23	1600	7000	1.6	600	0.11	2030	7000		



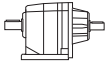

# C 41 600 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 41 2_2.7	2.7	333	245	9.0	2560	2650	185	245	5.0	3500	3590	145
C 41 2_3.6	3.6	250	255	7.0	2710	3050	139	255	3.9	3500	4090	
C 41 2_4.7	4.7	191	260	5.5	2900	3440	106	260	3.0	3500	4570	
C 41 2_6.0	6.0	150	260	4.3	3080	3890	83	260	2.4	3500	5110	
C 41 2_6.4	6.4	141	400	6.2	3310	3780	78	490	4.2	3500	4580	
C 41 2_7.1	7.1	127	415	5.8	3460	3940	70	500	3.9	3500	4820	
C 41 2_8.6	8.6	105	445	5.1	3360	4180	58	500	3.2	3500	5290	
C 41 2_9.6	9.6	94	450	4.7	3500	4410	52	500	2.9	3500	5600	
C 41 2_11.2	11.2	80	490	4.3	3500	4520	45	500	2.5	3500	5980	
C 41 2_12.4	12.4	73	495	4.0	3500	4780	40	500	2.2	3500	6320	
C 41 2_14.2	14.2	63	500	3.5	3500	5060	35	500	1.9	3500	6700	
C 41 2_15.8	15.8	57	500	3.1	3500	5370	32	500	1.7	3500	7000	
C 41 2_17.8	17.8	51	500	2.8	3500	5650	28.1	500	1.5	3500	7000	
C 41 2_19.8	19.8	45	500	2.5	3500	5970	25.3	500	1.4	3500	7000	
C 41 2_22.6	22.6	40	500	2.2	3500	6320	22.1	500	1.2	3500	7000	
C 41 2_25.0	25.0	36	500	2.0	3500	6670	20.0	500	1.1	3500	7000	
C 41 2_28.3	28.3	32	500	1.8	3500	7000	17.7	500	0.97	3500	7000	
C 41 2_31.4	31.4	28.7	500	1.6	3500	7000	15.9	500	0.88	3500	7000	
C 41 2_33.4	33.4	26.9	500	1.5	3500	7000	15.0	500	0.83	3500	7000	
C 41 2_37.1	37.1	24.3	500	1.3	3500	7000	13.5	500	0.74	3500	7000	
C 41 2_44.8	44.8	20.1	500	1.1	3500	7000	11.2	500	0.62	3500	7000	
C 41 3_28.5	28.5	32	600	2.1	3500	6530	17.5	600	1.2	3500	7000	
C 41 3_31.2	31.2	28.8	600	1.9	3500	6870	16.0	600	1.1	3500	7000	
C 41 3_36.8	36.8	24.5	600	1.7	3500	7000	13.6	600	0.92	3500	7000	
C 41 3_40.3	40.3	22.3	600	1.5	3500	7000	12.4	600	0.84	3500	7000	
C 41 3_47.0	47.0	19.1	600	1.3	3500	7000	10.6	600	0.72	3500	7000	
C 41 3_51.5	51.5	17.5	600	1.2	3500	7000	9.7	600	0.66	3500	7000	
C 41 3_58.7	58.7	15.3	600	1.0	3500	7000	8.5	600	0.58	3500	7000	
C 41 3_64.3	64.3	14.0	600	0.95	3500	7000	7.8	600	0.53	3500	7000	
C 41 3_74.4	74.4	12.1	600	0.82	3500	7000	6.7	600	0.45	3500	7000	
C 41 3_81.5	81.5	11.0	600	0.75	3500	7000	6.1	600	0.41	3500	7000	
C 41 3_93.3	93.3	9.6	600	0.65	3500	7000	5.4	600	0.36	3500	7000	
C 41 3_102.3	102.3	8.8	600	0.59	3500	7000	4.9	600	0.33	3500	7000	
C 41 3_110.1	110.1	8.2	600	0.55	3500	7000	4.5	600	0.31	3500	7000	
C 41 3_120.6	120.6	7.5	600	0.50	3500	7000	4.1	600	0.28	3500	7000	
C 41 3_132.9	132.9	6.8	600	0.46	3500	7000	3.8	600	0.25	3500	7000	
C 41 3_145.6	145.6	6.2	600	0.42	3500	7000	3.4	600	0.23	3500	7000	
C 41 3_164.1	164.1	5.5	600	0.37	3500	7000	3.0	600	0.21	3500	7000	
C 41 3_179.9	179.9	5.0	600	0.34	3500	7000	2.8	600	0.19	3500	7000	
C 41 3_190.8	190.8	4.7	600	0.32	3500	7000	2.6	600	0.18	3500	7000	
C 41 3_209.1	209.1	4.3	600	0.29	3500	7000	2.4	600	0.16	3500	7000	
C 41 4_239.9	239.9	3.8	600	0.26	2200	7000	2.1	600	0.14	2200	7000	
C 41 4_263.0	263.0	3.4	600	0.24	2200	7000	1.9	600	0.13	2200	7000	
C 41 4_304.2	304.2	3.0	600	0.20	2200	7000	1.6	600	0.11	2200	7000	
C 41 4_333.4	333.4	2.7	600	0.19	2200	7000	1.5	600	0.10	2200	7000	
C 41 4_381.8	381.8	2.4	600	0.16	2200	7000	1.3	600	0.09	2200	7000	
C 41 4_418.5	418.5	2.2	600	0.15	2200	7000	1.2	600	0.08	2200	7000	
C 41 4_450.2	450.2	2.0	600	0.14	2200	7000	1.1	600	0.08	2200	7000	
C 41 4_493.5	493.5	1.8	600	0.13	2200	7000	1.0	600	0.07	2200	7000	
C 41 4_543.5	543.5	1.7	600	0.11	2200	7000	0.92	600	0.06	2200	7000	
C 41 4_595.8	595.8	1.5	600	0.10	2200	7000	0.84	600	0.06	2200	7000	
C 41 4_671.3	671.3	1.3	600	0.09	2200	7000	0.74	600	0.05	2200	7000	
C 41 4_735.9	735.9	1.2	600	0.08	2200	7000	0.68	600	0.05	2200	7000	
C 41 4_780.4	780.4	1.2	600	0.08	2200	7000	0.64	600	0.04	2200	7000	
C 41 4_855.5	855.5	1.1	600	0.07	2200	7000	0.58	600	0.04	2200	7000	



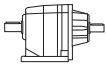

# C 51

# 1000 Nm

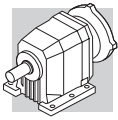
	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 51 2_2.6	2.6	1077	315	37	980	3340	538	400	24	1390	4200	149
C 51 2_3.3	3.3	848	340	32	1070	3610	424	420	19.6	1650	4580	
C 51 2_4.5	4.5	622	370	25	1170	4010	311	435	14.9	2010	5180	
C 51 2_5.6	5.6	500	390	21	1290	4380	250	435	12.0	2400	5760	
C 51 2_7.0	7.0	400	500	22	2270	4760	200	630	13.9	2860	6000	
C 51 2_7.8	7.8	359	510	20	2360	4940	179	640	12.7	2980	6230	
C 51 2_8.8	8.8	318	545	19.1	2300	5120	159	685	12.0	2900	6450	
C 51 2_9.8	9.8	286	545	17.2	2410	5350	143	685	10.8	3030	6750	
C 51 2_11.8	11.8	237	610	16.0	2310	5620	119	770	10.1	2910	7080	
C 51 2_13.1	13.1	214	595	14.0	2440	5930	107	750	8.8	3070	7470	
C 51 2_15.0	15.0	187	660	13.6	2330	6080	93	800	8.2	2980	7770	
C 51 2_16.6	16.6	169	640	11.9	2460	6420	84	795	7.4	3120	8130	
C 51 2_18.9	18.9	148	695	11.3	2330	6630	74	800	6.5	3050	8620	
C 51 2_21.0	21.0	133	675	9.9	2460	7000	67	795	5.8	3180	9020	
C 51 2_23.4	23.4	120	735	9.7	2320	7160	60	800	5.3	3110	9460	
C 51 2_25.9	25.9	108	715	8.5	2460	7550	54	795	4.7	3230	9890	
C 51 2_29.8	29.8	94	795	8.2	2310	7770	47	800	4.1	3180	10000	
C 51 2_33.0	33.0	85	775	7.2	2440	8190	42	795	3.7	3300	10000	
C 51 2_36.4	36.4	77	750	6.4	2390	8660	38	790	3.3	3220	10000	
C 51 2_40.4	40.4	69	795	6.1	2440	8870	35	795	3.0	3320	10000	
C 51 2_43.1	43.1	65	730	5.2	2450	9380	32	770	2.8	3280	10000	
C 51 2_47.8	47.8	59	800	5.2	2460	9530	29.3	800	2.6	3350	10000	
C 51 2_51.4	51.4	54	665	4.0	2550	10000	27.2	700	2.1	3390	10000	
C 51 2_57.0	57.0	49	745	4.0	2540	10000	24.6	785	2.1	3380	10000	
C 51 3_21.8	21.8	128	720	10.4	2870	6940	64	905	6.5	3500	8750	
C 51 3_23.9	23.9	117	730	9.6	2910	7230	59	920	6.1	3500	9110	
C 51 3_27.4	27.4	102	770	8.9	2890	7510	51	970	5.6	3500	9470	
C 51 3_30.1	30.1	93	780	8.2	2930	7830	47	1000	5.2	3500	9810	
C 51 3_37.0	37.0	76	840	7.2	2910	8330	38	1000	4.3	3500	10000	
C 51 3_40.5	40.5	69	855	6.7	2940	8670	35	1000	3.9	3500	10000	
C 51 3_46.7	46.7	60	905	6.1	2920	9020	30	1000	3.4	3500	10000	
C 51 3_51.2	51.2	55	920	5.7	2950	9390	27.3	1000	3.1	3500	10000	
C 51 3_59.0	59.0	47	970	5.2	2910	9780	23.7	1000	2.7	3500	10000	
C 51 3_64.6	64.6	43	1000	4.9	2940	10000	21.7	1000	2.4	3500	10000	
C 51 3_72.9	72.9	38	1000	4.3	2920	10000	19.2	1000	2.2	3500	10000	
C 51 3_79.9	79.9	35	1000	3.9	2960	10000	17.5	1000	2.0	3500	10000	
C 51 3_93.0	93.0	30	1000	3.4	2950	10000	15.1	1000	1.7	3500	10000	
C 51 3_101.8	101.8	27.5	1000	3.1	2990	10000	13.8	1000	1.5	3500	10000	
C 51 3_113.6	113.6	24.6	1000	2.8	2960	10000	12.3	1000	1.4	3500	10000	
C 51 3_124.4	124.4	22.5	1000	2.5	3000	10000	11.3	1000	1.3	3500	10000	
C 51 3_134.6	134.6	20.8	1000	2.3	2970	10000	10.4	1000	1.2	3500	10000	
C 51 3_147.4	147.4	19.0	1000	2.1	3010	10000	9.5	1000	1.1	3500	10000	
C 51 3_160.5	160.5	17.4	1000	2.0	2980	10000	8.7	1000	0.98	3500	10000	
C 51 3_175.8	175.8	15.9	1000	1.8	3020	10000	8.0	1000	0.90	3500	10000	
C 51 3_197.9	197.9	14.1	1000	1.6	2980	10000	7.1	1000	0.80	3500	10000	
C 51 3_216.7	216.7	12.9	1000	1.5	3020	10000	6.5	1000	0.73	3500	10000	
C 51 4_240.9	240.9	11.6	1000	1.3	2100	10000	5.8	1000	0.67	2200	10000	
C 51 4_263.8	263.8	10.6	1000	1.2	2120	10000	5.3	1000	0.61	2200	10000	
C 51 4_297.8	297.8	9.4	1000	1.1	2140	10000	4.7	1000	0.54	2200	10000	
C 51 4_326.1	326.1	8.6	1000	0.99	2160	10000	4.3	1000	0.49	2200	10000	
C 51 4_379.6	379.6	7.4	1000	0.85	2190	10000	3.7	1000	0.42	2200	10000	
C 51 4_415.7	415.7	6.7	1000	0.78	2200	10000	3.4	1000	0.39	2200	10000	
C 51 4_463.9	463.9	6.0	1000	0.69	2200	10000	3.0	1000	0.35	2200	10000	
C 51 4_508.0	508.0	5.5	1000	0.63	2200	10000	2.8	1000	0.32	2200	10000	
C 51 4_549.7	549.7	5.1	1000	0.59	2200	10000	2.5	1000	0.29	2200	10000	
C 51 4_602.0	602.0	4.7	1000	0.54	2200	10000	2.3	1000	0.27	2200	10000	
C 51 4_655.4	655.4	4.3	1000	0.49	2200	10000	2.1	1000	0.25	2200	10000	
C 51 4_717.7	717.7	3.9	1000	0.45	2200	10000	2.0	1000	0.22	2200	10000	
C 51 4_808.0	808.0	3.5	1000	0.40	2200	10000	1.7	1000	0.20	2200	10000	
C 51 4_884.9	884.9	3.2	1000	0.36	2200	10000	1.6	1000	0.18	2200	10000	



# C 51 1000 Nm

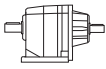

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
C 51 2_2.6	2.6	346	400	15.3	2560	5130	192	400	8.5	3500	6620	
C 51 2_3.3	3.3	273	420	12.6	2710	5590	152	420	7.0	3500	7200	
C 51 2_4.5	4.5	200	435	9.6	2900	6300	111	435	5.3	3500	8070	
C 51 2_5.6	5.6	161	435	7.7	3080	6970	89	435	4.3	3500	8880	
C 51 2_7.0	7.0	129	730	10.3	3310	6950	71	800	6.3	3500	8760	
C 51 2_7.8	7.8	115	740	9.4	3460	7220	64	800	5.7	3500	9140	
C 51 2_8.8	8.8	102	795	9.0	3360	7470	57	800	5.0	3500	9680	
C 51 2_9.8	9.8	92	800	8.1	3500	7790	51	800	4.5	3500	10000	
C 51 2_11.8	11.8	76	800	6.7	3500	8530	42	800	3.7	3500	10000	
C 51 2_13.1	13.1	69	800	6.1	3500	8900	38	800	3.4	3500	10000	
C 51 2_15.0	15.0	60	800	5.3	3500	9450	33	800	2.9	3500	10000	
C 51 2_16.6	16.6	54	800	4.8	3500	9850	30	800	2.7	3500	10000	
C 51 2_18.9	18.9	48	800	4.2	3500	10000	26.5	800	2.3	3500	10000	
C 51 2_21.0	21.0	43	800	3.8	3500	10000	23.8	800	2.1	3500	10000	
C 51 2_23.4	23.4	38	800	3.4	3500	10000	21.4	800	1.9	3500	10000	
C 51 2_25.9	25.9	35	800	3.1	3500	10000	19.3	800	1.7	3500	10000	
C 51 2_29.8	29.8	30	800	2.7	3500	10000	16.8	800	1.5	3500	10000	
C 51 2_33.0	33.0	27.3	800	2.4	3500	10000	15.2	800	1.3	3500	10000	
C 51 2_36.4	36.4	24.7	800	2.2	3500	10000	13.7	800	1.2	3500	10000	
C 51 2_40.4	40.4	22.3	800	2.0	3500	10000	12.4	800	1.1	3500	10000	
C 51 2_43.1	43.1	20.9	800	1.8	3500	10000	11.6	800	1.0	3500	10000	
C 51 2_47.8	47.8	18.8	800	1.7	3500	10000	10.5	800	0.92	3500	10000	
C 51 2_51.4	51.4	17.5	725	1.4	3500	10000	9.7	755	0.81	3500	10000	
C 51 2_57.0	57.0	15.8	795	1.4	3500	10000	8.8	795	0.77	3500	10000	
C 51 3_21.8	21.8	41	1000	4.6	3500	10000	22.9	1000	2.6	3500	10000	
C 51 3_23.9	23.9	38	1000	4.2	3500	10000	20.9	1000	2.4	3500	10000	
C 51 3_27.4	27.4	33	1000	3.7	3500	10000	18.2	1000	2.1	3500	10000	
C 51 3_30.1	30.1	29.9	1000	3.4	3500	10000	16.6	1000	1.9	3500	10000	
C 51 3_37.0	37.0	24.3	1000	2.7	3500	10000	13.5	1000	1.5	3500	10000	
C 51 3_40.5	40.5	22.2	1000	2.5	3500	10000	12.3	1000	1.4	3500	10000	
C 51 3_46.7	46.7	19.3	1000	2.2	3500	10000	10.7	1000	1.2	3500	10000	
C 51 3_51.2	51.2	17.6	1000	2.0	3500	10000	9.8	1000	1.1	3500	10000	
C 51 3_59.0	59.0	15.3	1000	1.7	3500	10000	8.5	1000	0.95	3500	10000	
C 51 3_64.6	64.6	13.9	1000	1.6	3500	10000	7.7	1000	0.87	3500	10000	
C 51 3_72.9	72.9	12.3	1000	1.4	3500	10000	6.9	1000	0.77	3500	10000	
C 51 3_79.9	79.9	11.3	1000	1.3	3500	10000	6.3	1000	0.70	3500	10000	
C 51 3_93.0	93.0	9.7	1000	1.1	3500	10000	5.4	1000	0.61	3500	10000	
C 51 3_101.8	101.8	8.8	1000	1.0	3500	10000	4.9	1000	0.55	3500	10000	
C 51 3_113.6	113.6	7.9	1000	0.89	3500	10000	4.4	1000	0.50	3500	10000	
C 51 3_124.4	124.4	7.2	1000	0.81	3500	10000	4.0	1000	0.45	3500	10000	
C 51 3_134.6	134.6	6.7	1000	0.75	3500	10000	3.7	1000	0.42	3500	10000	
C 51 3_147.4	147.4	6.1	1000	0.69	3500	10000	3.4	1000	0.38	3500	10000	
C 51 3_160.5	160.5	5.6	1000	0.63	3500	10000	3.1	1000	0.35	3500	10000	
C 51 3_175.8	175.8	5.1	1000	0.58	3500	10000	2.8	1000	0.32	3500	10000	
C 51 3_197.9	197.9	4.5	1000	0.51	3500	10000	2.5	1000	0.28	3500	10000	
C 51 3_216.7	216.7	4.2	1000	0.47	3500	10000	2.3	1000	0.26	3500	10000	
C 51 4_240.9	240.9	3.7	1000	0.43	2200	10000	2.1	1000	0.24	2200	10000	
C 51 4_263.8	263.8	3.4	1000	0.39	2200	10000	1.9	1000	0.22	2200	10000	
C 51 4_297.8	297.8	3.0	1000	0.35	2200	10000	1.7	1000	0.19	2200	10000	
C 51 4_326.1	326.1	2.8	1000	0.32	2200	10000	1.5	1000	0.18	2200	10000	
C 51 4_379.6	379.6	2.4	1000	0.27	2200	10000	1.3	1000	0.15	2200	10000	
C 51 4_415.7	415.7	2.2	1000	0.25	2200	10000	1.2	1000	0.14	2200	10000	
C 51 4_463.9	463.9	1.9	1000	0.22	2200	10000	1.1	1000	0.12	2200	10000	
C 51 4_508.0	508.0	1.8	1000	0.20	2200	10000	1.0	1000	0.11	2200	10000	
C 51 4_549.7	549.7	1.6	1000	0.19	2200	10000	0.91	1000	0.10	2200	10000	
C 51 4_602.0	602.0	1.5	1000	0.17	2200	10000	0.83	1000	0.10	2200	10000	
C 51 4_655.4	655.4	1.4	1000	0.16	2200	10000	0.76	1000	0.09	2200	10000	
C 51 4_717.7	717.7	1.3	1000	0.14	2200	10000	0.70	1000	0.08	2200	10000	
C 51 4_808.0	808.0	1.1	1000	0.13	2200	10000	0.62	1000	0.07	2200	10000	
C 51 4_884.9	884.9	1.0	1000	0.12	2200	10000	0.57	1000	0.07	2200	10000	





# C 61

# 1600 Nm

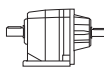

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 61 2_2.8	2.8	1000	445	49	—	4670	500	550	30	770	5930	153
C 61 2_3.7	3.7	757	530	44	—	4950	378	575	24	1730	6600	
C 61 2_4.6	4.6	609	575	39	—	5280	304	600	20	2150	7130	
C 61 2_6.0	6.0	467	575	30	—	6000	233	625	16.1	2700	7950	
C 61 2_6.7	6.7	418	900	41	2230	5600	209	1130	26	2850	7060	
C 61 2_7.5	7.5	373	1000	41	2220	5620	187	1250	26	2900	7110	
C 61 2_8.8	8.8	318	1000	35	2290	6080	159	1250	22	2980	7690	
C 61 2_9.8	9.8	286	1100	35	2380	6140	143	1350	21	3330	7850	
C 61 2_10.9	10.9	257	1050	30	2530	6590	128	1350	19.1	2940	8210	
C 61 2_12.1	12.1	231	1150	29	2670	6670	116	1350	17.2	3600	8730	
C 61 2_14.3	14.3	196	1150	25	2450	7220	98	1350	14.6	3590	9430	
C 61 2_15.9	15.9	176	1250	24	2660	7350	88	1350	13.1	3780	9990	
C 61 2_17.7	17.7	158	1200	21	2540	7850	79	1350	11.8	3700	10400	
C 61 2_19.6	19.6	143	1300	20	2780	8000	71	1350	10.6	3890	11000	
C 61 2_22.4	22.4	125	1250	17.2	2630	8650	63	1350	9.3	3810	11600	
C 61 2_24.8	24.8	113	1350	16.8	2840	8840	56	1350	8.4	3980	12300	
C 61 2_27.4	27.4	102	1300	14.6	2600	9390	51	1350	7.6	3880	12800	
C 61 2_30.4	30.4	92	1350	13.7	2900	9770	46	1350	6.9	4050	13500	
C 61 2_34.2	34.2	82	1165	10.5	3020	10900	41	1225	5.5	4090	14500	
C 61 2_38.0	38.0	74	1280	10.4	3030	11100	37	1350	5.5	4100	14800	
C 61 3_26.8	26.8	104	1140	13.4	3740	9810	52	1435	8.4	4700	12400	
C 61 3_29.4	29.4	95	1160	12.4	3780	10200	48	1465	7.9	4700	12900	
C 61 3_33.0	33.0	85	1210	11.6	3750	10600	42	1525	7.3	4700	13300	
C 61 3_36.1	36.1	78	1235	10.8	3800	11000	39	1555	6.8	4700	13800	
C 61 3_43.4	43.4	65	1315	9.6	3760	11600	32	1600	5.8	4700	14800	
C 61 3_47.6	47.6	59	1340	8.9	3810	12100	29.4	1600	5.3	4700	15500	
C 61 3_53.5	53.5	52	1400	8.2	3760	12500	26.2	1600	4.7	4700	16000	
C 61 3_58.6	58.6	48	1430	7.7	3810	13000	23.9	1600	4.3	4700	16000	
C 61 3_67.7	67.7	41	1505	7.0	3750	13500	20.7	1600	3.7	4700	16000	
C 61 3_74.2	74.2	38	1535	6.5	3800	14100	18.9	1600	3.4	4700	16000	
C 61 3_83.0	83.0	34	1600	6.1	3740	14500	16.9	1600	3.0	4700	16000	
C 61 3_91.0	91.0	31	1600	5.5	3800	15200	15.4	1600	2.8	4700	16000	
C 61 3_103.6	103.6	27.0	1600	4.9	3760	16000	13.5	1600	2.4	4700	16000	
C 61 3_113.6	113.6	24.6	1600	4.4	3820	16000	12.3	1600	2.2	4700	16000	
C 61 3_128.1	128.1	21.9	1600	3.9	3790	16000	10.9	1600	2.0	4700	16000	
C 61 3_140.5	140.5	19.9	1600	3.6	3840	16000	10.0	1600	1.8	4700	16000	
C 61 3_150.0	150.0	18.7	1600	3.4	3800	16000	9.3	1600	1.7	4700	16000	
C 61 3_164.5	164.5	17.0	1600	3.1	3850	16000	8.5	1600	1.5	4700	16000	
C 61 3_178.6	178.6	15.7	1600	2.8	3800	16000	7.8	1600	1.4	4700	16000	
C 61 3_195.8	195.8	14.3	1600	2.6	3860	16000	7.2	1600	1.3	4700	16000	
C 61 4_217.4	217.4	12.9	1600	2.4	3020	16000	6.4	1600	1.2	3500	16000	
C 61 4_238.3	238.3	11.7	1600	2.2	3060	16000	5.9	1600	1.1	3500	16000	
C 61 4_275.3	275.3	10.2	1600	1.9	3100	16000	5.1	1600	0.94	3500	16000	
C 61 4_301.7	301.7	9.3	1600	1.7	3130	16000	4.6	1600	0.85	3500	16000	
C 61 4_337.7	337.7	8.3	1600	1.5	3160	16000	4.1	1600	0.76	3500	16000	
C 61 4_370.1	370.1	7.6	1600	1.4	3180	16000	3.8	1600	0.70	3500	16000	
C 61 4_421.5	421.5	6.6	1600	1.2	3200	16000	3.3	1600	0.61	3500	16000	
C 61 4_462.0	462.0	6.1	1600	1.1	3220	16000	3.0	1600	0.56	3500	16000	
C 61 4_521.1	521.1	5.4	1600	0.99	3240	16000	2.7	1600	0.49	3500	16000	
C 61 4_571.2	571.2	4.9	1600	0.90	3250	16000	2.5	1600	0.45	3500	16000	
C 61 4_610.1	610.1	4.6	1600	0.84	3260	16000	2.3	1600	0.42	3500	16000	
C 61 4_668.8	668.8	4.2	1600	0.77	3280	16000	2.1	1600	0.39	3500	16000	
C 61 4_726.3	726.3	3.9	1600	0.71	3290	16000	1.9	1600	0.35	3500	16000	
C 61 4_796.1	796.1	3.5	1600	0.65	3300	16000	1.8	1600	0.32	3500	16000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





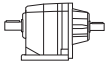

# C 61 1600 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 61 2_2.8	2.8	321	565	20	2840	7150	179	665	13.1	4050	8790	
C 61 2_3.7	3.7	243	625	16.8	3000	7800	135	665	9.9	4700	9860	
C 61 2_4.6	4.6	196	665	14.3	3170	8380	109	665	8.0	4700	10760	
C 61 2_6.0	6.0	150	665	11.0	4120	9440	83	665	6.1	4700	12000	
C 61 2_6.7	6.7	134	1350	20	2850	8050	75	1350	11.1	4700	10800	
C 61 2_7.5	7.5	120	1350	17.9	4010	8560	67	1350	9.9	4700	11400	
C 61 2_8.8	8.8	102	1350	15.2	4070	9240	57	1350	8.5	4700	12200	
C 61 2_9.8	9.8	92	1350	13.7	4310	9790	51	1350	7.6	4700	12900	
C 61 2_10.9	10.9	83	1350	12.3	4270	10200	46	1350	6.8	4700	13400	
C 61 2_12.1	12.1	74	1350	11.1	4480	10800	41	1350	6.1	4700	14100	
C 61 2_14.3	14.3	63	1350	9.4	4470	11600	35	1350	5.2	4700	15100	
C 61 2_15.9	15.9	57	1350	8.4	4660	12300	31	1350	4.7	4700	15900	
C 61 2_17.7	17.7	51	1350	7.6	4580	12800	28.2	1350	4.2	4700	16000	
C 61 2_19.6	19.6	46	1350	6.8	4700	13500	25.5	1350	3.8	4700	16000	
C 61 2_22.4	22.4	40	1350	6.0	4690	14200	22.3	1350	3.3	4700	16000	
C 61 2_24.8	24.8	36	1350	5.4	4700	14900	20.2	1350	3.0	4700	16000	
C 61 2_27.4	27.4	33	1350	4.9	4700	15500	18.2	1350	2.7	4700	16000	
C 61 2_30.4	30.4	29.6	1350	4.4	4700	16000	16.4	1350	2.4	4700	16000	
C 61 2_34.2	34.2	26.3	1265	3.7	4700	16000	14.6	1325	2.1	4700	16000	
C 61 2_38.0	38.0	23.7	1350	3.5	4700	16000	13.2	1350	2.0	4700	16000	
C 61 3_26.8	26.8	34	1600	6.0	4700	14500	18.7	1600	3.4	4700	16000	
C 61 3_29.4	29.4	31	1600	5.5	4700	15200	17.0	1600	3.1	4700	16000	
C 61 3_33.0	33.0	27.3	1600	4.9	4700	15900	15.2	1600	2.7	4700	16000	
C 61 3_36.1	36.1	24.9	1600	4.5	4700	16000	13.9	1600	2.5	4700	16000	
C 61 3_43.4	43.4	20.7	1600	3.7	4700	16000	11.5	1600	2.1	4700	16000	
C 61 3_47.6	47.6	18.9	1600	3.4	4700	16000	10.5	1600	1.9	4700	16000	
C 61 3_53.5	53.5	16.8	1600	3.0	4700	16000	9.3	1600	1.7	4700	16000	
C 61 3_58.6	58.6	15.4	1600	2.8	4700	16000	8.5	1600	1.5	4700	16000	
C 61 3_67.7	67.7	13.3	1600	2.4	4700	16000	7.4	1600	1.3	4700	16000	
C 61 3_74.2	74.2	12.1	1600	2.2	4700	16000	6.7	1600	1.2	4700	16000	
C 61 3_83.0	83.0	10.8	1600	2.0	4700	16000	6.0	1600	1.1	4700	16000	
C 61 3_91.0	91.0	9.9	1600	1.8	4700	16000	5.5	1600	0.99	4700	16000	
C 61 3_103.6	103.6	8.7	1600	1.6	4700	16000	4.8	1600	0.87	4700	16000	
C 61 3_113.6	113.6	7.9	1600	1.4	4700	16000	4.4	1600	0.79	4700	16000	
C 61 3_128.1	128.1	7.0	1600	1.3	4700	16000	3.9	1600	0.70	4700	16000	
C 61 3_140.5	140.5	6.4	1600	1.2	4700	16000	3.6	1600	0.64	4700	16000	
C 61 3_150.0	150.0	6.0	1600	1.1	4700	16000	3.3	1600	0.60	4700	16000	
C 61 3_164.5	164.5	5.5	1600	0.99	4700	16000	3.0	1600	0.55	4700	16000	
C 61 3_178.6	178.6	5.0	1600	0.91	4700	16000	2.8	1600	0.50	4700	16000	
C 61 3_195.8	195.8	4.6	1600	0.83	4700	16000	2.6	1600	0.46	4700	16000	
C 61 4_217.4	217.4	4.1	1600	0.76	3500	16000	2.3	1600	0.42	3500	16000	
C 61 4_238.3	238.3	3.8	1600	0.70	3500	16000	2.1	1600	0.39	3500	16000	
C 61 4_275.3	275.3	3.3	1600	0.60	3500	16000	1.8	1600	0.33	3500	16000	
C 61 4_301.7	301.7	3.0	1600	0.55	3500	16000	1.7	1600	0.31	3500	16000	
C 61 4_337.7	337.7	2.7	1600	0.49	3500	16000	1.5	1600	0.27	3500	16000	
C 61 4_370.1	370.1	2.4	1600	0.45	3500	16000	1.4	1600	0.25	3500	16000	
C 61 4_421.5	421.5	2.1	1600	0.39	3500	16000	1.2	1600	0.22	3500	16000	
C 61 4_462.0	462.0	1.9	1600	0.36	3500	16000	1.1	1600	0.20	3500	16000	
C 61 4_521.1	521.1	1.7	1600	0.32	3500	16000	1.0	1600	0.18	3500	16000	
C 61 4_571.2	571.2	1.6	1600	0.29	3500	16000	0.88	1600	0.16	3500	16000	
C 61 4_610.1	610.1	1.5	1600	0.27	3500	16000	0.82	1600	0.15	3500	16000	
C 61 4_668.8	668.8	1.3	1600	0.25	3500	16000	0.75	1600	0.14	3500	16000	
C 61 4_726.3	726.3	1.2	1600	0.23	3500	16000	0.69	1600	0.13	3500	16000	
C 61 4_796.1	796.1	1.1	1600	0.21	3500	16000	0.63	1600	0.12	3500	16000	



# C 70

# 2300 Nm

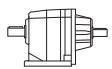

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 70 2_4.6	4.6	613	1400	95	—	5590	306	1700	57	—	7100	
C 70 2_5.9	5.9	479	1550	82	—	5610	239	1900	50	—	6990	
C 70 2_6.3	6.3	448	1600	79	1980	6570	224	1950	48	2630	8250	
C 70 2_7.5	7.5	375	1550	64	—	7130	188	1950	40	—	8400	
C 70 2_8.0	8.0	350	1750	68	1760	6840	175	2100	41	2670	8880	
C 70 2_9.5	9.5	294	1600	52	770	8260	147	2000	32	620	9910	
C 70 2_10.2	10.2	274	1900	57	2000	7200	137	2100	32	4470	10800	
C 70 2_11.2	11.2	250	1600	44	1130	9350	125	2000	28	1070	11300	
C 70 2_13.0	13.0	215	2050	49	1860	7700	107	2100	25	5600	12900	
C 70 2_14.1	14.1	199	1700	37	1100	10100	99	2100	23	1280	12400	
C 70 2_15.3	15.3	183	2100	42	1810	8540	91	2100	21	5860	14300	
C 70 2_16.7	16.7	168	1700	31	1570	11400	84	2050	18.9	2350	14300	
C 70 2_19.3	19.3	145	2100	34	2730	10400	73	2100	16.8	6000	16300	
C 70 2_22.9	22.9	123	2100	28	3160	11800	61	2100	14.2	6060	18000	
C 70 2_27.7	27.7	101	2100	23	3570	13400	51	2100	11.7	6120	19900	
C 70 2_34.7	34.7	81	2100	18.7	3960	15400	40	2100	9.3	6180	22200	
C 70 3_41.3	41.3	68	1900	14.5	5670	18400	34	2300	8.8	7000	22800	
C 70 3_44.7	44.7	63	1900	13.4	5700	19100	31	2300	8.1	7000	23800	
C 70 3_52.2	52.2	54	2050	12.4	5680	19600	26.8	2300	7.0	7000	25000	
C 70 3_56.5	56.5	50	2050	11.4	5710	20400	24.8	2300	6.4	7000	25000	
C 70 3_65.9	65.9	43	2200	10.5	5670	21000	21.3	2300	5.5	7000	25000	
C 70 3_71.3	71.3	39	2200	9.7	5710	21900	19.6	2300	5.1	7000	25000	
C 70 3_81.4	81.4	34	2300	8.9	5680	22700	17.2	2300	4.5	7000	25000	
C 70 3_88.2	88.2	32	2300	8.2	5710	23600	15.9	2300	4.1	7000	25000	
C 70 3_103.8	103.8	27.0	2300	7.0	5700	25000	13.5	2300	3.5	7000	25000	
C 70 3_112.4	112.4	24.9	2300	6.4	5740	25000	12.5	2300	3.2	7000	25000	
C 70 3_126.8	126.8	22.1	2300	5.7	5720	25000	11.0	2300	2.9	7000	25000	
C 70 3_137.4	137.4	20.4	2300	5.3	5750	25000	10.2	2300	2.6	7000	25000	
C 70 3_150.3	150.3	18.6	2300	4.8	5730	25000	9.3	2300	2.4	7000	25000	
C 70 3_162.8	162.8	17.2	2300	4.5	5760	25000	8.6	2300	2.2	7000	25000	
C 70 3_179.2	179.2	15.6	2300	4.0	5740	25000	7.8	2300	2.0	7000	25000	
C 70 3_194.1	194.1	14.4	2300	3.7	5770	25000	7.2	2300	1.9	7000	25000	
C 70 3_220.9	220.9	12.7	2250	3.2	5750	25000	6.3	2250	1.6	7000	25000	
C 70 3_239.3	239.3	11.7	2300	3.0	5770	25000	5.8	2300	1.5	7000	25000	
C 70 4_251.3	251.3	11.1	2300	2.9	2000	25000	5.6	2300	1.5	2620	25000	
C 70 4_272.2	272.2	10.3	2300	2.7	2030	25000	5.1	2300	1.4	2650	25000	
C 70 4_317.9	317.9	8.8	2300	2.3	2030	25000	4.4	2300	1.2	2650	25000	
C 70 4_344.3	344.3	8.1	2300	2.2	2050	25000	4.1	2300	1.1	2670	25000	
C 70 4_409.4	409.4	6.8	2300	1.8	2050	25000	3.4	2300	0.90	2670	25000	
C 70 4_443.5	443.5	6.3	2300	1.7	2070	25000	3.2	2300	0.80	2700	25000	
C 70 4_512.0	512.0	5.5	2300	1.4	2070	25000	2.7	2300	0.70	2680	25000	
C 70 4_554.7	554.7	5.0	2300	1.3	2090	25000	2.5	2300	0.70	2710	25000	
C 70 4_606.8	606.8	4.6	2300	1.2	2080	25000	2.3	2300	0.60	2700	25000	
C 70 4_657.3	657.3	4.3	2300	1.1	2100	25000	2.1	2300	0.60	2720	25000	
C 70 4_736.0	736.0	3.8	2300	1.0	2090	25000	1.9	2300	0.50	2700	25000	
C 70 4_797.3	797.3	3.5	2300	0.90	2110	25000	1.8	2300	0.50	2720	25000	
C 70 4_922.6	922.6	3.0	2300	0.80	2100	25000	1.5	2300	0.40	2710	25000	
C 70 4_999.5	999.5	2.8	2300	0.70	2110	25000	1.4	2300	0.40	2730	25000	
C 70 4_1069	1069	2.6	2300	0.70	2100	25000	1.3	2300	0.30	2720	25000	
C 70 4_1158	1158	2.4	2300	0.60	2100	25000	1.2	2300	0.30	2800	25000	
C 70 4_1362	1362	2.1	2300	0.50	2100	25000	1.0	2300	0.30	2800	25000	
C 70 4_1476	1476	1.9	2300	0.50	2100	25000	0.90	2300	0.30	2800	25000	

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(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



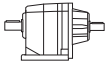

# C 70 2300 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
<b>C 70 2_4.6</b>	4.6	197	1800	39	650	9360	109	1800	22	5500	13900	
<b>C 70 2_5.9</b>	5.9	154	1950	33	560	9980	85	2150	20	2890	13400	
<b>C 70 2_6.3</b>	6.3	144	2100	33	4260	10400	80	2100	18.5	7000	15500	
<b>C 70 2_7.5</b>	7.5	121	2100	28	1120	10800	67	2150	15.9	5400	15600	
<b>C 70 2_8.0</b>	8.0	113	2100	26	5800	12500	63	2100	14.5	7000	17800	
<b>C 70 2_9.5</b>	9.5	95	2150	22	2140	12400	53	2150	12.4	6990	18100	
<b>C 70 2_10.2</b>	10.2	88	2100	20	6870	14600	49	2100	11.3	7000	20200	
<b>C 70 2_11.2</b>	11.2	80	2150	19.0	2620	14000	45	2150	10.6	7000	19800	
<b>C 70 2_13.0</b>	13.0	69	2100	16.0	7000	16900	38	2100	8.9	7000	22800	
<b>C 70 2_14.1</b>	14.1	64	2150	15.1	3900	16000	35	2150	8.4	7000	22300	
<b>C 70 2_15.3</b>	15.3	59	2100	13.6	7000	18400	33	2100	7.5	7000	24600	
<b>C 70 2_16.7</b>	16.7	54	2050	12.2	5470	18500	29.9	2050	6.8	7000	25000	
<b>C 70 2_19.3</b>	19.3	47	2100	10.8	7000	20700	25.9	2100	6.0	7000	25000	
<b>C 70 2_22.9</b>	22.9	39	2100	9.1	7000	22500	21.9	2100	5.1	7000	25000	
<b>C 70 2_27.7</b>	27.7	32	2100	7.5	7000	24600	18.0	2100	4.2	7000	25000	
<b>C 70 2_34.7</b>	34.7	25.9	2100	6.0	7000	25000	14.4	2100	3.3	7000	25000	
<b>C 70 3_41.3</b>	41.3	21.8	2300	5.6	7000	25000	12.1	2300	3.1	7000	25000	
<b>C 70 3_44.7</b>	44.7	20.1	2300	5.2	7000	25000	11.2	2300	2.9	7000	25000	
<b>C 70 3_52.2</b>	52.2	17.3	2300	4.5	7000	25000	9.6	2300	2.5	7000	25000	
<b>C 70 3_56.5</b>	56.5	15.9	2300	4.1	7000	25000	8.8	2300	2.3	7000	25000	
<b>C 70 3_65.9</b>	65.9	13.7	2300	3.5	7000	25000	7.6	2300	2.0	7000	25000	
<b>C 70 3_71.3</b>	71.3	12.6	2300	3.3	7000	25000	7.0	2300	1.8	7000	25000	
<b>C 70 3_81.4</b>	81.4	11.1	2300	2.9	7000	25000	6.1	2300	1.6	7000	25000	
<b>C 70 3_88.2</b>	88.2	10.2	2300	2.6	7000	25000	5.7	2300	1.5	7000	25000	
<b>C 70 3_103.8</b>	103.8	8.7	2300	2.2	7000	25000	4.8	2300	1.2	7000	25000	
<b>C 70 3_112.4</b>	112.4	8.0	2300	2.1	7000	25000	4.4	2300	1.2	7000	25000	
<b>C 70 3_126.8</b>	126.8	7.1	2300	1.8	7000	25000	3.9	2300	1.0	7000	25000	
<b>C 70 3_137.4</b>	137.4	6.6	2300	1.7	7000	25000	3.6	2300	0.90	7000	25000	
<b>C 70 3_150.3</b>	150.3	6.0	2300	1.6	7000	25000	3.3	2300	0.90	7000	25000	
<b>C 70 3_162.8</b>	162.8	5.5	2300	1.4	7000	25000	3.1	2300	0.80	7000	25000	
<b>C 70 3_179.2</b>	179.2	5.0	2300	1.3	7000	25000	2.8	2300	0.70	7000	25000	
<b>C 70 3_194.1</b>	194.1	4.6	2300	1.2	7000	25000	2.6	2300	0.70	7000	25000	
<b>C 70 3_220.9</b>	220.9	4.1	2250	1.0	7000	25000	2.3	2250	0.60	7000	25000	
<b>C 70 3_239.3</b>	239.3	3.8	2300	1.0	7000	25000	2.1	2300	0.50	7000	25000	
<b>C 70 4_251.3</b>	251.3	3.6	2300	0.90	2000	25000	2.0	2300	0.50	2620	25000	
<b>C 70 4_272.2</b>	272.2	3.3	2300	0.90	2030	25000	1.8	2300	0.50	2650	25000	
<b>C 70 4_317.9</b>	317.9	2.8	2300	0.70	2030	25000	1.6	2300	0.40	2650	25000	
<b>C 70 4_344.3</b>	344.3	2.6	2300	0.70	2050	25000	1.5	2300	0.40	2670	25000	
<b>C 70 4_409.4</b>	409.4	2.2	2300	0.60	2050	25000	1.2	2300	0.30	2670	25000	
<b>C 70 4_443.5</b>	443.5	2.0	2300	0.50	2070	25000	1.1	2300	0.30	2700	25000	
<b>C 70 4_512.0</b>	512.0	1.8	2300	0.50	2070	25000	1.0	2300	0.30	2680	25000	
<b>C 70 4_554.7</b>	554.7	1.6	2300	0.40	2090	25000	0.90	2300	0.20	2710	25000	
<b>C 70 4_606.8</b>	606.8	1.5	2300	0.40	2080	25000	0.80	2300	0.20	2700	25000	
<b>C 70 4_657.3</b>	657.3	1.4	2300	0.40	2100	25000	0.80	2300	0.20	2720	25000	
<b>C 70 4_736.0</b>	736.0	1.2	2300	0.30	2090	25000	0.70	2300	0.20	2700	25000	
<b>C 70 4_797.3</b>	797.3	1.1	2300	0.30	2110	25000	0.60	2300	0.20	2720	25000	
<b>C 70 4_922.6</b>	922.6	1.0	2300	0.30	2100	25000	0.50	2300	0.10	2710	25000	
<b>C 70 4_999.5</b>	999.5	0.90	2300	0.20	2110	25000	0.50	2300	0.10	2730	25000	
<b>C 70 4_1069</b>	1069	0.80	2300	0.20	2100	25000	0.50	2300	0.10	2720	25000	
<b>C 70 4_1158</b>	1158	0.80	2300	0.20	2100	25000	0.40	2300	0.10	2800	25000	
<b>C 70 4_1362</b>	1362	0.70	2300	0.20	2100	25000	0.40	2300	0.10	2800	25000	
<b>C 70 4_1476</b>	1476	0.60	2300	0.20	2100	25000	0.30	2300	0.10	2800	25000	



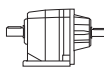

# C 80

# 4000 Nm

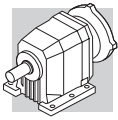
	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
C 80 2_5.6	5.6	496	2400	131	370	10900	248	3100	85	690	12300	159
C 80 2_6.1	6.1	458	2450	124	890	11000	229	3150	80	1380	12700	
C 80 2_7.0	7.0	398	2650	116	350	11000	199	3350	73	910	12900	
C 80 2_7.6	7.6	367	2700	109	890	11300	183	3400	69	1600	13300	
C 80 2_8.9	8.9	316	2800	98	420	12100	158	3500	61	1120	14500	
C 80 2_9.6	9.6	292	3000	96	520	11300	146	3700	59	1380	13900	
C 80 2_11.1	11.1	252	2800	78	1110	14200	126	3500	49	1950	17100	
C 80 2_12.0	12.0	233	3000	77	1200	13500	116	3700	48	2190	16600	
C 80 2_13.8	13.8	203	2800	63	1420	16400	102	3500	39	2330	19800	
C 80 2_14.9	14.9	188	3000	62	1510	15800	94	3700	38	2560	19300	
C 80 2_16.7	16.7	168	2800	52	1840	18500	84	3500	32	2840	22300	
C 80 2_18.1	18.1	155	3000	50	1930	17900	78	3700	32	3060	22000	
C 80 2_20.5	20.5	136	2850	43	2000	20500	68	3550	27	3060	24800	
C 80 2_22.2	22.2	126	3000	42	2210	20300	63	3700	26	3400	24900	
C 80 2_24.0	24.0	117	2850	37	2090	22400	58	3550	23	3180	27000	
C 80 2_25.9	25.9	108	3000	36	2300	22300	54	3700	22	3510	27200	
C 80 2_31.3	31.3	89	3000	30	2480	24700	45	3700	18.2	3730	30000	
C 80 2_39.1	39.1	72	2500	19.7	3820	31000	36	3200	12.6	5060	35000	
C 80 3_43.5	43.5	64	3100	23	5610	28700	32	3800	13.8	7000	34800	
C 80 3_47.4	47.4	59	3100	21	5660	30000	29.5	3800	12.6	7000	35000	
C 80 3_57.3	57.3	49	3400	18.7	5620	30500	24.4	4000	11.0	7000	35000	
C 80 3_62.5	62.5	45	3400	17.1	5670	31800	22.4	4000	10.1	7000	35000	
C 80 3_70.5	70.5	40	3650	16.3	5620	32200	19.9	4000	8.9	7000	35000	
C 80 3_76.9	76.9	36	3600	14.8	5670	33900	18.2	4000	8.2	7000	35000	
C 80 3_89.3	89.3	31	3900	13.8	5620	34700	15.7	4000	7.1	7000	35000	
C 80 3_97.4	97.4	28.7	3900	12.6	5670	35000	14.4	4000	6.5	7000	35000	
C 80 3_109.5	109.5	25.5	4000	11.5	5630	35000	12.8	4000	5.8	7000	35000	
C 80 3_119.5	119.5	23.4	4000	10.6	5680	35000	11.7	4000	5.3	7000	35000	
C 80 3_136.7	136.7	20.5	4000	9.2	5660	35000	10.2	4000	4.6	7000	35000	
C 80 3_149.1	149.1	18.8	4000	8.5	5700	35000	9.4	4000	4.2	7000	35000	
C 80 3_169.0	169.0	16.6	4000	7.5	5680	35000	8.3	4000	3.7	7000	35000	
C 80 3_184.4	184.4	15.2	4000	6.8	5720	35000	7.6	4000	3.4	7000	35000	
C 80 3_197.9	197.9	14.2	3800	6.1	5710	35000	7.1	3800	3.0	7000	35000	
C 80 3_215.8	215.8	13.0	4000	5.8	5730	35000	6.5	4000	2.9	7000	35000	
C 80 4_261.9	261.9	10.7	4000	4.9	1850	35000	5.3	4000	2.5	2470	35000	
C 80 4_285.7	285.7	9.8	4000	4.5	1890	35000	4.9	4000	2.3	2510	35000	
C 80 4_334.3	334.3	8.4	4000	3.9	1880	35000	4.2	4000	1.9	2500	35000	
C 80 4_364.7	364.7	7.7	4000	3.5	1920	35000	3.8	4000	1.8	2540	35000	
C 80 4_417.5	417.5	6.7	4000	3.1	1910	35000	3.4	4000	1.5	2530	35000	
C 80 4_455.4	455.4	6.1	4000	2.8	1950	35000	3.1	4000	1.4	2570	35000	
C 80 4_529.3	529.3	5.3	4000	2.4	1940	35000	2.6	4000	1.2	2550	35000	
C 80 4_577.4	577.4	4.8	4000	2.2	1970	35000	2.4	4000	1.1	2590	35000	
C 80 4_664.3	664.3	4.2	4000	1.9	1960	35000	2.1	4000	1.0	2570	35000	
C 80 4_724.7	724.7	3.9	4000	1.8	1990	35000	1.9	4000	0.90	2610	35000	
C 80 4_783.4	783.4	3.6	4000	1.6	1970	35000	1.8	4000	0.80	2590	35000	
C 80 4_854.6	854.6	3.3	4000	1.5	2000	35000	1.6	4000	0.80	2620	35000	
C 80 4_945.7	945.7	3.0	4000	1.4	1980	35000	1.5	4000	0.70	2600	35000	
C 80 4_1032	1032	2.7	4000	1.2	2010	35000	1.4	4000	0.60	2630	35000	
C 80 4_1168	1168	2.4	4000	1.1	1980	35000	1.2	4000	0.60	2600	35000	
C 80 4_1274	1274	2.2	4000	1.0	2020	35000	1.1	4000	0.50	2640	35000	
C 80 4_1358	1358	2.1	4000	0.90	1990	35000	1.0	4000	0.50	2610	35000	
C 80 4_1481	1481	1.9	4000	0.90	2030	35000	0.90	4000	0.40	2640	35000	



# C 80 4000 Nm

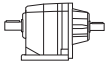

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 80 2_5.6	5.6	160	3500	62	1480	14400	89	3500	34	4970	21600	159
C 80 2_6.1	6.1	147	3600	58	2100	14400	82	3700	33	5270	21200	
C 80 2_7.0	7.0	128	3500	49	2630	17000	71	3500	27	6130	24600	
C 80 2_7.6	7.6	118	3650	47	3060	16800	66	3650	26	6550	24600	
C 80 2_8.9	8.9	102	3500	39	3330	19900	56	3500	22	6800	27800	
C 80 2_9.6	9.6	94	3700	38	3590	19400	52	3700	21	7000	27700	
C 80 2_11.1	11.1	81	3500	31	4160	22800	45	3500	17.4	7000	31200	
C 80 2_12.0	12.0	75	3700	31	4400	22500	42	3700	17.0	7000	31200	
C 80 2_13.8	13.8	65	3500	25	4540	25700	36	3500	14.0	7000	34700	
C 80 2_14.9	14.9	60	3700	25	4770	25500	34	3700	13.7	7000	34700	
C 80 2_16.7	16.7	54	3500	21	5050	28500	30	3500	11.6	7000	35000	
C 80 2_18.1	18.1	50	3700	20	5280	28400	27.7	3700	11.3	7000	35000	
C 80 2_20.5	20.5	44	3550	17.2	5270	31400	24.4	3550	9.5	7000	35000	
C 80 2_22.2	22.2	40	3700	16.5	5610	31600	22.5	3700	9.2	7000	35000	
C 80 2_24.0	24.0	38	3550	14.7	5390	33800	20.9	3550	8.2	7000	35000	
C 80 2_25.9	25.9	35	3700	14.1	5730	34200	19.3	3700	7.9	7000	35000	
C 80 2_31.3	31.3	28.7	3700	11.7	5940	35000	16.0	3700	6.5	7000	35000	
C 80 2_39.1	39.1	23.0	3200	8.1	7000	35000	12.8	3200	4.5	7000	35000	
C 80 3_43.5	43.5	20.7	4000	9.3	7000	35000	11.5	4000	5.2	7000	35000	
C 80 3_47.4	47.4	19.0	4000	8.5	7000	35000	10.5	4000	4.7	7000	35000	
C 80 3_57.3	57.3	15.7	4000	7.1	7000	35000	8.7	4000	3.9	7000	35000	
C 80 3_62.5	62.5	14.4	4000	6.5	7000	35000	8.0	4000	3.6	7000	35000	
C 80 3_70.5	70.5	12.8	4000	5.7	7000	35000	7.1	4000	3.2	7000	35000	
C 80 3_76.9	76.9	11.7	4000	5.3	7000	35000	6.5	4000	2.9	7000	35000	
C 80 3_89.3	89.3	10.1	4000	4.5	7000	35000	5.6	4000	2.5	7000	35000	
C 80 3_97.4	97.4	9.2	4000	4.2	7000	35000	5.1	4000	2.3	7000	35000	
C 80 3_109.5	109.5	8.2	4000	3.7	7000	35000	4.6	4000	2.1	7000	35000	
C 80 3_119.5	119.5	7.5	4000	3.4	7000	35000	4.2	4000	1.9	7000	35000	
C 80 3_136.7	136.7	6.6	4000	3.0	7000	35000	3.7	4000	1.6	7000	35000	
C 80 3_149.1	149.1	6.0	4000	2.7	7000	35000	3.4	4000	1.5	7000	35000	
C 80 3_169.0	169.0	5.3	4000	2.4	7000	35000	3.0	4000	1.3	7000	35000	
C 80 3_184.4	184.4	4.9	4000	2.2	7000	35000	2.7	4000	1.2	7000	35000	
C 80 3_197.9	197.9	4.5	3800	1.9	7000	35000	2.5	3800	1.1	7000	35000	
C 80 3_215.8	215.8	4.2	4000	1.9	7000	35000	2.3	4000	1.0	7000	35000	
C 80 4_261.9	261.9	3.4	4000	1.6	2950	35000	1.9	4000	0.90	3500	35000	
C 80 4_285.7	285.7	3.2	4000	1.4	2990	35000	1.8	4000	0.80	3500	35000	
C 80 4_334.3	334.3	2.7	4000	1.2	2980	35000	1.5	4000	0.70	3500	35000	
C 80 4_364.7	364.7	2.5	4000	1.1	3020	35000	1.4	4000	0.60	3500	35000	
C 80 4_417.5	417.5	2.2	4000	1.0	3000	35000	1.2	4000	0.60	3500	35000	
C 80 4_455.4	455.4	2.0	4000	0.90	3050	35000	1.1	4000	0.50	3500	35000	
C 80 4_529.3	529.3	1.7	4000	0.80	3030	35000	0.90	4000	0.40	3500	35000	
C 80 4_577.4	577.4	1.6	4000	0.70	3070	35000	0.90	4000	0.40	3500	35000	
C 80 4_664.3	664.3	1.4	4000	0.60	3050	35000	0.80	4000	0.30	3500	35000	
C 80 4_724.7	724.7	1.2	4000	0.60	3090	35000	0.70	4000	0.30	3500	35000	
C 80 4_783.4	783.4	1.1	4000	0.50	3060	35000	0.60	4000	0.30	3500	35000	
C 80 4_854.6	854.6	1.1	4000	0.50	3100	35000	0.60	4000	0.30	3500	35000	
C 80 4_945.7	945.7	1.0	4000	0.40	3070	35000	0.50	4000	0.20	3500	35000	
C 80 4_1032	1032	0.90	4000	0.40	3110	35000	0.50	4000	0.20	3500	35000	
C 80 4_1168	1168	0.80	4000	0.40	3080	35000	0.40	4000	0.20	3500	35000	
C 80 4_1274	1274	0.70	4000	0.30	3110	35000	0.40	4000	0.20	3500	35000	
C 80 4_1358	1358	0.70	4000	0.30	3090	35000	0.40	4000	0.20	3500	35000	
C 80 4_1481	1481	0.60	4000	0.30	3120	35000	0.30	4000	0.20	3500	35000	





# C 90

# 7200 Nm

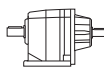

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
C 90 2_5.2	5.2	542	3500	209	1700	12800	271	4300	128	2170	15800	162
C 90 2_5.6	5.6	500	3600	198	3240	12800	250	4400	121	4250	16000	
C 90 2_6.8	6.8	414	3850	176	1860	13400	207	4750	108	2210	16400	
C 90 2_7.3	7.3	383	3950	167	3470	13500	191	4850	102	4360	16700	
C 90 2_8.3	8.3	336	4150	154	2010	13800	168	5100	94	2540	17100	
C 90 2_9.0	9.0	310	4250	145	3660	14000	155	5200	89	4720	17500	
C 90 2_10.4	10.4	270	4500	134	990	14200	135	5550	83	1150	17400	
C 90 2_11.2	11.2	249	4600	126	2750	14400	125	5650	78	3460	17800	
C 90 2_12.8	12.8	219	4850	117	580	14700	109	5950	72	840	18200	
C 90 2_13.9	13.9	202	4900	109	2700	15300	101	6050	67	3220	18700	
C 90 2_16.0	16.0	175	5050	98	690	16800	88	6200	60	950	20800	
C 90 2_17.3	17.3	162	5300	94	1670	15900	81	6500	58	2200	19800	
C 90 2_18.7	18.7	150	5050	83	1140	19600	75	6200	51	1500	24300	
C 90 2_20.2	20.2	138	5400	82	1540	17900	69	6600	50	2160	22500	
C 90 2_22.9	22.9	122	5050	68	2110	22400	61	6200	42	2700	27600	
C 90 2_24.8	24.8	113	5400	67	2500	21900	56	6600	41	3340	27300	
C 90 2_27.2	27.2	103	4500	51	6160	26000	52	5500	31	7820	32200	
C 90 2_29.4	29.4	95	4800	50	6560	26000	48	5900	31	8130	32000	
C 90 2_35.1	35.1	80	4400	39	8090	29400	40	5400	24	11100	36300	
C 90 3_39.4	39.4	71	6350	51	10800	23900	36	7100	28	13700	32900	
C 90 3_43.0	43.0	65	6500	48	10800	24700	33	7200	26	13800	34000	
C 90 3_50.3	50.3	56	6800	43	10800	26000	27.8	7100	22	13800	37000	
C 90 3_54.9	54.9	51	7000	40	10900	26500	25.5	7200	21	13900	38300	
C 90 3_59.2	59.2	47	7100	38	10800	27700	23.6	7100	18.9	13900	40000	
C 90 3_64.6	64.6	43	7200	35	10900	29100	21.7	7200	17.6	14000	41300	
C 90 3_74.4	74.4	38	7100	30	10900	31900	18.8	7100	15.0	14000	44400	
C 90 3_81.2	81.2	34	7200	28	10900	33000	17.2	7200	14.0	14100	45900	
C 90 3_88.2	88.2	32	7100	25	11000	34800	15.9	7100	12.7	14000	47900	
C 90 3_96.2	96.2	29.1	7200	24	11000	35900	14.5	7200	11.8	14100	49400	
C 90 3_107.0	107.0	26.2	7100	21	11000	38100	13.1	7100	10.5	14100	52100	
C 90 3_116.7	116.7	24.0	7200	19.4	11000	39400	12.0	7200	9.7	14100	53700	
C 90 3_134.1	134.1	20.9	7100	16.7	11000	42400	10.4	7100	8.3	14100	57300	
C 90 3_146.3	146.3	19.1	7200	15.5	11000	43800	9.6	7200	7.8	14200	59000	
C 90 3_157.8	157.8	17.7	7100	14.2	11000	45600	8.9	7100	7.1	14100	60000	
C 90 3_172.1	172.1	16.3	7200	13.2	11000	47100	8.1	7200	6.6	14200	60000	
C 90 4_212.4	212.4	13.2	7200	10.9	—	60000	6.6	7200	5.5	1180	60000	
C 90 4_231.7	231.7	12.1	7200	10.0	—	60000	6.0	7200	5.0	1560	60000	
C 90 4_268.5	268.5	10.4	7200	8.6	—	60000	5.2	7200	4.3	1540	60000	
C 90 4_292.9	292.9	9.6	7200	7.9	—	60000	4.8	7200	4.0	1880	60000	
C 90 4_339.0	339.0	8.3	7200	6.8	—	60000	4.1	7200	3.4	1720	60000	
C 90 4_369.8	369.8	7.6	7200	6.3	—	60000	3.8	7200	3.1	2050	60000	
C 90 4_419.0	419.0	6.7	7200	5.5	—	60000	3.3	7200	2.8	1890	60000	
C 90 4_457.1	457.1	6.1	7200	5.1	—	60000	3.1	7200	2.5	2210	60000	
C 90 4_534.2	534.2	5.2	7200	4.3	—	60000	2.6	7200	2.2	2090	60000	
C 90 4_582.8	582.8	4.8	7200	4.0	—	60000	2.4	7200	2.0	2270	60000	
C 90 4_652.8	652.8	4.3	7200	3.6	—	60000	2.1	7200	1.8	2160	60000	
C 90 4_712.2	712.2	3.9	7200	3.3	—	60000	2.0	7200	1.6	2290	60000	
C 90 4_773.6	773.6	3.3	7200	3.0	—	60000	1.8	7200	1.5	2250	60000	
C 90 4_844.0	844.0	3.0	7200	2.7	—	60000	1.7	7200	1.4	2310	60000	
C 90 4_922.3	922.3	2.8	7200	2.5	—	60000	1.5	7200	1.3	2260	60000	
C 90 4_1006	1006	2.5	7200	2.3	—	60000	1.4	7200	1.2	2320	60000	
C 90 4_1137	1137	2.3	7200	2.0	—	60000	1.2	7200	1.0	2270	60000	
C 90 4_1240	1240	2.2	7200	1.9	—	60000	1.1	7200	0.90	2230	60000	

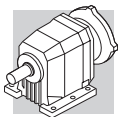
(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



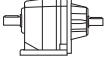



# C 90 7200 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
C 90 2_5.2	5.2	174	4900	94	2560	18200	97	5850	62	3010	21600	162
C 90 2_5.6	5.6	161	5050	89	4640	18100	89	6000	59	5720	21800	
C 90 2_6.8	6.8	133	5450	80	2310	18500	74	6200	51	5130	24600	
C 90 2_7.3	7.3	123	5550	75	4890	18900	68	6550	49	6340	23200	
C 90 2_8.3	8.3	108	5850	70	2700	19300	60	6200	41	8870	27800	
C 90 2_9.0	9.0	100	5950	65	5300	19800	55	6600	40	9660	27600	
C 90 2_10.4	10.4	87	6200	59	2250	21000	48	6200	33	11000	31000	
C 90 2_11.2	11.2	80	6450	57	3960	20400	45	6600	32	11700	30800	
C 90 2_12.8	12.8	70	6250	48	4500	25300	39	6250	27	13200	34100	
C 90 2_13.9	13.9	65	6550	47	5830	24400	36	6550	26	14600	34300	
C 90 2_16.0	16.0	56	6200	38	6570	28700	31	6200	21	15000	38000	
C 90 2_17.3	17.3	52	6550	38	7530	28600	28.9	6550	21	15000	38100	
C 90 2_18.7	18.7	48	6200	33	7120	31000	26.7	6200	18.3	15000	40700	
C 90 2_20.2	20.2	44	6600	32	7780	30800	24.8	6600	18.0	15000	40700	
C 90 2_22.9	22.9	39	6200	27	8310	34200	21.8	6200	14.9	15000	44500	
C 90 2_24.8	24.8	36	6600	26	8950	34100	20.2	6600	14.6	15000	44600	
C 90 2_27.2	27.2	33	5500	20	13400	39200	18.4	5500	11.2	15000	50000	
C 90 2_29.4	29.4	31	5900	19.9	13700	39100	17.0	5900	11.0	15000	50200	
C 90 2_35.1	35.1	25.6	5400	15.3	14100	43800	14.2	5400	8.5	15000	55500	
C 90 3_39.4	39.4	22.8	7100	18.3	15000	40600	12.7	7100	10.1	15000	40600	
C 90 3_43.0	43.0	20.9	7200	17.0	15000	42000	11.6	7200	9.4	15000	42000	
C 90 3_50.3	50.3	17.9	7100	14.3	15000	45400	9.9	7100	7.9	15000	45400	
C 90 3_54.9	54.9	16.4	7200	13.3	15000	46900	9.1	7200	7.4	15000	46900	
C 90 3_59.2	59.2	15.2	7100	12.2	15000	48800	8.4	7100	6.8	15000	48800	
C 90 3_64.6	64.6	13.9	7200	11.3	15000	50400	7.7	7200	6.3	15000	50400	
C 90 3_74.4	74.4	12.1	7100	9.7	15000	53800	6.7	7100	5.4	15000	53800	
C 90 3_81.2	81.2	11.1	7200	9.0	15000	55500	6.2	7200	5.0	15000	55500	
C 90 3_88.2	88.2	10.2	7100	8.2	15000	57800	5.7	7100	4.5	15000	57800	
C 90 3_96.2	96.2	9.4	7200	7.6	15000	59600	5.2	7200	4.2	15000	59600	
C 90 3_107.0	107.0	8.4	7100	6.7	15000	60000	4.7	7100	3.7	15000	60000	
C 90 3_116.7	116.7	7.7	7200	6.3	15000	60000	4.3	7200	3.5	15000	60000	
C 90 3_134.1	134.1	6.7	7100	5.4	15000	60000	3.7	7100	3.0	15000	60000	
C 90 3_146.3	146.3	6.2	7200	5.0	15000	60000	3.4	7200	2.8	15000	60000	
C 90 3_157.8	157.8	5.7	7100	4.6	15000	60000	3.2	7100	2.5	15000	60000	
C 90 3_172.1	172.1	5.2	7200	4.2	15000	60000	2.9	7200	2.4	15000	60000	
C 90 4_212.4	212.4	4.2	7200	3.5	2090	60000	2.4	7200	2.0	3210	60000	
C 90 4_231.7	231.7	3.9	7200	3.2	2460	60000	2.2	7200	1.8	3290	60000	
C 90 4_268.5	268.5	3.4	7200	2.8	2440	60000	1.9	7200	1.5	3300	60000	
C 90 4_292.9	292.9	3.1	7200	2.5	2620	60000	1.7	7200	1.4	3370	60000	
C 90 4_339.0	339.0	2.7	7200	2.2	2590	60000	1.5	7200	1.2	3340	60000	
C 90 4_369.8	369.8	2.4	7200	2.0	2660	60000	1.4	7200	1.1	3420	60000	
C 90 4_419.0	419.0	2.1	7200	1.8	2630	60000	1.2	7200	1.0	3390	60000	
C 90 4_457.1	457.1	2.0	7200	1.6	2700	60000	1.1	7200	0.90	3460	60000	
C 90 4_534.2	534.2	1.7	7200	1.4	2680	60000	0.90	7200	0.80	3380	60000	
C 90 4_582.8	582.8	1.5	7200	1.3	2750	60000	0.90	7200	0.70	3500	60000	
C 90 4_652.8	652.8	1.4	7200	1.1	2700	60000	0.80	7200	0.60	3450	60000	
C 90 4_712.2	712.2	1.3	7200	1.0	2760	60000	0.70	7200	0.60	3500	60000	
C 90 4_773.6	773.6	1.2	7200	1.0	2720	60000	0.60	7200	0.50	3480	60000	
C 90 4_844.0	844.0	1.1	7200	0.90	2790	60000	0.60	7200	0.50	3500	60000	
C 90 4_922.3	922.3	1.0	7200	0.80	2730	60000	0.50	7200	0.40	3490	60000	
C 90 4_1006	1006	0.90	7200	0.70	2800	60000	0.50	7200	0.40	3500	60000	
C 90 4_1137	1137	0.80	7200	0.70	2740	60000	0.40	7200	0.40	3500	60000	
C 90 4_1240	1240	0.70	7200	0.60	2800	60000	0.40	7200	0.30	3500	60000	



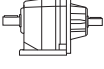

# C 100 12000 Nm

	i	$n_1 = 2800 \text{ min}^{-1}$					$n_1 = 1400 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
<b>C 100 2_4.9</b>	4.9	569	5500	345	1900	20600	285	6800	213	3790	25300	165
<b>C 100 2_5.3</b>	5.3	525	5650	327	2790	21000	263	6950	201	4940	25800	
<b>C 100 2_6.5</b>	6.5	429	6150	291	1920	21800	215	7550	179	3950	27000	
<b>C 100 2_7.1</b>	7.1	396	6200	271	3100	22700	198	7650	167	5270	27900	
<b>C 100 2_8.4</b>	8.4	335	6700	248	1870	22800	168	8200	152	3970	28500	
<b>C 100 2_9.0</b>	9.0	309	6800	232	2950	23500	155	8350	142	5190	29200	
<b>C 100 2_10.1</b>	10.1	278	7100	217	1930	24100	139	8750	134	3900	29500	
<b>C 100 2_10.9</b>	10.9	256	7100	200	3240	25700	128	8750	124	5460	31600	
<b>C 100 2_12.5</b>	12.5	225	7650	190	1360	24900	112	9400	117	3260	30800	
<b>C 100 2_13.5</b>	13.5	208	7700	176	2600	26300	104	9500	109	4680	32100	
<b>C 100 2_15.2</b>	15.2	184	8100	164	1270	26600	92	10000	101	2680	32500	
<b>C 100 2_16.5</b>	16.5	170	8250	154	2320	27200	85	10150	95	4420	33600	
<b>C 100 2_18.7</b>	18.7	150	8200	136	1500	30800	75	10000	83	3600	38000	
<b>C 100 2_20.2</b>	20.2	138	8100	124	3047	32200	69	10000	76	5210	39600	
<b>C 100 2_22.2</b>	22.2	126	7500	104	3570	35800	63	9200	64	5960	44100	
<b>C 100 2_24.1</b>	24.1	116	8100	104	3620	35200	58	10000	64	5900	43300	
<b>C 100 2_29.6</b>	29.6	95	6900	72	6380	42400	47	8500	44	9220	52200	
<b>C 100 3_34.3</b>	34.3	82	10350	95	9790	33300	41	11700	54	13000	46400	
<b>C 100 3_36.9</b>	36.9	76	10650	91	10200	34500	38	11800	50	13100	48000	
<b>C 100 3_42.9</b>	42.9	65	11350	83	9640	33200	33	12000	44	13100	51200	
<b>C 100 3_46.2</b>	46.2	61	11700	80	10100	33100	30	12000	41	13300	53100	
<b>C 100 3_53.3</b>	53.3	53	12000	71	9450	36400	26.3	12000	36	13200	56900	
<b>C 100 3_57.4</b>	57.4	49	12000	66	10200	39500	24.4	12000	33	13400	59000	
<b>C 100 3_64.5</b>	64.5	43	12000	59	9950	44100	21.7	12000	29	13400	62300	
<b>C 100 3_69.4</b>	69.4	40	12000	54	10400	45900	20.2	12000	27	13500	64500	
<b>C 100 3_79.4</b>	79.4	35	12000	48	10300	49200	17.6	12000	24	13500	68600	
<b>C 100 3_85.6</b>	85.6	33	12000	44	10400	51100	16.4	12000	22	13600	70900	
<b>C 100 3_92.7</b>	92.7	30	12000	41	10400	53200	15.1	12000	20	13500	73500	
<b>C 100 3_99.8</b>	99.8	28.1	12000	38	10500	55200	14.0	12000	19.0	13600	75900	
<b>C 100 3_111.9</b>	111.9	25.0	12000	34	10400	58300	12.5	12000	16.9	13500	79800	
<b>C 100 3_120.5</b>	120.5	23.2	12000	31	10500	60400	11.6	12000	15.7	13700	82400	
<b>C 100 3_139.7</b>	139.7	20.0	11050	25	10600	67400	10.0	11050	12.5	13700	85000	
<b>C 100 3_150.4</b>	150.4	18.6	12000	25	10600	66900	9.3	12000	12.6	13700	85000	
<b>C 100 4_162.1</b>	162.1	17.3	12000	24	—	85000	8.6	12000	11.9	—	85000	
<b>C 100 4_185.4</b>	185.4	15.1	12000	21	—	85000	7.6	12000	10.4	—	85000	
<b>C 100 4_199.6</b>	199.6	14.0	12000	19.4	—	85000	7.0	12000	9.7	—	85000	
<b>C 100 4_244.2</b>	244.2	11.5	12000	15.8	—	85000	5.7	12000	7.9	—	85000	
<b>C 100 4_263.0</b>	263.0	10.6	12000	14.7	—	85000	5.3	12000	7.4	—	85000	
<b>C 100 4_300.5</b>	300.5	9.3	12000	12.9	—	85000	4.7	12000	6.4	—	85000	
<b>C 100 4_323.6</b>	323.6	8.7	12000	11.9	—	85000	4.3	12000	6.0	—	85000	
<b>C 100 4_380.5</b>	380.5	7.4	12000	10.2	—	85000	3.7	12000	5.1	—	85000	
<b>C 100 4_409.8</b>	409.8	6.8	12000	9.4	—	85000	3.4	12000	4.7	—	85000	
<b>C 100 4_466.7</b>	466.7	6.0	12000	8.3	—	85000	3.0	12000	4.1	—	85000	
<b>C 100 4_502.6</b>	502.6	5.6	12000	7.7	—	85000	2.8	12000	3.8	—	85000	
<b>C 100 4_582.6</b>	582.6	4.8	12000	6.6	—	85000	2.4	12000	3.3	—	85000	
<b>C 100 4_627.4</b>	627.4	4.5	12000	6.2	—	85000	2.2	12000	3.1	—	85000	
<b>C 100 4_720.3</b>	720.3	3.9	12000	5.4	—	85000	1.9	12000	2.7	—	85000	
<b>C 100 4_775.7</b>	775.7	3.6	12000	5.0	—	85000	1.8	12000	2.5	—	85000	
<b>C 100 4_843.3</b>	843.3	3.3	12000	4.6	—	85000	1.7	12000	2.3	—	85000	
<b>C 100 4_908.2</b>	908.2	3.1	12000	4.3	—	85000	1.5	12000	2.1	830	85000	
<b>C 100 4_1004</b>	1004	2.8	12000	3.9	—	85000	1.4	12000	1.9	—	85000	
<b>C 100 4_1081</b>	1081	2.6	12000	3.6	—	85000	1.3	12000	1.8	870	85000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# C 100 12000 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
<b>C 100 2_4.9</b>	4.9	183	7800	157	5310	28800	102	9300	104	6720	34400	165
<b>C 100 2_5.3</b>	5.3	169	7950	148	6680	29500	94	9450	98	9740	35200	
<b>C 100 2_6.5</b>	6.5	138	8600	131	5670	31000	77	10250	87	7540	37000	
<b>C 100 2_7.1</b>	7.1	127	8750	123	7050	31800	71	10450	81	10100	37800	
<b>C 100 2_8.4</b>	8.4	108	9350	111	5670	32600	60	10950	72	8530	40100	
<b>C 100 2_9.0</b>	9.0	99	9500	104	7080	33600	55	11350	69	10100	39900	
<b>C 100 2_10.1</b>	10.1	89	10000	98	5540	33600	50	10900	60	10600	44500	
<b>C 100 2_10.9</b>	10.9	82	10150	92	6980	34700	46	11500	58	11300	44300	
<b>C 100 2_12.5</b>	12.5	72	10700	85	3910	35400	40	10850	48	11700	49600	
<b>C 100 2_13.5</b>	13.5	67	10850	80	6440	36700	37	11450	47	12300	49500	
<b>C 100 2_15.2</b>	15.2	59	10800	70	5940	40800	33	10800	39	13000	54700	
<b>C 100 2_16.5</b>	16.5	55	11500	69	6320	39100	30	11500	38	13400	54500	
<b>C 100 2_18.7</b>	18.7	48	10900	58	6310	45100	26.8	10900	32	13400	59800	
<b>C 100 2_20.2</b>	20.2	45	11500	56	6890	45000	24.7	11500	31	14000	60100	
<b>C 100 2_22.2</b>	22.2	40	9850	44	9170	52200	22.5	9850	24	15000	67800	
<b>C 100 2_24.1</b>	24.1	37	10800	44	8930	51200	20.7	10800	25	15000	67200	
<b>C 100 2_29.6</b>	29.6	30	9100	31	12600	61400	16.9	9100	17.0	15000	78300	
<b>C 100 3_34.3</b>	34.3	26.2	11700	35	15000	57800	14.6	11700	19.2	15000	75500	
<b>C 100 3_36.9</b>	36.9	24.4	11800	32	15000	59600	13.5	11800	18.0	15000	77700	
<b>C 100 3_42.9</b>	42.9	21.0	12000	28	15000	63400	11.6	12000	15.7	15000	82300	
<b>C 100 3_46.2</b>	46.2	19.5	12000	26	15000	65600	10.8	12000	14.6	15000	84900	
<b>C 100 3_53.3</b>	53.3	16.9	12000	23	15000	69900	9.4	12000	12.7	15000	85000	
<b>C 100 3_57.4</b>	57.4	15.7	12000	21	15000	72300	8.7	12000	11.8	15000	85000	
<b>C 100 3_64.5</b>	64.5	14.0	12000	18.6	15000	76100	7.8	12000	10.5	15000	85000	
<b>C 100 3_69.4</b>	69.4	13.0	12000	17.5	15000	78600	7.2	12000	9.7	15000	85000	
<b>C 100 3_79.4</b>	79.4	11.3	12000	15.3	15000	83300	6.3	12000	8.5	15000	85000	
<b>C 100 3_85.6</b>	85.6	10.5	12000	14.2	15000	85000	5.8	12000	7.9	15000	85000	
<b>C 100 3_92.7</b>	92.7	9.7	12000	13.1	15000	85000	5.4	12000	7.3	15000	85000	
<b>C 100 3_99.8</b>	99.8	9.0	12000	12.2	15000	85000	5.0	12000	6.8	15000	85000	
<b>C 100 3_111.9</b>	111.9	8.0	12000	10.9	15000	85000	4.5	12000	6.0	15000	85000	
<b>C 100 3_120.5</b>	120.5	7.5	12000	10.1	15000	85000	4.1	12000	5.6	15000	85000	
<b>C 100 3_139.7</b>	139.7	6.4	11500	8.0	15000	85000	3.6	11050	4.5	15000	85000	
<b>C 100 3_150.4</b>	150.4	6.0	12000	8.1	15000	85000	3.3	12000	4.5	15000	85000	
<b>C 100 4_162.1</b>	162.1	5.6	12000	7.7	—	85000	3.1	12000	4.3	—	85000	
<b>C 100 4_185.4</b>	185.4	4.9	12000	6.7	—	85000	2.7	12000	3.7	920	85000	
<b>C 100 4_199.6</b>	199.6	4.5	12000	6.2	—	85000	2.5	12000	3.5	1430	85000	
<b>C 100 4_244.2</b>	244.2	3.7	12000	5.1	—	85000	2.0	12000	2.8	1490	85000	
<b>C 100 4_263.0</b>	263.0	3.4	12000	4.7	—	85000	1.9	12000	2.6	1950	85000	
<b>C 100 4_300.5</b>	300.5	3.0	12000	4.1	—	85000	1.7	12000	2.3	1840	85000	
<b>C 100 4_323.6</b>	323.6	2.8	12000	3.8	850	85000	1.5	12000	2.1	2280	85000	
<b>C 100 4_380.5</b>	380.5	2.4	12000	3.3	700	85000	1.3	12000	1.8	2130	85000	
<b>C 100 4_409.8</b>	409.8	2.2	12000	3.0	1120	85000	1.2	12000	1.7	2550	85000	
<b>C 100 4_466.7</b>	466.7	1.9	12000	2.7	910	85000	1.1	12000	1.5	2340	85000	
<b>C 100 4_502.6</b>	502.6	1.8	12000	2.5	1320	85000	1.0	12000	1.4	2740	85000	
<b>C 100 4_582.6</b>	582.6	1.5	12000	2.1	1100	85000	0.90	12000	1.2	2520	85000	
<b>C 100 4_627.4</b>	627.4	1.4	12000	2.0	1490	85000	0.80	12000	1.1	2910	85000	
<b>C 100 4_720.3</b>	720.3	1.2	12000	1.7	1270	85000	0.70	12000	1.0	2700	85000	
<b>C 100 4_775.7</b>	775.7	1.2	12000	1.6	1650	85000	0.60	12000	0.90	3070	85000	
<b>C 100 4_843.3</b>	843.3	1.1	12000	1.5	1360	85000	0.60	12000	0.80	2790	85000	
<b>C 100 4_908.2</b>	908.2	1.0	12000	1.4	1730	85000	0.60	12000	0.80	3160	85000	
<b>C 100 4_1004</b>	1004	0.90	12000	1.2	1400	85000	0.50	12000	0.70	2830	85000	
<b>C 100 4_1081</b>	1081	0.90	12000	1.1	1770	85000	0.50	12000	0.60	3170	85000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)




## 27 MOTOR AVAILABILITY

Please be aware that motor-gearbox combinations resulting from the following charts are purely based on geometrical compatibility.

**When selecting a gearmotor, refer to procedure specified at paragraph 12 and observe particularly the condition  $S \geq f_s$ .**


(B 22)

		IEC_  (IM B5)													
		BN										IEC			
P <sub>n1</sub> (#) [kW]	2p	0.37	0.75	1.5	2.2	4	4	9.2	18.5	22	30	45	55	90	
	4p	0.25	0.55	1.1	1.85	3	4	9.2	15	22	30	45	55	90	
	6p	0.12	0.37	0.75	1.1	1.85	2.2	5.5	11	15	18.5	30	37	55	
		P63	P71	P80	P90	P100	P112	P132	P160	P180	P200	P225	P250	P280	
C 12 2		2.8_66.2		2.8_47.6		2.8_47.6									
C 22 2		3.7_63.3 ⊖(7.1_8.7)		2.7_54.7		2.7_54.7									
C 22 3		60.0_261.0		60.0_261.0		60.0_261.0									
C 32 2		5.0_66.8 ⊖(7.2_11.2)		2.9_66.8		2.9_66.8	2.9_25.1								
C 32 3		74.7_274.7		74.7_274.7		74.7_274.7									
C 36 2		4.6_19.0 ⊖(6.8_10.6)		2.7_19.0		2.7_19.0	2.7_19.0								
C 36 3		38.1_206.4		22.1_206.4		22.1_206.4	22.1_77.6								
C 36 4		230.9_848.5		230.9_848.5		230.9_848.5									
C 41 2		14.2_44.8		2.7_44.8		2.7_44.8	2.7_31.4								
C 41 3		47.0_209.1		28.5_209.1		28.5_209.1	28.5_102.3								
C 41 4		239.9_855.5		239.9_855.5		239.9_855.5									
C 51 2		18.9_57.0		2.6_57.0		2.6_57.0	2.6_40.4	2.6_40.4	2.6_40.4						
C 51 3		59.0_216.7		21.8_216.7		21.8_216.7	21.8_124.4	21.8_124.4	21.8_124.4						
C 51 4		240.9_884.9		240.9_884.9		240.9_884.9									
C 61 2	i =	22.4_38.0		3.7_38.0 ⊖(6.7_7.5)		3.7_38.0 ⊖(6.7_7.5)	2.8_38.0	2.8_38.0	2.8_38.0						
C 61 3		67.7_195.8		26.8_195.8		26.8_195.8	26.8_140.5	26.8_140.5	26.8_140.5						
C 61 4		217.4_796.1		217.4_796.1		217.4_796.1									
C 70 2				14.1_34.7 ⊖(15.3)		14.1_34.7 ⊖(15.3)	7.5_34.7 ⊖(8.0)	4.6_34.7	4.6_34.7	4.6_34.7	4.6_10.2 ⊖(9.5)				
C 70 3				41.3_239.3		41.3_239.3	41.3_137.4	41.3_137.4	41.3_137.4						
C 70 4		251.3_1476		251.3_1476		251.3_1476	251.3_554.7								
C 80 2				20.5_39.1		20.5_39.1	11.1_39.1	7.0_39.1	5.6_39.1	5.6_25.9	5.6_25.9				
C 80 3				43.5_215.8		43.5_215.8	43.5_184.4	43.5_184.4	43.5_184.4						
C 80 4		334.3_1481		261.9_1481		261.9_1481	261.9_724.7								
C 90 2				22.9_35.1		22.9_35.1	12.8_35.1	10.4_35.1	10.4_35.1	5.2_29.4	5.2_29.4	5.2_29.4			
C 90 3				74.4_172.1		74.4_172.1	39.4_172.1	39.4_172.1	39.4_172.1	39.4_96.2	39.4_96.2	39.4_96.2			
C 90 4		339.0_1240		212.4_1240		212.4_1240	212.4_712.2	212.4_712.2	212.4_712.2						
C 100 2						29.6	15.2_29.6	12.5_29.6	12.5_29.6	4.9_29.6	4.9_29.6	4.9_29.6	4.9_29.6	4.9_29.6	
C 100 3						79.4_150.4	42.9_150.4	34.3_150.4	34.3_150.4	34.3_99.8	34.3_99.8	34.3_99.8	34.3_99.8	34.3_99.8	
C 100 4		380.5_1081		162.1_1081		162.1_1081	162.1_775.7	162.1_775.7	162.1_775.7						

(#) P<sub>n1</sub> = maximum installable power on input P<sub>-</sub>



(B 23)

								
		M0	M05	M1	M2	M3	M4	M5
C 05 2	i =	27.1_44.7	5.5_44.7	5.5_44.7				
C 12 2			2.8_66.2	2.8_37.0	2.8_47.7	2.8_47.7		
C 22 2			3.7_63.3 ⊖ (7.1_8.7)	3.7_43.3 ⊖ (7.1_8.7)	2.7_54.7	2.7_54.7		
C 22 3			60.0_261.0	60.0_261.0	60.0_261.0	60.0_261.0		
C 32 2				5.0_52.4 ⊖ (7.2_11.2)	2.9_66.8	2.9_66.8	2.9_25.1	
C 32 3			74.7_274.7	74.7_274.7	74.7_274.7	74.7_274.7		
C 36 2				4.6_19.0 ⊖ (6.8_10.6)	2.7_19.0	2.7_19.0	2.7_19.0	
C 36 3				38.1_162.0	22.1_206.4	22.1_206.4	22.1_77.6	
C 36 4			230.9_848.5	230.9_848.5	230.9_848.5	230.9_848.5		
C 41 2				14.2_44.8	2.7_44.8	2.7_44.8	2.7_31.4	
C 41 3				47.0_209.1	28.5_209.1	28.5_209.1	28.5_102.3	
C 41 4			239.9_855.5	239.9_855.5	239.9_855.5	239.9_855.5		
C 51 2				18.9_57.0	2.6_57.0	2.6_57.0	2.6_40.4	2.6_40.4
C 51 3				59.0_216.7	21.8_216.7	21.8_216.7	21.8_124.4	21.8_124.4
C 51 4				240.9_884.9	240.9_884.9	240.9_884.9		
C 61 2					3.7_38.0 ⊖ (6.7_7.5)	3.7_38.0 ⊖ (6.7_7.5)	2.8_38.0	2.8_38.0
C 61 3					26.8_195.8	26.8_195.8	26.8_140.5	26.8_140.5
C 61 4				217.4_796.1	217.4_796.1	217.4_796.1		
C 70 2					14.1_34.7 ⊖ (15.3)	14.1_34.7 ⊖ (15.3)	7.5_34.7 ⊖ (8.0)	7.5_34.7 ⊖ (8.0)
C 70 3					41.3_239.3	41.3_239.3	41.3_137.4	41.3_137.4
C 70 4				251.3_1476	251.3_1476	251.3_1476	251.3_554.7	
C 80 2						20.5_39.1	11.1_39.1	11.1_39.1
C 80 3						43.5_215.8	43.5_184.4	43.5_184.4
C 80 4				334.3_1481	261.9_1481	261.9_1481	261.9_724.7	
C 90 2						22.9_35.1	12.8_35.1	12.8_35.1
C 90 3						74.4_172.1	39.4_172.1	39.4_172.1
C 90 4				339.0_1240	212.4_1240	212.4_1240	212.4_712.2	
C 100 2							15.2_29.6	15.2_29.6
C 100 3							42.9_150.4	42.9_150.4
C 100 4				380.5_1081	162.1_1081	162.1_1081	162.1_775.7	



Motor adapters matching the most popular brands of servomotors are available for units size C12... C61. Dimensions of servomotor inputs are provided within the drawing section for each frame size. The code **SK** applies for inputs featuring a conventional keyway, while through the specification of the **SC** code the input shaft will feature a clamping device instead.

(B 24)

		SERVO INPUT							
		SK60A	SK60B	SK80A	SK80B	SK80C	SK95A	SK95B	SK95C
		SC60A	SC60B	SC80A	SC80B	SC80C	SC95A	SC95B	SC95C
C 12 2	i =	2.8_66.2	2.8_66.2	2.8_66.2		2.8_47.6	2.8_66.2	2.8_47.6	2.8_47.6
C 22 2		3.7_63.3 ⌀ (7.1_8.7)	3.7_63.3 ⌀ (7.1_8.7)	3.7_63.3 ⌀ (7.1_8.7)		2.7_54.7	3.7_63.3 ⌀ (7.1_8.7)	2.7_54.7	2.7_54.7
C 22 3		60.0_261.0	60.0_261.0	60.0_261.0		60.0_261.0	60.0_261.0	60.0_261.0	60.0_261.0
C 32 2		5.0_66.8 ⌀ (7.2_11.2)	5.0_66.8 ⌀ (7.2_11.2)	5.0_66.8 ⌀ (7.2_11.2)		2.9_66.8	5.0_66.8 ⌀ (7.2_11.2)	2.9_66.8	2.9_66.8
C 32 3		74.7_274.7	74.7_274.7	74.7_274.7		74.7_274.7	74.7_274.7	74.7_274.7	74.7_274.7
C 36 2		4.6_19.0 ⌀ (6.8_10.6)	4.6_19.0 ⌀ (6.8_10.6)	4.6_19.0 ⌀ (6.8_10.6)		2.7_19.0	4.6_19.0 ⌀ (6.8_10.6)	2.7_19.0	2.7_19.0
C 36 3		38.1_206.4	38.1_206.4	38.1_206.4		22.1_206.4	38.1_206.4	22.1_206.4	22.1_206.4
C 36 4		230.9_848.5	230.9_848.5	230.9_848.5		230.9_848.5	230.9_848.5	230.9_848.5	230.9_848.5
C 41 2					6.0_44.8 ⌀ (6.4_12.4)	2.7_44.8	6.0_44.8 ⌀ (6.4_12.4)	2.7_44.8	2.7_44.8
C 41 3					47.0_209.1	28.5_209.1	47.0_209.1	28.5_209.1	28.5_209.1
C 41 4					239.9_855.5	239.9_855.5	239.9_855.5	239.9_855.5	239.9_855.5
C 51 2					18.9_57.0	2.6_57.0	18.9_57.0	2.6_57.0	2.6_57.0
C 51 3					59.0_216.7	21.8_216.7	59.0_216.7	21.8_216.7	21.8_216.7
C 51 4						240.9_884.9	240.9_884.9	240.9_884.9	240.9_884.9
C 61 2						3.7_38.0 ⌀ (6.7_7.5)	22.4_38.0	3.7_38.0 ⌀ (6.7_7.5)	3.7_38.0 ⌀ (6.7_7.5)
C 61 3						26.8_195.8	67.7_195.8	26.8_195.8	26.8_195.8
C 61 4					217.4_796.1	217.4_796.1	217.4_796.1	217.4_796.1	217.4_796.1

(B 25)

		SK110A	SK110B	SK130A	SK130B	SK180A	SK180B
		SC110A	SC110B	SC130A	SC130B	SC180A	SC180B
C 12 2	i =	2.8_47.6	2.8_47.6				
C 22 2		2.7_54.7	2.7_54.7				
C 22 3		60.0_261.0	60.0_261.0				
C 32 2		2.9_66.8	2.9_66.8	2.9_66.8			
C 32 3		74.7_274.7	74.7_274.7				
C 36 2		2.7_19.0	2.7_19.0	2.7_19.0			
C 36 3		22.1_206.4	22.1_206.4	22.1_206.4			
C 36 4		230.9_848.5	230.9_848.5				
C 41 2		2.7_44.8	2.7_44.8	2.7_44.8	2.7_31.4	2.7_31.4	2.7_31.4
C 41 3		28.5_209.1	28.5_209.1	28.5_209.1	28.5_102.3	28.5_102.3	28.5_102.3
C 41 4		239.9_855.5	239.9_855.5				
C 51 2		2.6_57.0	2.6_57.0	2.6_57.0	2.6_40.4	2.6_40.4	2.6_40.4
C 51 3		21.8_216.7	21.8_216.7	21.8_216.7	21.8_124.4	21.8_124.4	21.8_124.4
C 51 4		240.9_884.9	240.9_884.9	240.9_884.9			
C 61 2		3.7_38.0 ⌀ (6.7_7.5)	3.7_38.0 ⌀ (6.7_7.5)	3.7_38.0 ⌀ (6.7_7.5)	2.8_38.0	2.8_38.0	2.8_38.0
C 61 3		26.8_195.8	26.8_195.8	26.8_195.8	26.8_140.5	26.8_140.5	26.8_140.5
C 61 4		217.4_796.1	217.4_796.1	217.4_796.1			



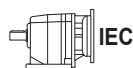


## 28 MOMENT OF INERTIA

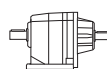
The following charts indicate moment of inertia values  $J_r$  [kgm<sup>2</sup>] referred to the gear unit high speed shaft. A key to the symbols used follows:



Values under this icon refer to compact gear units, without motor. To obtain the overall moment of inertia for the gearmotor just add the value of the inertia for the specific compact motor, given in the relevant rating chart.



Values under this symbol refer to gearboxes with IEC motor adaptor (IEC size...).



This symbol refers to gearbox values.





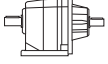
Values under this symbol refer to gear unit with servomotor input adapter.

### C 05

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]
C 05_5.5	5.5	0.29
C 05_6.7	6.7	0.29
C 05_7.4	7.4	0.28
C 05_9.3	9.3	0.17
C 05_11.2	11.2	0.16
C 05_12.5	12.5	0.16
C 05_15.6	15.6	0.09
C 05_18.9	18.9	0.09
C 05_21.0	21.0	0.08
C 05_27.1	27.1	0.04
C 05_32.8	32.8	0.04
C 05_36.4	36.4	0.04
C 05_40.3	40.3	0.03
C 05_44.7	44.7	0.03




## C 12

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100	112	
<b>C 12 2_2.8</b>	2.8	0.44	1.9	1.9	3.3	3.2	4.5	4.5	1.3
<b>C 12 2_3.2</b>	3.2	0.34	1.8	1.8	3.2	3.1	4.4	4.4	1.2
<b>C 12 2_3.7</b>	3.7	0.29	1.8	1.7	3.1	3.1	4.4	4.4	1.2
<b>C 12 2_4.3</b>	4.3	0.21	1.7	1.7	3.1	3.0	4.3	4.3	1.1
<b>C 12 2_4.9</b>	4.9	0.19	1.7	1.7	3.0	3.0	4.3	4.3	1.1
<b>C 12 2_5.6</b>	5.6	0.15	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>C 12 2_6.2</b>	6.2	0.12	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>C 12 2_7.6</b>	7.6	0.33	1.8	1.8	3.2	3.1	4.4	4.4	1.2
<b>C 12 2_8.8</b>	8.8	0.32	1.8	1.8	3.2	3.1	4.4	4.4	1.2
<b>C 12 2_10.1</b>	10.1	0.23	1.7	1.7	3.1	3.0	4.3	4.3	1.1
<b>C 12 2_11.9</b>	11.9	0.17	1.6	1.6	3.0	3.0	4.2	4.2	1.1
<b>C 12 2_13.4</b>	13.4	0.16	1.6	1.6	3.0	2.9	4.2	4.2	1.1
<b>C 12 2_15.4</b>	15.4	0.12	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>C 12 2_17.2</b>	17.2	0.10	1.6	1.6	2.9	2.9	4.2	4.2	1.0
<b>C 12 2_18.4</b>	18.4	0.08	1.6	1.5	2.9	2.9	4.2	4.2	0.98
<b>C 12 2_20.6</b>	20.6	0.08	1.5	1.5	2.9	2.9	4.2	4.2	0.98
<b>C 12 2_23.2</b>	23.2	0.07	1.5	1.5	2.9	2.9	4.1	4.1	0.97
<b>C 12 2_25.4</b>	25.4	0.06	1.5	1.5	2.9	2.8	4.1	4.1	0.96
<b>C 12 2_29.5</b>	29.5	0.05	1.5	1.5	2.9	2.8	4.1	4.1	0.95
<b>C 12 2_32.8</b>	32.8	0.04	1.5	1.5	2.9	2.8	4.1	4.1	0.94
<b>C 12 2_37.0</b>	37.0	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 12 2_42.3</b>	42.3	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 12 2_47.6</b>	47.6	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 12 2_55.2</b>	55.2	0.02	1.5	1.5	—	—	—	—	0.92
<b>C 12 2_66.2</b>	66.2	0.01	1.5	1.5	—	—	—	—	0.91



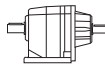


# C 12

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 <b>SERVO</b>									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
<b>C 12 2_2.8</b>	2.8	0.71	0.97	0.73	1.2	3.3	3.7	3.3	3.8	3.2	4.2
<b>C 12 2_3.2</b>	3.2	0.61	0.87	0.63	1.1	3.2	3.6	3.2	3.7	3.1	4.1
<b>C 12 2_3.7</b>	3.7	0.56	0.82	0.58	1.0	3.1	3.5	3.1	3.6	3.1	4.1
<b>C 12 2_4.3</b>	4.3	0.48	0.74	0.50	0.94	3.0	3.5	3.1	3.6	3.0	4.0
<b>C 12 2_4.9</b>	4.9	0.46	0.72	0.48	0.92	3.0	3.4	3.0	3.5	3.0	4.0
<b>C 12 2_5.6</b>	5.6	0.42	0.68	0.44	0.88	3.0	3.4	3.0	3.5	2.9	3.9
<b>C 12 2_6.2</b>	6.2	0.39	0.65	0.41	0.85	2.9	3.4	3.0	3.5	2.9	3.9
<b>C 12 2_7.6</b>	7.6	0.60	0.86	0.62	1.1	3.2	3.6	3.2	3.7	3.1	4.1
<b>C 12 2_8.8</b>	8.8	0.59	0.85	0.61	1.0	3.1	3.6	3.2	3.7	3.1	4.1
<b>C 12 2_10.1</b>	10.1	0.50	0.76	0.52	0.96	3.1	3.5	3.1	3.6	3.0	4.0
<b>C 12 2_11.9</b>	11.9	0.44	0.70	0.46	0.90	3.0	3.4	3.0	3.5	3.0	4.0
<b>C 12 2_13.4</b>	13.4	0.43	0.69	0.45	0.83	3.0	3.4	3.0	3.5	2.9	3.9
<b>C 12 2_15.4</b>	15.4	0.39	0.65	0.41	0.85	2.9	3.4	3.0	3.5	2.9	3.9
<b>C 12 2_17.2</b>	17.2	0.37	0.63	0.39	0.83	2.9	3.4	2.9	3.4	2.9	3.9
<b>C 12 2_18.4</b>	18.4	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.9	3.9
<b>C 12 2_20.6</b>	20.6	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.9	3.9
<b>C 12 2_23.2</b>	23.2	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.9	3.9
<b>C 12 2_25.4</b>	25.4	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_29.5</b>	29.5	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_32.8</b>	32.8	0.34	0.60	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_37.0</b>	37.0	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_42.3</b>	42.3	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_47.6</b>	47.6	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 12 2_55.2</b>	55.2	0.29	0.55	0.31	0.75	2.8	3.3	—	—	—	—
<b>C 12 2_66.2</b>	66.2	0.28	0.54	0.30	0.74	2.8	3.3	—	—	—	—




## C 22

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100		
<b>C 22 2_2.7</b>	2.7	1.2	—	—	4.0	4.0	5.3	5.3	3.1
<b>C 22 2_3.3</b>	3.3	0.83	—	—	3.7	3.6	4.9	4.9	2.7
<b>C 22 2_3.7</b>	3.7	0.72	2.2	2.2	3.6	3.5	4.8	4.8	2.6
<b>C 22 2_4.3</b>	4.3	0.56	2.0	2.0	3.4	3.3	4.6	4.6	2.4
<b>C 22 2_4.8</b>	4.8	0.48	2.0	1.9	3.3	3.3	4.6	4.6	2.4
<b>C 22 2_5.6</b>	5.6	0.36	1.8	1.8	3.2	3.2	4.4	4.4	2.2
<b>C 22 2_6.1</b>	6.1	0.29	1.8	1.7	3.1	3.1	4.4	4.4	2.2
<b>C 22 2_7.1</b>	7.1	0.77	—	—	3.6	3.6	4.8	4.8	2.6
<b>C 22 2_8.7</b>	8.7	0.55	—	—	3.4	3.3	4.6	4.6	2.4
<b>C 22 2_9.6</b>	9.6	0.50	2.0	2.0	3.3	3.3	4.6	4.6	2.4
<b>C 22 2_11.1</b>	11.1	0.39	1.9	1.8	3.2	3.2	4.5	4.5	2.3
<b>C 22 2_12.4</b>	12.4	0.35	1.8	1.8	3.2	3.1	4.4	4.4	2.2
<b>C 22 2_14.5</b>	14.5	0.36	1.7	1.7	3.1	3.1	4.3	4.3	2.1
<b>C 22 2_15.8</b>	15.8	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.1
<b>C 22 2_18.1</b>	18.1	0.18	1.6	1.6	3.0	3.0	4.3	4.3	2.0
<b>C 22 2_20.0</b>	20.0	0.15	1.6	1.6	3.0	2.9	4.2	4.2	2.0
<b>C 22 2_21.5</b>	21.5	0.13	1.6	1.6	3.0	2.9	4.2	4.2	2.0
<b>C 22 2_24.3</b>	24.3	0.12	1.6	1.6	3.0	2.9	4.2	4.2	2.0
<b>C 22 2_27.2</b>	27.2	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
<b>C 22 2_29.6</b>	29.6	0.09	1.6	1.5	2.9	2.9	4.2	4.2	2.0
<b>C 22 2_33.1</b>	33.1	0.07	1.5	1.5	2.9	2.9	4.2	4.2	1.9
<b>C 22 2_36.8</b>	36.8	0.06	1.5	1.5	2.9	2.8	4.1	4.1	1.9
<b>C 22 2_43.3</b>	43.3	0.05	1.5	1.5	2.9	2.8	4.1	4.1	1.9
<b>C 22 2_48.6</b>	48.6	0.04	1.5	1.5	2.9	2.8	4.1	4.1	1.9
<b>C 22 2_54.7</b>	54.7	0.03	1.5	1.5	2.9	2.8	4.1	4.1	1.9
<b>C 22 2_63.3</b>	63.3	0.02	1.5	1.5	—	—	—	—	1.9
<b>C 22 3_60.0</b>	60.0	0.04	1.5	1.5	2.9	2.8	4.1	4.1	0.94
<b>C 22 3_65.3</b>	65.3	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_74.8</b>	74.8	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_82.6</b>	82.6	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_88.5</b>	88.5	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_100.2</b>	100.2	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_112.0</b>	112.0	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_122.2</b>	122.2	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>C 22 3_136.5</b>	136.5	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 22 3_151.7</b>	151.7	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 22 3_178.5</b>	178.5	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 22 3_200.7</b>	200.7	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 22 3_225.8</b>	225.8	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>C 22 3_261.0</b>	261.0	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.92



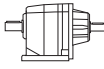


# C 22

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 <b>SERVO</b>									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
<b>C 22 2_2.7</b>	2.7	—	—	—	—	—	—	4.0	4.5	4.0	5.0
<b>C 22 2_3.3</b>	3.3	—	—	—	—	—	—	3.7	4.2	3.6	4.6
<b>C 22 2_3.7</b>	3.7	0.99	1.3	1.0	1.4	3.5	4.0	3.6	4.1	3.5	4.5
<b>C 22 2_4.3</b>	4.3	0.83	1.1	0.85	1.3	3.4	3.8	3.4	3.9	3.3	4.3
<b>C 22 2_4.8</b>	4.8	0.75	1.0	0.77	1.2	3.3	3.7	3.3	3.8	3.3	4.3
<b>C 22 2_5.6</b>	5.6	0.63	0.89	0.65	1.1	3.2	3.6	3.2	3.7	3.2	4.2
<b>C 22 2_6.1</b>	6.1	0.56	0.82	0.58	1.0	3.1	3.5	3.1	3.6	3.1	4.1
<b>C 22 2_7.1</b>	7.1	—	—	—	—	—	—	3.6	4.1	3.6	4.6
<b>C 22 2_8.7</b>	8.7	—	—	—	—	—	—	3.4	3.9	3.3	4.3
<b>C 22 2_9.6</b>	9.6	0.77	1.0	0.79	1.2	3.3	3.8	3.3	3.8	3.3	4.3
<b>C 22 2_11.1</b>	11.1	0.66	0.92	0.68	1.1	3.2	3.6	3.2	3.7	3.2	4.2
<b>C 22 2_12.4</b>	12.4	0.62	0.88	0.64	1.1	3.2	3.6	3.2	3.7	3.1	4.1
<b>C 22 2_14.5</b>	14.5	0.63	0.89	0.65	1.1	3.2	3.6	3.1	3.6	3.1	4.1
<b>C 22 2_15.8</b>	15.8	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
<b>C 22 2_18.1</b>	18.1	0.45	0.71	0.47	0.91	3.0	3.4	3.0	3.5	3.0	4.0
<b>C 22 2_20.0</b>	20.0	0.42	0.68	0.44	0.88	3.0	3.4	3.0	3.5	2.9	3.9
<b>C 22 2_21.5</b>	21.5	0.40	0.66	0.42	0.86	3.0	3.4	3.0	3.5	2.9	3.9
<b>C 22 2_24.3</b>	24.3	0.39	0.65	0.41	0.85	2.9	3.4	3.0	3.5	2.9	3.9
<b>C 22 2_27.2</b>	27.2	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
<b>C 22 2_29.6</b>	29.6	0.36	0.62	0.38	0.82	2.9	3.3	2.9	3.4	2.9	3.9
<b>C 22 2_33.1</b>	33.1	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.9	3.9
<b>C 22 2_36.8</b>	36.8	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 2_43.3</b>	43.3	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 2_48.6</b>	48.6	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 2_54.7</b>	54.7	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 2_63.3</b>	63.3	0.29	0.55	0.31	0.75	2.8	3.3	—	—	—	—
<b>C 22 3_60.0</b>	60.0	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_65.3</b>	65.3	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_74.8</b>	74.8	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_82.6</b>	82.6	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_88.5</b>	88.5	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_100.2</b>	100.2	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_112.0</b>	112.0	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_122.2</b>	122.2	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_136.5</b>	136.5	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_151.7</b>	151.7	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_178.5</b>	178.5	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_200.7</b>	200.7	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_225.8</b>	225.8	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
<b>C 22 3_261.0</b>	261.0	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8




## C 32

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			 IEC							
			63	71	80	90	100	112		
<b>C 32 2_2.9</b>	2.9	2.3	—	—	5.2	5.1	6.4	6.4	20	4.6
<b>C 32 2_3.4</b>	3.4	1.8	—	—	4.6	4.6	5.9	5.9	20	4.0
<b>C 32 2_3.7</b>	3.7	1.6	—	—	4.4	4.3	5.6	5.6	20	3.8
<b>C 32 2_4.5</b>	4.5	1.2	—	—	4.0	4.0	5.2	5.2	19	3.4
<b>C 32 2_5.0</b>	5.0	0.87	2.3	2.3	3.7	3.7	5.0	5.0	19	3.1
<b>C 32 2_5.7</b>	5.7	0.82	2.3	2.3	3.7	3.6	4.9	4.9	19	3.0
<b>C 32 2_6.3</b>	6.3	0.63	2.1	2.1	3.5	3.4	4.7	4.7	18	2.8
<b>C 32 2_7.2</b>	7.2	1.5	—	—	4.4	4.3	5.6	5.6	19	3.7
<b>C 32 2_8.5</b>	8.5	1.2	—	—	4.1	4.0	5.3	5.3	19	3.4
<b>C 32 2_9.3</b>	9.3	1.1	—	—	3.9	3.9	5.1	5.1	19	3.3
<b>C 32 2_11.2</b>	11.2	0.83	—	—	3.7	3.6	4.9	4.9	19	3.0
<b>C 32 2_12.3</b>	12.3	0.60	2.1	2.1	3.4	3.4	4.7	4.7	18	2.8
<b>C 32 2_14.1</b>	14.1	0.61	2.1	2.1	3.5	3.4	4.7	4.7	18	2.8
<b>C 32 2_15.6</b>	15.6	0.46	1.9	1.9	3.3	3.2	4.5	4.5	18	2.7
<b>C 32 2_18.2</b>	18.2	0.42	1.9	1.9	3.3	3.2	4.5	4.5	18	2.6
<b>C 32 2_20.1</b>	20.1	0.34	1.8	1.8	3.2	3.1	4.4	4.4	18	2.6
<b>C 32 2_22.9</b>	22.9	0.31	1.8	1.8	3.2	3.1	4.4	4.4	17	2.5
<b>C 32 2_25.1</b>	25.1	0.25	1.7	1.7	3.1	3.0	4.3	4.3	17	2.5
<b>C 32 2_26.9</b>	26.9	0.24	1.7	1.7	3.1	3.0	4.3	4.3	—	2.5
<b>C 32 2_29.8</b>	29.8	0.19	1.7	1.7	3.0	3.0	4.3	4.3	—	2.4
<b>C 32 2_33.1</b>	33.1	0.19	1.7	1.7	3.0	3.0	4.3	4.3	—	2.4
<b>C 32 2_36.1</b>	36.1	0.14	1.6	1.6	3.0	2.9	4.2	4.2	—	2.4
<b>C 32 2_40.7</b>	40.7	0.14	1.6	1.6	3.0	2.9	4.2	4.2	—	2.4
<b>C 32 2_45.3</b>	45.3	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	2.3
<b>C 32 2_52.4</b>	52.4	0.08	1.6	1.6	2.9	2.9	4.2	4.2	—	2.3
<b>C 32 2_59.4</b>	59.4	0.07	1.5	1.5	2.9	2.9	4.2	4.2	—	2.3
<b>C 32 2_66.8</b>	66.8	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	2.3
<b>C 32 3_74.7</b>	74.7	0.06	1.5	1.5	2.9	2.9	4.1	4.1	—	0.96
<b>C 32 3_82.6</b>	82.6	0.06	1.5	1.5	2.9	2.8	4.1	4.1	—	0.96
<b>C 32 3_94.2</b>	94.2	0.06	1.5	1.5	2.9	2.8	4.1	4.1	—	0.96
<b>C 32 3_103.3</b>	103.3	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_110.6</b>	110.6	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_122.4</b>	122.4	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_136.0</b>	136.0	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_148.4</b>	148.4	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_167.4</b>	167.4	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	0.95
<b>C 32 3_186.0</b>	186.0	0.04	1.5	1.5	2.9	2.8	4.1	4.1	—	0.94
<b>C 32 3_215.6</b>	215.6	0.04	1.5	1.5	2.9	2.8	4.1	4.1	—	0.94
<b>C 32 3_244.2</b>	244.2	0.04	1.5	1.5	2.9	2.8	4.1	4.1	—	0.94
<b>C 32 3_274.7</b>	274.7	0.04	1.5	1.5	2.9	2.8	4.1	4.1	—	0.94





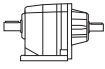


# C 32

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
		 SERVO											
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B		130A	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
C 32 2_2.9	2.9	—	—	—	—	—	—	5.2	5.7	5.1	6.1	5.1	6.1
C 32 2_3.4	3.4	—	—	—	—	—	—	4.6	5.1	4.6	5.6	4.6	5.6
C 32 2_3.7	3.7	—	—	—	—	—	—	4.4	4.9	4.3	5.3	4.3	5.3
C 32 2_4.5	4.5	—	—	—	—	—	—	4.0	4.5	4.0	5.0	4.0	5.0
C 32 2_5.0	5.0	1.1	1.4	1.2	1.6	3.7	4.1	3.7	4.2	3.7	4.7	3.7	4.7
C 32 2_5.7	5.7	1.1	1.4	1.1	1.5	3.6	4.1	3.7	4.2	3.6	4.6	3.6	4.6
C 32 2_6.3	6.3	0.90	1.2	0.92	1.4	3.5	3.9	3.5	4.0	3.4	4.4	3.4	4.4
C 32 2_7.2	7.2	—	—	—	—	—	—	4.4	4.9	4.3	5.3	4.3	5.3
C 32 2_8.5	8.5	—	—	—	—	—	—	4.1	4.6	4.0	5.0	4.0	5.0
C 32 2_9.3	9.3	—	—	—	—	—	—	3.9	4.4	3.9	4.9	3.9	4.9
C 32 2_11.2	11.2	—	—	—	—	—	—	3.7	4.2	3.6	4.6	3.6	4.6
C 32 2_12.3	12.3	0.87	1.1	0.89	1.3	3.4	3.9	3.4	3.9	3.4	4.4	3.4	4.4
C 32 2_14.1	14.1	0.88	1.1	0.90	1.3	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4
C 32 2_15.6	15.6	0.73	0.99	0.75	1.2	3.3	3.7	3.3	3.8	3.2	4.2	3.2	4.2
C 32 2_18.2	18.2	0.69	0.95	0.71	1.1	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2
C 32 2_20.1	20.1	0.61	0.87	0.63	1.1	3.2	3.6	3.2	3.7	3.1	4.1	3.1	4.1
C 32 2_22.9	22.9	0.58	0.84	0.60	1.0	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1
C 32 2_25.1	25.1	0.52	0.78	0.54	0.98	3.1	3.5	3.1	3.6	3.0	4.0	3.0	4.0
C 32 2_26.9	26.9	0.51	0.77	0.53	0.97	3.1	3.5	3.1	3.6	3.0	4.0	3.0	4.0
C 32 2_29.8	29.8	0.46	0.72	0.48	0.92	3.0	3.4	3.0	3.5	3.0	4.0	3.0	4.0
C 32 2_33.1	33.1	0.46	0.72	0.48	0.92	3.0	3.4	3.0	3.5	3.0	4.0	3.0	4.0
C 32 2_36.1	36.1	0.41	0.67	0.43	0.87	3.0	3.4	3.0	3.5	2.9	3.9	2.9	3.9
C 32 2_40.7	40.7	0.41	0.67	0.43	0.87	3.0	3.4	3.0	3.5	2.9	3.9	2.9	3.9
C 32 2_45.3	45.3	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9
C 32 2_52.4	52.4	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.9	3.9	2.9	3.9
C 32 2_59.4	59.4	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.9	3.9	2.9	3.9
C 32 2_66.8	66.8	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	2.8	3.8
C 32 3_74.7	74.7	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.9	3.9	—	—
C 32 3_82.6	82.6	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_94.2	94.2	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_103.3	103.3	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_110.6	110.6	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_122.4	122.4	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_136.0	136.0	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_148.4	148.4	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_167.4	167.4	0.32	0.58	0.34	0.78	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_186.0	186.0	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_215.6	215.6	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_244.2	244.2	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8	—	—
C 32 3_274.7	274.7	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8	—	—




## C 36

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			 IEC							
			63	71	80	90	100	112	132	
<b>C 36 2_2.7</b>	2.7	3.6	—	—	6.5	6.4	7.7	7.7	22	14
<b>C 36 2_3.2</b>	3.2	2.5	—	—	5.4	5.3	6.6	6.6	21	13
<b>C 36 2_3.5</b>	3.5	2.4	—	—	5.3	5.2	6.5	6.5	20	13
<b>C 36 2_4.2</b>	4.2	1.6	—	—	4.5	4.4	5.7	5.7	20	12
<b>C 36 2_4.6</b>	4.6	1.5	3.0	3.0	4.4	4.3	5.6	5.6	19	12
<b>C 36 2_5.3</b>	5.3	1.1	2.6	2.6	4.0	3.9	5.2	5.2	19	12
<b>C 36 2_5.8</b>	5.8	0.98	2.5	2.5	3.9	3.8	5.1	5.1	19	12
<b>C 36 2_6.8</b>	6.8	2.2	—	—	5.1	5.0	6.3	6.3	20	13
<b>C 36 2_8.0</b>	8.0	1.6	—	—	4.4	4.3	5.6	5.6	20	12
<b>C 36 2_8.8</b>	8.8	1.5	—	—	4.4	4.3	5.6	5.6	19	12
<b>C 36 2_10.6</b>	10.6	1.1	—	—	3.9	3.8	5.1	5.1	19	12
<b>C 36 2_11.7</b>	11.7	1.0	2.5	2.5	3.9	3.8	5.1	5.1	19	12
<b>C 36 2_13.3</b>	13.3	0.69	2.2	2.2	3.6	3.5	4.8	4.8	19	11
<b>C 36 2_14.8</b>	14.8	0.68	2.2	2.2	3.6	3.5	4.8	4.8	19	11
<b>C 36 2_17.2</b>	17.2	0.47	2.0	2.0	3.4	3.3	4.6	4.6	18	11
<b>C 36 2_19.0</b>	19.0	0.47	2.0	2.0	3.4	3.3	4.6	4.6	18	11
<b>C 36 3_22.1</b>	22.1	1.8	—	—	4.7	4.6	5.9	5.9	19	12
<b>C 36 3_26.2</b>	26.2	1.3	—	—	4.2	4.1	5.4	5.4	19	12
<b>C 36 3_28.7</b>	28.7	1.3	—	—	4.2	4.1	5.4	5.4	19	12
<b>C 36 3_34.6</b>	34.6	0.88	—	—	3.8	3.7	5.0	5.0	19	11
<b>C 36 3_38.1</b>	38.1	0.90	2.4	2.4	3.8	3.7	5.0	5.0	19	11
<b>C 36 3_43.5</b>	43.5	0.59	2.1	2.1	3.5	3.4	4.7	4.7	19	11
<b>C 36 3_48.2</b>	48.2	0.60	2.1	2.1	3.5	3.4	4.7	4.7	19	11
<b>C 36 3_56.2</b>	56.2	0.41	1.9	1.9	3.3	3.2	4.5	4.5	18	11
<b>C 36 3_62.0</b>	62.0	0.42	1.9	1.9	3.3	3.2	4.5	4.5	18	11
<b>C 36 3_70.8</b>	70.8	0.30	1.8	1.8	3.2	3.1	4.4	4.4	18	11
<b>C 36 3_77.6</b>	77.6	0.28	1.8	1.8	3.2	3.1	4.4	4.4	17	11
<b>C 36 3_83.1</b>	83.1	0.24	1.7	1.7	3.1	3.0	4.3	4.3	—	11
<b>C 36 3_91.9</b>	91.9	0.21	1.7	1.7	3.1	3.0	4.3	4.3	—	11
<b>C 36 3_102.2</b>	102.2	0.19	1.7	1.7	3.1	3.0	4.3	4.3	—	11
<b>C 36 3_111.5</b>	111.5	0.16	1.7	1.7	3.1	3.0	4.3	4.3	—	11
<b>C 36 3_125.8</b>	125.8	0.14	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>C 36 3_139.8</b>	139.8	0.11	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>C 36 3_162.0</b>	162.0	0.09	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>C 36 3_183.5</b>	183.5	0.07	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>C 36 3_206.4</b>	206.4	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>C 36 4_230.9</b>	230.9	0.08	—	—	—	—	—	—	—	—
<b>C 36 4_255.0</b>	255.0	0.08	1.6	1.6	3.0	2.9	4.2	4.2	—	0.90
<b>C 36 4_290.9</b>	290.9	0.07	1.6	1.6	3.0	2.9	4.2	4.2	—	0.89
<b>C 36 4_318.9</b>	318.9	0.07	1.6	1.6	3.0	2.9	4.2	4.2	—	0.89
<b>C 36 4_341.7</b>	341.7	0.07	1.6	1.6	3.0	2.9	4.2	4.2	—	0.89
<b>C 36 4_377.9</b>	377.9	0.07	1.6	1.6	3.0	2.9	4.2	4.2	—	0.89
<b>C 36 4_420.2</b>	420.2	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_458.4</b>	458.4	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_517.2</b>	517.2	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_574.7</b>	574.7	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_665.9</b>	665.9	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_754.2</b>	754.2	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88
<b>C 36 4_848.5</b>	848.5	0.06	1.6	1.6	3.0	2.9	4.2	4.2	—	0.88



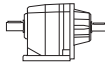


# C 36

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
		 <b>SERVO</b>											
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B		130A	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
C 36 2_2.7	2.7	—	—	—	—	—	—	6.5	7.0	6.4	7.4	6.4	7.4
C 36 2_3.2	3.2	—	—	—	—	—	—	5.4	5.9	5.3	6.3	5.3	6.3
C 36 2_3.5	3.5	—	—	—	—	—	—	5.3	5.8	5.2	6.2	5.2	6.2
C 36 2_4.2	4.2	—	—	—	—	—	—	4.5	5.0	4.4	5.4	4.4	5.4
C 36 2_4.6	4.6	1.8	2.0	1.8	2.2	4.3	4.7	4.4	4.9	4.3	5.3	4.3	5.3
C 36 2_5.3	5.3	1.4	1.6	1.4	1.8	3.9	4.4	4.0	4.5	3.9	4.9	3.9	4.9
C 36 2_5.8	5.8	1.3	1.5	1.3	1.7	3.8	4.2	3.9	4.4	3.8	4.8	3.8	4.8
C 36 2_6.8	6.8	—	—	—	—	—	—	5.1	5.6	5.0	6.0	5.0	6.0
C 36 2_8.0	8.0	—	—	—	—	—	—	4.4	4.9	4.3	5.3	4.3	5.3
C 36 2_8.8	8.8	—	—	—	—	—	—	4.4	4.9	4.3	5.3	4.3	5.3
C 36 2_10.6	10.6	—	—	—	—	—	—	3.9	4.4	3.8	4.8	3.8	4.8
C 36 2_11.7	11.7	1.3	1.5	1.3	1.7	3.8	4.3	3.9	4.4	3.8	4.8	3.8	4.8
C 36 2_13.3	13.3	0.96	1.2	0.98	1.4	3.5	3.9	3.6	4.1	3.5	4.5	3.5	4.5
C 36 2_14.8	14.8	0.95	1.2	0.97	1.4	3.5	3.9	3.6	4.1	3.5	4.5	3.5	4.5
C 36 2_17.2	17.2	0.74	1.0	0.76	1.2	3.3	3.7	3.4	3.9	3.3	4.3	3.3	4.3
C 36 2_19.0	19.0	0.74	1.0	0.76	1.2	3.3	3.7	3.4	3.9	3.3	4.3	3.3	4.3
C 36 3_22.1	22.1	—	—	—	—	—	—	4.7	5.2	4.6	5.6	4.6	5.6
C 36 3_26.2	26.2	—	—	—	—	—	—	4.2	4.7	4.1	5.1	4.1	5.1
C 36 3_28.7	28.7	—	—	—	—	—	—	4.2	4.7	4.1	5.1	4.1	5.1
C 36 3_34.6	34.6	—	—	—	—	—	—	3.8	4.3	3.7	4.7	3.7	4.7
C 36 3_38.1	38.1	1.2	1.4	1.2	1.6	3.7	4.2	3.8	4.3	3.7	4.7	3.7	4.7
C 36 3_43.5	43.5	0.86	1.1	0.88	1.3	3.4	3.8	3.5	4.0	3.4	4.4	3.4	4.4
C 36 3_48.2	48.2	0.87	1.1	0.89	1.3	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4
C 36 3_56.2	56.2	0.68	0.94	0.70	1.1	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2
C 36 3_62.0	62.0	0.69	0.95	0.71	1.1	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2
C 36 3_70.8	70.8	0.57	0.83	0.59	1.0	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1
C 36 3_77.6	77.6	0.55	0.81	0.57	1.0	3.1	3.5	3.2	3.7	3.1	4.1	3.1	4.1
C 36 3_83.1	83.1	0.51	0.77	0.53	0.97	3.1	3.5	3.1	3.6	3.0	4.0	3.0	4.0
C 36 3_91.9	91.9	0.48	0.74	0.50	0.94	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0
C 36 3_102.2	102.2	0.46	0.72	0.48	0.92	3.0	3.4	3.1	3.6	3.0	4.0	3.0	4.0
C 36 3_111.5	111.5	0.43	0.69	0.45	0.89	3.0	3.4	3.1	3.6	3.0	4.0	3.0	4.0
C 36 3_125.8	125.8	0.41	0.67	0.43	0.87	3.0	3.4	3.0	3.5	2.9	3.9	2.9	3.9
C 36 3_139.8	139.8	0.38	0.64	0.40	0.84	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9
C 36 3_162.0	162.0	0.36	0.62	0.38	0.82	2.9	3.3	3.0	3.5	2.9	3.9	2.9	3.9
C 36 3_183.5	183.5	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9	2.9	3.9
C 36 3_206.4	206.4	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	2.9	3.9
C 36 4_230.9	230.9	0.35	0.61	0.37	0.81	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_255.0	255.0	0.35	0.61	0.37	0.81	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_290.9	290.9	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_318.9	318.9	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_341.7	341.7	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_377.9	377.9	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_420.2	420.2	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_458.4	458.4	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_517.2	517.2	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_574.7	574.7	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_665.9	665.9	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_754.2	754.2	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
C 36 4_848.5	848.5	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—




# C 41

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			 IEC							
			63	71	80	90	100	112	132	
C 41 2_2.7	2.7	10	—	—	13	13	14	14	29	21
C 41 2_3.6	3.6	6.0	—	—	8.9	8.8	10	10	25	17
C 41 2_4.7	4.7	3.7	—	—	6.6	6.5	7.8	7.8	23	14
C 41 2_6.0	6.0	2.5	—	—	5.4	5.3	6.6	6.6	21	13
C 41 2_6.4	6.4	4.3	—	—	7.2	7.1	8.4	8.4	23	15
C 41 2_7.1	7.1	4.1	—	—	7.0	6.9	8.2	8.2	23	15
C 41 2_8.6	8.6	2.9	—	—	5.8	5.7	7.0	7.0	22	13
C 41 2_9.6	9.6	2.8	—	—	5.7	5.6	6.9	6.9	22	13
C 41 2_11.2	11.2	1.8	—	—	4.7	4.6	5.9	5.9	21	12
C 41 2_12.4	12.4	1.8	—	—	4.7	4.6	5.9	5.9	21	12
C 41 2_14.2	14.2	1.4	2.9	2.9	4.3	4.2	5.5	5.5	20	12
C 41 2_15.8	15.8	1.3	2.8	2.8	4.2	4.1	5.4	5.4	20	12
C 41 2_17.8	17.8	1.0	2.5	2.5	3.9	3.8	5.1	5.1	20	12
C 41 2_19.8	19.8	0.98	2.5	2.5	3.9	3.8	5.1	5.1	20	12
C 41 2_22.6	22.6	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	11
C 41 2_25.0	25.0	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	11
C 41 2_28.3	28.3	0.44	1.9	1.9	3.3	3.2	4.5	4.5	19	11
C 41 2_31.4	31.4	0.43	1.9	1.9	3.3	3.2	4.5	4.5	19	11
C 41 2_33.4	33.4	0.34	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 2_37.1	37.1	0.33	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 2_44.8	44.8	0.27	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 3_28.5	28.5	2.5	—	—	5.4	5.3	6.6	6.6	21	13
C 41 3_31.2	31.2	2.5	—	—	5.4	5.3	6.6	6.6	21	13
C 41 3_36.8	36.8	1.6	—	—	4.5	4.4	5.7	5.7	21	12
C 41 3_40.3	40.3	1.6	—	—	4.5	4.4	5.7	5.7	21	12
C 41 3_47.0	47.0	1.2	2.7	2.7	4.1	4.0	5.3	5.3	20	12
C 41 3_51.5	51.5	1.2	2.7	2.7	4.1	4.0	5.3	5.3	20	12
C 41 3_58.7	58.7	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	11
C 41 3_64.3	64.3	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	11
C 41 3_74.4	74.4	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	11
C 41 3_81.5	81.5	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	11
C 41 3_93.9	93.9	0.40	1.9	1.9	3.3	3.2	4.5	4.5	19	11
C 41 3_102.3	102.3	0.40	1.9	1.9	3.3	3.2	4.5	4.5	19	11
C 41 3_110.1	110.1	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 3_120.6	120.6	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 3_132.9	132.9	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 3_145.6	145.6	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	11
C 41 3_164.1	164.1	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	11
C 41 3_179.9	179.9	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	11
C 41 3_190.8	190.8	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	11
C 41 3_209.1	209.1	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	11
C 41 4_239.9	239.9	0.15	1.7	1.7	3.1	3.0	4.3	4.3	—	2.1
C 41 4_263.0	263.0	0.15	1.7	1.7	3.1	3.0	4.3	4.3	—	2.1
C 41 4_304.2	304.2	0.13	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_333.4	333.4	0.13	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_382.0	382.0	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_419.0	419.0	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_450.2	450.2	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_493.5	493.5	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_543.5	543.5	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_595.8	595.8	0.12	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_671.3	671.3	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_735.9	735.9	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_780.4	780.4	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0
C 41 4_855.5	855.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	—	2.0



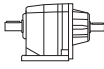


# C 41

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]																	
		 <b>SERVO</b>																	
i		60A		60B 80A		80B		95A		80C 95B 110A		95C 110B		130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
C 41 2_2.7	2.7	—	—	—	—	—	—	—	—	13	14	13	14	13	14	27	29	29	34
C 41 2_3.6	3.6	—	—	—	—	—	—	—	—	8.9	9.4	8.8	9.8	8.8	9.8	23	25	25	30
C 41 2_4.7	4.7	—	—	—	—	—	—	—	—	6.6	7.1	6.5	7.5	6.5	7.5	21	23	23	28
C 41 2_6.0	6.0	—	—	—	—	5.3	5.8	5.3	5.8	5.4	5.9	5.3	6.3	5.3	6.3	19	22	21	26
C 41 2_6.4	6.4	—	—	—	—	—	—	—	—	7.2	7.7	7.1	8.1	7.1	8.1	21	24	23	28
C 41 2_7.1	7.1	—	—	—	—	—	—	—	—	7.0	7.5	6.9	7.9	6.9	7.9	21	24	23	28
C 41 2_8.6	8.6	—	—	—	—	—	—	—	—	5.8	6.3	5.7	6.7	5.7	6.7	20	22	22	27
C 41 2_9.6	9.6	—	—	—	—	—	—	—	—	5.7	6.2	5.6	6.6	5.6	6.6	20	22	22	27
C 41 2_11.2	11.2	—	—	—	—	—	—	—	—	4.7	5.2	4.6	5.6	4.6	5.6	19	21	21	26
C 41 2_12.4	12.4	—	—	—	—	—	—	—	—	4.7	5.2	4.6	5.6	4.6	5.6	19	21	21	26
C 41 2_14.2	14.2	—	—	—	—	4.2	4.7	4.2	4.7	4.3	4.8	4.2	5.2	4.2	5.2	18	21	20	25
C 41 2_15.8	15.8	—	—	—	—	4.1	4.6	4.1	4.6	4.2	4.7	4.1	5.1	4.1	5.1	18	21	20	25
C 41 2_17.8	17.8	—	—	—	—	3.8	5.3	3.8	5.3	3.9	4.4	3.8	4.8	3.8	4.8	18	20	20	25
C 41 2_19.8	19.8	—	—	—	—	3.8	4.2	3.8	4.2	3.9	4.4	3.8	4.8	3.8	4.8	18	20	20	25
C 41 2_22.6	22.6	—	—	—	—	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4	18	20	20	25
C 41 2_25.0	25.0	—	—	—	—	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4	18	20	20	25
C 41 2_28.3	28.3	—	—	—	—	3.3	3.7	3.3	3.7	3.3	3.8	3.2	4.2	3.2	4.2	17	20	19	24
C 41 2_31.4	31.4	—	—	—	—	3.3	3.7	3.3	3.7	3.3	3.8	3.2	4.2	3.2	4.2	17	20	19	24
C 41 2_33.4	33.4	—	—	—	—	3.2	3.6	3.2	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 2_37.1	37.1	—	—	—	—	3.2	3.6	3.2	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 2_44.8	44.8	—	—	—	—	3.1	3.5	3.1	3.5	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 3_28.5	28.5	—	—	—	—	—	—	—	—	5.4	5.9	5.3	6.3	5.3	6.3	19	22	21	26
C 41 3_31.2	31.2	—	—	—	—	—	—	—	—	5.4	5.9	5.3	6.3	5.3	6.3	19	22	21	26
C 41 3_36.8	36.8	—	—	—	—	—	—	—	—	4.5	5.0	4.4	5.4	4.4	5.4	19	21	21	26
C 41 3_40.3	40.3	—	—	—	—	—	—	—	—	4.5	5.0	4.4	5.4	4.4	5.4	19	21	21	26
C 41 3_47.0	47.0	—	—	—	—	4.0	4.5	4.0	4.5	4.1	4.6	4.0	5.0	4.0	5.0	18	21	20	25
C 41 3_51.5	51.5	—	—	—	—	4.0	4.5	4.0	4.5	4.1	4.6	4.0	5.0	4.0	5.0	18	21	20	25
C 41 3_58.7	58.7	—	—	—	—	3.7	4.2	3.7	4.2	3.8	4.3	3.7	4.7	3.7	4.7	18	20	20	25
C 41 3_64.3	64.3	—	—	—	—	3.7	4.2	3.7	4.2	3.8	4.3	3.7	4.7	3.7	4.7	18	20	20	25
C 41 3_74.4	74.4	—	—	—	—	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4	18	20	20	25
C 41 3_81.5	81.5	—	—	—	—	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4	18	20	20	25
C 41 3_93.9	93.9	—	—	—	—	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2	17	20	19	24
C 41 3_102.3	102.3	—	—	—	—	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2	17	20	19	24
C 41 3_110.1	110.1	—	—	—	—	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 3_120.6	120.6	—	—	—	—	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 3_132.9	132.9	—	—	—	—	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 3_145.6	145.6	—	—	—	—	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
C 41 3_164.1	164.1	—	—	—	—	3.0	3.5	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0	—	—	—	—
C 41 3_179.9	179.9	—	—	—	—	3.0	3.5	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0	—	—	—	—
C 41 3_190.8	190.8	—	—	—	—	2.9	3.4	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9	—	—	—	—
C 41 3_209.1	209.1	—	—	—	—	2.9	3.4	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9	—	—	—	—
C 41 4_239.9	239.9	0.42	0.68	0.44	0.88	—	—	3.0	3.4	3.1	3.6	3.0	4.0	—	—	—	—	—	—
C 41 4_263.0	263.0	0.42	0.68	0.44	0.88	—	—	3.0	3.4	3.1	3.6	3.0	4.0	—	—	—	—	—	—
C 41 4_304.2	304.2	0.40	0.66	0.42	0.86	—	—	3.0	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_333.4	333.4	0.40	0.66	0.42	0.86	—	—	3.0	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_382.0	382.0	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_419.0	419.0	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_450.2	450.2	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_493.5	493.5	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_543.5	543.5	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_595.8	595.8	0.39	0.65	0.41	0.85	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_671.3	671.3	0.37	0.63	0.39	0.83	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_735.9	735.9	0.37	0.63	0.39	0.83	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_780.4	780.4	0.37	0.63	0.39	0.83	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—
C 41 4_855.5	855.5	0.37	0.63	0.39	0.83	—	—	2.9	3.4	3.0	3.5	2.9	3.9	—	—	—	—	—	—




# C 51

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
			 IEC									
			63	71	80	90	100	112	132	160		180
C 51 2_2.6	2.6	15	—	—	17	17	19	19	33	79	76	25
C 51 2_3.3	3.3	10	—	—	13	13	14	14	29	75	72	21
C 51 2_4.5	4.5	6.3	—	—	9.2	9.1	10	10	25	71	68	17
C 51 2_5.6	5.6	4.1	—	—	7.0	6.9	8.2	8.2	23	69	66	15
C 51 2_7.0	7.0	8.1	—	—	11	11	12	12	27	73	70	19
C 51 2_7.8	7.8	7.8	—	—	11	11	12	12	27	73	70	18
C 51 2_8.8	8.8	6.0	—	—	8.9	8.8	10	10	25	71	68	17
C 51 2_9.8	9.8	5.8	—	—	8.7	8.6	9.9	9.9	25	71	68	16
C 51 2_11.8	11.8	4.1	—	—	7.0	6.9	8.2	8.2	23	69	66	15
C 51 2_13.1	13.1	4.0	—	—	6.9	6.8	8.1	8.1	23	69	66	15
C 51 2_15.0	15.0	2.7	—	—	5.6	5.5	6.8	6.8	22	68	65	13
C 51 2_16.6	16.6	2.6	—	—	5.5	5.4	6.7	6.7	22	68	65	13
C 51 2_18.9	18.9	2.0	3.5	3.5	4.9	4.8	6.1	6.1	21	67	64	13
C 51 2_21.0	21.0	1.9	3.4	3.4	4.8	4.7	6.0	6.0	21	67	64	12
C 51 2_23.4	23.4	1.5	3.0	3.0	4.4	4.3	5.6	5.6	20	66	63	12
C 51 2_25.9	25.9	1.4	2.9	2.9	4.3	4.2	5.5	5.5	20	66	63	12
C 51 2_29.8	29.8	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	66	63	11
C 51 2_33.0	33.0	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	66	63	11
C 51 2_36.4	36.4	0.70	2.2	2.2	3.6	3.5	4.8	4.8	20	66	63	11
C 51 2_40.4	40.4	0.70	2.2	2.2	3.6	3.5	4.8	4.8	20	66	63	11
C 51 2_43.1	43.1	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11
C 51 2_47.8	47.8	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11
C 51 2_51.4	51.4	0.40	1.9	1.9	3.3	3.2	4.5	4.5	—	—	—	11
C 51 2_57.0	57.0	0.40	1.9	1.9	3.3	3.2	4.5	4.5	—	—	—	11
C 51 3_21.8	21.8	6.8	—	—	9.7	9.6	11	11	26	72	69	17
C 51 3_23.9	23.9	6.8	—	—	9.7	9.6	11	11	26	72	69	17
C 51 3_27.4	27.4	5.2	—	—	8.1	8.0	9.3	9.3	24	70	67	16
C 51 3_30.1	30.1	5.2	—	—	8.1	8.0	9.3	9.3	24	70	67	16
C 51 3_37.0	37.0	3.6	—	—	6.5	6.4	7.7	7.7	23	69	66	14
C 51 3_40.5	40.5	3.6	—	—	6.5	6.4	7.7	7.7	23	69	66	14
C 51 3_46.7	46.7	2.4	—	—	5.3	5.2	6.5	6.5	21	67	64	13
C 51 3_51.2	51.2	2.4	—	—	5.3	5.2	6.5	6.5	21	67	64	13
C 51 3_59.0	59.0	1.8	3.3	3.3	4.7	4.6	5.9	5.9	21	67	64	12
C 51 3_64.6	64.6	1.8	3.3	3.3	4.7	4.6	5.9	5.9	21	67	64	12
C 51 3_72.9	72.9	1.3	2.8	2.8	4.2	4.1	5.4	5.4	20	66	63	12
C 51 3_79.9	79.9	1.3	2.8	2.8	4.2	4.1	5.4	5.4	20	66	63	12
C 51 3_93.0	93.0	0.80	2.3	2.3	3.7	3.6	4.9	4.9	20	66	63	11
C 51 3_101.8	101.8	0.80	2.3	2.3	3.7	3.6	4.9	4.9	20	66	63	11
C 51 3_113.6	113.6	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	66	63	11
C 51 3_124.4	124.4	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	66	63	11
C 51 3_134.6	134.6	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11
C 51 3_147.4	147.4	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11
C 51 3_160.5	160.5	0.40	1.9	1.9	3.3	3.2	4.5	4.5	—	—	—	11
C 51 3_175.8	175.8	0.40	1.9	1.9	3.3	3.2	4.5	4.5	—	—	—	11
C 51 3_197.9	197.9	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	11
C 51 3_216.7	216.7	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	11
C 51 4_240.9	240.9	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	1.2
C 51 4_263.8	263.8	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	1.2
C 51 4_297.8	297.8	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	1.2
C 51 4_326.1	326.1	0.30	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	1.2
C 51 4_380.0	380.0	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_416.0	416.0	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_463.9	463.9	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_508.0	508.0	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_549.7	549.7	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_602.0	602.0	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_655.4	655.4	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_717.7	717.7	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_808.0	808.0	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1
C 51 4_884.9	884.9	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	1.1





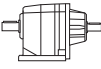


# C 51

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
		 <b>SERVO</b>											
i		80B		95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
C 51 2_2.6	2.6	—	—	—	—	17	18	17	18	32	34	33	38
C 51 2_3.3	3.3	—	—	—	—	13	14	13	14	27	29	29	34
C 51 2_4.5	4.5	—	—	—	—	9.2	9.7	9.1	10	23	26	25	30
C 51 2_5.6	5.6	—	—	—	—	7.0	7.5	6.9	7.9	21	24	23	28
C 51 2_7.0	7.0	—	—	—	—	11	12	11	12	25	28	27	32
C 51 2_7.8	7.8	—	—	—	—	11	12	11	12	25	27	27	32
C 51 2_8.8	8.8	—	—	—	—	8.9	9.4	8.8	9.8	23	25	25	30
C 51 2_9.8	9.8	—	—	—	—	8.7	9.2	8.6	9.6	23	25	25	30
C 51 2_11.8	11.8	—	—	—	—	7.0	7.5	6.9	7.9	21	24	23	28
C 51 2_13.1	13.1	—	—	—	—	6.9	7.4	6.8	7.8	21	23	23	28
C 51 2_15.0	15.0	—	—	—	—	5.6	6.1	5.5	6.5	20	22	22	27
C 51 2_16.6	16.6	—	—	—	—	5.5	6.0	5.4	6.4	20	22	22	27
C 51 2_18.9	18.9	4.8	5.3	4.8	5.3	4.9	5.4	4.8	5.8	19	21	21	26
C 51 2_21.0	21.0	4.7	5.2	4.7	5.2	4.8	5.3	4.7	5.7	19	21	21	26
C 51 2_23.4	23.4	4.3	4.8	4.3	4.8	4.4	4.3	4.3	5.3	18	21	20	25
C 51 2_25.9	25.9	4.2	4.7	4.2	4.7	4.3	4.8	4.2	5.2	18	21	20	25
C 51 2_29.8	29.8	3.7	4.2	3.7	4.2	3.8	4.3	3.7	4.7	18	20	20	25
C 51 2_33.0	33.0	3.7	4.2	3.7	4.2	3.8	4.3	3.7	4.7	18	20	20	25
C 51 2_36.4	36.4	3.5	4.0	3.5	4.0	3.6	4.1	3.5	4.5	18	20	20	25
C 51 2_40.4	40.4	3.5	4.0	3.5	4.0	3.6	4.1	3.5	4.5	18	20	20	25
C 51 2_43.1	43.1	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 51 2_47.8	47.8	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 51 2_51.4	51.4	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	—	—	—	—
C 51 2_57.0	57.0	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	—	—	—	—
C 51 3_21.8	21.8	—	—	—	—	9.7	10	9.6	11	24	26	26	31
C 51 3_23.9	23.9	—	—	—	—	9.7	10	9.6	11	24	26	26	31
C 51 3_27.4	27.4	—	—	—	—	8.1	8.6	8.0	9.0	22	25	24	29
C 51 3_30.1	30.1	—	—	—	—	8.1	8.6	8.0	9.0	22	25	24	29
C 51 3_37.0	37.0	—	—	—	—	6.5	7.0	6.4	7.4	21	23	23	28
C 51 3_40.5	40.5	—	—	—	—	6.5	7.0	6.4	7.4	21	23	23	28
C 51 3_46.7	46.7	—	—	—	—	5.3	5.8	5.2	6.2	19	22	21	26
C 51 3_51.2	51.2	—	—	—	—	5.3	5.8	5.2	6.2	19	22	21	26
C 51 3_59.0	59.0	4.6	5.1	4.6	5.1	4.7	5.2	4.6	5.6	19	21	21	26
C 51 3_64.6	64.6	4.6	5.1	4.6	5.1	4.7	5.2	4.6	5.6	19	21	21	26
C 51 3_72.9	72.9	4.1	4.6	4.1	4.6	4.2	5.2	4.1	5.1	18	21	20	25
C 51 3_79.9	79.9	4.1	4.6	4.1	4.6	4.2	5.2	4.1	5.1	18	21	20	25
C 51 3_93.0	93.0	3.6	4.1	3.6	4.1	3.7	4.2	3.6	4.6	18	20	20	25
C 51 3_101.8	101.8	3.6	4.1	3.6	4.1	3.7	4.2	3.6	4.6	18	20	20	25
C 51 3_113.6	113.6	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	18	20	20	25
C 51 3_124.4	124.4	3.4	3.9	3.4	3.9	3.5	4.0	3.4	4.4	18	20	20	25
C 51 3_134.6	134.6	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 51 3_147.4	147.4	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 51 3_160.5	160.5	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	—	—	—	—
C 51 3_175.8	175.8	3.2	3.7	3.2	3.7	3.3	3.8	3.2	4.2	—	—	—	—
C 51 3_197.9	197.9	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 3_216.7	216.7	3.1	3.6	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 4_240.9	240.9	—	—	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 4_263.8	263.8	—	—	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 4_297.8	297.8	—	—	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 4_326.1	326.1	—	—	3.1	3.6	3.2	3.7	3.1	4.1	—	—	—	—
C 51 4_380.0	380.0	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_416.0	416.0	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_463.9	463.9	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_508.0	508.0	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_549.7	549.7	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_602.0	602.0	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_655.4	655.4	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_717.7	717.7	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_808.0	808.0	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—
C 51 4_884.9	884.9	—	—	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—




# C 61

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
			 IEC										
			63	71	80	90	100	112	132	160		180	
C 61 2_2.8	2.8	30	—	—	—	—	—	—	—	49	78	76	52
C 61 2_3.7	3.7	19	—	—	22	22	23	23	23	38	78	76	41
C 61 2_4.6	4.6	14	—	—	17	17	18	18	18	33	78	76	36
C 61 2_6.0	6.0	8.8	—	—	12	12	13	13	13	28	78	76	31
C 61 2_6.7	6.7	14	—	—	—	—	—	—	—	33	78	76	36
C 61 2_7.5	7.5	13	—	—	—	—	—	—	—	32	78	76	35
C 61 2_8.8	8.8	13	—	—	16	16	17	17	17	32	78	76	35
C 61 2_9.8	9.8	12	—	—	15	15	16	16	16	31	78	76	34
C 61 2_10.9	10.9	9.6	—	—	13	12	14	14	14	29	78	76	31
C 61 2_12.1	12.1	9.2	—	—	12	12	13	13	13	28	78	76	31
C 61 2_14.3	14.3	5.8	—	—	8.7	8.6	9.9	9.9	9.9	25	78	76	28
C 61 2_15.9	15.9	5.6	—	—	8.5	8.4	9.7	9.7	9.7	25	78	76	27
C 61 2_17.7	17.7	4.4	—	—	7.3	7.2	8.5	8.5	8.5	23	78	76	26
C 61 2_19.6	19.6	4.3	—	—	7.2	7.1	8.4	8.4	8.4	23	78	76	26
C 61 2_22.4	22.4	3.2	4.7	4.7	6.1	6.0	7.3	7.3	7.3	22	78	76	25
C 61 2_24.8	24.8	3.1	4.6	4.6	6.0	5.9	7.2	7.2	7.2	22	78	76	25
C 61 2_27.4	27.4	2.1	3.6	3.6	5.0	4.9	6.2	6.2	6.2	21	78	76	24
C 61 2_30.4	30.4	2.2	3.7	3.7	5.1	5.0	6.3	6.3	6.3	21	78	76	24
C 61 2_34.2	34.2	1.5	3.0	3.0	4.4	4.3	5.6	5.6	5.6	20	78	76	23
C 61 2_38.0	38.0	1.5	3.0	3.0	4.4	4.3	5.6	5.6	5.6	20	78	76	23
C 61 3_26.8	26.8	10	—	—	13	13	14	14	14	29	78	76	32
C 61 3_29.4	29.4	10	—	—	13	13	14	14	14	29	78	76	32
C 61 3_33.0	33.0	8.1	—	—	11	11	12	12	12	27	78	76	30
C 61 3_36.1	36.1	8.1	—	—	11	11	12	12	12	27	78	76	30
C 61 3_43.4	43.4	5.0	—	—	7.9	7.8	9.1	9.1	9.1	24	78	76	27
C 61 3_47.6	47.6	5.0	—	—	7.9	7.8	9.1	9.1	9.1	24	78	76	27
C 61 3_53.5	53.5	3.9	—	—	6.8	6.7	8.0	8.0	8.0	23	78	76	26
C 61 3_58.6	58.6	3.8	—	—	6.7	6.6	7.9	7.9	7.9	23	78	76	26
C 61 3_67.7	67.7	2.8	4.3	4.3	5.7	5.6	6.9	6.9	6.9	22	78	76	25
C 61 3_74.2	74.2	2.8	4.3	4.3	5.7	5.6	6.9	6.9	6.9	22	78	76	25
C 61 3_83.0	83.0	1.9	3.4	3.4	4.8	4.7	6.0	6.0	6.0	21	78	76	24
C 61 3_91.0	91.0	1.9	3.4	3.4	4.8	4.7	6.0	6.0	6.0	21	78	76	24
C 61 3_103.6	103.6	1.3	2.8	2.8	4.2	4.1	5.4	5.4	5.4	20	78	76	23
C 61 3_113.6	113.6	1.3	2.8	2.8	4.2	4.1	5.4	5.4	5.4	20	78	76	23
C 61 3_128.1	128.1	1.0	2.5	2.5	3.9	3.8	5.1	5.1	5.1	20	78	76	23
C 61 3_140.5	140.5	1.0	2.5	2.5	3.9	3.8	5.1	5.1	5.1	20	78	76	23
C 61 3_150.0	150.0	0.70	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	23	
C 61 3_164.5	164.5	0.70	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	23	
C 61 3_178.6	178.6	0.60	2.1	2.1	3.5	3.4	4.7	4.7	—	—	—	22	
C 61 3_195.8	195.8	0.60	2.1	2.1	3.5	3.4	4.7	4.7	—	—	—	22	
C 61 4_217.4	217.4	0.67	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	11	
C 61 4_238.3	238.3	0.67	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	11	
C 61 4_275.3	275.3	0.81	2.3	2.3	3.7	3.6	4.9	4.9	—	—	—	11	
C 61 4_301.7	301.7	0.81	2.3	2.3	3.7	3.6	4.9	4.9	—	—	—	11	
C 61 4_337.7	337.7	0.56	2.1	2.1	3.5	3.4	4.7	4.7	—	—	—	11	
C 61 4_370.1	370.1	0.56	2.1	2.1	3.5	3.4	4.7	4.7	—	—	—	11	
C 61 4_421.5	421.5	0.53	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_462.0	462.0	0.53	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_521.1	521.1	0.51	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_571.2	571.2	0.51	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_610.1	610.1	0.49	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_668.8	668.8	0.49	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_726.3	726.3	0.48	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	
C 61 4_796.1	796.1	0.48	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11	




# C 61

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
		 <b>SERVO</b>											
	i	80B		95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
C 61 2_2.8	2.8	—	—	—	—	—	—	—	—	47	49	49	54
C 61 2_3.7	3.7	—	—	—	—	22	23	22	23	36	38	38	43
C 61 2_4.6	4.6	—	—	—	—	17	18	17	18	31	33	33	38
C 61 2_6.0	6.0	—	—	—	—	12	13	12	13	26	28	28	33
C 61 2_6.7	6.7	—	—	—	—	—	—	—	—	31	33	33	38
C 61 2_7.5	7.5	—	—	—	—	—	—	—	—	30	32	32	37
C 61 2_8.8	8.8	—	—	—	—	16	17	16	17	30	32	32	37
C 61 2_9.8	9.8	—	—	—	—	15	16	15	16	23	31	31	36
C 61 2_10.9	10.9	—	—	—	—	13	14	12	13	27	29	29	34
C 61 2_12.1	12.1	—	—	—	—	12	13	12	13	26	29	28	33
C 61 2_14.3	14.3	—	—	—	—	8.7	9.2	8.6	9.6	23	25	25	30
C 61 2_15.9	15.9	—	—	—	—	8.5	9.0	8.4	9.4	23	25	25	30
C 61 2_17.7	17.7	—	—	—	—	7.3	7.8	7.2	8.2	21	24	23	28
C 61 2_19.6	19.6	—	—	—	—	7.2	7.7	7.1	8.1	21	24	23	28
C 61 2_22.4	22.4	—	—	6.0	6.5	6.1	6.6	6.0	7.0	20	23	22	27
C 61 2_24.8	24.8	—	—	5.9	6.4	6.0	6.5	5.9	6.9	20	23	22	27
C 61 2_27.4	27.4	—	—	4.9	5.4	5.0	5.5	4.9	5.9	19	22	21	26
C 61 2_30.4	30.4	—	—	5.0	5.5	5.1	5.6	5.0	6.0	19	22	21	26
C 61 2_34.2	34.2	—	—	4.3	4.8	4.4	4.9	4.3	5.3	18	21	20	25
C 61 2_38.0	38.0	—	—	4.3	4.8	4.4	4.9	4.3	5.3	18	21	20	25
C 61 3_26.8	26.8	—	—	—	—	13	14	13	14	27	29	29	34
C 61 3_29.4	29.4	—	—	—	—	13	14	13	14	27	29	29	34
C 61 3_33.0	33.0	—	—	—	—	11	12	11	12	25	28	27	32
C 61 3_36.1	36.1	—	—	—	—	11	12	11	12	25	28	27	32
C 61 3_43.4	43.4	—	—	—	—	7.9	8.4	7.8	8.8	22	24	24	29
C 61 3_47.6	47.6	—	—	—	—	7.9	8.4	7.8	8.8	22	24	24	29
C 61 3_53.5	53.5	—	—	—	—	6.8	7.3	6.7	7.7	21	23	23	28
C 61 3_58.6	58.6	—	—	—	—	6.7	7.2	6.6	7.6	21	23	23	28
C 61 3_67.7	67.7	—	—	5.6	6.1	5.7	6.2	5.6	6.6	20	22	22	27
C 61 3_74.2	74.2	—	—	5.6	6.1	5.7	6.2	5.6	6.6	20	22	22	27
C 61 3_83.0	83.0	—	—	4.7	5.2	4.8	5.3	4.7	5.7	19	21	21	26
C 61 3_91.0	91.0	—	—	4.7	5.2	4.8	5.3	4.7	5.7	19	21	21	26
C 61 3_103.6	103.6	—	—	4.1	4.6	4.2	4.7	4.1	5.1	18	21	20	25
C 61 3_113.6	113.6	—	—	4.1	4.6	4.2	4.7	4.1	5.1	18	21	20	25
C 61 3_128.1	128.1	—	—	3.8	4.3	3.9	4.4	3.8	4.8	18	20	20	25
C 61 3_140.5	140.5	—	—	3.8	4.3	3.9	4.4	3.8	4.8	18	20	20	25
C 61 3_150.0	150.0	—	—	3.5	4.0	3.6	4.1	3.5	4.5	—	—	—	—
C 61 3_164.5	164.5	—	—	3.5	4.0	3.6	4.1	3.5	4.5	—	—	—	—
C 61 3_178.6	178.6	—	—	3.4	3.9	3.5	4.0	3.4	4.4	—	—	—	—
C 61 3_195.8	195.8	—	—	3.4	3.9	3.5	4.0	3.4	4.4	—	—	—	—
C 61 4_217.4	217.4	3.5	3.9	3.5	3.9	3.6	4.1	3.5	4.5	—	—	—	—
C 61 4_238.3	238.3	3.5	3.9	3.5	3.9	3.6	4.1	3.5	4.5	—	—	—	—
C 61 4_275.3	275.3	3.6	4.1	3.6	4.1	3.7	4.2	3.6	4.6	—	—	—	—
C 61 4_301.7	301.7	3.6	4.1	3.6	4.1	3.7	4.2	3.6	4.6	—	—	—	—
C 61 4_337.7	337.7	3.4	3.8	3.4	3.8	3.5	4.0	3.4	4.4	—	—	—	—
C 61 4_370.1	370.1	3.4	3.8	3.4	3.8	3.5	4.0	3.4	4.4	—	—	—	—
C 61 4_421.5	421.5	3.4	3.8	3.4	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_462.0	462.0	3.4	3.8	3.4	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_521.1	521.1	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_571.2	571.2	3.3	3.8	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_610.1	610.1	3.3	3.7	3.3	3.7	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_668.8	668.8	3.3	3.7	3.3	3.7	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_726.3	726.3	3.3	3.7	3.3	3.7	3.4	3.9	3.3	4.3	—	—	—	—
C 61 4_796.1	796.1	3.3	3.7	3.3	3.7	3.4	3.9	3.3	4.3	—	—	—	—






# C 70

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]												
			63	71	80	90	100 112	132	160	180	200	225	250	280
C 70 2_4.6	4.6	—	—	—	—	—	—	136	133	143	—	—	—	99
C 70 2_5.9	5.9	—	—	—	—	—	—	119	117	126	—	—	—	32
C 70 2_6.3	6.3	—	—	—	—	—	—	129	127	136	—	—	—	93
C 70 2_7.5	7.5	26	—	—	—	—	45	105	102	112	—	—	—	68
C 70 2_8.0	8.0	—	—	—	—	—	—	115	113	122	—	—	—	78
C 70 2_9.5	9.5	19	—	—	—	—	38	97	95	—	—	—	—	60
C 70 2_10.2	10.2	24	—	—	—	—	43	102	100	109	—	—	—	65
C 70 2_11.2	11.2	15	—	—	—	—	34	94	91	—	—	—	—	56
C 70 2_13.0	13.0	17	—	—	—	—	36	95	93	—	—	—	—	58
C 70 2_14.1	14.1	9.9	—	—	12	12	14	29	88	86	—	—	—	51
C 70 2_15.3	15.3	14	—	—	—	—	—	33	93	90	—	—	—	55
C 70 2_16.7	16.7	6.9	—	—	9.5	9.4	11	26	85	83	—	—	—	48
C 70 2_19.3	19.3	9.1	—	—	12	12	13	28	87	85	—	—	—	50
C 70 2_22.9	22.9	6.4	—	—	9.0	8.9	10	25	85	83	—	—	—	48
C 70 2_27.7	27.7	5.2	—	—	8.0	7.9	9.2	24	84	81	—	—	—	46
C 70 2_34.7	34.7	3.2	—	—	6.1	6.0	7.3	22	82	79	—	—	—	44
C 70 3_41.3	41.3	4.4	—	—	7.2	7.2	8.5	23	83	80	—	—	—	46
C 70 3_44.7	44.7	4.2	—	—	7.0	7.0	8.2	23	83	80	—	—	—	45
C 70 3_52.2	52.2	3.0	—	—	5.8	5.8	7.0	22	81	79	—	—	—	44
C 70 3_56.5	56.5	2.8	—	—	5.7	5.6	6.9	22	81	79	—	—	—	44
C 70 3_65.9	65.9	2.0	—	—	4.9	4.8	6.1	21	80	78	—	—	—	43
C 70 3_71.3	71.3	2.0	—	—	4.8	4.8	6.0	21	80	78	—	—	—	43
C 70 3_81.4	81.4	1.5	—	—	4.3	4.3	5.6	20	80	78	—	—	—	43
C 70 3_88.2	88.2	1.4	—	—	4.3	4.2	5.5	20	80	76	—	—	—	43
C 70 3_103.8	103.8	1.0	—	—	3.8	3.8	5.1	20	79	77	—	—	—	42
C 70 3_112.4	112.4	0.90	—	—	3.8	3.7	5.0	20	79	77	—	—	—	42
C 70 3_126.8	126.8	0.70	—	—	3.5	3.5	4.8	20	79	77	—	—	—	42
C 70 3_137.4	137.4	0.70	—	—	3.5	3.5	4.7	20	79	77	—	—	—	42
C 70 3_150.3	150.3	0.50	—	—	3.4	3.4	9.6	—	—	—	—	—	—	42
C 70 3_162.8	162.8	0.50	—	—	3.4	3.4	4.6	—	—	—	—	—	—	42
C 70 3_179.2	179.2	0.40	—	—	3.2	3.3	4.5	—	—	—	—	—	—	42
C 70 3_194.1	194.1	0.40	—	—	3.2	3.2	4.5	—	—	—	—	—	—	42
C 70 3_220.9	220.9	0.30	—	—	3.1	3.1	4.3	—	—	—	—	—	—	41
C 70 3_239.3	239.3	0.30	—	—	3.1	3.1	4.3	—	—	—	—	—	—	41
C 70 4_251.3	251.3	0.70	2.2	2.2	3.5	3.5	4.8	20	—	—	—	—	—	11
C 70 4_272.2	272.2	0.70	2.2	2.1	3.5	3.5	4.8	20	—	—	—	—	—	11
C 70 4_317.9	317.9	0.50	2.0	2.0	3.4	3.3	4.6	19	—	—	—	—	—	11
C 70 4_344.3	344.3	0.50	2.0	2.0	3.4	3.3	4.6	19	—	—	—	—	—	11
C 70 4_409.4	409.4	0.40	1.8	1.8	3.2	3.2	4.5	19	—	—	—	—	—	7.9
C 70 4_443.5	443.5	0.40	1.8	1.8	3.2	3.2	4.5	19	—	—	—	—	—	7.9
C 70 4_512.0	512.0	0.30	1.7	1.7	3.1	3.1	4.4	19	—	—	—	—	—	7.8
C 70 4_554.7	554.7	0.30	1.7	1.7	3.1	3.1	4.4	19	—	—	—	—	—	7.8
C 70 4_606.8	606.8	0.20	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	7.8
C 70 4_657.3	657.3	0.20	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	7.7
C 70 4_736.0	736.0	0.20	1.6	1.6	3.0	2.9	4.3	—	—	—	—	—	—	7.7
C 70 4_797.3	797.3	0.20	1.6	1.6	3.0	2.9	4.3	—	—	—	—	—	—	7.7
C 70 4_922.6	922.6	0.10	1.6	1.6	3.0	2.9	4.2	—	—	—	—	—	—	7.7
C 70 4_999.5	999.5	0.10	1.6	1.6	3.0	2.9	4.2	—	—	—	—	—	—	7.6
C 70 4_1069	1069	0.80	1.6	1.5	2.9	2.9	4.2	—	—	—	—	—	—	7.6
C 70 4_1158	1158	0.80	1.6	1.5	2.9	2.9	4.2	—	—	—	—	—	—	7.6
C 70 4_1362	1362	0.60	1.5	1.5	2.9	2.9	4.1	—	—	—	—	—	—	7.6
C 70 4_1476	1476	0.60	1.5	1.5	2.9	2.9	4.1	—	—	—	—	—	—	7.6



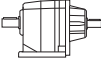


# C 80

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]													
			 IEC												
			63	71	80	90	100 112	132	160	180	200	225	250		280
C 80 2_5.6	5.6	—	—	—	—	—	—	—	—	197	211	489	—	—	164
C 80 2_6.1	6.1	—	—	—	—	—	—	—	—	193	210	485	—	—	159
C 80 2_7.0	7.0	—	—	—	—	—	—	—	160	161	174	452	—	—	127
C 80 2_7.6	7.6	—	—	—	—	—	—	—	158	158	172	449	—	—	124
C 80 2_8.9	8.9	—	—	—	—	—	—	—	137	135	146	429	—	—	101
C 80 2_9.6	9.6	—	—	—	—	—	—	—	136	133	144	427	—	—	99
C 80 2_11.1	11.1	38	—	—	—	—	—	56	116	113	124	408	—	—	79
C 80 2_12.0	12.0	36	—	—	—	—	—	55	115	112	123	407	—	—	78
C 80 2_13.8	13.8	28	—	—	—	—	—	47	106	104	135	398	—	—	69
C 80 2_14.9	14.9	27	—	—	—	—	—	46	106	103	134	397	—	—	69
C 80 2_16.7	16.7	21	—	—	—	—	—	40	100	97	127	391	—	—	63
C 80 2_18.1	18.1	21	—	—	—	—	—	40	99	97	127	390	—	—	62
C 80 2_20.5	20.5	14	—	—	17	17	18	33	93	90	120	383	—	—	55
C 80 2_22.2	22.2	14	—	—	16	16	18	33	92	90	120	383	—	—	55
C 80 2_24.0	24.0	13	—	—	16	16	17	32	91	89	119	382	—	—	54
C 80 2_25.9	25.9	13	—	—	16	15	17	32	91	89	118	382	—	—	54
C 80 2_31.3	31.3	8.7	—	—	12	11	13	28	87	85	—	—	—	—	50
C 80 2_39.1	39.1	5.2	—	—	8.0	8.0	9.2	24	84	81	—	—	—	—	46
C 80 3_43.5	43.5	9.6	—	—	12	12	14	29	88	86	—	—	—	—	51
C 80 3_47.4	47.4	9.1	—	—	12	12	13	28	87	85	—	—	—	—	50
C 80 3_57.3	57.3	5.7	—	—	8.5	8.5	9.7	25	84	82	—	—	—	—	47
C 80 3_62.5	62.5	5.4	—	—	8.2	8.2	9.5	24	84	82	—	—	—	—	47
C 80 3_70.5	70.5	4.3	—	—	7.1	7.0	8.3	23	83	80	—	—	—	—	45
C 80 3_76.9	76.9	4.1	—	—	7.0	6.9	8.2	23	82	80	—	—	—	—	45
C 80 3_89.3	89.3	3.0	—	—	5.9	5.8	7.1	22	81	79	—	—	—	—	44
C 80 3_97.4	97.4	2.9	—	—	5.8	5.7	7.0	22	81	79	—	—	—	—	44
C 80 3_109.5	109.5	2.0	—	—	4.8	4.8	6.1	21	80	78	—	—	—	—	43
C 80 3_119.5	119.5	1.9	—	—	4.8	4.7	6.0	21	80	79	—	—	—	—	43
C 80 3_136.7	136.7	1.4	—	—	4.3	4.2	5.5	20	80	78	—	—	—	—	43
C 80 3_149.1	149.1	1.4	—	—	4.2	4.2	5.5	20	80	77	—	—	—	—	43
C 80 3_169.0	169.0	1.0	—	—	3.9	3.8	5.1	20	80	77	—	—	—	—	42
C 80 3_184.4	184.4	1.0	—	—	3.9	3.8	5.1	20	80	77	—	—	—	—	42
C 80 3_197.9	197.9	0.80	—	—	3.7	3.6	4.9	—	—	—	—	—	—	—	42
C 80 3_215.8	215.8	0.80	—	—	3.6	3.6	4.9	—	—	—	—	—	—	—	42
C 80 4_261.9	261.9	1.7	—	—	4.6	4.5	5.8	21	—	—	—	—	—	—	12
C 80 4_285.7	285.7	1.7	—	—	4.6	4.5	5.8	21	—	—	—	—	—	—	12
C 80 4_334.3	334.3	1.2	2.7	2.7	4.0	4.0	5.3	20	—	—	—	—	—	—	11
C 80 4_364.7	364.7	1.2	2.7	2.6	4.0	4.0	5.3	20	—	—	—	—	—	—	11
C 80 4_417.5	417.5	0.90	2.4	2.3	3.7	3.7	5.0	20	—	—	—	—	—	—	11
C 80 4_455.4	455.4	0.90	2.3	2.3	3.7	3.7	5.5	20	—	—	—	—	—	—	11
C 80 4_529.3	529.3	0.50	2.0	2.0	3.4	3.3	4.6	19	—	—	—	—	—	—	11
C 80 4_577.4	577.4	0.50	2.0	2.0	3.4	3.3	4.6	19	—	—	—	—	—	—	11
C 80 4_664.3	664.3	0.40	2.0	1.9	3.3	3.2	4.5	19	—	—	—	—	—	—	11
C 80 4_724.7	724.7	0.40	2.0	1.9	3.3	3.2	4.5	19	—	—	—	—	—	—	11
C 80 4_783.4	783.4	0.30	2.0	1.8	3.2	3.1	4.4	—	—	—	—	—	—	—	9.4
C 80 4_854.6	854.6	0.30	2.0	1.8	3.2	3.1	4.4	—	—	—	—	—	—	—	9.4
C 80 4_945.7	945.7	0.20	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	—	9.3
C 80 4_1032	1032	0.20	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	—	9.3
C 80 4_1168	1168	0.20	1.6	1.6	3.0	3.0	4.2	—	—	—	—	—	—	—	9.2
C 80 4_1274	1274	0.20	1.6	1.6	3.0	3.0	4.2	—	—	—	—	—	—	—	9.2
C 80 4_1358	1358	0.10	1.6	1.6	3.0	2.9	4.2	—	—	—	—	—	—	—	9.2
C 80 4_1481	1481	0.10	1.6	1.6	3.0	2.9	4.2	—	—	—	—	—	—	—	9.2






# C 90

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]													
			 IEC												
		63	71	80	90	100 112	132	160	180	200	225	250	280		
C 90 2_5.2	5.2	—	—	—	—	—	—	—	—	332	610	637	—	619	
C 90 2_5.6	5.6	—	—	—	—	—	—	—	—	321	599	626	—	609	
C 90 2_6.8	6.8	—	—	—	—	—	—	—	—	252	530	557	—	540	
C 90 2_7.3	7.3	—	—	—	—	—	—	—	—	246	524	551	—	533	
C 90 2_8.3	8.3	—	—	—	—	—	—	—	—	212	490	517	—	499	
C 90 2_9.0	9.0	—	—	—	—	—	—	—	—	208	485	513	—	495	
C 90 2_10.4	10.4	—	—	—	—	—	—	167	164	175	458	484	—	461	
C 90 2_11.2	11.2	—	—	—	—	—	—	164	162	173	455	482	—	458	
C 90 2_12.8	12.8	65	—	—	—	—	84	143	141	152	436	462	—	439	
C 90 2_13.9	13.9	63	—	—	—	—	82	141	139	200	434	460	—	437	
C 90 2_16.0	16.0	47	—	—	—	—	66	125	123	154	417	443	—	420	
C 90 2_17.3	17.3	46	—	—	—	—	65	124	122	153	416	442	—	419	
C 90 2_18.7	18.7	42	—	—	—	—	61	121	119	148	412	433	—	415	
C 90 2_20.2	20.2	41	—	—	—	—	61	199	118	147	411	438	—	414	
C 90 2_22.9	22.9	28	—	—	30	30	31	47	106	104	133	397	423	—	400
C 90 2_24.8	24.8	27	—	—	29	29	31	46	105	103	133	396	422	—	399
C 90 2_27.2	27.2	22	—	—	25	25	26	41	101	99	128	391	418	—	394
C 90 2_29.4	29.4	22	—	—	25	24	26	41	100	98	127	391	417	—	394
C 90 2_35.1	35.1	14	—	—	17	17	18	33	93	90	—	—	—	—	386
C 90 3_39.4	39.4	27	—	—	—	—	46	105	103	112	398	424	—	412	
C 90 3_43.0	43.0	26	—	—	—	—	45	104	102	111	396	422	—	410	
C 90 3_50.3	50.3	19	—	—	—	—	38	98	95	126	389	415	—	403	
C 90 3_54.9	54.9	19	—	—	—	—	37	97	95	125	389	415	—	401	
C 90 3_59.2	59.2	16	—	—	—	—	35	94	92	122	385	411	—	398	
C 90 3_64.6	64.6	15	—	—	—	—	34	94	91	121	384	410	—	398	
C 90 3_74.4	74.4	10	—	—	13	13	14	29	88	86	116	379	405	—	393
C 90 3_81.2	81.2	9.8	—	—	12	12	13	29	88	86	115	379	405	—	392
C 90 3_88.2	88.2	7.1	—	—	9.7	9.6	11	26	85	83	113	376	402	—	389
C 90 3_96.2	96.2	6.9	—	—	9.4	9.4	11	26	85	83	112	376	402	—	389
C 90 3_107.0	107.0	5.7	—	—	8.4	8.4	9.6	25	84	82	—	—	—	—	388
C 90 3_116.7	116.7	5.5	—	—	8.3	8.2	9.5	24	84	82	—	—	—	—	388
C 90 3_134.1	134.1	3.5	—	—	6.4	6.3	7.6	22	82	80	—	—	—	—	386
C 90 3_146.3	146.3	3.4	—	—	6.3	6.2	7.5	22	82	80	—	—	—	—	386
C 90 3_157.8	157.8	2.5	—	—	5.4	5.3	6.6	21	81	79	—	—	—	—	385
C 90 3_172.1	172.1	2.4	—	—	5.3	5.2	6.5	21	81	79	—	—	—	—	385
C 90 4_212.4	212.4	4.2	—	—	7.0	7.0	8.3	23	83	80	—	—	—	—	14
C 90 4_231.7	231.7	4.1	—	—	7.0	6.9	8.2	23	82	80	—	—	—	—	14
C 90 4_268.5	268.5	2.8	—	—	5.7	5.6	6.9	22	81	79	—	—	—	—	13
C 90 4_292.9	292.9	2.8	—	—	5.7	2.6	6.9	22	81	79	—	—	—	—	13
C 90 4_339.0	339.0	2.0	3.4	3.4	4.8	4.8	6.0	21	80	78	—	—	—	—	12
C 90 4_369.8	369.8	2.0	3.4	3.4	4.8	4.8	6.0	21	80	78	—	—	—	—	12
C 90 4_419.0	419.0	1.4	2.9	2.9	4.3	4.2	5.5	20	80	78	—	—	—	—	12
C 90 4_457.1	457.1	1.4	2.9	2.9	4.3	4.2	5.5	20	80	78	—	—	—	—	12
C 90 4_534.2	534.2	0.90	2.4	2.4	3.8	3.7	5.0	20	79	77	—	—	—	—	11
C 90 4_582.8	582.8	0.90	2.4	2.4	3.8	3.7	5.0	20	79	77	—	—	—	—	11
C 90 4_652.8	652.8	0.70	2.1	2.1	3.5	3.5	4.7	20	79	77	—	—	—	—	11
C 90 4_712.2	712.2	0.70	2.1	2.1	3.5	3.5	4.7	20	79	77	—	—	—	—	11
C 90 4_773.6	773.6	0.50	2.0	2.0	3.4	3.3	4.6	—	—	—	—	—	—	—	9.7
C 90 4_844.0	844.0	0.50	2.0	2.0	3.4	3.3	4.6	—	—	—	—	—	—	—	9.6
C 90 4_922.3	922.3	0.40	1.8	1.8	3.2	3.2	4.5	—	—	—	—	—	—	—	9.5
C 90 4_1006	1006	0.40	1.8	1.8	3.2	3.2	4.5	—	—	—	—	—	—	—	9.4
C 90 4_1137	1137	0.30	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	—	9.3
C 90 4_1240	1240	0.30	1.7	1.7	3.1	3.0	4.3	—	—	—	—	—	—	—	9.3





# C 100

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]												
			 IEC											
		63	71	80	90	100 112	132	160	180	200	225	250	280	
C 100 2_4.9	4.9	—	—	—	—	—	—	—	—	674	960	987	970	972
C 100 2_5.3	5.3	—	—	—	—	—	—	—	—	647	933	960	943	944
C 100 2_6.5	6.5	—	—	—	—	—	—	—	—	481	767	794	777	778
C 100 2_7.1	7.1	—	—	—	—	—	—	—	—	465	751	778	761	763
C 100 2_8.4	8.4	—	—	—	—	—	—	—	—	365	651	678	660	662
C 100 2_9.0	9.0	—	—	—	—	—	—	—	—	355	641	668	651	653
C 100 2_10.1	10.1	—	—	—	—	—	—	—	—	291	577	604	587	589
C 100 2_10.9	10.9	—	—	—	—	—	—	—	—	285	570	597	580	582
C 100 2_12.5	12.5	—	—	—	—	—	—	224	222	233	521	550	539	529
C 100 2_13.5	13.5	—	—	—	—	—	—	220	218	228	517	545	532	524
C 100 2_15.2	15.2	122	—	—	—	—	82	141	200	199	472	499	528	514
C 100 2_16.5	16.5	119	—	—	—	—	138	197	195	206	496	525	511	504
C 100 2_18.7	18.7	97	—	—	—	—	116	175	173	203	474	501	488	480
C 100 2_20.2	20.2	95	—	—	—	—	114	173	171	201	471	499	486	478
C 100 2_22.2	22.2	73	—	—	—	—	92	102	150	179	448	477	463	456
C 100 2_24.1	24.1	72	—	—	—	—	91	150	148	178	447	476	462	455
C 100 2_29.6	29.6	50	—	—	—	54	69	129	127	156	425	454	440	433
C 100 3_34.3	34.3	—	—	—	—	—	—	148	146	155	439	465	471	461
C 100 3_36.9	36.9	—	—	—	—	—	—	145	143	152	436	462	468	458
C 100 3_42.9	42.9	44	—	—	—	—	63	123	120	130	415	441	451	437
C 100 3_46.2	46.2	43	—	—	—	—	61	121	118	128	413	439	452	435
C 100 3_53.3	53.3	33	—	—	—	—	51	111	109	139	403	429	432	424
C 100 3_57.4	57.4	31	—	—	—	—	50	110	107	138	401	427	431	423
C 100 3_64.5	64.5	24	—	—	—	—	43	103	101	130	394	420	422	415
C 100 3_69.4	69.4	24	—	—	—	—	43	102	100	129	393	419	421	414
C 100 3_79.4	79.4	16	—	—	—	20	35	95	92	122	385	411	413	407
C 100 3_85.6	85.6	16	—	—	—	19	35	94	92	121	385	411	413	406
C 100 3_92.7	92.7	15	—	—	—	18	34	93	91	120	384	410	412	405
C 100 3_99.8	99.8	14	—	—	—	18	33	93	90	119	383	409	411	404
C 100 3_111.9	111.9	9.9	—	—	—	14	29	88	86	—	—	—	—	392
C 100 3_120.5	120.5	9.6	—	—	—	14	29	88	86	—	—	—	—	392
C 100 3_139.7	139.7	6.0	—	—	—	10	25	84	82	—	—	—	—	388
C 100 3_150.4	150.4	5.8	—	—	—	9.8	25	84	82	—	—	—	—	388
C 100 4_162.1	162.1	13	—	—	16	16	17	32	100	89	—	—	—	23
C 100 4_185.4	185.4	9.6	—	—	13	12	14	29	88	86	—	—	—	20
C 100 4_199.6	199.6	8.5	—	—	12	12	14	28	88	86	—	—	—	20
C 100 4_244.2	244.2	5.7	—	—	8.5	8.5	9.8	25	84	82	—	—	—	16
C 100 4_263.0	263.0	5.6	—	—	8.5	8.4	9.7	25	84	82	—	—	—	16
C 100 4_300.5	300.5	4.2	—	—	7.1	7.1	8.4	23	83	80	—	—	—	15
C 100 4_323.6	323.6	4.2	—	—	7.1	7.0	8.3	23	83	80	—	—	—	14
C 100 4_380.5	380.5	3.1	4.5	4.5	5.9	5.5	7.1	22	81	79	—	—	—	13
C 100 4_409.8	409.8	3.0	4.5	4.5	5.9	5.5	7.1	22	81	79	—	—	—	13
C 100 4_466.7	466.7	2.0	3.5	3.5	4.9	4.8	6.1	20	80	78	—	—	—	12
C 100 4_502.6	502.6	2.0	3.5	3.4	4.8	4.8	6.1	20	80	78	—	—	—	12
C 100 4_582.6	582.6	1.4	2.9	2.9	4.3	4.2	5.5	20	80	77	—	—	—	12
C 100 4_627.4	627.4	1.4	2.9	2.9	4.3	4.2	5.5	20	80	77	—	—	—	12
C 100 4_720.3	720.3	1.0	2.5	2.5	3.9	3.4	5.1	20	79	77	—	—	—	11
C 100 4_775.7	775.7	1.0	2.5	2.5	3.9	3.4	5.1	20	79	77	—	—	—	11
C 100 4_843.3	843.3	0.80	2.3	2.3	3.7	3.6	4.9	—	—	—	—	—	—	9.9
C 100 4_908.2	908.2	0.80	2.3	2.3	3.7	3.6	4.9	—	—	—	—	—	—	9.9
C 100 4_1004	1004	0.60	2.1	2.0	3.4	3.4	4.7	—	—	—	—	—	—	9.7
C 100 4_1081	1081	0.60	2.1	2.0	3.4	3.4	4.7	—	—	—	—	—	—	9.7



## 29 EXACT RATIOS

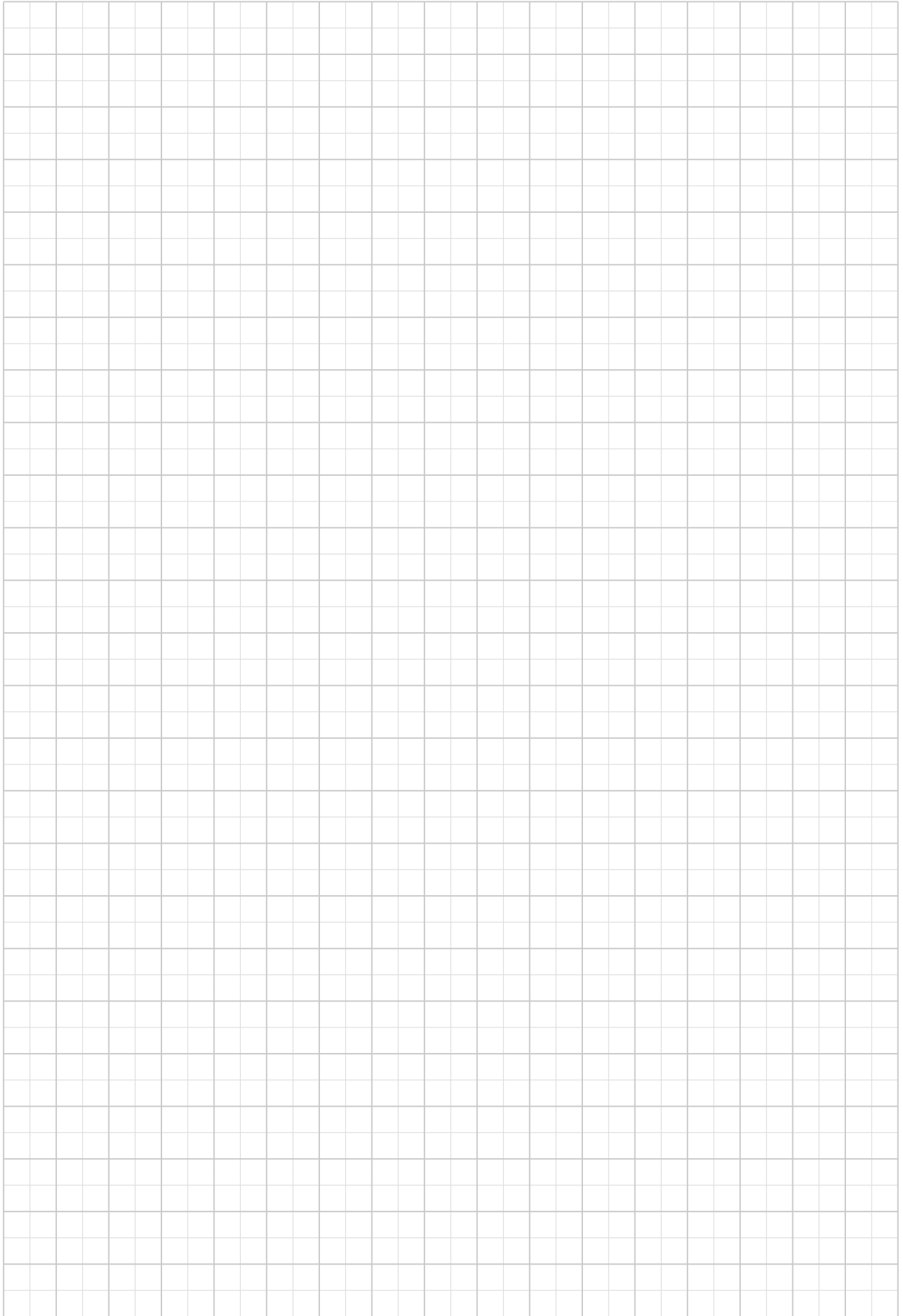
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2.5						2.62895					
2.8	2.76731	2.72212	2.87879	2.68687	2.65909		2.82011				
3.2	3.20743	3.32609		3.18182		3.30758					
3.5	3.65132	3.70709	3.40909	3.48617	3.61111		3.69925				
4.0			3.73518	4.20000							
4.5	4.31203	4.25831	4.50000	4.62201	4.66304	4.45370	4.55556	4.57143			
5.0	4.86842	4.76902	4.95215	5.27807						5.17231	4.92308
5.6	5.59868	5.59006	5.65508	5.84659	5.95263	5.63043		5.85034	5.64103	5.60333	5.33333
6.3	6.23158	6.08696	6.26420		6.36364		6.00176 6.74074	6.25455	6.11111	6.75824	6.52308
7.1		7.08300	7.16498	6.78114	7.06612	6.98684	7.48485	7.46032	7.04000	7.32143	7.06667
8.0	7.62201		8.48485	8.03030		7.75120		8.00433	7.62667	8.32615	8.35165
9.0	8.83422	8.65455	9.29644	8.79842	8.64198	8.79040	8.84211	9.52381	8.86447	9.02000	9.04762
10.0	10.05682	9.64593		10.60000	9.59596	9.75207	9.81818	10.20707	9.60317	10.36264	10.09231
11.2		11.08021	11.20000	11.66507	11.15942	11.83642	10.88889	11.20879	11.09402	11.22619	10.93333
12.5	11.87662	12.40909	12.32536	13.32086	12.39130	13.13131	12.09091	13.03030	12.01852	12.79060	12.45421
14.0	13.40909	14.54545	14.07487	14.75568	14.24561	14.96377	14.34568	14.09524	13.76410 14.91111	13.85648	13.49206
16.0	15.42045	15.83838	15.59091		15.81818	16.60079	15.92929	15.33566 16.70330	16.66272	15.97949	15.21368 16.48148
18.0	17.16364 18.38961	18.13636	18.18182	17.20779	17.79167	18.89035	17.65217		18.05128	17.31111 18.68047	18.66667
20.0	20.62937	20.02424	20.08081	19.00505	19.75568	20.95694 21.81606	19.60079	19.28485	20.53333	20.23718	20.22222
22.4	23.24242	21.45455	22.90909	22.13187	22.55556	23.35417 23.89242	22.35088	22.85315	22.24444	22.91795	22.24852
25.0	25.35537	24.27972	25.11515	26.20879	25.04545	25.90909	24.81818 26.77895		23.95266 25.94872	24.82778	24.10256
28.0	29.50000	27.15152 29.61983	26.90909	28.71572	28.31111 28.49003	27.44759 29.77315	27.41667 29.35385	27.71901		27.17160 29.43590	29.55556
31.5	32.77778	33.09091	29.76224 33.09091		31.22945 31.43636	30.05994 33.03030	30.44318 32.97778		31.33333		
35.5	37.00909	36.76768	36.09917	34.59560	33.38462 36.78930	36.38333 36.95862	34.22222 36.14872	34.74747		35.09848	34.29705 36.93529
40.0	42.31313		40.72727	38.07172	37.06993 40.32673	40.36364 40.47619	38.00000	41.26263	39.11111	39.40239	42.92328
45.0		43.27273	45.25253	43.47576	44.75207 46.96356	43.11538 46.72360	43.44691	44.70118	43.49074	42.98443	46.22507
50.0	47.60227	48.64646	52.43636	48.15865	51.47929	47.83217 51.40152	47.62450	52.16479	47.44444	50.30093	53.25397
56.0	55.16883	54.72727	59.39394	56.16170	58.65385	57.02479 58.98416	53.46087 58.60134	56.51186	57.29733	54.87374 59.20032	57.35043
63.0	66.15152	60.00000 63.27273	66.81818	62.02747	64.29364	64.59803		65.85315	62.50617	64.58217	64.46886
71.0		65.33333 74.81250	74.74747	70.76374	74.35897	72.92219	67.69123 74.20000	71.34091	70.50362	74.44537	69.42801
80.0		82.60000	82.55443	77.57802 83.11931	81.50888	79.86264	83.03333	81.41434	76.91304	81.21313	79.44444
90.0		88.50000	94.18182	91.93238	93.33333	92.96514	91.01731	88.19886	89.27047	88.22009	85.55556 92.67399
100.0		100.15385	103.25118	102.21429	102.30769	101.81319	103.64444	103.79138	97.38596	96.24009	99.80276





$i_N$	C12	C22	C32	C36	C41	C51	C61	C70	C80	C90	C100
112.2		112.00000	110.62626	111.50649	110.05917	113.60510	113.61026	112.44066	109.50347	107.00379 116.73140	111.90476
125.5		122.18182	122.35587	125.80220	120.64178	124.41758	128.14222	126.83497	119.45833		120.51282
140.0		136.50000	136.04040 148.40771	139.78022	132.86713 145.64282	134.62559 147.43872	140.46359	137.40455	136.68519 149.11111	134.13580 146.32997	139.68254
160.0		151.66667	167.43434	161.97033	164.10256	160.49861	150.03077 164.45680	150.30339 162.82867	168.99259	157.76199	150.42735 162.10526
180.0		178.50000	186.03816	183.46154	179.88166	175.77423	178.59394	179.18945	184.35556	172.10399	185.37037
200.0		200.66667		206.39423	190.76923 209.11243	197.87075	195.76643	194.12190	197.85897	212.38169	199.62963
225.0		225.75000	215.57172	230.88697		216.70330	217.40754	220.91375	215.84615	231.68911	
250.0		261.00000	244.17508	255.00183	239.94755	240.85197 263.77530	238.31211	239.32323 251.28438	261.85613	268.49591	244.21811 263.00412
280.0			274.69697	290.91758	263.01943		275.27766	272.22475	285.66123	292.90463	300.50725
315.0				318.93187	304.19580 333.44540	297.76563 326.10577	301.74667	317.86109	334.27376	338.95085	323.62319
355.0				341.71272			337.66889 370.13705	344.34951	364.66228	369.76457	380.49708
400.0				377.94421 420.21429	381.81818 418.53147	379.60764 415.73718	421.48741	409.39931	417.48199	419.04541	409.76608
450.0				458.41558	450.24207	463.88750	462.01504	443.51592	455.43490	457.14044	466.73611
500.0				517.18681	493.53457	508.03846	521.11170	512.03745	529.26678		502.63889
560.0				574.65201	543.54736	549.72115	571.21860	554.70724	577.38194	534.22163 582.78723	582.59259
630.0				665.87802	595.81153	602.04142 655.36932	610.12513 668.79101	606.78035 657.34538	664.32106	652.82863	627.40741
710.0				754.23077	671.32867 735.87951	717.74476	726.28202	735.97521	724.71389	712.17669	720.29630
800.0				848.50962	780.41958	807.97222	796.11683	797.30647	783.37099	773.62229 843.95159	775.70370 843.33333
900.0					855.45992	884.87179		922.59000	854.58654 945.71181	922.30089	908.20513
1000.0								999.47250 1069.05117	1031.68561	1006.14643	1003.88889
1125.0								1158.13876	1168.03704	1137.05888	1081.11111
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1400.0								1362.26180 1475.78362	1357.84306 1481.28333		

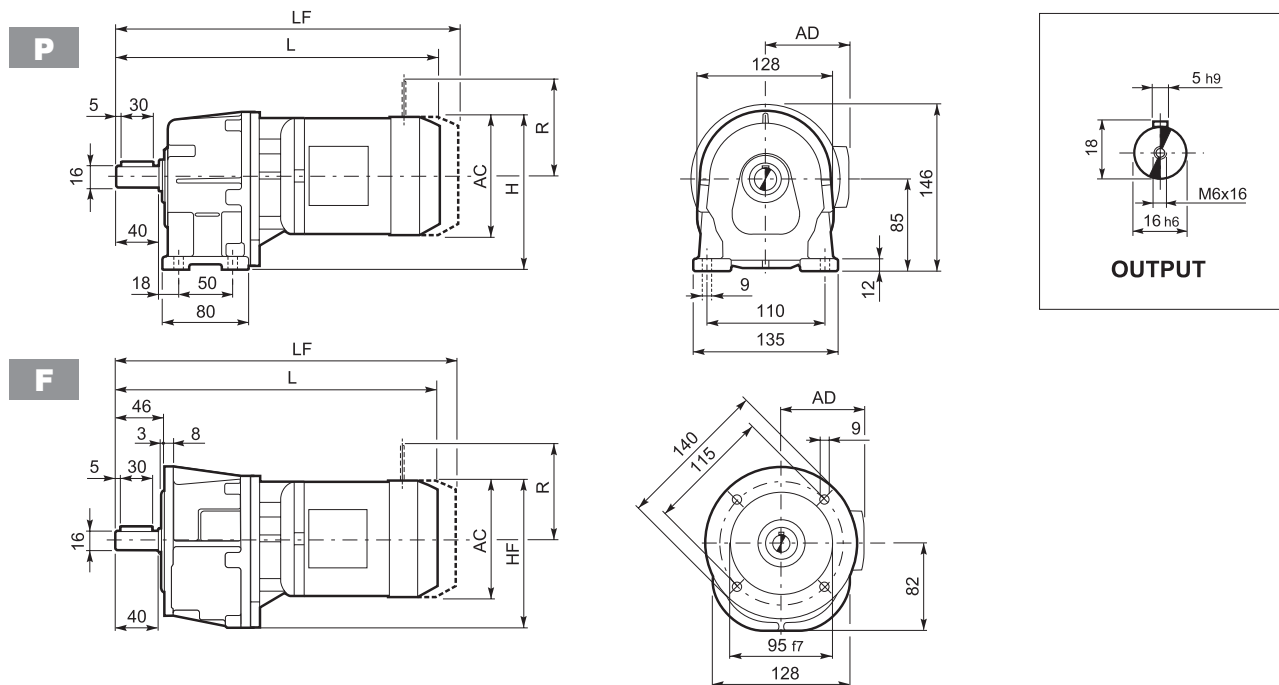






## 30 DIMENSIONS

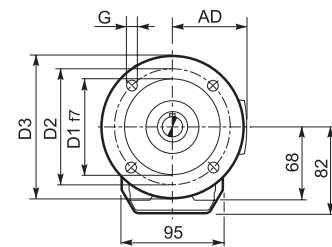
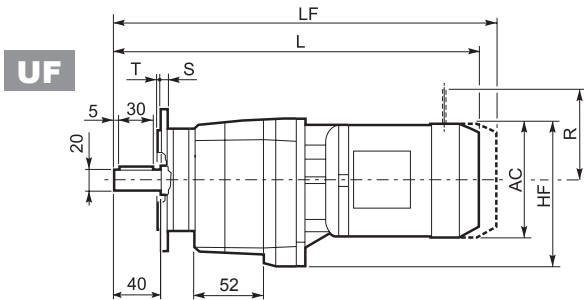
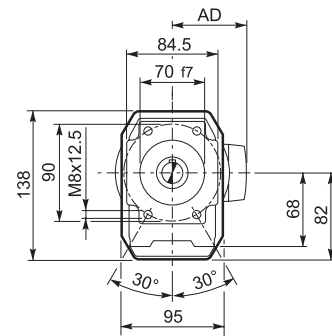
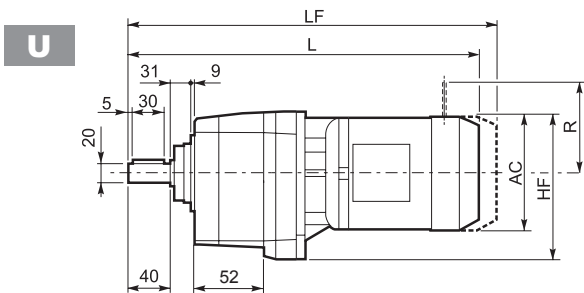
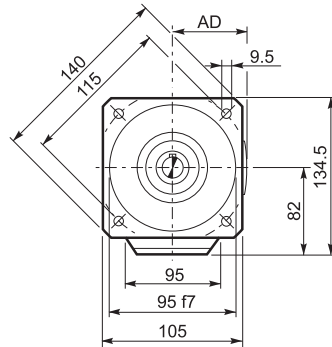
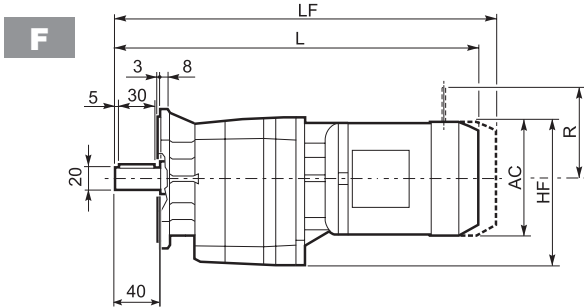
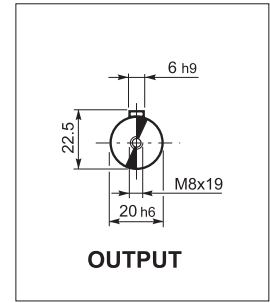
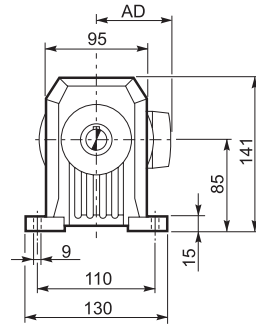
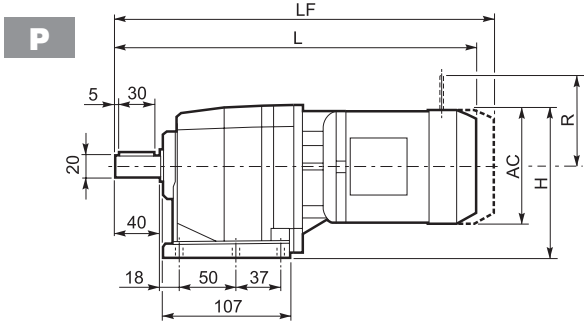
### C 05...M



			AC	H	HF	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
C 05 2	S0	M0	110	140	137	287	91	7	—	—	—	—	—	—
C 05 2	S05	M05	121	145.5	142.5	332	95	8	398	10	96	122	116	95
C 05 2	S1	M1	138	154	151	360.5	108	11	423	13	103	135	124	108



# C 12...M



C 12 2 U						
	D1	D2	D3	G	T	S
FA	80	100	120	7	3	8
FB	95	115	140	9	3	10
FC	110	130	160	9	3	10

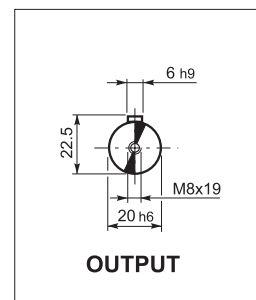
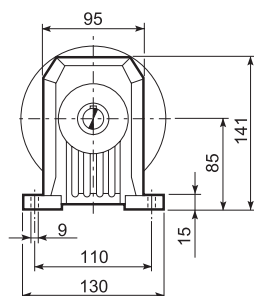
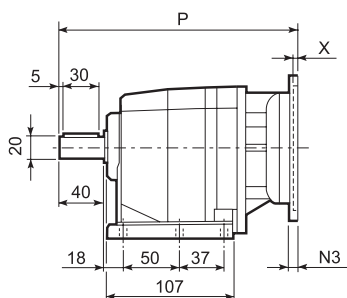
Motor Icon	S	M	AC	H	HF	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
C 12 2	S05	M05	121	145.5	142.5	370.5	95	9	436.5	10	96	122	116	95
C 12 2	S1	M1	138	154	151	404.5	108	11	460.5	13	103	135	124	108
C 12 2	S2	M2S	156	163	160	428.5	119	15	498.5	18	129	146	134	119
C 12 2	S3	M3S	195	182.5	179.5	471.5	142	20	567.5	25	160	158	160	142
C 12 2	S3	M3L	195	182.5	179.5	503.5	142	22	594.5	27	160	158	160	142



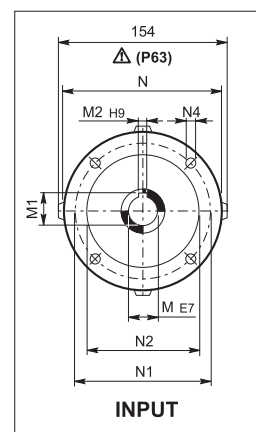
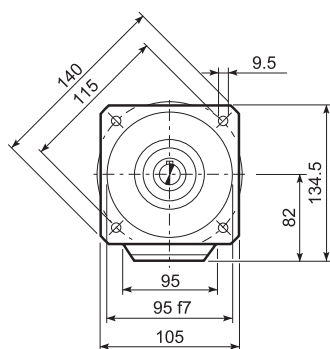
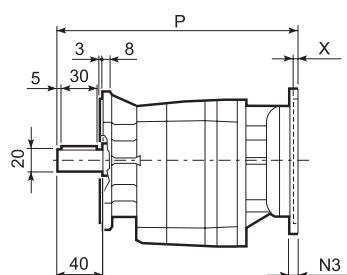


## C 12...P (IEC)

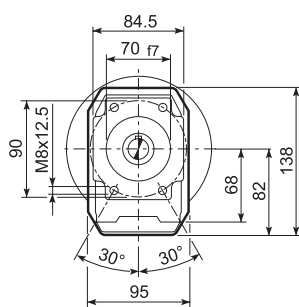
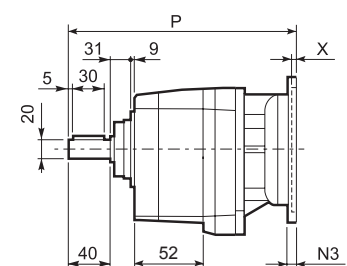
**P**



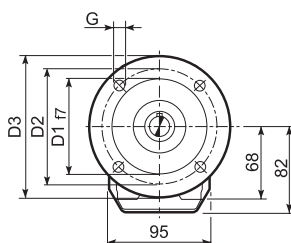
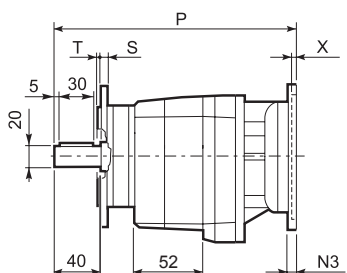
**F**



**U**



**UF**



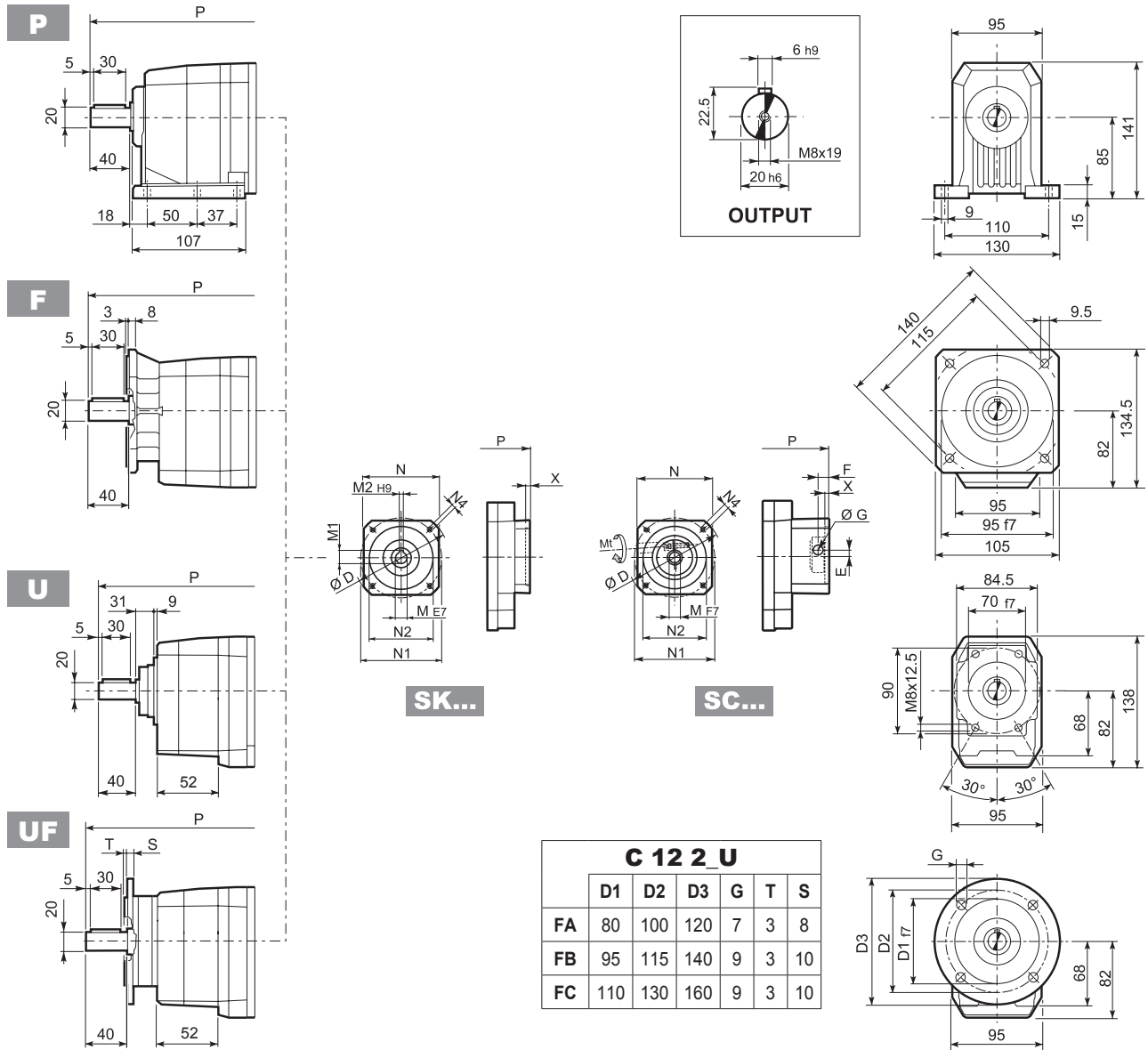
### C 12 2 U

	D1	D2	D3	G	T	S
<b>FA</b>	80	100	120	7	3	8
<b>FB</b>	95	115	140	9	3	10
<b>FC</b>	110	130	160	9	3	10

		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
<b>C 12 2</b>	<b>P63</b>	11	12.8	4	140	115	95	—	M8x19	4	244.5	6
<b>C 12 2</b>	<b>P71</b>	14	16.3	5	160	130	110	—	M8x16	4.5	244.5	6
<b>C 12 2</b>	<b>P80</b>	19	21.8	6	200	165	130	—	M10x14.5	4	264	7
<b>C 12 2</b>	<b>P90</b>	24	27.3	8	200	165	130	—	M10x14.5	4	264	7
<b>C 12 2</b>	<b>P100</b>	28	31.3	8	250	215	180	—	M12x16	4.5	274	11
<b>C 12 2</b>	<b>P112</b>	28	31.3	8	250	215	180	—	M12x16	4.5	274	11



# C 12...SK / SC



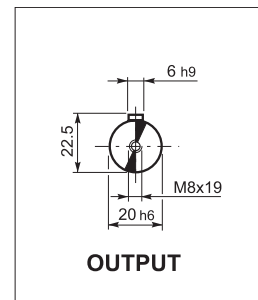
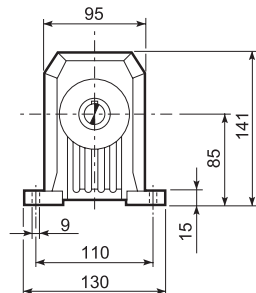
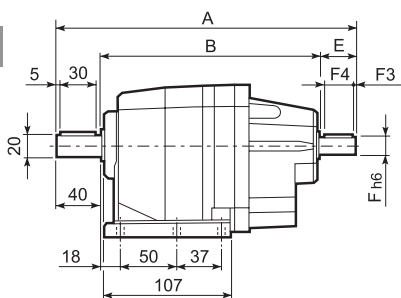
		D	M	M1	M2	N	N1	N2	N4	X	P	kg
C 12 2	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	216	6
C 12 2	SK60B	102	14	16.3	5	82	75	60	M5x10	4	223	5
C 12 2	SK80A	115	14	16.3	5	90	100	80	M6x12	4	223	5
C 12 2	SK80C	120	19	21.8	6	96	100	80	M6x12	4	264	7
C 12 2	SK95A	130	14	16.3	5	102	115	95	M8x12	4	264	6
C 12 2	SK95B	130	19	21.8	6	102	115	95	M8x12	4	264	7
C 12 2	SK95C	130	24	27.3	8	102	115	95	M8x12	4	264	7
C 12 2	SK110A	150	19	21.8	6	120	130	110	M8x12	5	264	7
C 12 2	SK110B	150	24	27.3	8	120	130	110	M8x12	5	264	7

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P	kg	
C 12 2	SC60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	243	7
C 12 2	SC60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	243	6
C 12 2	SC80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	243	6
C 12 2	SC80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	287.5	8
C 12 2	SC95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	287.5	7
C 12 2	SC95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	287.5	8
C 12 2	SC95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	287.5	8
C 12 2	SC110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	287.5	10
C 12 2	SC110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	287.5	10



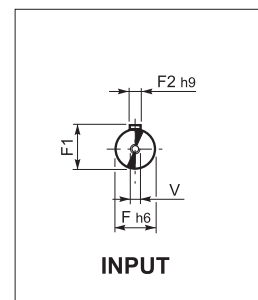
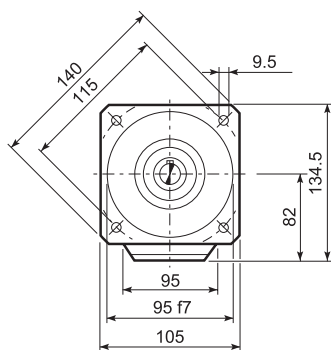
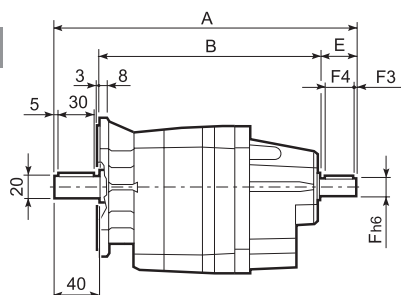
# C 12...HS

**P**



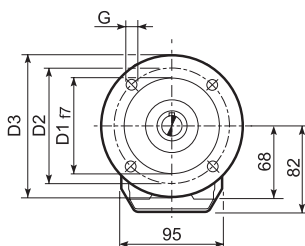
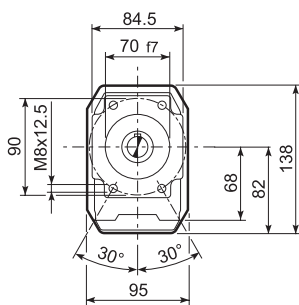
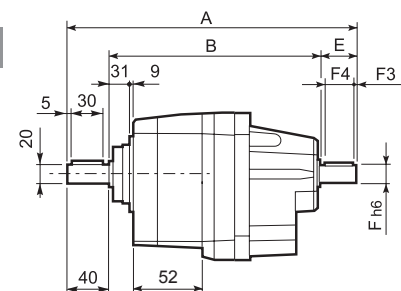
**OUTPUT**

**F**

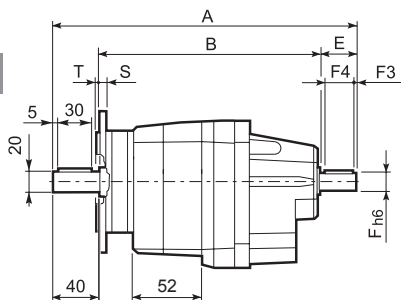


**INPUT**

**U**



**UF**



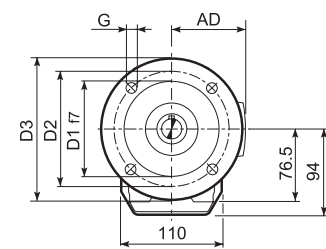
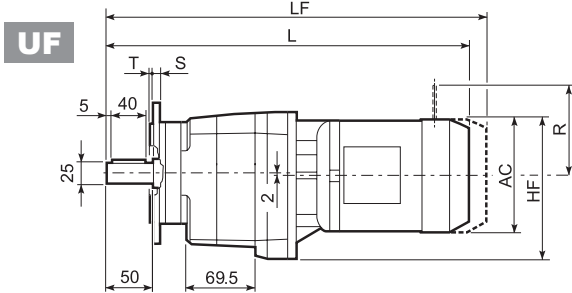
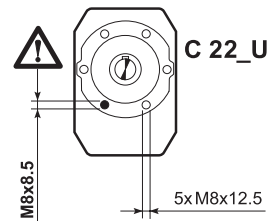
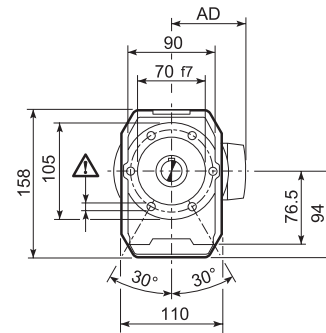
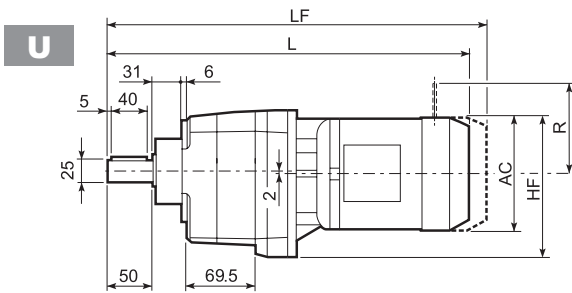
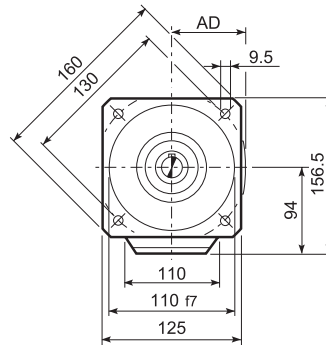
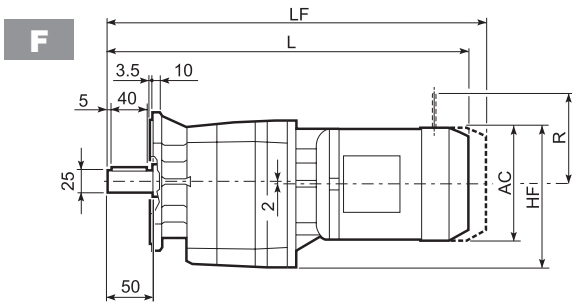
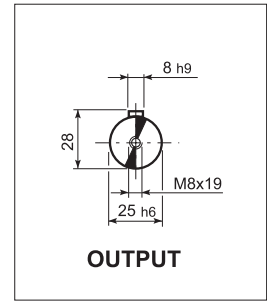
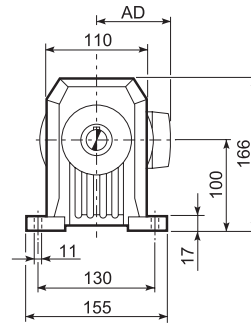
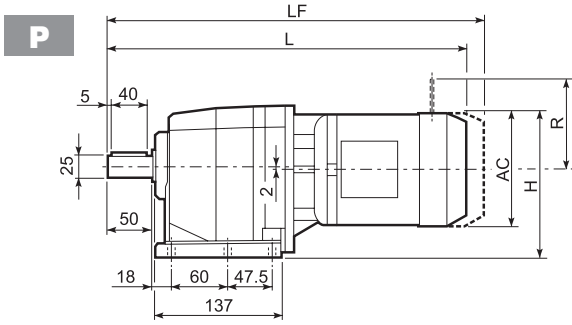
## C 12 2 U

	D1	D2	D3	G	T	S
<b>FA</b>	80	100	120	7	3	8
<b>FB</b>	95	115	140	9	3	10
<b>FC</b>	110	130	160	9	3	10

			A	B	E	F	F1	F2	F3	F4	V	
<b>C 12 2</b>		<b>HS</b>	251.5	171.5	40	16	18	5	2.5	35	M6x16	7.8



## C 22...M

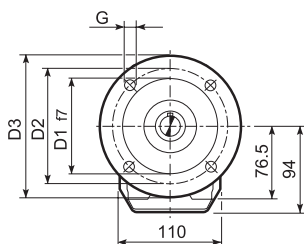
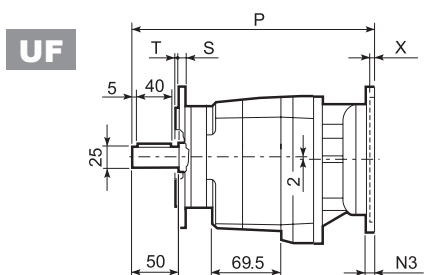
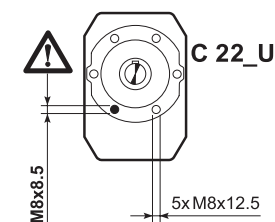
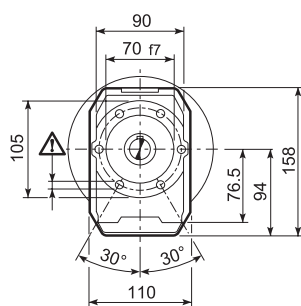
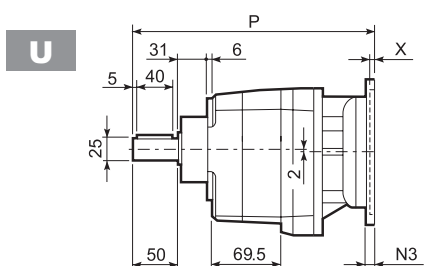
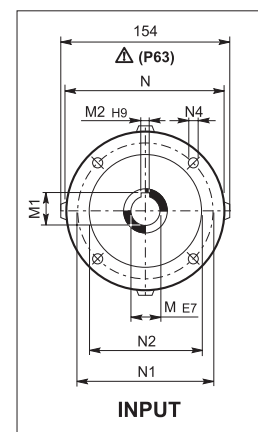
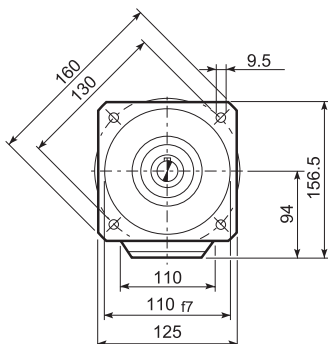
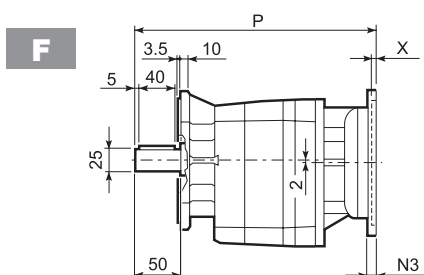
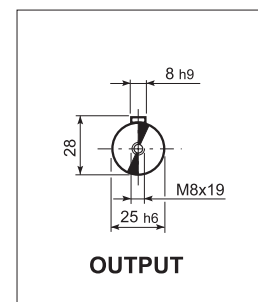
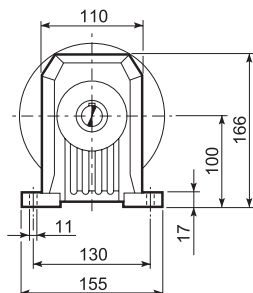
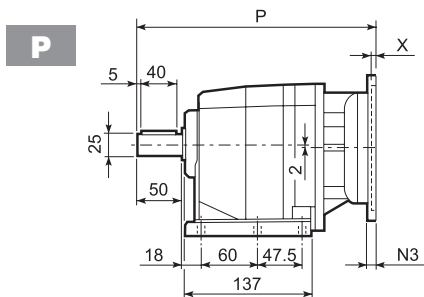


C 22_U						
	D1	D2	D3	G	T	S
FA	95	115	140	9	3	10
FB	110	130	160	9	3	10
FC	130	165	200	11	3.5	11

			AC	H	HF	L	AD	Kg	M...FD	Kg	M...FD		M...FA	
									LF		R	AD	R	AD
C 22 2	S05	M05	121	160.5	154.5	399	95	8	465	10	96	119	116	95
C 22 2	S1	M1	138	169	163	428	108	11	489	14	103	135	124	108
C 22 2	S2	M2S	156	178	170	456	119	16	527	19	129	146	134	119
C 22 2	S3	M3S	195	197.5	191.5	500	142	21	596	26	160	158	160	142
C 22 2	S3	M3L	195	197.5	191.5	532	142	27	623	32	160	158	160	142
C 22 3	S05	M05	121	160.5	154.5	454.5	95	11	520.5	12	96	122	116	95
C 22 3	S1	M1	138	169	163	483.5	108	13	544.5	15	103	135	124	108
C 22 3	S2	M2S	156	178	170	511.5	119	18	582.5	21	129	146	134	119
C 22 3	S3	M3S	195	197.5	191.5	555.5	142	23	601.5	28	160	158	160	142
C 22 3	S3	M3L	195	197.5	191.5	587.5	142	29	678.5	34	160	158	160	142



## C 22...P(IEC)

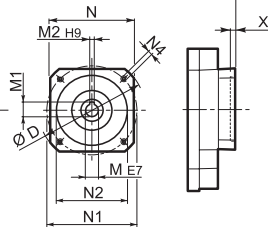
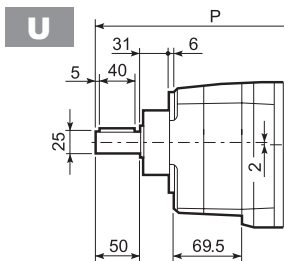
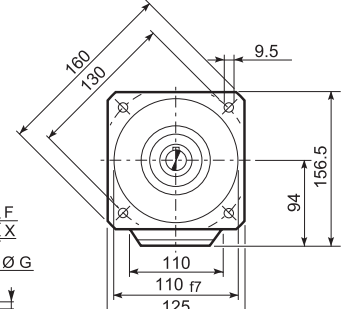
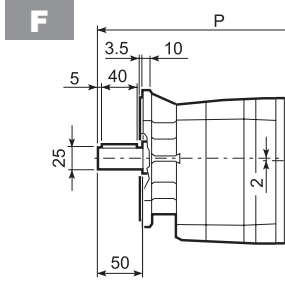
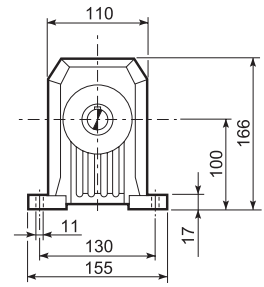
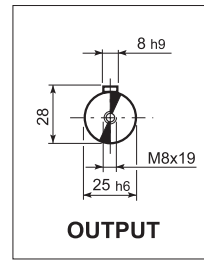
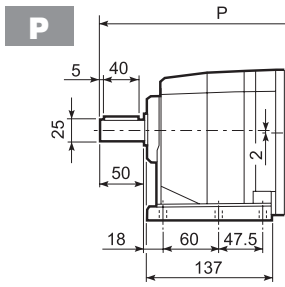


C 22_U						
	D1	D2	D3	G	T	S
FA	95	115	140	9	3	10
FB	110	130	160	9	3	10
FC	130	165	200	11	3.5	11

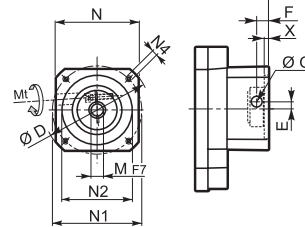
		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 22 2	P63	11	12.8	4	140	115	95	—	M8x19	4	273	7
C 22 2	P71	14	16.3	5	160	130	110	—	M8x16	4.5	273	7
C 22 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	292.5	8
C 22 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	292.5	8
C 22 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	302.5	12
C 22 2	P112	28	31.3	8	250	215	180	—	M12x16	4.5	302.5	12
C 22 3	P63	11	12.8	4	140	115	95	—	M8x19	4	328.5	8
C 22 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	328.5	8
C 22 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	348	9
C 22 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	348	9
C 22 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	358	13
C 22 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	358	13



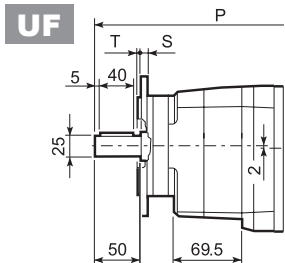
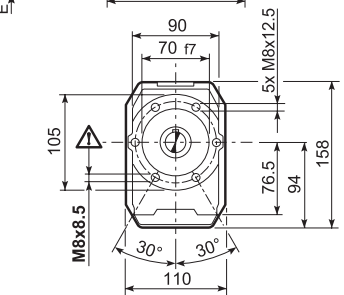
# C 22...SK / SC



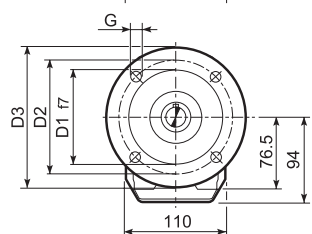
SK...



SC...



C 22_U						
	D1	D2	D3	G	T	S
FA	95	115	140	9	3	10
FB	110	130	160	9	3	10
FC	130	165	200	11	3.5	11



Motor	Gear	D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
C 22 2/3	SK60A*	102	11	12.8	4	82	75	60	M5x10	3.5	224.5	300	6/9
C 22 2/3	SK60B*	102	14	16.3	5	82	75	60	M5x10	4	251.5	307	7/8
C 22 2/3	SK80A*	115	14	16.3	5	90	100	80	M6x12	4	251.5	307	7/8
C 22 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	292.5	348	8/9
C 22 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	292.5	348	8/9
C 22 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	292.5	348	8/9
C 22 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	292.5	348	8/9
C 22 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	292.5	348	8/9
C 22 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	292.5	348	8/9

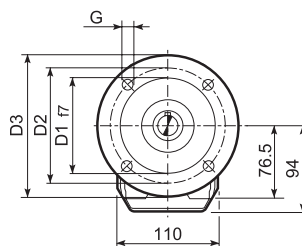
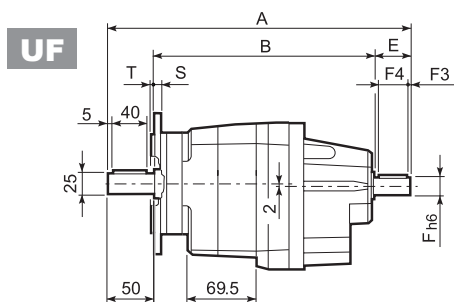
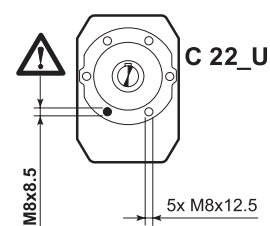
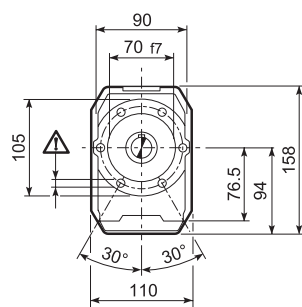
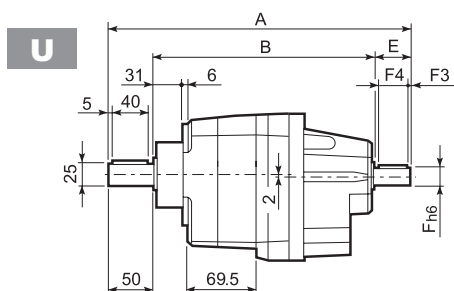
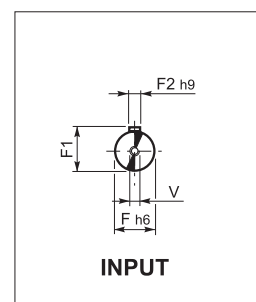
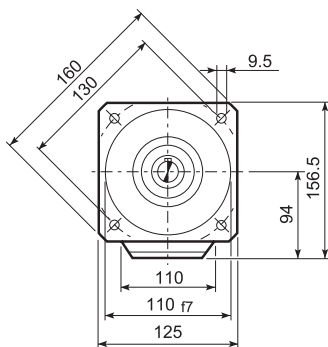
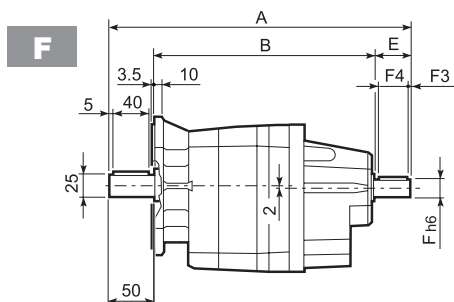
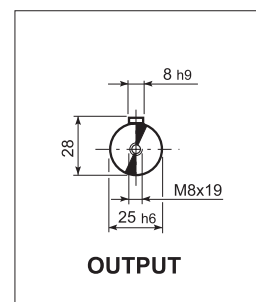
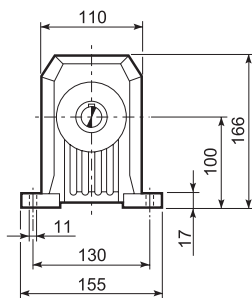
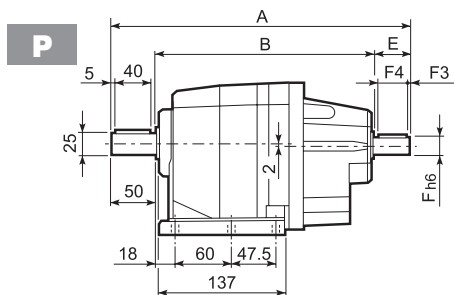
Motor	Gear	Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2x	3x	
C 22 2/3	SC60A*	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	271.5	327	7/8
C 22 2/3	SC60B*	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	271.5	327	8/9
C 22 2/3	SC80A*	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	271.5	327	8/9
C 22 2/3	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	316	371.5	9/10
C 22 2/3	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	316	371.5	9/10
C 22 2/3	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	316	371.5	9/10
C 22 2/3	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	316	371.5	9/10
C 22 2/3	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	316	371.5	10/11
C 22 2/3	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	316	371.5	10/11

\* Contact our technical service department advising application data





## C 22...HS



C 22_U						
	D1	D2	D3	G	T	S
FA	95	115	140	9	3	10
FB	110	130	160	9	3	10
FC	130	165	200	11	3.5	11

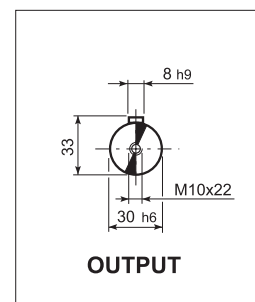
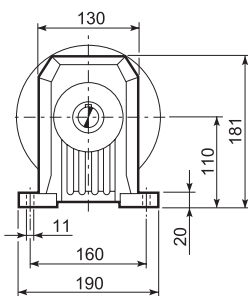
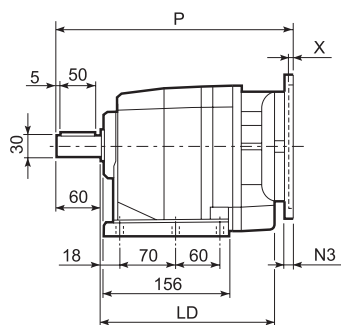
		A	B	E	F	F1	F2	F3	F4	V	Kg
C 22 2	HS	323	233	40	19	21.5	6	2.5	35	M6x16	7.2
C 22 3		335.5	245.5	40	16	18	6	2.5	36	M6x16	7.5



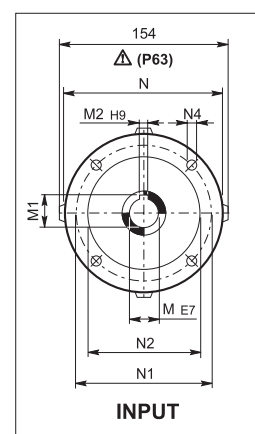
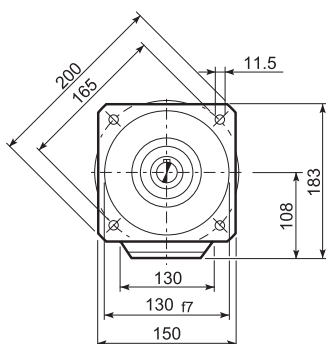
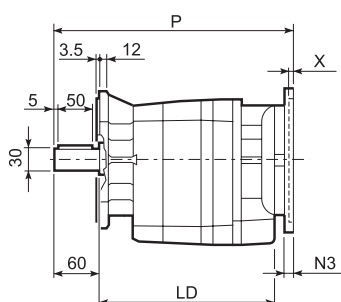


## C 32...P(IEC)

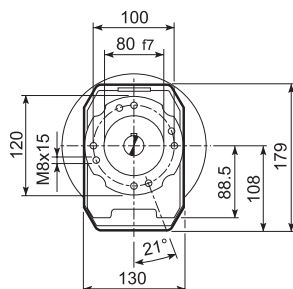
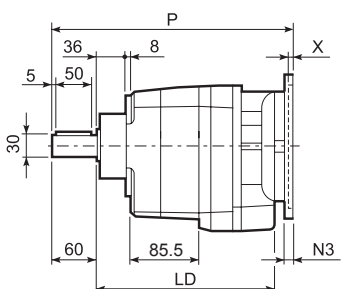
**P**



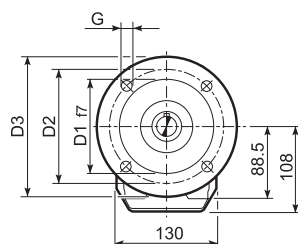
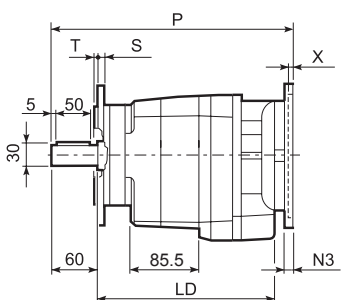
**F**



**U**



**UF**

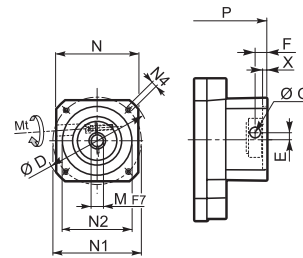
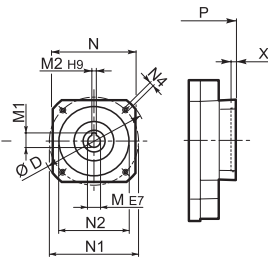
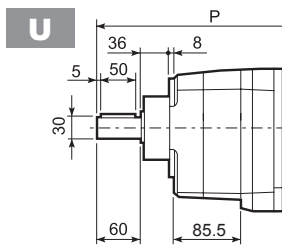
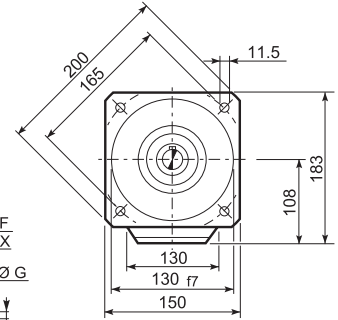
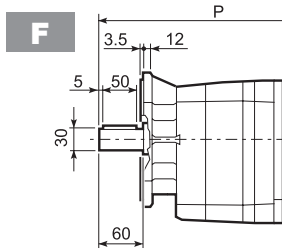
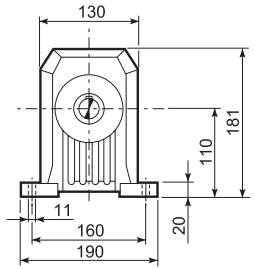
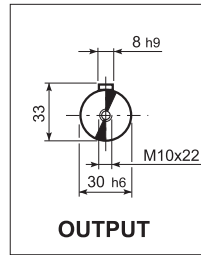
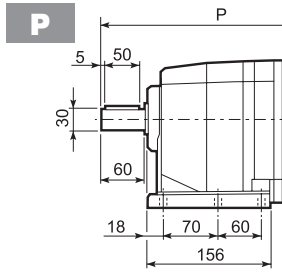


C 32_U						
	D1	D2	D3	G	T	S
FA	110	130	160	9	3	10
FB	130	165	200	11	3.5	11
FC	180	215	250	14	4	13

		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	
C 32 2	P63	217.5	11	12.8	4	140	115	95	—	M8x19	4	307.5	9
C 32 2	P71	217.5	14	16.3	5	160	130	110	—	M8x16	4.5	307.5	9
C 32 2	P80	227.5	19	21.8	6	200	165	130	—	M10x14.5	4	327	10
C 32 2	P90	227.5	24	27.3	8	200	165	130	—	M10x14.5	4	327	10
C 32 2	P100	227.5	28	31.3	8	250	215	180	—	M12x16	4.5	337	14
C 32 2	P112	227.5	28	31.3	8	250	215	180	—	M12x16	4.5	337	14
C 32 2	P132	—	38	41.3	10	300	265	230	16	14	5	373	17
C 32 3	P63	—	11	12.8	4	140	115	95	—	M8x19	4	365	10
C 32 3	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	365	10
C 32 3	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	384.5	11
C 32 3	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	384.5	11
C 32 3	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	394.5	15
C 32 3	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	394.5	15

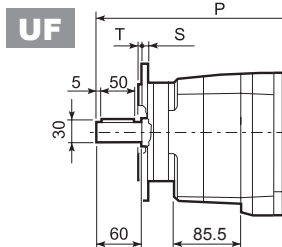
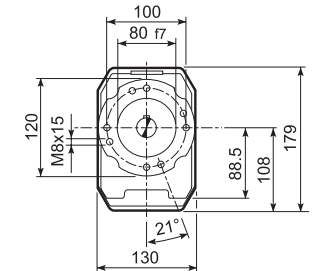


# C 32...SK / SC

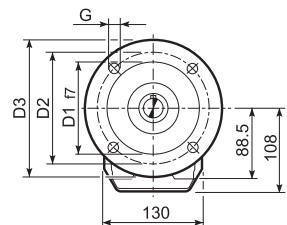


SK...

SC...



C 32_U						
	D1	D2	D3	G	T	S
FA	110	130	160	9	3	10
FB	130	165	200	11	3.5	11
FC	180	215	250	14	4	13

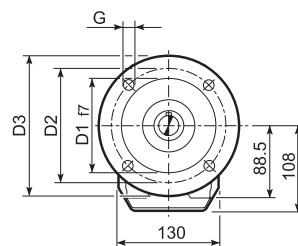
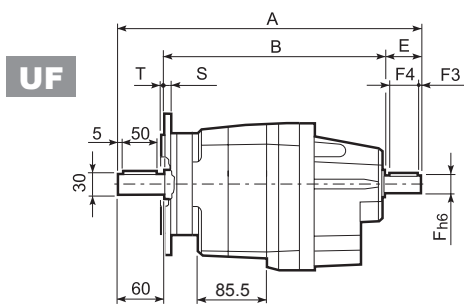
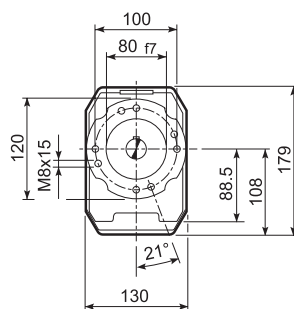
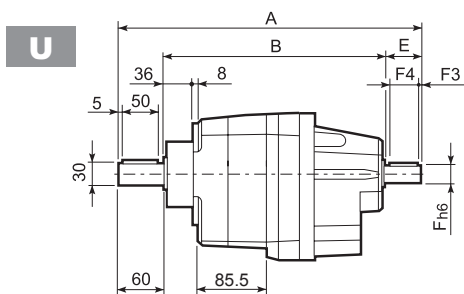
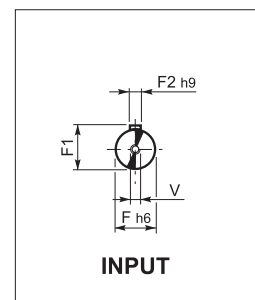
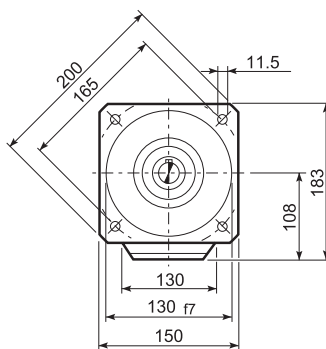
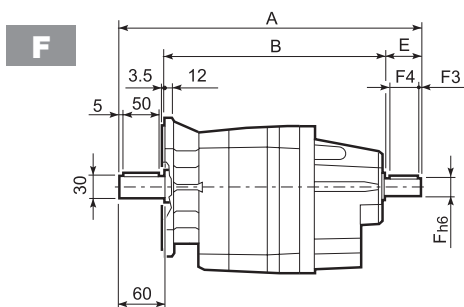
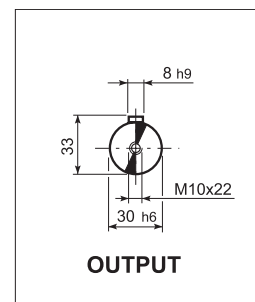
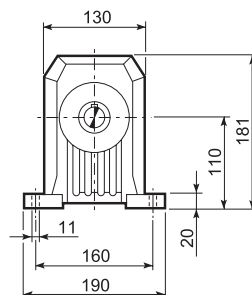
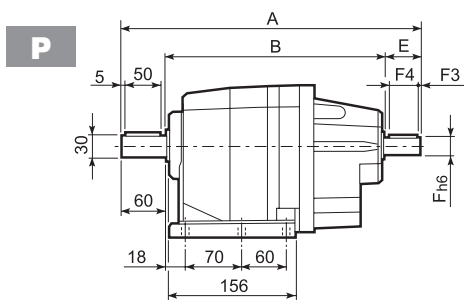


		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
C 32 2/3	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	279	336.5	8/9
C 32 2/3	SK60B	102	14	16.3	5	82	75	60	M5x10	4	286	343.5	9/10
C 32 2/3	SK80A	115	14	16.3	5	90	100	80	M6x12	4	286	343.5	9/10
C 32 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	327	384.5	10/11
C 32 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	327	384.5	10/11
C 32 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	327	384.5	10/11
C 32 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	327	384.5	10/11
C 32 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	327	384.5	10/11
C 32 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	327	384.5	10/11
C 32 2	SK130A	188	24	27.3	8	142	165	130	M10x20	5	327	—	11

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg	
													2x	3x		
C 32 2/3	SC60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	306	363.5	9/10
C 32 2/3	SC60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	306	363.5	10/11
C 32 2/3	SC80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	306	363.5	10/11
C 32 2/3	SC80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	350.5	408	11/12
C 32 2/3	SC95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	350.5	408	11/12
C 32 2/3	SC95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	350.5	408	11/12
C 32 2/3	SC95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	350.5	408	11/12
C 32 2/3	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	350.5	408	12/13
C 32 2/3	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	350.5	408	12/13
C 32 2	SC 130A	M6	15	188	19	16	17.75	24	142	165	130	M10x20	5	350.5	—	13



# C 32...HS

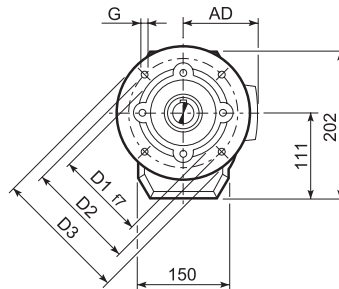
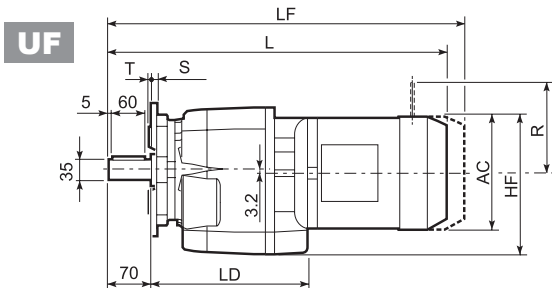
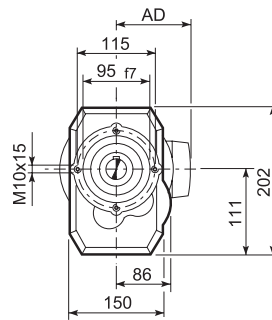
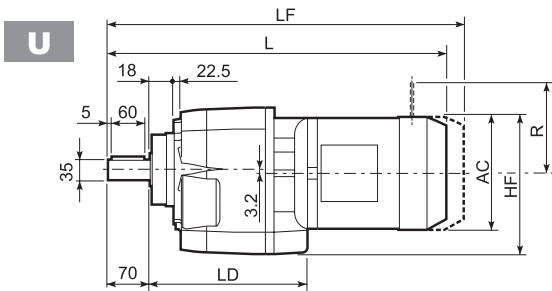
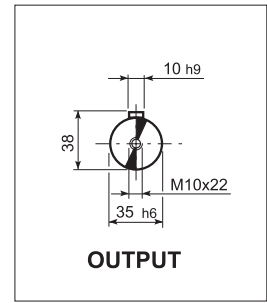
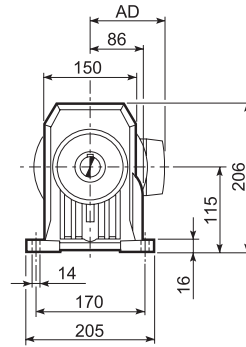
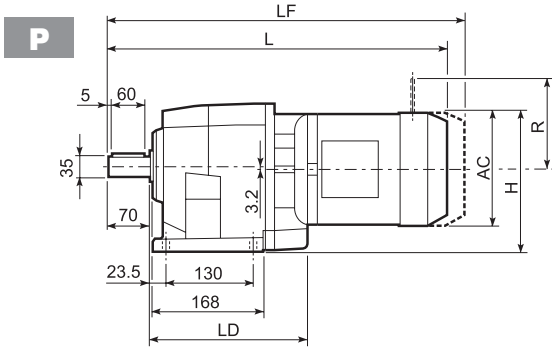


C 32_U						
	D1	D2	D3	G	T	S
FA	110	130	160	9	3	10
FB	130	165	200	11	3.5	11
FC	180	215	250	14	4	13

		A	B	E	F	F1	F2	F3	F4	V	kg
C 32 2	HS	357.5	257.5	40	19	21.5	6	2.5	35	M6x16	11.1
C 32 3		372	272	40	16	18	5	2.5	35	M6x16	10.6



# C 36...M



C 36_U						
	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	14

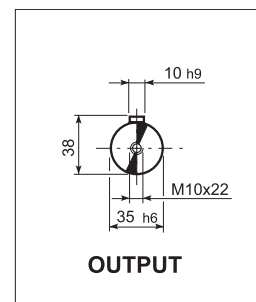
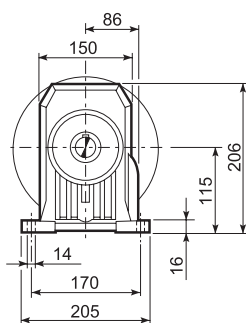
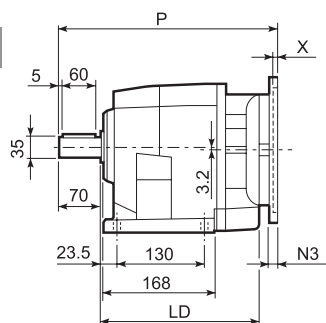
			AC	H	HF	L	LD	AD	Kg	M...FD M...FA		M...FD		M...FA	
										LF	Kg	R	AD	R	AD
C 36 2/3	S1	M1	138	184	177	481	214	108	20	542	21	103	135	124	108
C 36 2/3	S2	M2S	156	193	186	509	226	119	23	580	27	129	146	134	119
C 36 2/3	S3	M3S	195	212.5	205.5	553	236	142	28	649	33	160	158	160	142
C 36 2/3	S3	M3L	195	212.5	205.5	585	236	142	37	676	42	160	158	160	142
C 36 2/3	S4	M4	258	244	240	693.5	—	193	71	802.5	87	226	210	217	193
C 36 2/3	S4	M4LC	258	244	240	728.5	—	193	79	827.5	95	226	210	217	193
C 36 4	S05	M05	121	175.5	168.5	509.5	—	95	19	575.5	20	96	122	116	95
C 36 4	S1	M1	138	184	177	538.5	—	108	21	599.5	22	103	135	124	108
C 36 4	S2	M2S	156	193	186	566.5	—	119	24	637.5	28	129	146	134	119
C 36 4	S3	M3S	195	212.5	205.5	610.5	—	142	29	706.5	34	160	158	160	142
C 36 4	S3	M3L	195	212.5	205.5	642.5	—	142	38	733.5	43	160	158	160	142



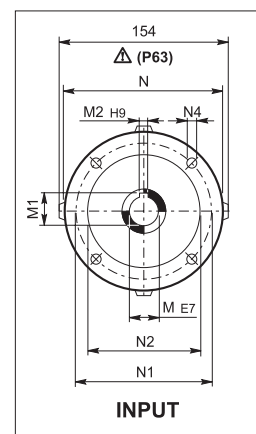
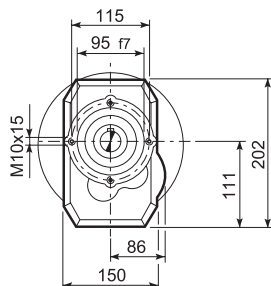
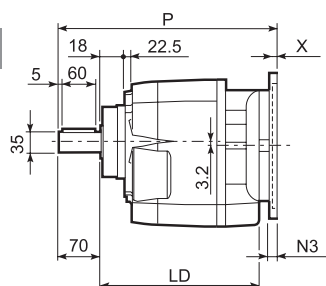


## C 36...P(IEC)

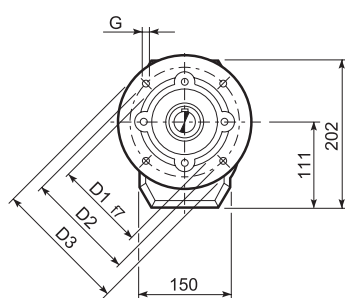
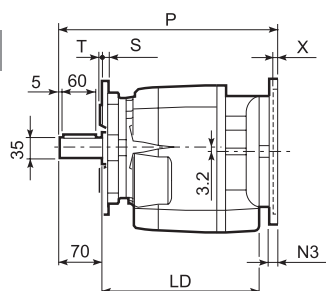
**P**



**U**



**UF**



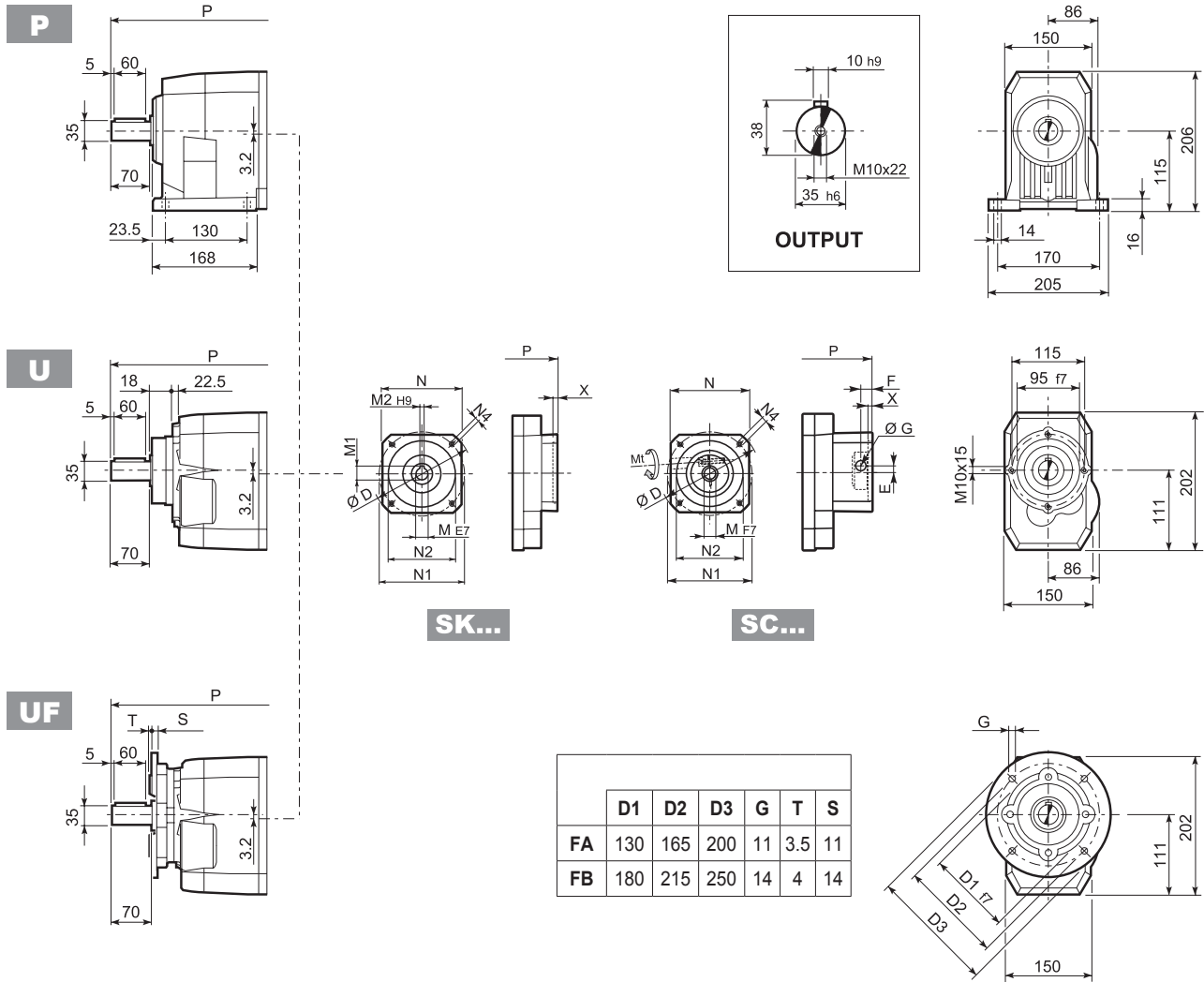
### C 36 U

	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	14

		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Ⓚ Kg
C 36 2/3	P63	226	11	12.8	4	140	115	95	—	M8x19	4	326	17
C 36 2/3	P71	226	14	16.3	5	160	130	110	—	M8x16	4.5	326	17
C 36 2/3	P80	236	19	21.8	6	200	165	130	—	M10x14.5	4	345.5	18
C 36 2/3	P90	236	24	27.3	8	200	165	130	—	M10x14.5	4	345.5	18
C 36 2/3	P100	236	28	31.3	8	250	215	180	—	M12x16	4.5	355.5	22
C 36 2/3	P112	236	28	31.3	8	250	215	180	—	M12x16	4.5	355.5	22
C 36 2/3	P132	—	38	41.3	10	300	265	230	16	14	5	392.5	25
C 36 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	383.5	20
C 36 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	383.5	20
C 36 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	403	21
C 36 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	403	21
C 36 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	413	25
C 36 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	413	25



## C 36...SK / SC



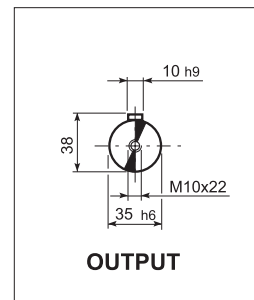
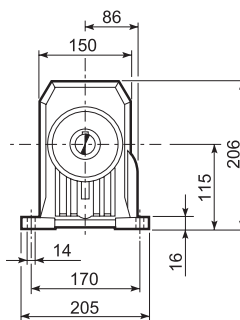
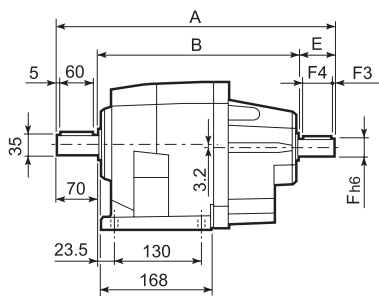
		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
C 36 2/3/4	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	297.5	355	16/16/19
C 36 2/3/4	SK60B	102	14	16.3	5	82	75	60	M5x10	4	304.5	362	17/17/20
C 36 2/3/4	SK80A	115	14	16.3	5	90	100	80	M6x12	4	304.5	362	18/18/21
C 36 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	304.5	403	18/18/21
C 36 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	345.5	403	18/18/21
C 36 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	345.5	403	18/18/21
C 36 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	345.5	403	18/18/21
C 36 2/3/4	SK110A	150	19	21.8	6	120	130	110	M8x12	5	345.5	403	18/18/21
C 36 2/3/4	SK110B	150	24	27.3	8	120	130	110	M8x12	5	345.5	403	18/18/21
C 36 2/3	SK130A	188	24	27.3	8	142	165	130	M10x20	5	345.5	—	19/19

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	4x	
C 36 2/3/4	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	324.5	382	17/17/20
C 36 2/3/4	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	324.5	382	18/18/21
C 36 2/3/4	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	324.5	426.5	18/18/21
C 36 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	369	426.5	19/19/22
C 36 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	369	426.5	19/19/22
C 36 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	369	426.5	19/19/22
C 36 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	369	426.5	19/19/22
C 36 2/3/4	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	369	426.5	21/21/24
C 36 2/3/4	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	369	426.5	21/21/24
C 36 2/3	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	369	—	22/22

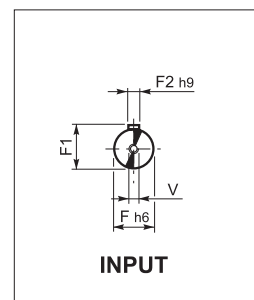
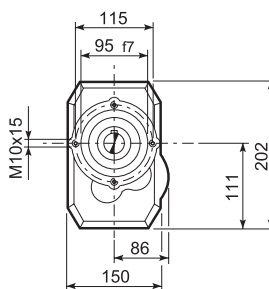
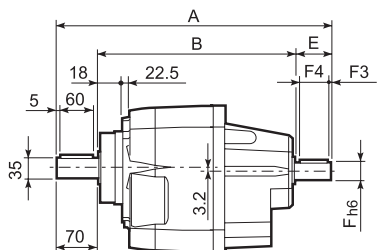


## C 36...HS

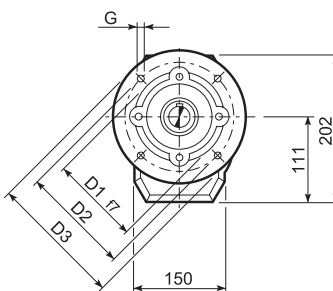
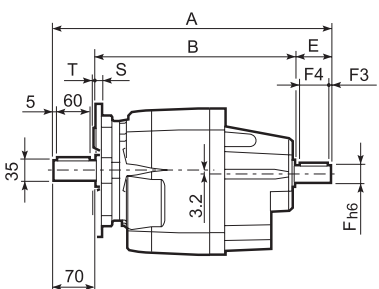
**P**



**U**



**UF**

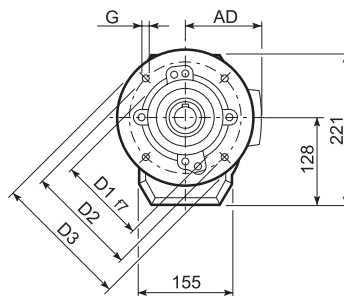
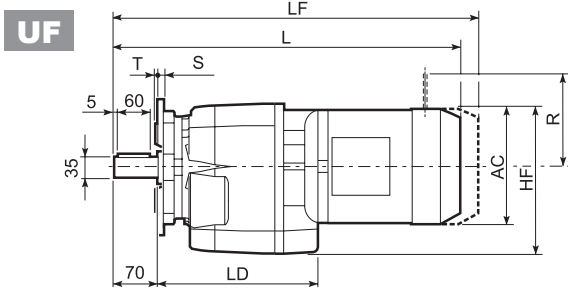
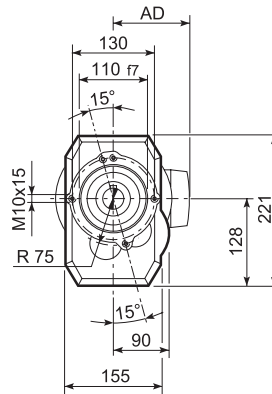
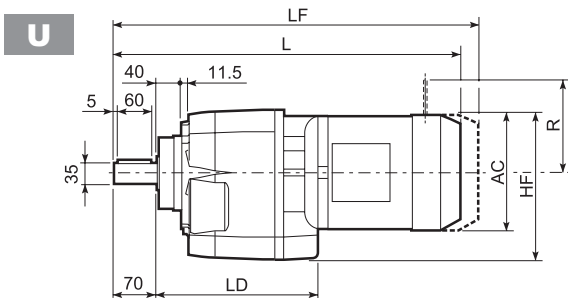
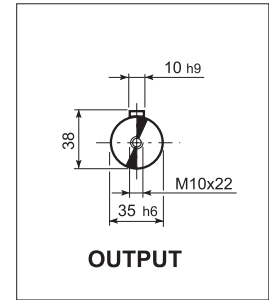
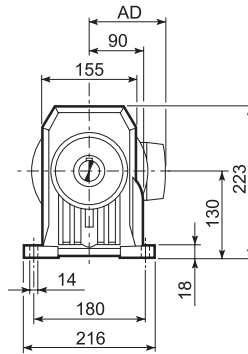
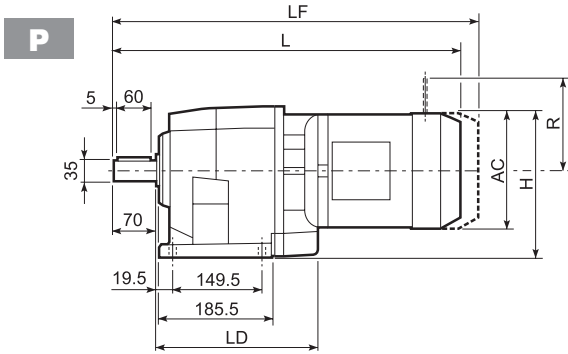


C 36 U						
	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	14

		A	B	E	F	F1	F2	F3	F4	V	kg
C 36 2	HS	415.5	295.5	50	24	27	8	2.5	45	M8x19	25.5
C 36 3		415.5	295.5	50	24	27	8	2.5	45	M8x19	25.5
C 36 4		390.5	280.5	40	16	18	5	2.5	36	M6x16	26.5



# C 41...M



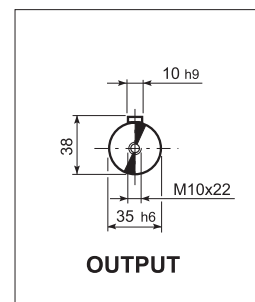
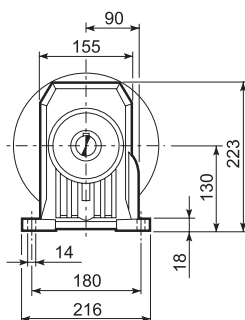
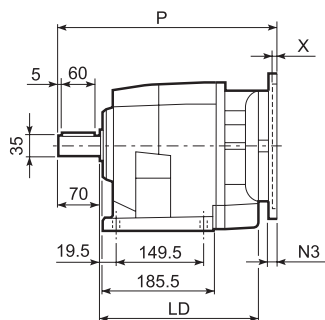
C 41_U						
	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	13

Motor Type	S	M	AC	H	HF	L	LD	AD	Kg	LF	Kg	M...FD		M...FA	
												R	AD	R	AD
C 41 2/3	S1	M1	138	199	197	491.5	220	108	25	552.5	28	103	135	124	108
C 41 2/3	S2	M2S	156	208	206	519.5	235.5	119	31	590.5	34	129	146	134	119
C 41 2/3	S3	M3S	195	227.5	225.5	563.5	251.5	142	36	659.5	41	160	158	160	142
C 41 2/3	S3	M3L	195	227.5	225.5	595.5	251.5	142	45	686.5	50	160	158	160	142
C 41 2/3	S4	M4	258	259	257	703.5	—	193	71	812.5	83	226	210	217	193
C 41 2/3	S4	M4LC	258	259	257	739	—	193	78	838	91	226	210	217	193
C 41 4	S05	M05	231	245.5	243.5	524	—	95	27	590	28	96	122	116	95
C 41 4	S1	M1	138	199	197	553	—	108	28	614	31	103	135	124	108
C 41 4	S2	M2S	156	208	206	581	—	119	34	652	37	129	146	134	119
C 41 4	S3	M3S	195	227.5	225.5	625	—	142	39	721	44	160	158	160	142
C 41 4	S3	M3L	195	227.5	225.5	657	—	142	48	748	53	160	158	160	142

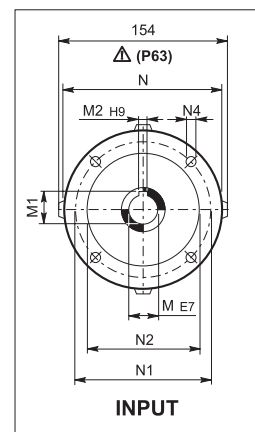
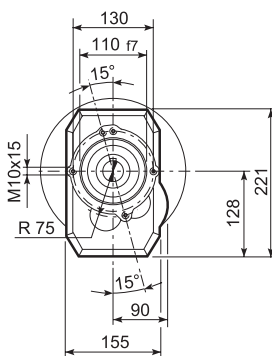
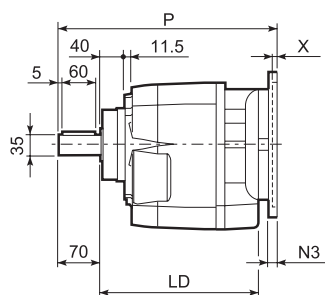


## C 41...P(IEC)

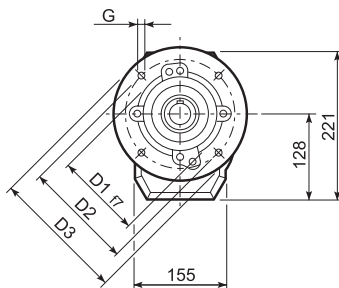
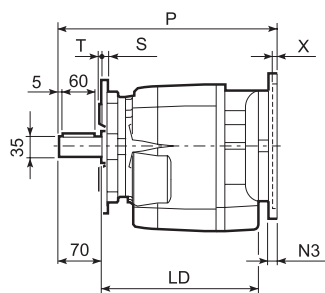
**P**



**U**



**UF**



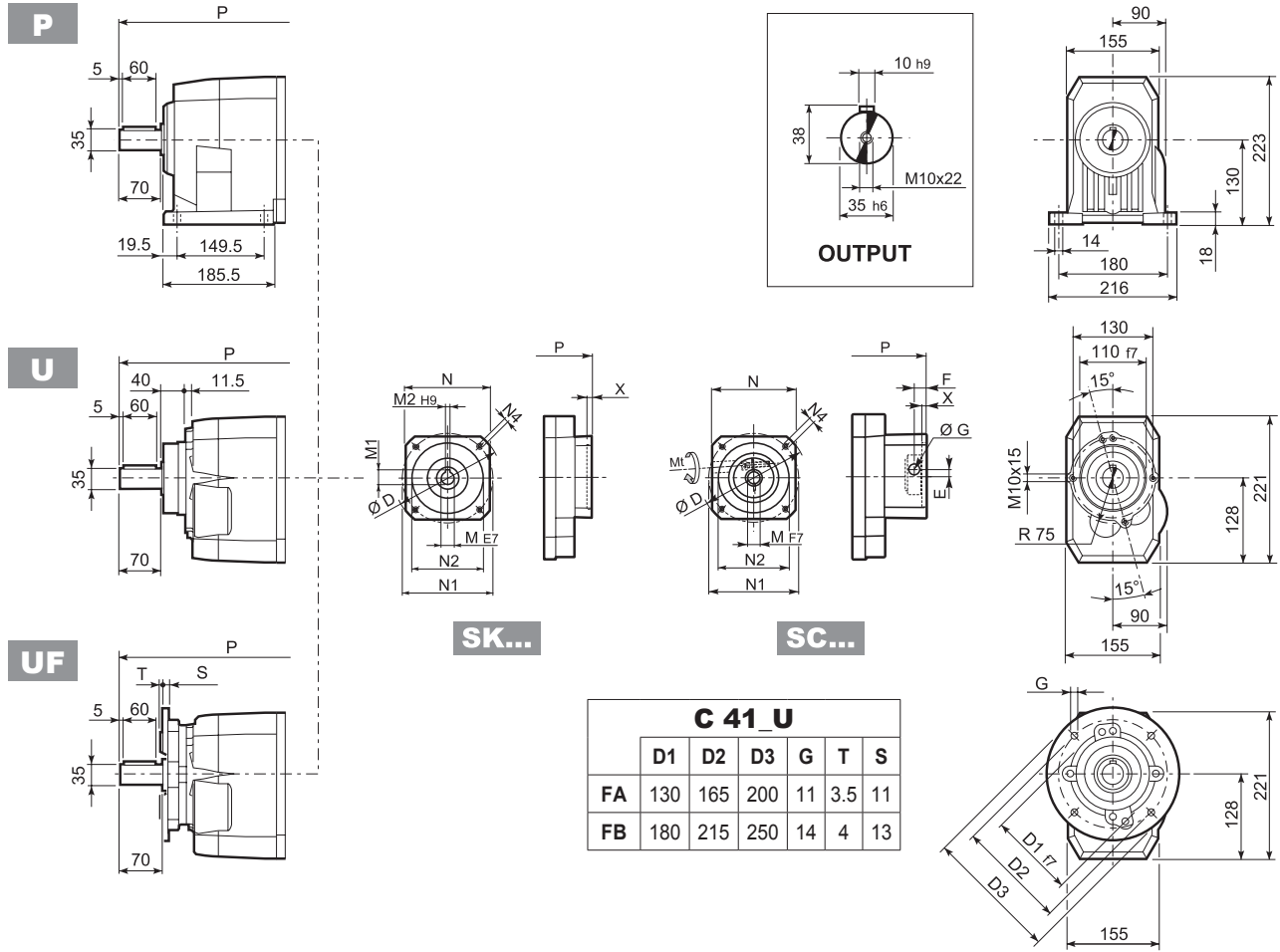
### C 41\_U

	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	13

		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 41 2/3	P63	235.5	11	12.8	4	140	115	95	—	M8x19	4	336.5	27
C 41 2/3	P71	235.5	14	16.3	5	160	130	110	—	M8x16	4.5	336.5	28
C 41 2/3	P80	251.5	19	21.8	6	200	165	130	—	M10x14.5	4	356	29
C 41 2/3	P90	251.5	24	27.3	8	200	165	130	—	M10x14.5	4	356	29
C 41 2/3	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	366	33
C 41 2/3	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	366	33
C 41 2/3	P132	—	38	41.3	10	300	265	230	16	14	5	402.5	35
C 41 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	395	30
C 41 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	395	31
C 41 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	414.5	32
C 41 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	414.5	32
C 41 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	424.5	36
C 41 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	424.5	36



## C 41...SK / SC



C 41_U						
	D1	D2	D3	G	T	S
FA	130	165	200	11	3.5	11
FB	180	215	250	14	4	13

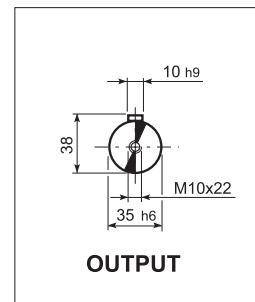
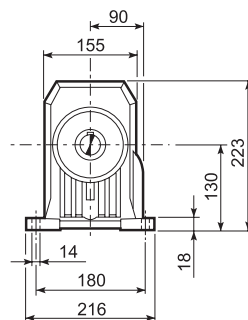
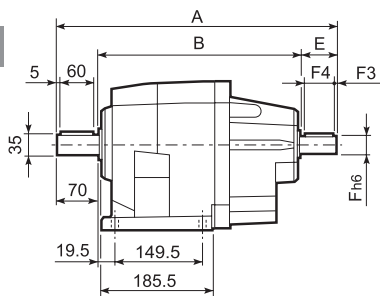
Type	Model	D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
C41 4	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	—	370	31
C41 4	SK60B	102	14	16.3	5	82	75	60	M5x10	4	—	377	32
C41 4	SK80A	115	14	16.3	5	90	100	80	M6x12	4	—	377	32
C41 2/3	SK80B	120	14	16.3	5	96	100	80	M6x12	4	356.5	—	29/29
C41 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	356.5	418	29/29/32
C41 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	356.5	418	29/29/32
C41 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	356.5	418	29/29/33
C41 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	356.5	418	29/29/36
C41 2/3/4	SK110A	150	19	21.8	6	120	130	110	M8x12	5	356.5	418	29/29/36
C41 2/3/4	SK110B	150	24	27.3	8	120	130	110	M8x12	5	356.5	418	29/29/36
C41 2/3	SK130A	188	24	27.3	8	142	165	130	M10x20	5	356.5	—	31/31
C41 2/3	SK130B	189	32	35.3	10	160	165	130	M10x20	5	403	—	33/33
C41 2/3	SK180A	240	32	35.3	10	192	215	180	M12x19	5	403	—	33/33
C41 2/3	SK180B	240	38	41.3	10	192	215	180	M12x19	5	403	—	38/38

Type	Model	Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	4x	
C41 4	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	—	397	32
C41 4	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	—	397	33
C41 4	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	—	397	33
C41 2/3	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	380	—	30/30
C41 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	380	441.5	30/30/33
C41 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	380	441.5	30/30/34
C41 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	380	441.5	30/30/34
C41 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	380	441.5	30/30/35
C41 2/3/4	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	380	441.5	31/31/39
C41 2/3/4	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	380	441.5	31/31/39
C41 2/3	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	380	—	32/32
C41 2/3	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	426	—	36/36
C41 2/3	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	430	—	36/36
C41 2/3	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	430	—	35/35

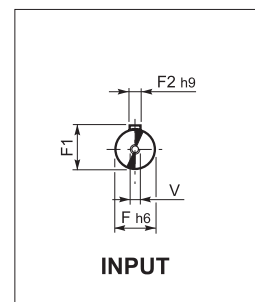
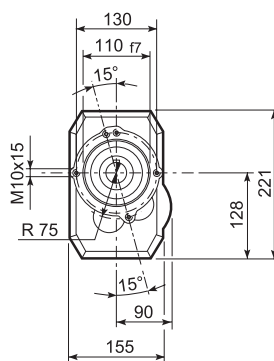
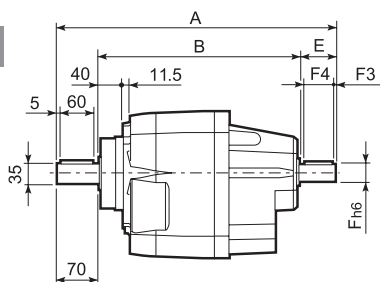


## C 41...HS

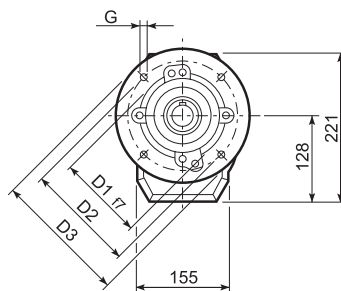
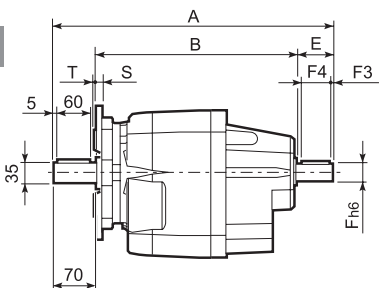
**P**



**U**



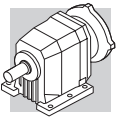
**UF**



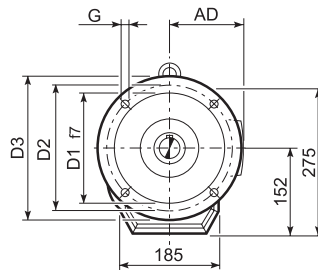
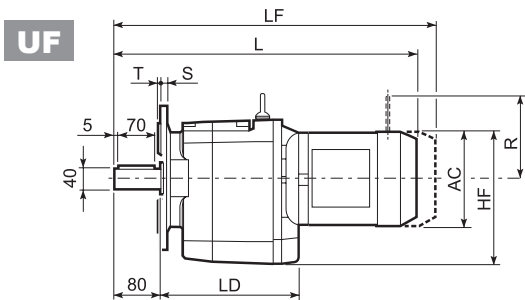
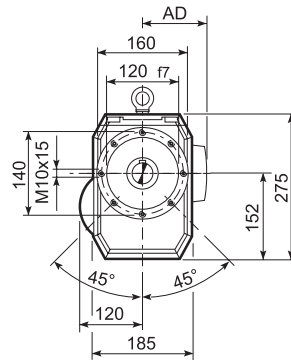
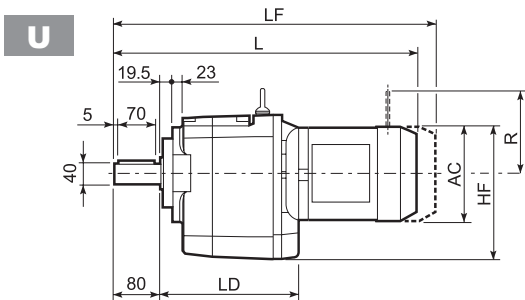
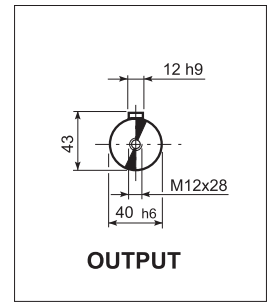
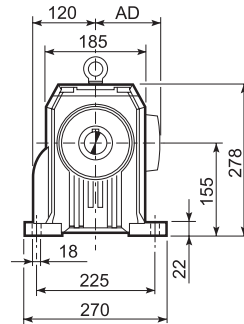
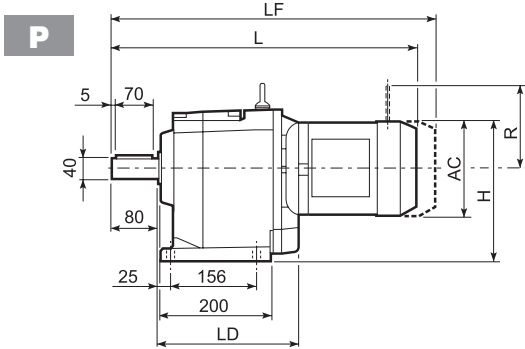
		<b>C 41 U</b>					
		D1	D2	D3	G	T	S
FA		130	165	200	11	3.5	11
FB		180	215	250	14	4	13

		A	B	E	F	F1	F2	F3	F4	V	Kg
<b>C 41 2</b>	<b>HS</b>	425.5	305.5	50	24	27	8	2.5	45	M8x19	30
<b>C 41 3</b>		425.5	305.5	50	24	27	8	2.5	45	M8x19	30
<b>C 41 4</b>		448	338	40	19	21.5	6	2.5	35	M6x16	33





# C 51...M



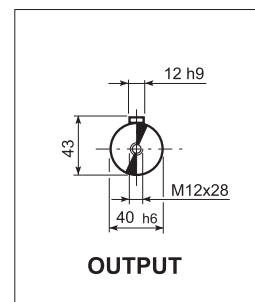
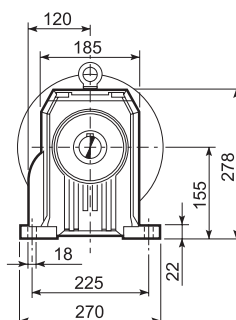
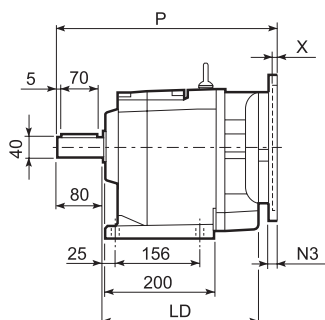
C 51_U						
	D1	D2	D3	G	T	S
FA	180	215	250	14	4	13
FB	230	265	300	14	4	16

			AC	H	HF	L	LD	AD	Kg	M...FD M...FA		M...FD		M...FA	
										LF	Kg	R	AD	R	AD
C 51 2/3	S1	M1	138	224	221	517.5	—	108	49	578.5	52	103	135	124	108
C 51 2/3	S2	M2S	156	233	230	545.5	252.5	119	53	616.5	57	129	146	134	119
C 51 2/3	S3	M3S	195	252.5	249.5	589.5	267.5	142	58	685.5	65	160	158	160	142
C 51 2/3	S3	M3L	195	252.5	249.5	621.5	267.5	142	65	712.5	72	160	158	160	142
C 51 2/3	S4	M4	258	284	281	729.5	—	193	99	838.5	117	226	210	217	193
C 51 2/3	S4	M4LC	258	284	281	764.5	—	193	107	863.5	125	226	210	217	193
C 51 2/3	S5	M5S	310	310	307	816	—	245	127	956	157	266	245	247	245
C 51 2/3	S5	M5L	310	310	307	860	—	245	143	1000	173	266	245	247	245
C 51 4	S1	M1	138	224	221	589	—	108	52	650	55	103	135	124	108
C 51 4	S2	M2S	156	233	230	617	—	119	56	688	60	129	146	134	119
C 51 4	S3	M3S	195	252.5	249.5	661	—	142	61	757	68	160	158	160	142
C 51 4	S3	M3L	195	252.5	249.5	693	—	142	68	784	75	160	158	160	142

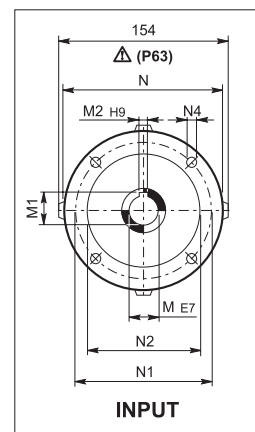
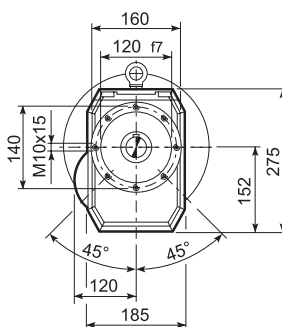
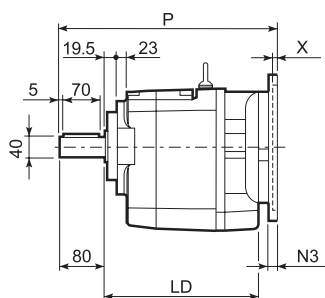


## C 51...P(IEC)

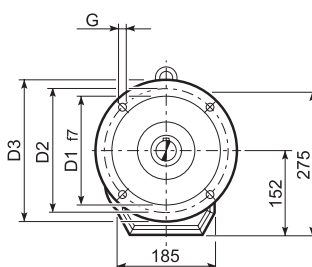
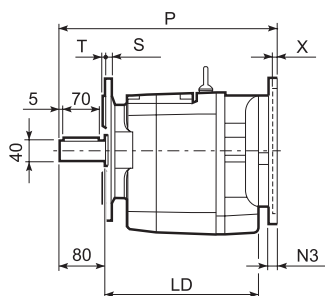
**P**



**U**



**UF**



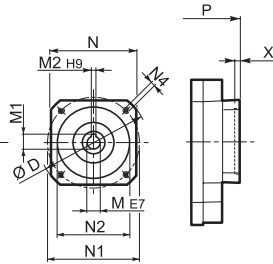
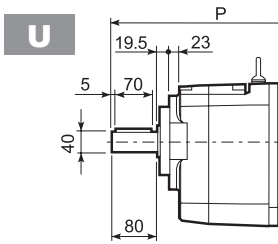
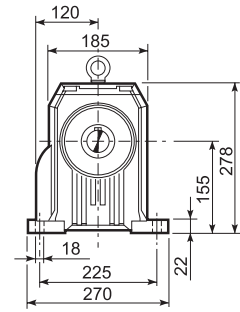
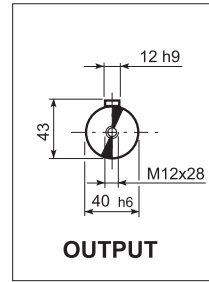
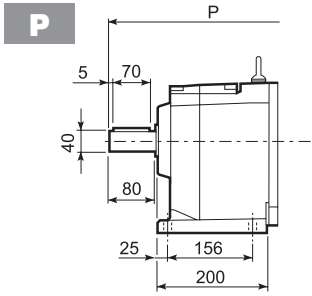
### C 51\_U

	D1	D2	D3	G	T	S
FA	180	215	250	14	4	13
FB	230	265	300	14	4	16

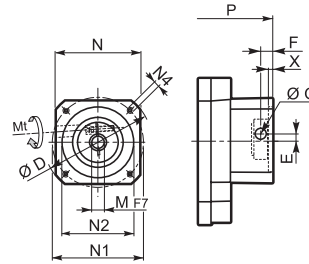
		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 51 2/3	P63	252.5	11	12.8	4	140	115	95	—	M8x19	4	362.5	45
C 51 2/3	P71	252.5	14	16.3	5	160	130	110	—	M8x16	4.5	362.5	45
C 51 2/3	P80	267.5	19	21.8	6	200	165	130	—	M10x14.5	4	382	47
C 51 2/3	P90	267.5	24	27.3	8	200	165	130	—	M10x14.5	4	382	47
C 51 2/3	P100	252.5	28	31.3	8	250	215	180	—	M12x16	4.5	392	51
C 51 2/3	P112	252.5	28	31.3	8	250	215	180	—	M12x16	4.5	392	51
C 51 2/3	P132	252.5	38	41.3	10	300	265	230	16	14	5	428.5	54
C 51 2/3	P160	—	42	45.3	12	350	300	250	23	18	5.5	479	58
C 51 2/3	P180	—	48	51.8	14	350	300	250	23	18	5.5	479	58
C 51 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	434	47
C 51 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	434	47
C 51 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	453.5	49
C 51 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	463.5	49
C 51 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	463.5	53
C 51 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	463.5	53



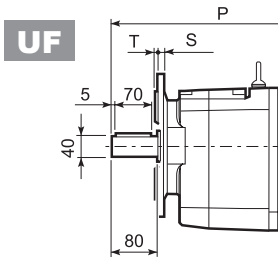
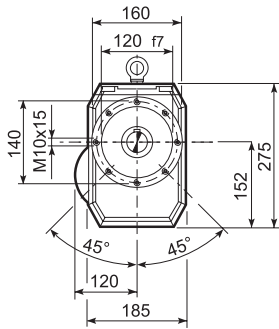
# C 51...SK / SC



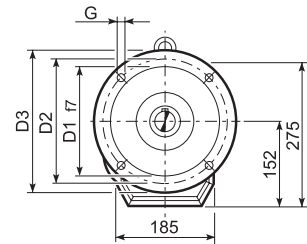
SK...



SC...



C 51_U						
	D1	D2	D3	G	T	S
FA	180	215	250	14	4	13
FB	230	265	300	14	4	16

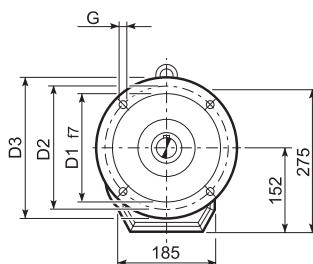
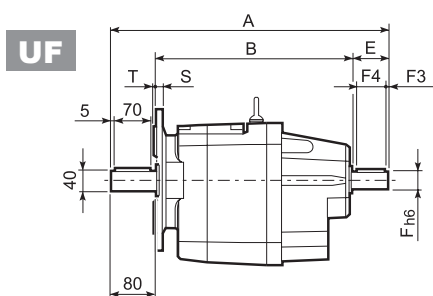
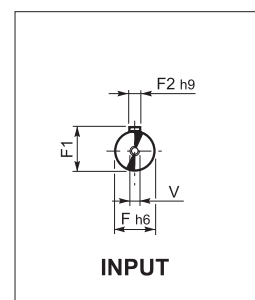
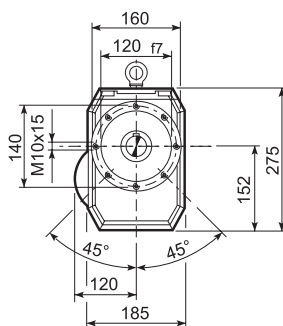
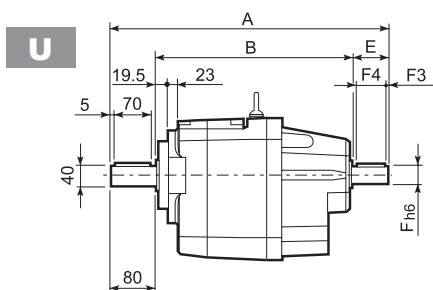
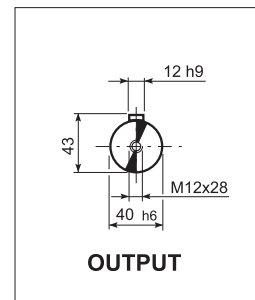
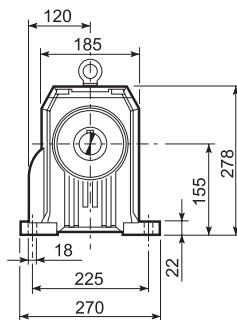
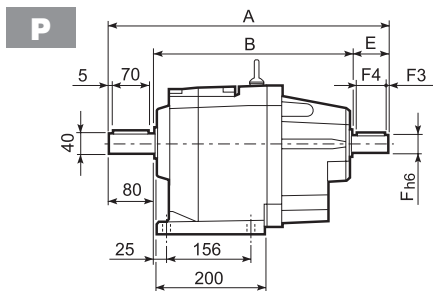


		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
C 51 2/3	SK80B	120	14	16.3	5	96	100	80	M6x12	4	382	—	46/46
C 51 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	382	453.5	47/47/49
C 51 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	382	453.5	46/46/48
C 51 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	382	453.5	47/47/49
C 51 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	382	453.5	47/47/49
C 51 2/3/4	SK110A	150	19	21.8	6	120	130	110	M8x12	5	382	453.5	47/47/51
C 51 2/3/4	SK110B	150	24	27.3	8	120	130	110	M8x12	5	382	453.5	47/47/51
C 51 2/3/4	SK130A	188	24	27.3	8	142	165	130	M10x20	5	382	453.5	49/49/52
C 51 2/3	SK130B	189	32	35.3	10	160	165	130	M10x20	5	428.5	—	55/55
C 51 2/3	SK180A	240	32	35.3	10	192	215	180	M12x19	5	428.5	—	55/55
C 51 2/3	SK180B	240	38	41.3	10	192	215	180	M12x19	5	428.5	—	55/55

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	4x	
C 51 2/3	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	405.5	—	47/47
C 51 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	405.5	477	48/48/50
C 51 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	405.5	477	47/47/49
C 51 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	405.5	477	48/48/50
C 51 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	405.5	477	48/48/50
C 51 2/3/4	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	405.5	477	49/49/52
C 51 2/3/4	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	405.5	477	49/49/52
C 51 2/3/4	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	405.5	477	50/50/53
C 51 2/3	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	451.5	—	54/54
C 51 2/3	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	455.5	—	54/54
C 51 2/3	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	455.5	—	54/54

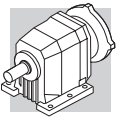


# C 51...HS



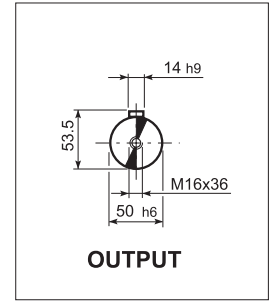
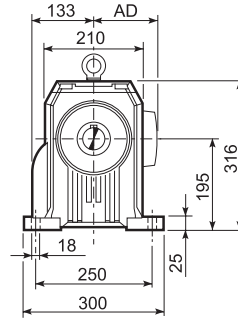
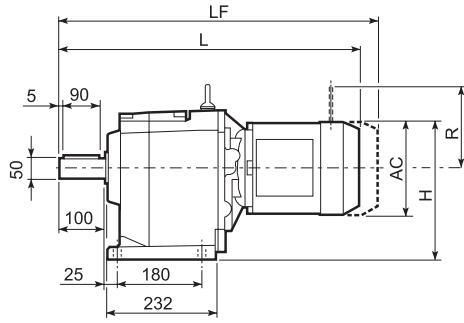
C 51 U						
	D1	D2	D3	G	T	S
FA	180	215	250	14	4	13
FB	230	265	300	14	4	16

		A	B	E	F	F1	F2	F3	F4	V	kg
C 51 2	HS	451.5	322	50	24	24	8	2.5	45	M8x19	45
C 51 3		451.5	322	50	24	24	8	2.5	45	M8x19	45
C 51 4		484	364	40	19	21.5	6	2.5	35	M6x16	48

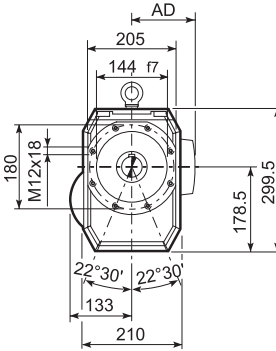
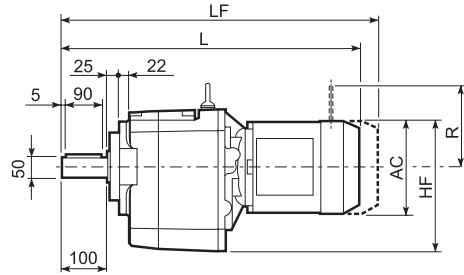


# C 61...M

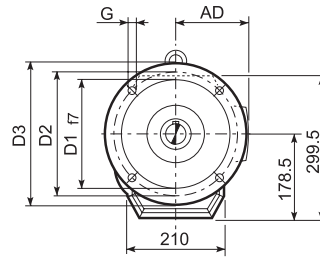
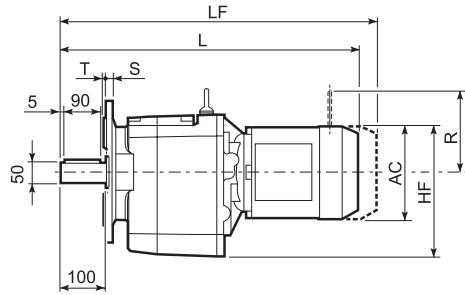
**P**



**U**



**UF**



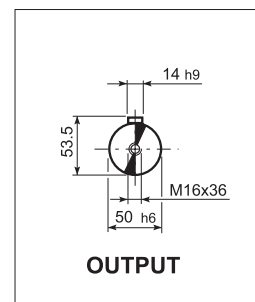
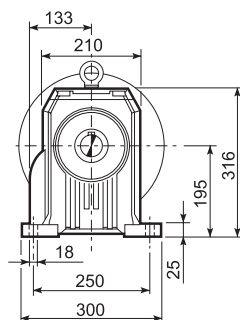
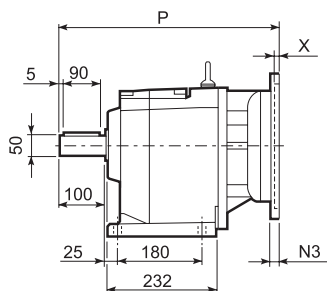
C 61_U						
	D1	D2	D3	G	T	S
FA	230	265	300	14	4	16
FB	250	300	350	18	5	18

Motor Type	S	M	AC	H	HF	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
C 61 2/3	S2	M2S	156	273	256.5	598.5	119	61	669.5	65	129	146	134	119
C 61 2/3	S3	M3S	195	292.5	276	642.5	142	66	738.5	74	160	158	160	142
C 61 2/3	S3	M3L	195	292.5	276	674.5	142	74	765.5	81	160	158	160	142
C 61 2/3	S4	M4	258	324	307.5	782.5	193	108	891.5	126	226	210	217	193
C 61 2/3	S4	M4LC	258	324	307.5	817.5	193	116	916.5	134	226	210	217	193
C 61 2/3	S5	M5S	310	350	333.5	869	245	136	1009	166	266	245	247	245
C 61 2/3	S5	M5L	310	350	333.5	913	245	152	1053	182	266	245	247	245
C 61 4	S1	M1	138	264	247.5	641	108	71	702	74	103	135	124	108
C 61 4	S2	M2S	156	273	256.5	669	119	75	740	78	129	146	134	119
C 61 4	S3	M3S	195	292.5	276	713	142	79	809	87	160	158	160	142
C 61 4	S3	M3L	195	292.5	276	745	142	87	836	94	160	158	160	142

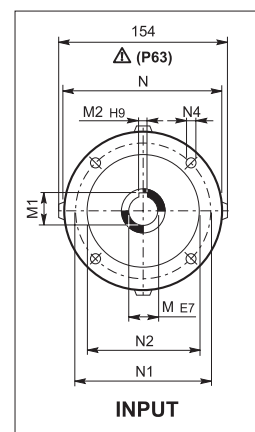
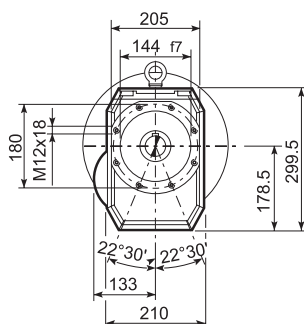
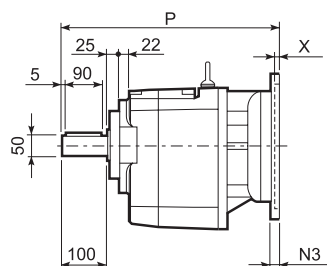


## C 61...P(IEC)

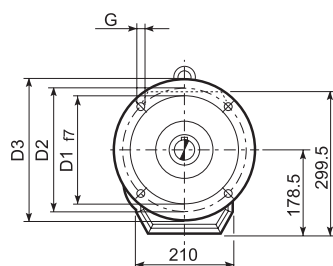
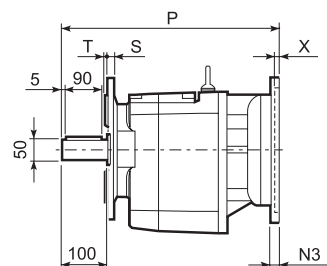
**P**



**U**

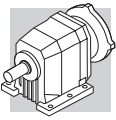


**UF**

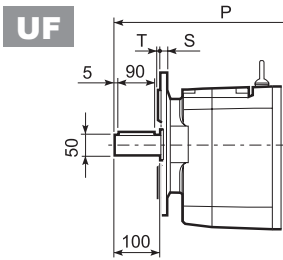
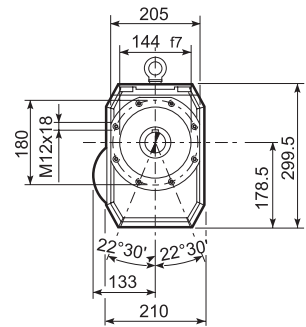
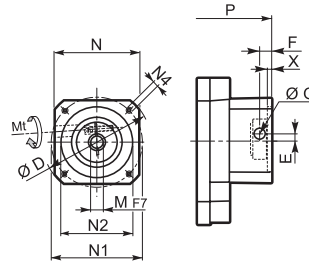
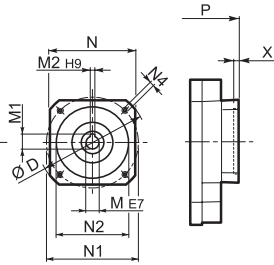
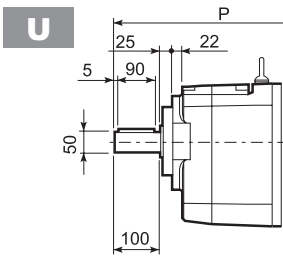
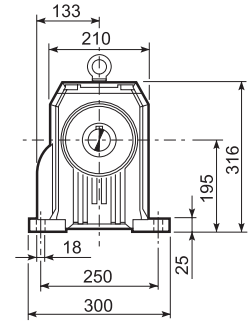
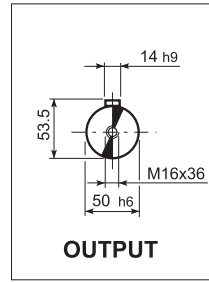
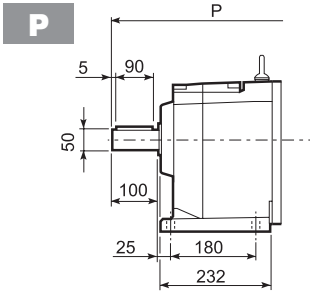


C 61_U						
	D1	D2	D3	G	T	S
FA	230	265	300	14	4	16
FB	250	300	350	18	5	18

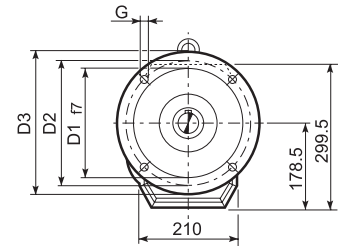
		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 61 2/3	P63	11	12.8	4	140	115	95	—	M8x19	4	415.5	55
C 61 2/3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	415.5	57
C 61 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	435	61
C 61 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	435	61
C 61 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	444	65
C 61 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	444	65
C 61 2/3	P132	38	41.3	10	300	265	230	16	14	5	481.5	68
C 61 2/3	P160	42	45.3	12	350	300	250	23	18	5.5	532	73
C 61 2/3	P180	48	51.8	14	350	300	250	23	18	5.5	532	73
C 61 4	P63	11	12.8	4	140	115	95	—	M8x19	4	486	61
C 61 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	489	63
C 61 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	505.5	67
C 61 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	505.5	67
C 61 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	515.5	71
C 61 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	515.5	71



# C 61...SK / SC



C 61_U						
	D1	D2	D3	G	T	S
FA	230	265	300	14	4	16
FB	250	300	350	18	5	18



		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
C 61 4	SK80B	120	14	16.3	5	96	100	80	M6x12	4	—	505.5	62
C 61 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	435	505.5	63/63/69
C 61 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	435	505.5	60/60/67
C 61 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	435	505.5	63/63/69
C 61 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	435	505.5	63/63/69
C 61 2/3/4	SK110A	140	19	21.8	6	120	130	110	M8x12	5	435	505.5	63/63/69
C 61 2/3/4	SK110B	140	24	27.3	8	120	130	110	M8x12	5	435	505.5	63/63/69
C 61 2/3/4	SK130A	188	24	27.3	8	142	165	130	M10x20	5	435	505.5	67/67/80
C 61 2/3	SK130B	189	32	35.3	10	160	165	130	M10x20	5	481.5	—	72/72
C 61 2/3	SK180A	240	32	35.3	10	192	215	180	M12x19	5	481.5	—	72/72
C 61 2/3	SK180B	240	38	41.3	10	192	215	180	M12x19	5	481.5	—	66/66

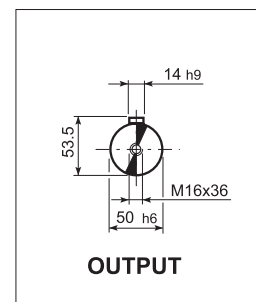
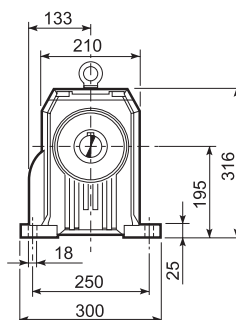
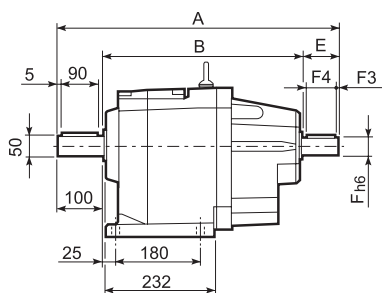
		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	4x	
C 61 4	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	—	529	63
C 61 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	458.5	529	64/64/70
C 61 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	458.5	529	61/61/68
C 61 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	458.5	529	64/64/70
C 61 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	458.5	529	64/64/70
C 61 2/3/4	SC110A	M6 15	140	16.5	16	17.75	19	120	130	110	M8x16	5	458.5	529	65/65/70
C 61 2/3/4	SC110B	M6 15	140	16.5	16	17.75	24	120	130	110	M8x16	5	458.5	529	65/65/70
C 61 2/3/4	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	458.5	529	66/66/81
C 61 2/3	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	504.5	—	75/75
C 61 2/3	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	508.5	—	75/75
C 61 2/3	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	508.5	—	69/69



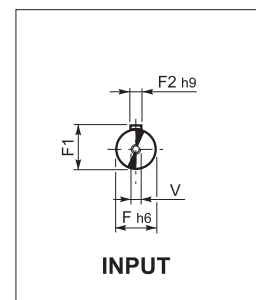
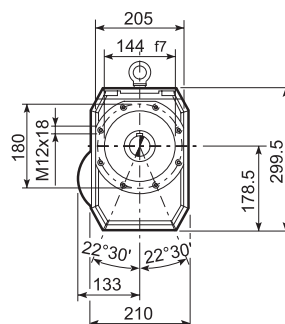
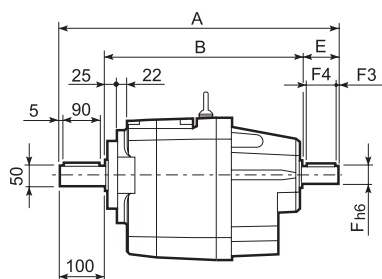


## C 61...HS

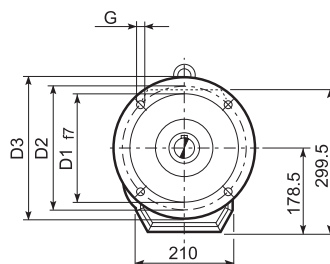
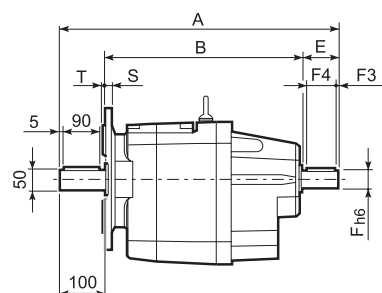
**P**



**U**



**UF**



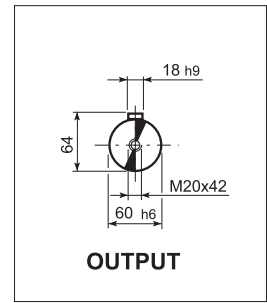
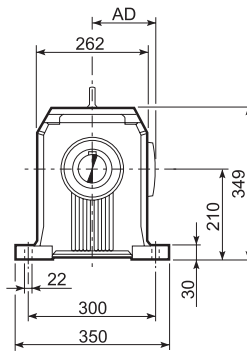
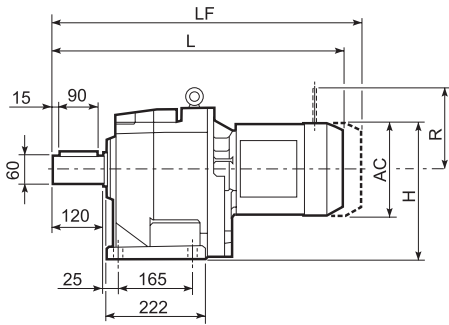
C 61_U						
	D1	D2	D3	G	T	S
FA	230	265	300	14	4	16
FB	250	300	350	18	5	18

		A	B	E	F	F1	F2	F3	F4	V	kg
C 61 2	HS	532	372	60	28	31	8	5	50	M10x22	66
C 61 3		532	372	60	28	31	8	5	50	M10x22	66
C 61 4		575	425	50	24	27	8	2.5	45	M8x19	72

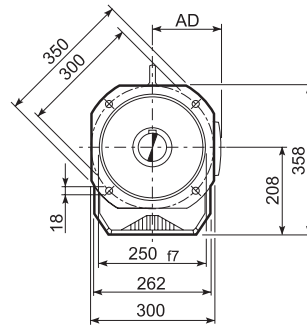
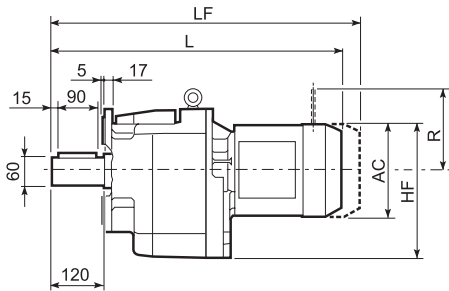


## C 70...M

**P**



**F**

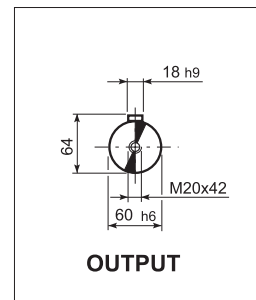
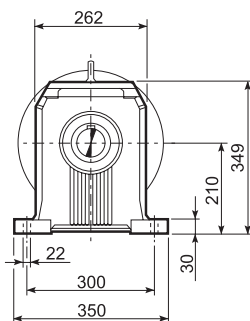
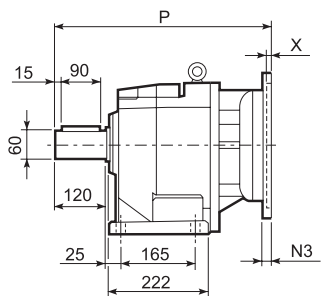


			M...FD M...FA		M...FD		M...FA							
			AC	H	HF	L	AD	Kg	LF	Kg	R	AD	R	AD
C 70 2/3	S2	M2S	156	288	286	636.5	119	88	707.5	92	129	146	134	119
C 70 2/3	S3	M3S	195	307.5	305.5	680.5	142	93	776.5	101	160	158	160	142
C 70 2/3	S3	M3L	195	307.5	305.5	712.5	142	101	803.5	108	160	158	160	142
C 70 2/3	S4	M4	258	339	337	820.5	193	135	929.5	153	226	210	217	193
C 70 2/3	S4	M4LC	258	339	337	855.5	193	143	954.5	161	226	210	217	193
C 70 2/3	S5	M5S	310	365	363	907	245	163	1047	193	266	245	247	245
C 70 2/3	S5	M5L	310	365	363	951	245	179	1091	209	266	245	247	245
C 70 4	S1	M1	138	279	277	659.5	108	88	720.5	91	103	135	124	108
C 70 4	S2	M2S	156	288	286	687.5	119	92	758.5	96	129	146	134	119
C 70 4	S3	M3S	195	307.5	305.5	731.5	142	97	827.5	104	160	158	160	142
C 70 4	S3	M3L	195	307.5	305.5	763.5	142	104	854.5	111	160	158	160	142
C 70 4	S4	M4	258	339	337	871.5	193	138	980.5	156	226	210	217	193
C 70 4	S4	M4LC	258	339	337	906.5	193	146	1005.5	164	226	210	217	193

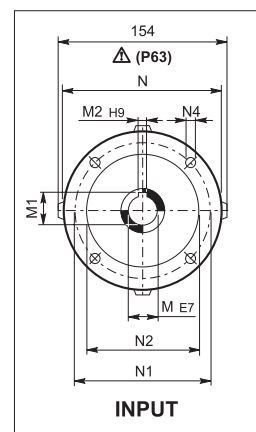
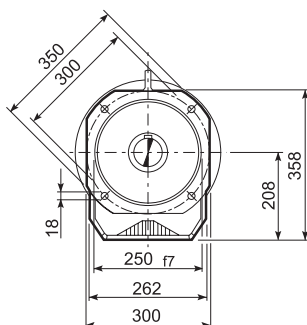
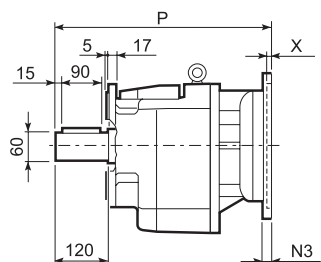


## C 70...P(IEC)

**P**



**F**

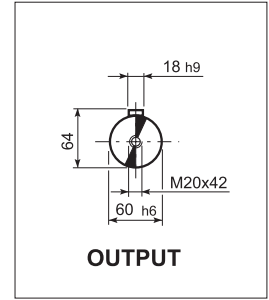
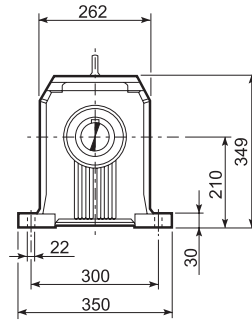
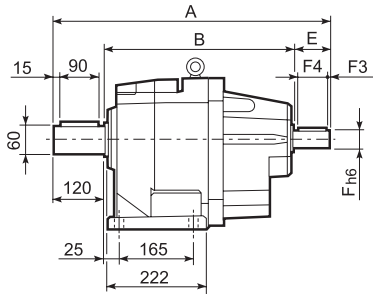


		M	M1	M2	N	N1	N2	N3	N4	X	P	
C 70 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	473	88
C 70 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	473	88
C 70 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	483	92
C 70 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	483	92
C 70 2/3	P132	38	41.3	10	300	265	230	16	14	5	519.5	95
C 70 2/3	P160	42	45.3	12	350	300	250	23	18	6	575	107
C 70 2/3	P180	48	51.8	14	350	300	250	23	18	6	575	107
C 70 2	P200	55	59.3	16	400	350	300	—	M16x25	7	600	129
C 70 4	P63	11	12.8	4	140	115	95	—	M8x19	4	504.5	91
C 70 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	504.5	91
C 70 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	524	92
C 70 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	524	92
C 70 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	534	96
C 70 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	534	96
C 70 4	P132	38	41.3	10	300	265	230	16	14	5	570.5	98

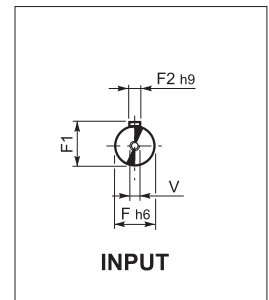
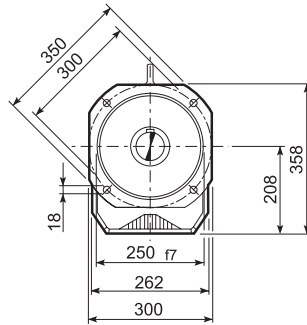
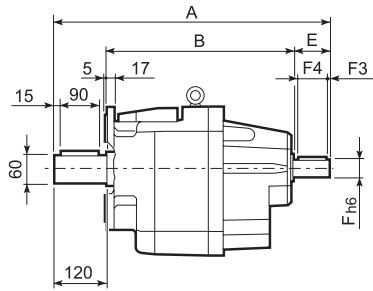


## C 70...HS

**P**



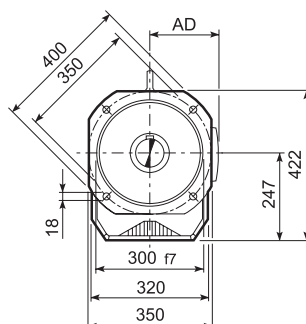
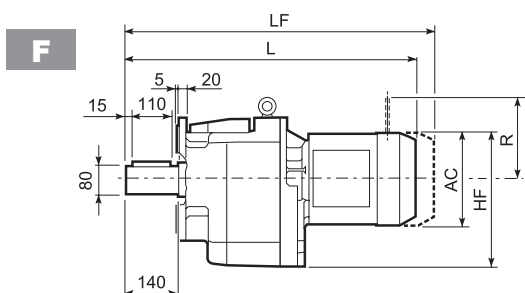
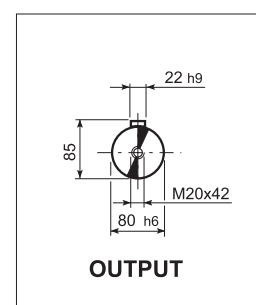
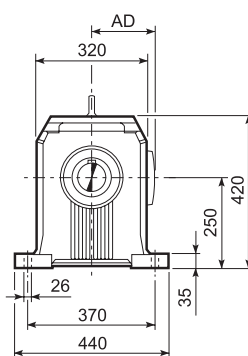
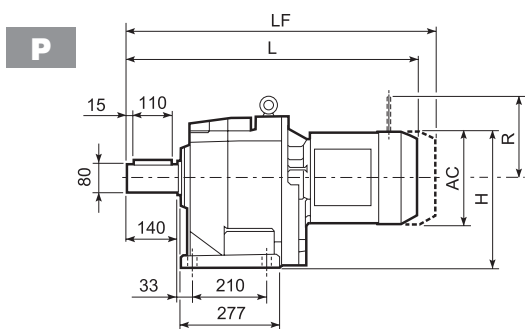
**F**



		A	B	E	F	F1	F2	F3	F4	V	kg
<b>C 70 2</b>	HS	657.5	427.5	110	42	45	12	10	90	M12x28	108
<b>C 70 3</b>		657.5	427.5	110	42	45	12	10	90	M12x28	108
<b>C 70 4</b>		593.5	423.5	50	24	27	8	2.5	45	M8x19	94



## C 80...M

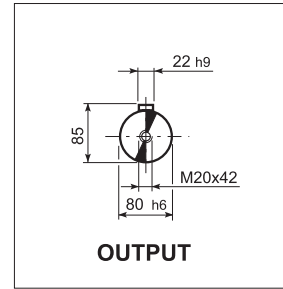
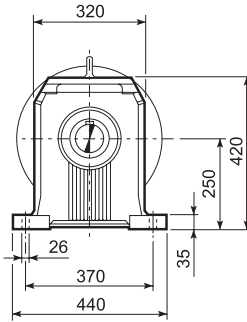
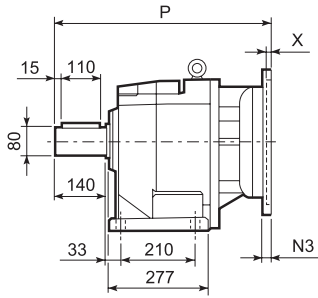


										M...FD M...FA		M...FD		M...FA			
			AC	H	HF	L	AD		LF		R	AD	R	AD			
			C 80 2/3	S3	M3S	195	347.5	344.5	742.5	142	139	838.5	146	160	158	160	142
			C 80 2/3	S3	M3L	195	347.5	344.5	774.5	142	146	865.5	153	160	158	160	142
			C 80 2/3	S4	M4	258	379	376	882.5	193	180	991.5	196	226	210	217	193
			C 80 2/3	S4	M4LC	258	379	376	917.5	193	188	1016.5	204	226	210	217	193
			C 80 2/3	S5	M5S	310	405	402	969	245	208	1109	238	266	245	247	245
			C 80 2/3	S5	M5L	310	405	402	1013	245	224	1153	254	266	245	247	245
			C 80 4	S1	M1	138	319	316	733.5	108	133	794.5	136	103	135	124	108
			C 80 4	S2	M2S	156	328	325	761.5	119	137	832.5	141	129	146	134	119
			C 80 4	S3	M3S	195	347.5	344.5	805.5	142	142	901.5	149	160	158	160	142
			C 80 4	S3	M3L	195	347.5	344.5	837.5	142	149	928.5	156	160	158	160	142
			C 80 4	S4	M4	258	379	376	945.5	193	183	1054.5	201	226	210	217	193
			C 80 4	S4	M4LC	258	379	376	980.5	193	191	1079.5	209	226	210	217	193

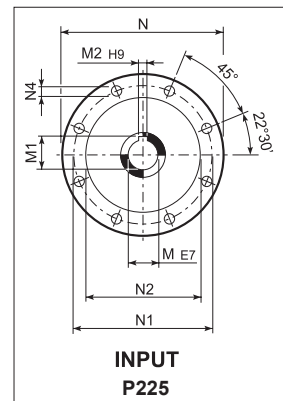
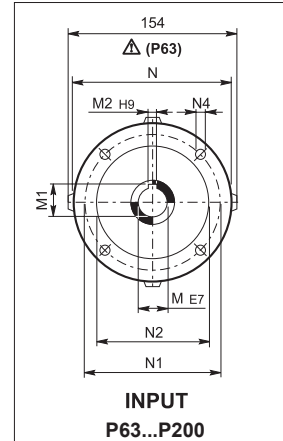
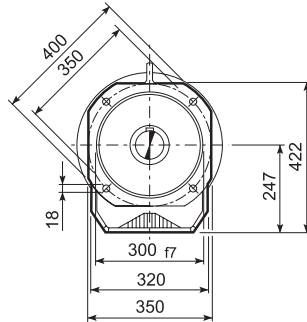
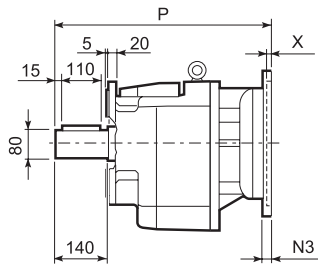


## C 80...P(IEC)

**P**



**F**

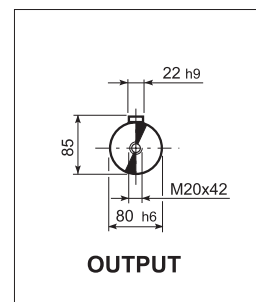
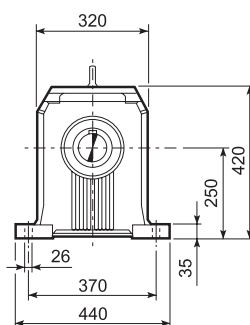
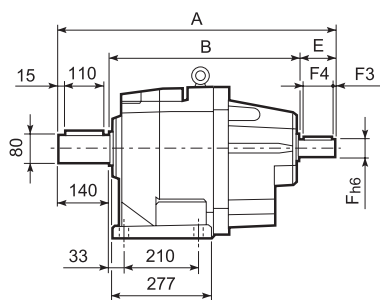


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 80 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	533	135
C 80 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	533	135
C 80 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	543	139
C 80 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	543	139
C 80 2/3	P132	38	41.3	10	300	265	230	16	14	5	579.5	141
C 80 2/3	P160	42	45.3	12	350	300	250	23	18	6	635	154
C 80 2/3	P180	48	51.8	14	350	300	250	23	18	6	635	154
C 80 2	P200	55	59.3	16	400	350	300	—	M16x25	7	660	176
C 80 2	P225	60	64.4	18	450	400	350	25	18	6	705.5	178
C 80 4	P63	11	12.8	4	140	115	95	—	M8x19	4	576.5	138
C 80 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	576.5	138
C 80 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	596	140
C 80 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	596	140
C 80 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	606	144
C 80 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	606	144
C 80 4	P132	38	41.3	10	300	265	230	16	M12x16	5	642.5	146

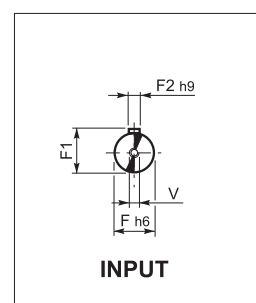
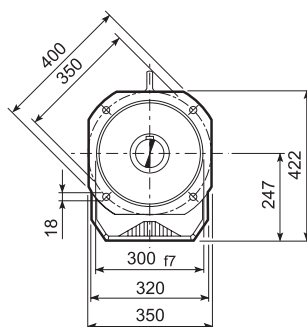
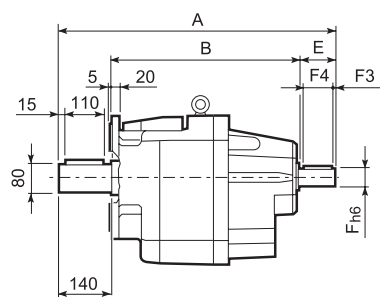


## C 80...HS

**P**

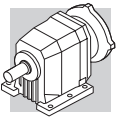


**F**

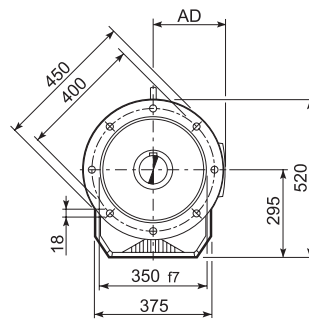
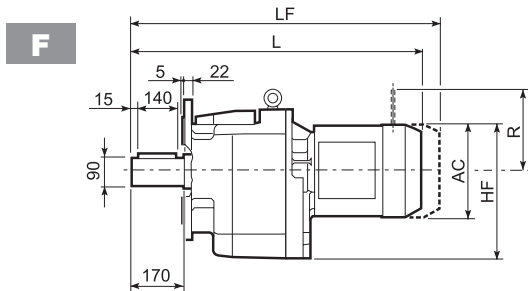
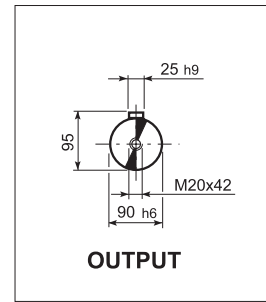
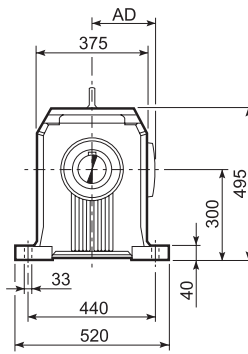
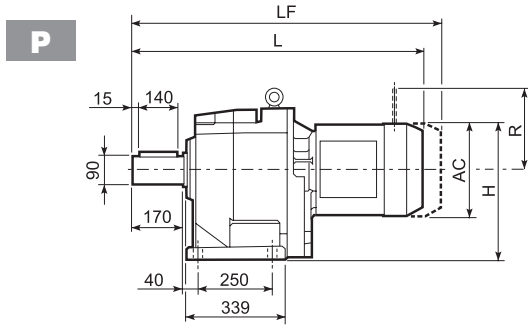


		A	B	E	F	F1	F2	F3	F4	V	Kg
<b>C 80 2</b>	HS	718.5	468.5	110	42	45	12	10	90	M12x28	154
<b>C 80 3</b>		718.5	468.5	110	42	45	12	10	90	M12x28	154
<b>C 80 4</b>		666.5	476.5	50	24	27	8	2.5	45	M8x19	141





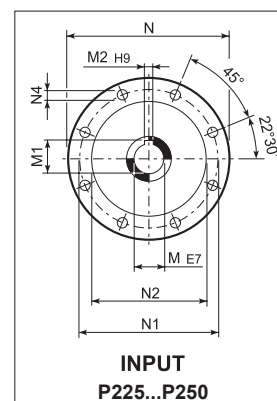
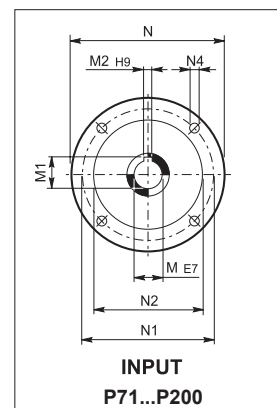
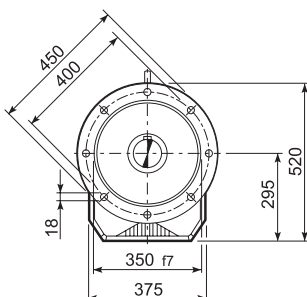
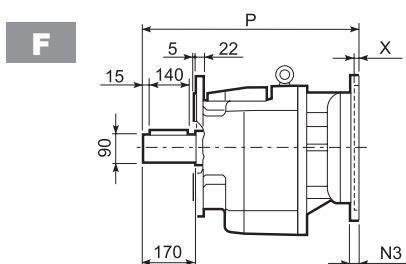
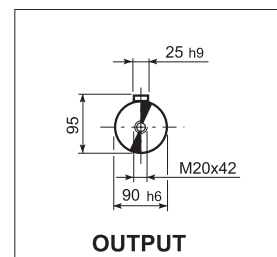
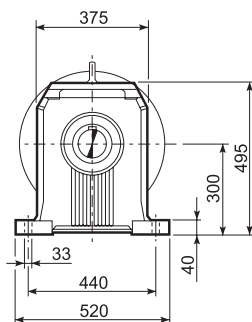
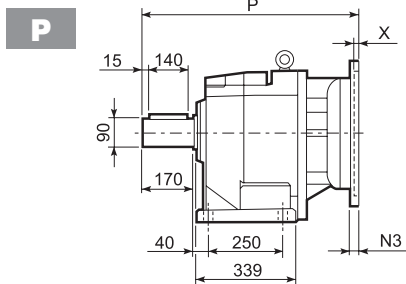
## C 90...M



										M...FD M...FA		M...FD		M...FA	
			AC	H	HF	L	AD		LF		R	AD	R	AD	
C 90 2/3	S3	M3S	195	397.5	392.5	852	142	228	948	236	160	158	160	142	
C 90 2/3	S3	M3L	195	397.5	392.5	884	142	236	975	243	160	158	160	142	
C 90 2/3	S4	M4	258	429	424	992	193	270	1101	288	226	210	217	193	
C 90 2/3	S4	M4LC	258	429	424	1027	193	278	1126	296	226	210	217	193	
C 90 2/3	S5	M5S	310	455	450	1078.5	245	298	1218.5	328	266	245	247	245	
C 90 2/3	S5	M5L	310	455	450	1122.5	245	314	1262.5	344	266	245	247	245	
C 90 4	S1	M1	138	369	364	862	108	226	923	228	103	135	124	108	
C 90 4	S2	M2S	156	378	373	891	119	234	962	238	129	146	134	119	
C 90 4	S3	M3S	195	397.5	392.5	935	142	239	1031	246	160	158	160	142	
C 90 4	S3	M3L	195	397.5	392.5	967	142	246	1058	253	160	158	160	142	
C 90 4	S4	M4	258	429	424	1075	193	280	1184	298	226	210	217	193	
C 90 4	S4	M4LC	258	429	424	1126.5	193	288	1209	306	226	210	217	193	



## C 90...P(IEC)

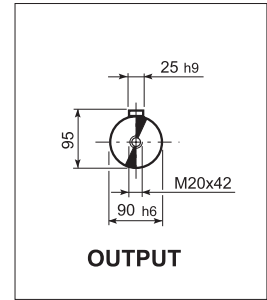
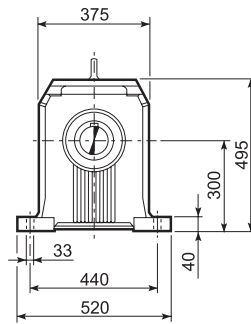
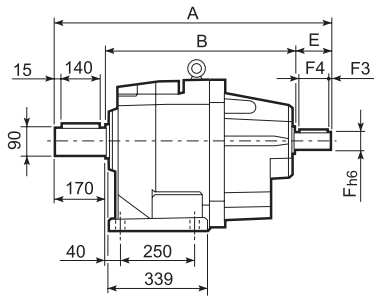


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
C 90 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	644.5	229
C 90 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	644.5	229
C 90 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	654.5	234
C 90 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	654.5	234
C 90 2/3	P132	38	41.3	10	300	265	230	16	14	5	691	236
C 90 2/3	P160	42	45.3	12	350	300	250	23	18	6	746.5	251
C 90 2/3	P180	48	51.8	14	350	300	250	23	18	6	746.5	251
C 90 2/3	P200	55	59.3	16	400	350	300	—	M16x25	7	771.5	272
C 90 2/3	P225	60	64.4	18	450	400	350	30	18	6	817	273
C 90 2/3	P250	65	69.4	18	550	500	450	30	18	6	847	295
C 90 4	P63	11	12.8	4	140	115	95	—	M8x19	4	707.5	236
C 90 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	707.5	236
C 90 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	727	238
C 90 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	727	238
C 90 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	737	242
C 90 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	737	242
C 90 4	P132	38	41.3	10	300	265	230	16	14	5	773.5	244
C 90 4	P160	42	45.3	12	350	300	250	23	18	5.5	824	248
C 90 4	P180	48	51.8	14	350	300	250	23	18	5.5	824	248

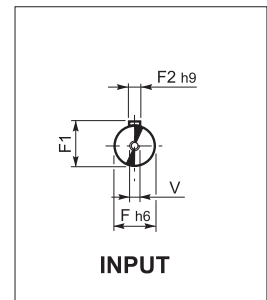
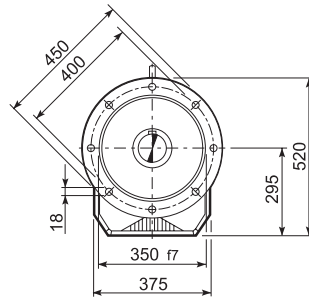
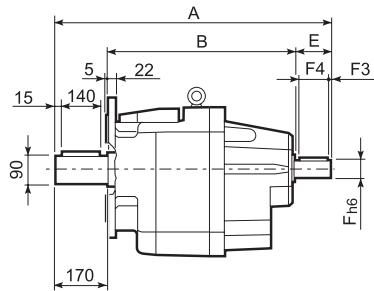


## C 90...HS

**P**



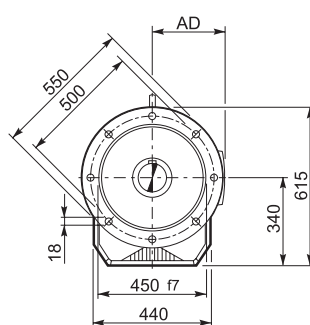
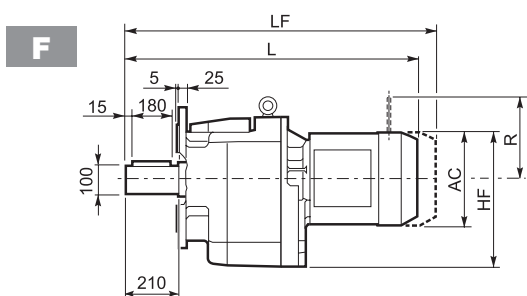
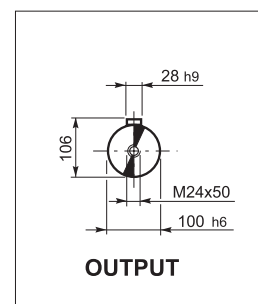
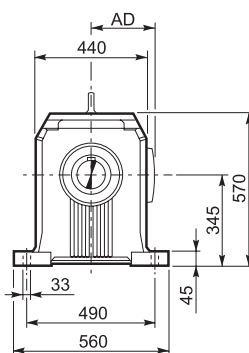
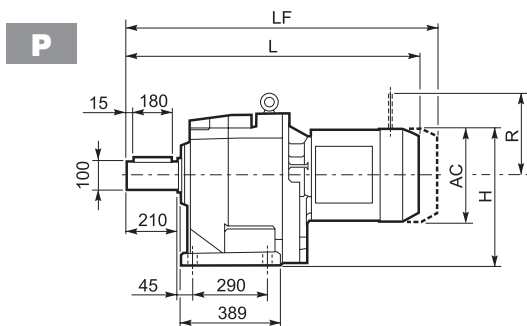
**F**



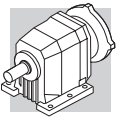
		A	B	E	F	F1	F2	F3	F4	V	kg
<b>C 90 2</b>	HS	930.5	620.5	140	60	64	18	10	120	M16x36	273
<b>C 90 3</b>		930.5	620.5	140	60	64	18	10	120	M16x36	273
<b>C 90 4</b>		797	577	50	24	27	8	2.5	45	M8x19	240



## C 100...M

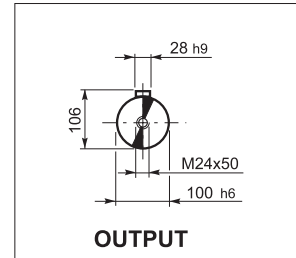
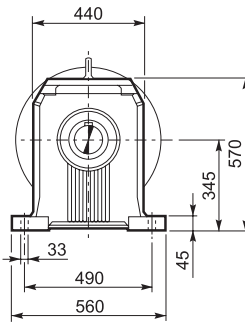
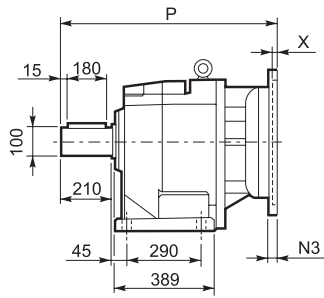


			AC	H	HF	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
C 100 2/3	S4	M4	258	474	469	1087	193	392	1196	410	226	210	217	193
C 100 2/3	S4	M4LC	258	474	469	1122	193	400	1221	418	226	210	217	193
C 100 2/3	S5	M5S	310	500	495	1173.5	245	420	1313.5	450	266	245	247	245
C 100 2/3	S5	M5L	310	500	495	1217.5	245	436	1357.5	466	266	245	247	245
C 100 4	S1	M1	138	414	409	956.5	108	346	1027.5	348	103	135	124	108
C 100 4	S2	M2S	156	423	418	985.5	119	354	1056.5	357	129	146	134	119
C 100 4	S3	M3S	195	442.5	437.5	1029.5	142	358	1125.5	366	160	158	160	142
C 100 4	S3	M3L	195	442.5	437.5	1061.5	142	366	1152.5	373	160	158	160	142
C 100 4	S4	M4	258	474	469	1169.5	193	400	1278.5	418	226	210	217	193
C 100 4	S4	M4LC	258	474	469	1204.5	245	408	1303.5	426	226	210	217	193

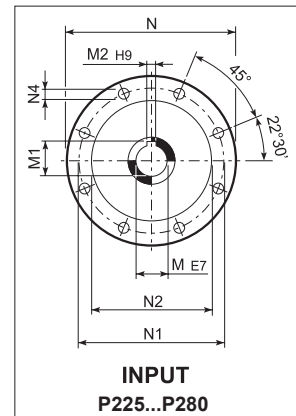
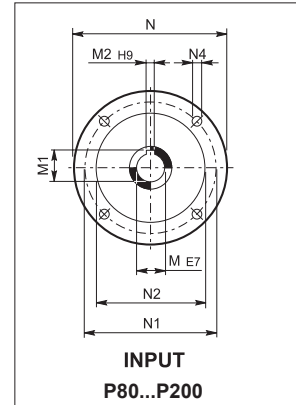
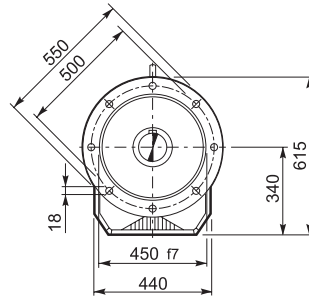
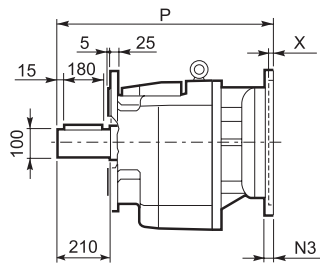


## C 100...P(IEC)

**P**



**F**

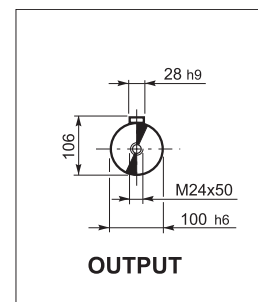
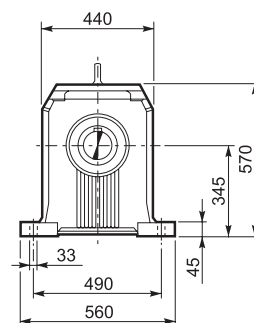
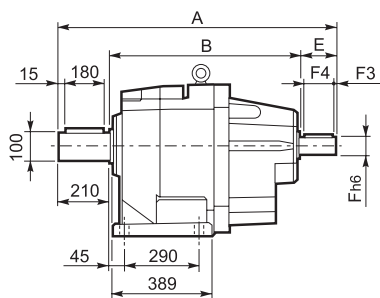


		M	M1	M2	N	N1	N2	N3	N4	X	P	
C 100 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	749.5	364
C 100 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	749.5	364
C 100 2/3	P132	38	41.3	10	300	265	230	16	14	5	786	367
C 100 2/3	P160	42	45.3	12	350	300	250	23	18	6	841.5	382
C 100 2/3	P180	48	51.8	14	350	300	250	23	18	6	841.5	382
C 100 2/3	P200	55	59.3	16	400	350	300	—	M16x25	7	866.5	403
C 100 2/3	P225	60	64.4	18	450	400	350	30	18	7	912	403
C 100 2/3	P250	65	69.4	18	550	500	450	30	18	7	942	426
C 100 2/3	P280	75	79.9	20	550	500	450	30	18	6	942	426
C 100 4	P63	11	12.8	4	140	115	95	—	M8x19	4	803	369
C 100 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	803	369
C 100 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	822.5	371
C 100 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	822.5	371
C 100 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	832.5	375
C 100 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	832.5	375
C 100 4	P132	38	41.3	10	300	265	230	16	14	5	869	377
C 100 4	P160	42	45.3	12	350	300	250	23	18	5.5	919.5	381
C 100 4	P180	48	51.8	14	350	300	250	23	18	5.5	919.5	381

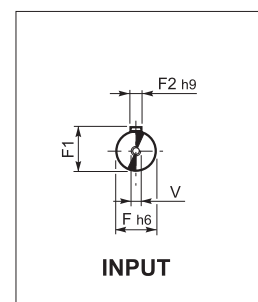
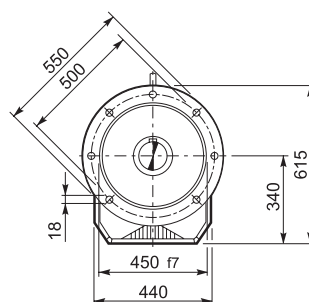
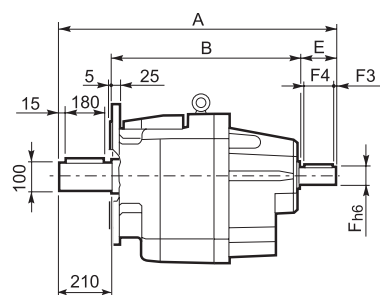


# C 100...HS

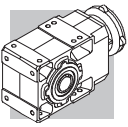
**P**



**F**



		A	B	E	F	F1	F2	F3	F4	V	kg
C 100 2	HS	1025.5	676	140	60	64	18	10	120	M16x36	409
C 100 3		1025.5	676	140	60	64	18	10	120	M16x36	409
C 100 4		892	632	50	24	27	8	2.5	45	M8x19	372



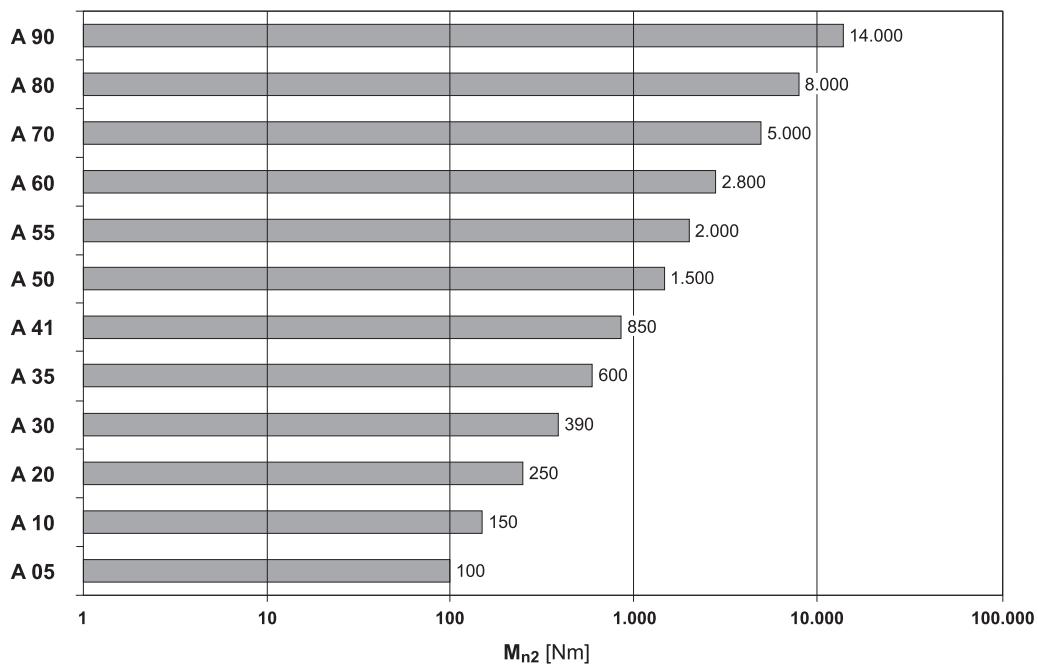
## HELICAL BEVEL GEAR UNITS SERIES A

### 31 DESIGN FEATURES

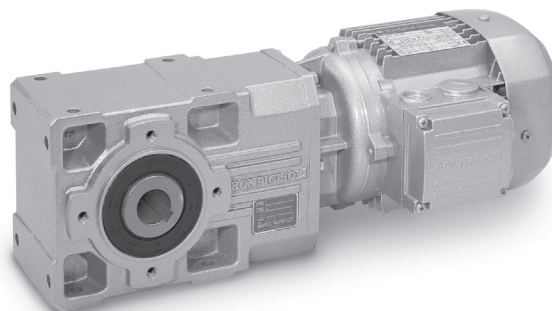
The main design characteristics are:

- modularity
- space effective
- universal mounting
- high efficiency
- quiet operation
- gears in hardened and case-hardened steel
- bare aluminium housing for sizes 05, 10, 20, 30, unpainted high strength painted cast-iron housings for larger frame sizes
- input and output shafts from high grade steel.

(C 26)



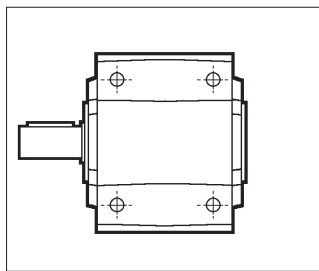
\* For any limitations regarding construction type QF see the "VERSIONS" chapter.





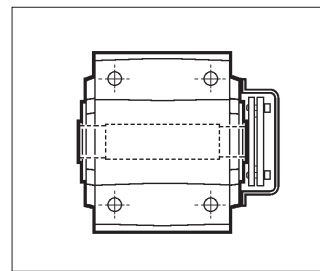


32 VERSIONS



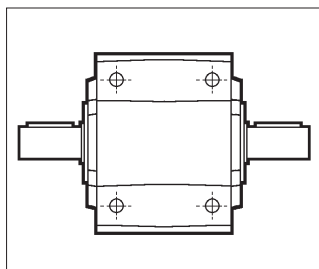
**UR**  
Single extension  
output shaft

A 05 ... A 90



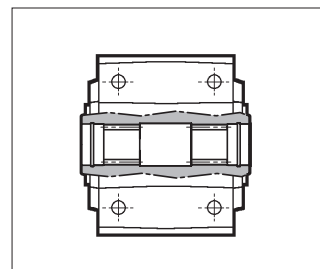
**US**  
Hollow output shaft  
and shrink disc

A 05 ... A 90



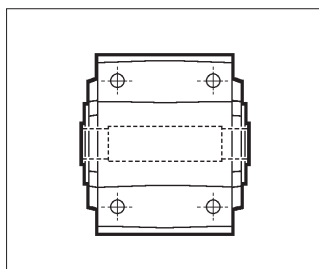
**UD**  
Double extended  
output shaft

A 05 ... A 90



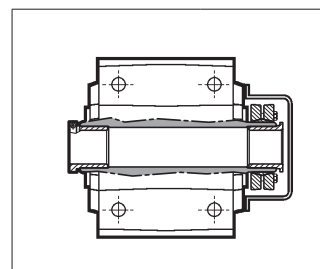
**UV**  
Splined hollow shaft  
DIN 5480

A 20 ... A 60



**UH**  
Hollow output shaft  
and keyway

A 05 ... A 90



**QF (Quick-fit)**  
Hollow shaft with  
adapter bushings  
and shrink disc

A 10 ... A 60

$M_{n2\ max}$ [Nm]	
A 35 QF35	550
A 55 QF55	1900

**Basic versions with bolted flange**

The sketches show the applicable flanges to the basic versions and their positions, designated with either ① or ②.

**UR F1... UR F2... UD F1... UD F2... UH... F1... UH... F2...**

**US F1... US F2... UV F1... UV F2... QF...**



**33 DESIGNATION**

GEAR UNIT

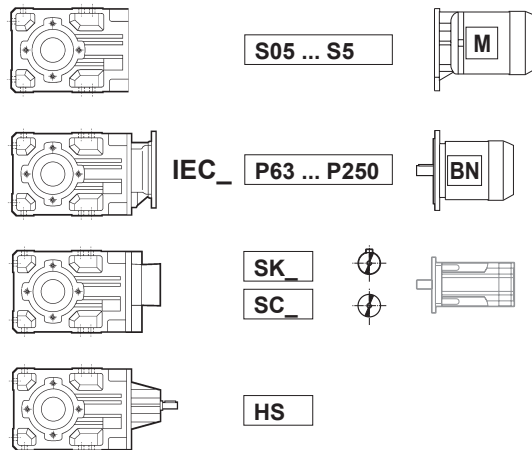
**A 35 2 UH40 F1A 33.2 S3 VA .....**

OPTIONS

MOUNTING POSITION

**B3** (Standard), **B6, B7, B8, VA, VB**

INPUT CONFIGURATION

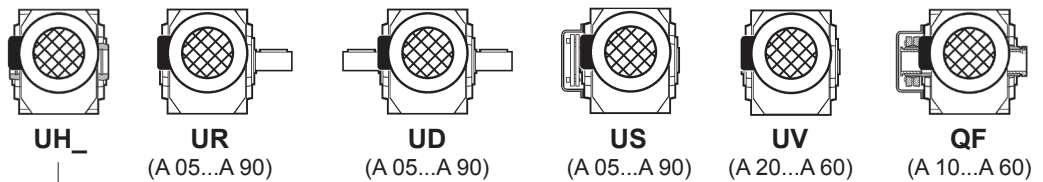


GEAR RATIO

OUTPUT FLANGE SIZE AND POSITION  
(specify only if requested)

**F** = Flanged version  
**1, 2** = Flange position  
**A, B, C** = Flange size

VERSION



A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 55	A 60	A 70	A 80	A 90
UH25	UH25	UH30	UH35	UH40	UH45	UH50	UH60	UH60	UH70	UH80	UH90
—	UH30	UH35	UH40	UH35	UH40	UH55	UH50	UH70	UH80	UH90	UH100

REDUCTIONS

**2** (A 05...A 60), **3** (A 20...A 90), **4** (A 50...A 90)

GEAR FRAME SIZE

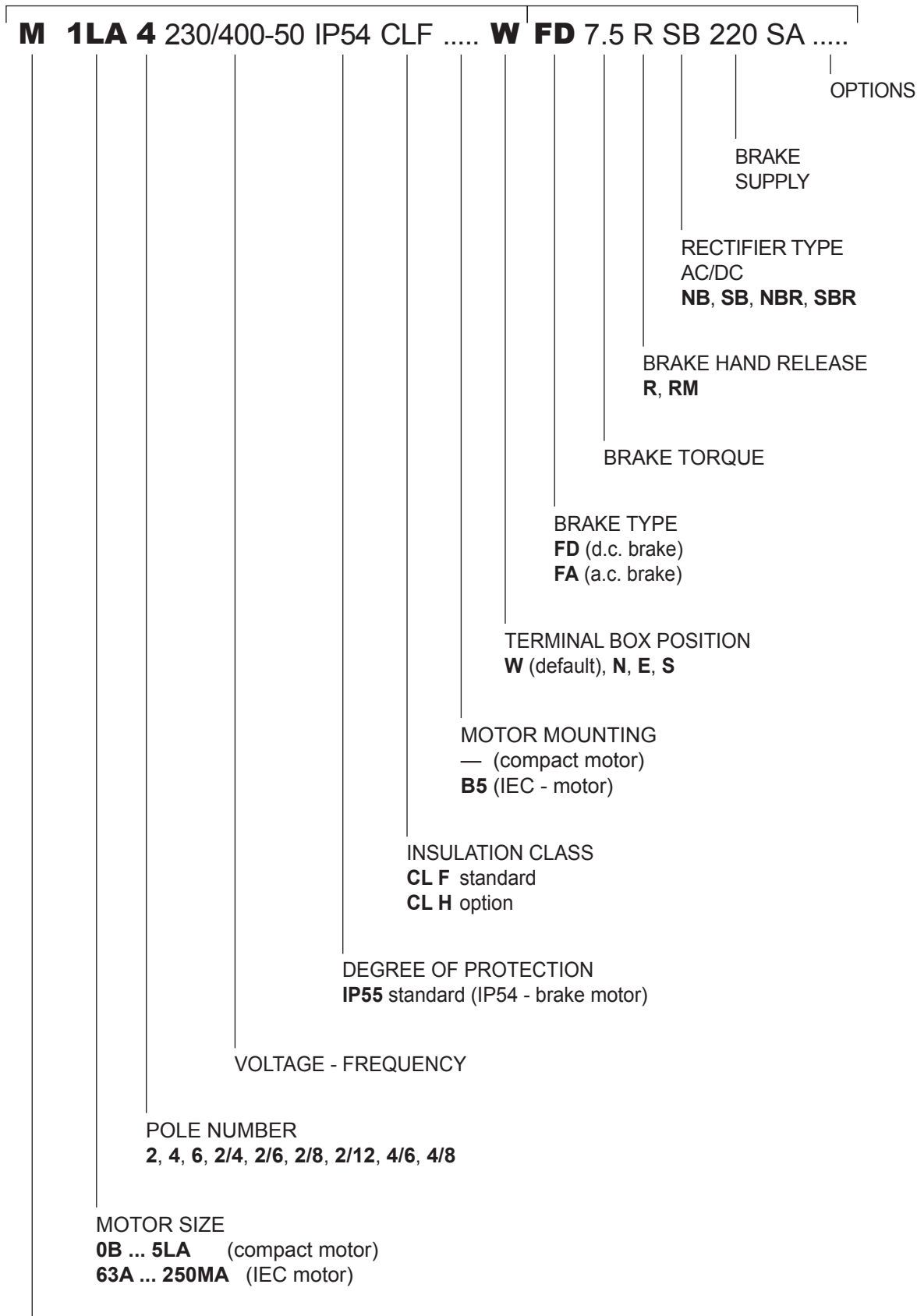
**05, 10, 20, 30, 35, 41, 50, 55, 60, 70, 80, 90**

TYPE: **A** = Helical bevel gear units

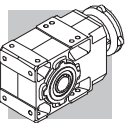


MOTOR

BRAKE



MOTOR TYPE  
**M** = compact 3-phase  
**BN** = IEC 3-phase



### 33.1 Gearbox options

#### AL, AR

On request the gear unit can be provided complete with a backstop device allowing the output shaft to rotate only in the direction specified at the time of ordering. The following table shows the gearboxes in which the anti-run back device can be installed. Anti-run back device exclude RB option.

(C 27)

<b>A 30 2*</b>	<b>A 35 2*</b> ● (5.4_11.8)	<b>A 41 2</b> ● (5.2; 10.1)	<b>A 50 3</b>	<b>A 55 3</b>	<b>A 60 3</b>	<b>A 70 3</b>	<b>A 80 3</b>	<b>A 90 3</b>
			<b>A 50 4</b>	<b>A 55 4</b>	<b>A 60 4</b>	<b>A 70 4</b>	<b>A 80 4</b>	<b>A 90 4</b>

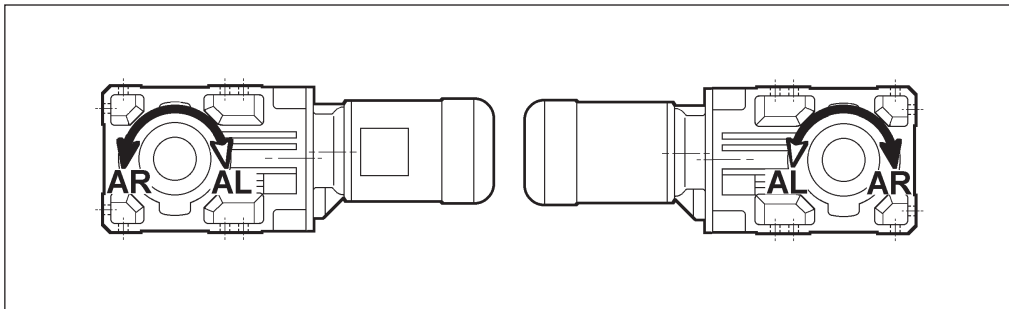
\* The supply of the backstop will ban the configuration of servomotor adapters type S\_60A, S\_60B, S\_80A.

When ordering the gear unit, the direction of free rotation must be specified through either the AR or the AL option (Table C27).



N.B. When the anti-run back device operates very frequently make sure that the torque backdriving the gearbox does not exceed 70% of the rated torque  $M_{n2}$  for the captioned gear unit.

(C 28)



#### SO

Gear units A05, A10, A20, A30, A35 and A41, usually factory filled with oil, are, in this case, supplied unlubricated.

#### LO

Gearboxes A50, A55, A60, A70, A80 and A90, usually supplied without oil, to be supplied with synthetic oil currently used by BONFIGLIOLI RIDUTTORI and filled according to the mounting position specified.

#### DV

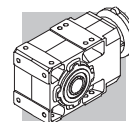
Dual oil seals on input shaft. (Only available for integral gearmotors).

#### VV

Fluoro elastomer oil seal on input shaft.

#### PV

All oil seals in Fluoro elastomer material.



### TKL

Taconite seals are available, for output axis of gearboxes sizes (from) A70 to A90, to use in environments characterized by the presence of abrasive dust or powders. Taconite seals incorporate a combination of sealing rings, labyrinths and a grease chamber.

Greasing must be ensured as part of the scheduled maintenance programme.

This option includes fluoro elastomer oil seals on all axes.

For mounting position B6 please consult Bonfiglioli Technical service.

### HDB

Certain gearboxes are available with increased overhung load ratings for use in applications characterised by high overhung loads beyond the capacity of the standard gearboxes. Specify the HDB option when ordering to obtain this increased overhung load capacity. The HDB option is available for gearbox sizes A10 to A50 with a single sided or through solid output shaft.

The following table specifies the maximum loads for HDB reinforced gearbox versions.

Figures refer to forces along the centreline of the output shaft.

(C 29)

HDB	$R_{N2}$					
	A 10	A 20	A 30	A 35	A 41	A 50
$n_1 = 2800$	5500 N	6200 N	9600 N	12000 N	15000 N	20000 N
			8970 N @ i=5.4	10200 N @ i=5.4 10600 N @ i=6.4 11000 N @ i=7.0	11500 N @ i=5.2 12700 N @ i=7.1 13300 N @ i=8.3 13700 N @ i=9.2	19000 N @ i=7.7
$n_1 = 1400$	5500 N	6200 N	9600 N	12000 N	15000 N	20000 N
$n_1 = 900$	5500 N	6200 N	9600 N	12000 N	15000 N	20000 N
$n_1 = 500$	5500 N	6200 N	9600 N	12000 N	15000 N	20000 N

Reinforced bearings also allow these versions to withstand increased thrust loads, and in particular.

$$A_{N2} = 0.35 \times R_{N2} \quad (24)$$

In applications free from overhung load, thrust load capacity increases to:

$$A_{N2} = 0.70 \times R_{N2} \quad (25)$$

If load is applied simultaneously to both ends of a through output shaft, contact the Bonfiglioli Technical Service to verify the application.

### RB

Gear units A10, A20, A30, A35, A41, A50, A55 and A60, usually supplied with standard values of angular backlash, are, in this case, supplied with reduced angular backlash values (excludes gear units options AL and AR described in this paragraph).

The following table specifies the corresponding figures of angular backlash.



(C 30)

		standard		RB	
A05	i =	5.5_12.3 - $\ominus$ (10.6)	10.6_91.6 - $\ominus$ (12.3)	—	
	$\varphi$ [°]	28	18	—	
A10	i =	5.5_12.3 - $\ominus$ (10.6)	10.6_91.6 - $\ominus$ (12.3)	5.5_12.3 - $\ominus$ (10.6)	10.6_91.6 - $\ominus$ (12.3)
	$\varphi$ [°]	27	17	12	8
A20	i =	5.4_12 - $\ominus$ (10.3)	10.3_380.9 - $\ominus$ (12)	5.4_12 - $\ominus$ (10.3)	10.3_380.9 - $\ominus$ (12)
	$\varphi$ [°]	23	15	11	7
A30	i =	5.4_11.8 - $\ominus$ (10.5)	10.5_400.8 - $\ominus$ (11.8)	5.4_11.8 - $\ominus$ (10.5)	10.5_400.8 - $\ominus$ (11.8)
	$\varphi$ [°]	22	15	10	7
A35	i =	5.4_11.8	13.1_393.2	5.4_11.8	13.1_393.2
	$\varphi$ [°]	20	11	9	6
A41	i =	5.2_11.7 - $\ominus$ (10.1)	10.1_376.8 - $\ominus$ (11.7)	5.2-11.7 - $\ominus$ (10.1)	10.1_376.8 - $\ominus$ (11.7)
	$\varphi$ [°]	19	13	9	6
A50	i =	7.7_778.2		7.7_778.2	
	$\varphi$ [°]	16		7	
A55	i =	4.9_19.2	23.8_793	4.9_19.2	23.8_793
	$\varphi$ [°]	17	11	8	6
A60	i =	7.9_20.6	25.7_755.4	7.9_20.6	25.7_755.4
	$\varphi$ [°]	12	9	5	4
A70	i =	9.4_21.3	23.5_1715	—	
	$\varphi$ [°]	14	12	—	
A80	i =	9.8_20.9	22.6_1558	—	
	$\varphi$ [°]	13	11	—	
A90	i =	9.7_21	22.3_1632	—	
	$\varphi$ [°]	12	10	—	

For the delivery timeframe contact the Bonfiglioli's sales network

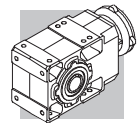
## SURFACE PROTECTION

When no specific protection class is requested, the painted (ferrous) surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, gearboxes can be delivered with **C3** and **C4** surface protection, obtained by painting the complete gearbox.

(C 31)

SURFACE PROTECTION	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
<b>C3</b>	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
<b>C4</b>	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C	C4

Gearboxes with optional protection to class **C3** or **C4** are available in a choice of colours. If no specific colour is requested (see the "PAINTING" option) gearboxes are finished in RAL 7042. Gearboxes can also be supplied with surface protection for corrosivity class **C5** according to UNI EN ISO 12944-2. Contact our Technical Service for further details.



## PAINTING

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

(C 32)

PAINTING	Colour	RAL number
<b>RAL7042*</b>	Traffic Grey A	7042
<b>RAL5010</b>	Gentian Blue	5010
<b>RAL9005</b>	Jet Black	9005
<b>RAL9006</b>	White Aluminium	9006
<b>RAL9010</b>	Pure White	9010

\* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.

## CERTIFICATES

### AC - Certificate of compliance

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

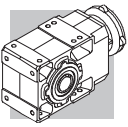
### CC - Inspection certificate

The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

## 33.2 Accessories

See chapter 44 of this catalogue.



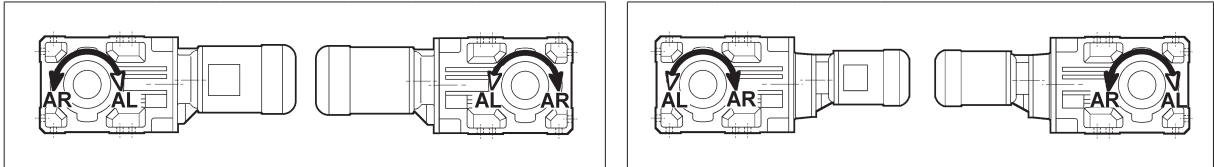


### 33.3 Motor options

#### AL, AR

The backstop option is also available for M motors and is not compatible with the presence of the same option of the gearbox. The following table shows the direction of free rotation of the gearbox, on the basis of which the correct option must be selected.

(C 34)



2x	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 60
3x	A 60	A 70	A 80	A 90				
4x	A 50	A 55						

2x	A 55					
3x	A 20	A 30	A 35	A 41	A 50	A 55
4x	A 60	A 70	A 80	A 90		

For further information on options, consult the electric motors section.

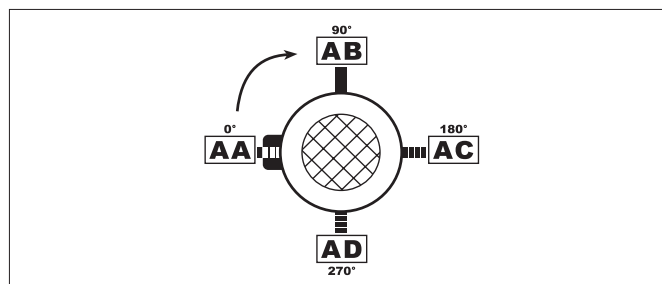
## 34 MOUNTING POSITION AND TERMINAL BOX ANGULAR LOCATION

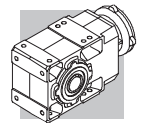
Location of motor terminal box can be specified by viewing the motor from the fan side; standard location is shown in black (W).

#### Angular location of the brake release lever.

Unless otherwise specified, brake motors have the manual device side located, 90° apart from terminal box. Different angles can be specified through the relevant options available.

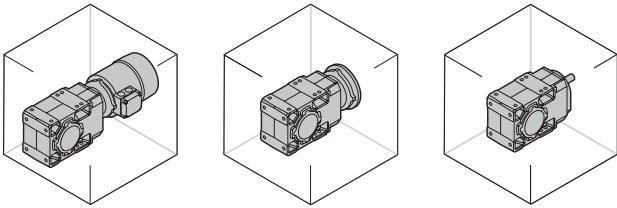
(C 33)



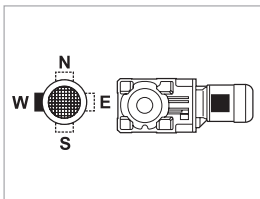


# A ...

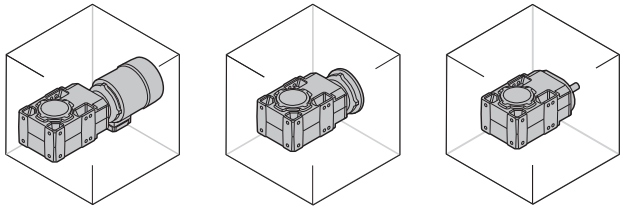
## B3



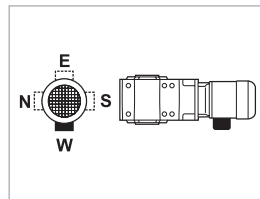
**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



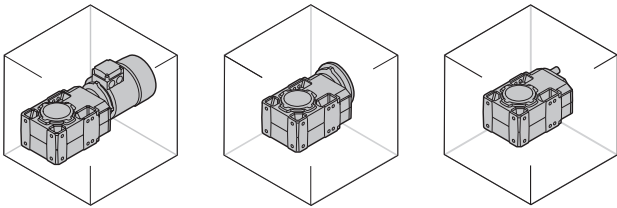
## B6



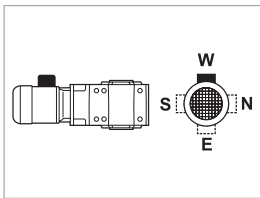
**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



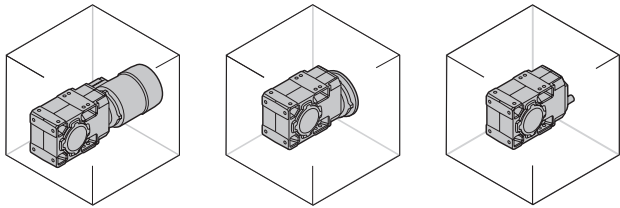
## B7



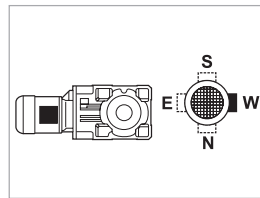
**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



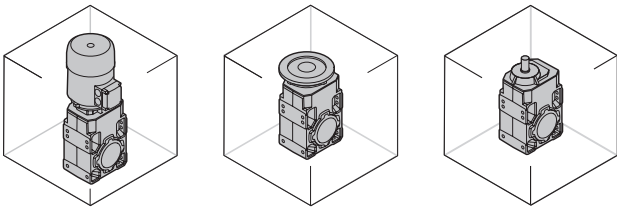
## B8



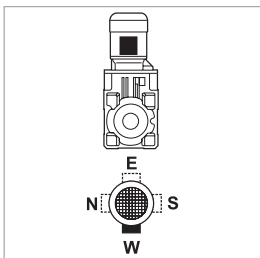
**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



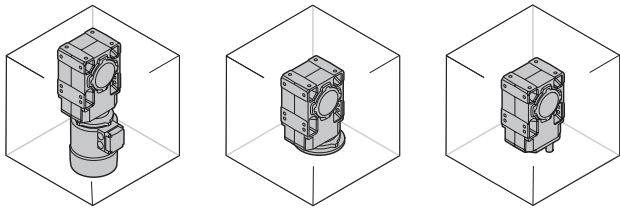
## VA



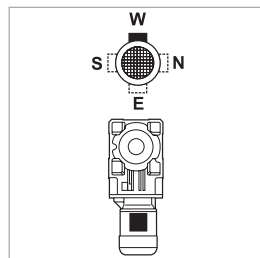
**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



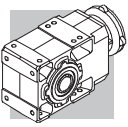
## VB



**\_S**      **\_P(IEC) \_SK / \_SC**      **\_HS**



W = Default



### 35 OVERHUNG LOADS

External transmissions keyed onto input and/or output shaft generate loads that act radially onto same shaft.

Resulting shaft loading must be compatible with both the bearing and the shaft capacity. Namely shaft loading ( $R_{c1}$  for input shaft,  $R_{c2}$  for output shaft), must be equal or lower than admissible overhung load capacity for shaft under study ( $R_{n1}$  for input shaft,  $R_{n2}$  for output shaft). OHL capability listed in the rating chart section.

In the formulas given below, index (1) applies to parameters relating to input shaft, whereas index (2) refers to output shaft.

The load generated by an external transmission can be calculated with close approximation by the following equations:

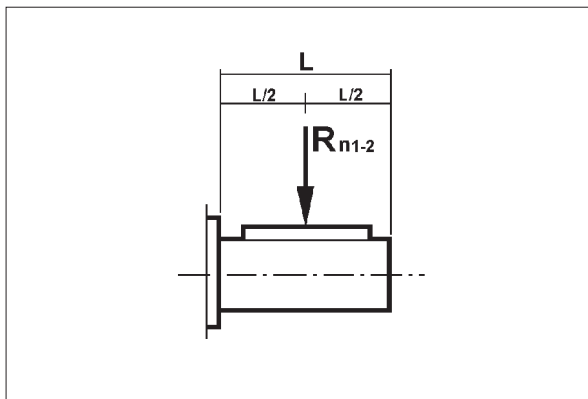
$$R_{c1} [N] = \frac{2000 \cdot M_1 [Nm] \cdot K_r}{d [mm]} \quad ; \quad R_{c2} [N] = \frac{2000 \cdot M_2 [Nm] \cdot K_r}{d [mm]} \quad (26)$$

(C 35)

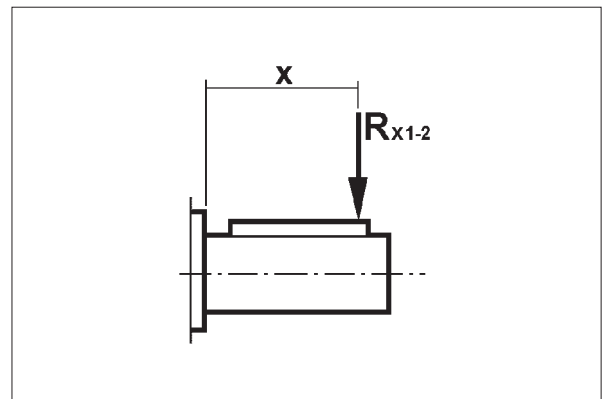
$M_1$ [Nm]	Torque applied to input shaft	$K_r = 1,25$	Gear transmission
$M_2$ [Nm]	Torque drawn at output shaft	$K_r = 1,5$	V-belt transmission
$d$ [mm]	Pitch diameter of element keyed onto shaft	$K_r = 2,0$	Flat belt transmission
$K_r = 1$	Chain transmission		

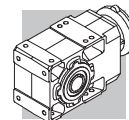
Verification of OHL capability varies depending on whether load applies at midpoint of shaft or it is shifted further out:

(C 36)



(C 37)





### a) Load applied at midpoint of shaft, tab. (C36)

A comparison of shaft loading with catalogue OHL ratings should verify the following condition:

$$R_{c1} \leq R_{n1} \quad [\text{input shaft}]$$

or

$$R_{c2} \leq R_{n2} \quad [\text{output shaft}]$$

### b) Load off the midpoint tab. (C37)

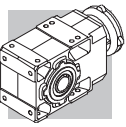
When load is shifted at an “x” distance from shaft shoulder, permissible load must be calculated for that distance.

Revised permissible overhung loads  $R_{x1}$  (input) and  $R_{x2}$  (output) are calculated respectively from original rated values  $R_{n1}$  and  $R_{n2}$  through factor:

$$\frac{a}{b+x} \quad (27)$$

(C 38)

	Load location factors					
	Output shaft			Input shaft		
	a	b	c	a	b	c
<b>A 05 2</b>	116	86	450	—	—	—
<b>A 10 2</b>	123	101	600	21	1	300
<b>A 20 2</b>	150	120	750	40	20	350
<b>A 20 3</b>	150	120	750	21	1	300
<b>A 30 2</b>	168	138	900	38.5	18.5	350
<b>A 30 3</b>	168	138	900	21	1	300
<b>A 35 2</b>	182.5	147.5	950	38.5	18.5	350
<b>A 35 3</b>	182.5	147.5	950	21	1	300
<b>A 41 2</b>	198	158	1050	49.5	24.5	450
<b>A 41 3</b>	198	158	1050	40	20	350
<b>A 50 2 - A 50 3</b>	242.5	201.5	1300	49.5	24.5	450
<b>A 50 4</b>	242.5	201.5	1300	38.5	18.5	350
<b>A 55 2 - A 55 3</b>	231.5	179	1300	49.5	24.5	450
<b>A 55 4</b>	231.5	179	1300	38.5	18.5	350
<b>A 60 2 - A 60 3</b>	242.5	190	1550	55.5	25.5	600
<b>A 60 4</b>	242.5	190	1550	49.5	24.5	450
<b>A 70 3</b>	295.5	230.5	1900	86	31	1000
<b>A 70 4</b>	295.5	230.5	1900	49.5	24.5	450
<b>A 80 3</b>	345	280	2400	86	31	1000
<b>A 80 4</b>	345	280	2400	49.5	24.5	450
<b>A 90 3</b>	432	327	3000	116	46	1400
<b>A 90 4</b>	432	327	3000	49.5	24.5	450



Verification procedure is described here after.

### INPUT SHAFT

1. Calculate:

$$R_{x1} = R_{n1} \cdot \frac{a}{b+x} \quad (28)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (29)$$

Finally, the following condition must be verified:

$$R_{c1} \leq R_{x1} \quad (30)$$

### OUTPUT SHAFT

1. Calculate:

$$R_{x2} = R_{n2} \cdot \frac{a}{b+x} \quad (31)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (32)$$

Finally, the following condition must be verified:

$$R_{c2} \leq R_{x2} \quad (33)$$



### 36 THRUST LOADS, $A_{n1}$ , $A_{n2}$

Permissible thrust loads on input [ $A_{n1}$ ] and output [ $A_{n2}$ ] shafts are obtained from the radial loading for the shaft under consideration [ $R_{n1}$ ] and [ $R_{n2}$ ] through the following equation:

$$\begin{aligned}
 A_{n1} &= R_{n1} \cdot 0.2 \\
 A_{n2} &= R_{n2} \cdot 0.2
 \end{aligned}
 \tag{34}$$

The thrust loads calculated through these formulas apply to thrust forces occurring at the same time as rated radial loads.

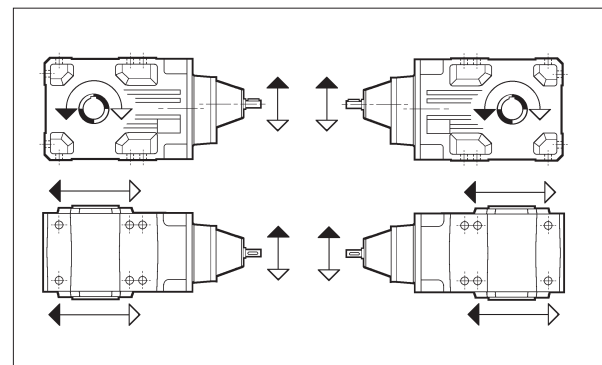
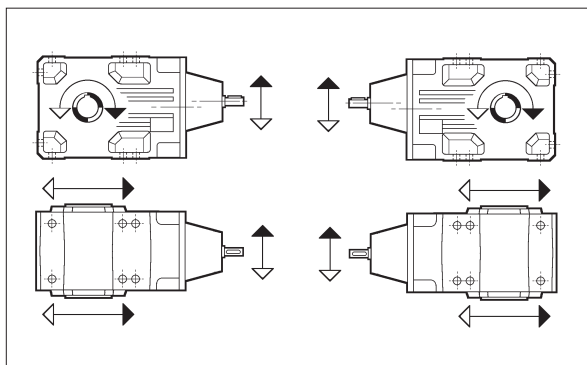
In the only case that no overhung load acts on the shaft the value of the admissible thrust load [ $A_n$ ] amounts to 50% of rated OHL [ $R_n$ ] on same shaft.

Where thrust loads exceed permissible value or largely prevail over radial loads, contact Bonfiglioli Riduttori for an in-depth analysis of the application.

### 37 SHAFTS ARRANGEMENT

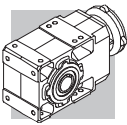
The following table shows standard directions of rotation for 2, 3 and 4 stage helical-bevel gearboxes.

(C 39)



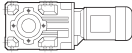
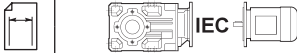

2x	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 60
3x	A 60	A 70	A 80	A 90				
4x	A 50	A 55						

2x	A 55						
3x	A 20	A 30	A 35	A 41	A 50	A 55	
4x	A 60	A 70	A 80	A 90			

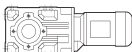




### 38 GEARMOTOR RATING CHARTS

## 0.09 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			
<b>0.51</b>	1492	3.4	1715	50000			<b>A704_1715 P63 BN63A6</b> 309
<b>1.1</b>	677	2.2	778.2	20000			<b>A504_778.2 P63 BN63A6</b> 297
<b>1.2</b>	616	2.4	707.9	20000			<b>A504_707.9 P63 BN63A6</b> 297
<b>1.4</b>	549	2.7	631.2	20000			<b>A504_631.2 P63 BN63A6</b> 297
<b>1.5</b>	499	3.0	574.2	20000			<b>A504_574.2 P63 BN63A6</b> 297
<b>1.7</b>	461	3.3	529.5	20000			<b>A504_529.5 P63 BN63A6</b> 297
<b>2.2</b>	356	1.0	400.8	9600	<b>A303_400.8 S05 M05A6</b>	284	<b>A303_400.8 P63 BN63A6</b> 285
<b>2.6</b>	302	1.7	339.3	12000	<b>A353_339.3 S05 M05A6</b>	288	<b>A353_339.3 P63 BN63A6</b> 289
<b>3.0</b>	259	3.3	291.7	15000	<b>A413_291.7 S05 M05A6</b>	292	<b>A413_291.7 P63 BN63A6</b> 293
<b>3.5</b>	221	2.7	248.1	12000	<b>A353_248.1 S05 M05A6</b>	288	<b>A353_248.1 P63 BN63A6</b> 289
<b>4.1</b>	193	2.1	216.6	9600	<b>A303_216.6 S05 M05A6</b>	284	<b>A303_216.6 P63 BN63A6</b> 285
<b>4.9</b>	159	1.6	178.3	6200	<b>A203_178.3 S05 M05A6</b>	280	<b>A203_178.3 P63 BN63A6</b> 281
<b>5.8</b>	134	2.8	150.7	9600	<b>A303_150.7 S05 M05A6</b>	284	<b>A303_150.7 P63 BN63A6</b> 285
<b>6.8</b>	115	2.2	129.1	6200	<b>A203_129.1 S05 M05A6</b>	280	<b>A203_129.1 P63 BN63A6</b> 281
<b>8.1</b>	97	2.5	109.2	6200	<b>A203_109.2 S05 M05A6</b>	280	<b>A203_109.2 P63 BN63A6</b> 281
<b>9.6</b>	84	1.5	91.6	5500	<b>A102_91.6 S05 M05A6</b>	276	<b>A102_91.6 P63 BN63A6</b> 277
<b>11.5</b>	70	2.1	76.4	5500	<b>A102_76.4 S05 M05A6</b>	276	<b>A102_76.4 P63 BN63A6</b> 277
<b>13.3</b>	61	2.5	65.9	5500	<b>A102_65.9 S05 M05A6</b>	276	<b>A102_65.9 P63 BN63A6</b> 277
<b>15.0</b>	54	2.8	58.6	5500	<b>A102_58.6 S05 M05A6</b>	276	<b>A102_58.6 P63 BN63A6</b> 277
<b>17.2</b>	47	3.2	51.3	5500	<b>A102_51.3 S05 M05A6</b>	276	<b>A102_51.3 P63 BN63A6</b> 277
<b>19.4</b>	42	2.4	45.4	4250	<b>A052_45.4 S05 M05A6</b>	273	<b>A052_45.4 P63 BN63A6</b> 273
<b>21.5</b>	38	2.7	40.9	4120	<b>A052_40.9 S05 M05A6</b>	273	<b>A052_40.9 P63 BN63A6</b> 273
<b>25.1</b>	32	3.1	35.1	3950	<b>A052_35.1 S05 M05A6</b>	273	<b>A052_35.1 P63 BN63A6</b> 273
<b>27.3</b>	30	3.4	32.2	3850	<b>A052_32.2 S05 M05A6</b>	273	<b>A052_32.2 P63 BN63A6</b> 273
<b>31</b>	26	3.8	28.6	3720	<b>A052_28.6 S05 M05A6</b>	273	<b>A052_28.6 P63 BN63A6</b> 273
<b>35</b>	23	4.4	25.5	3590	<b>A052_25.5 S05 M05A6</b>	273	<b>A052_25.5 P63 BN63A6</b> 273
<b>37</b>	22	4.6	23.8	3520	<b>A052_23.8 S05 M05A6</b>	273	<b>A052_23.8 P63 BN63A6</b> 273
<b>41</b>	19.6	5.3	21.4	3410	<b>A052_21.4 S05 M05A6</b>	273	<b>A052_21.4 P63 BN63A6</b> 273
<b>47</b>	17.1	5.9	18.6	3270	<b>A052_18.6 S05 M05A6</b>	273	<b>A052_18.6 P63 BN63A6</b> 273
<b>53</b>	15.1	6.8	16.4	3150	<b>A052_16.4 S05 M05A6</b>	273	<b>A052_16.4 P63 BN63A6</b> 273
<b>63</b>	12.8	7.8	13.9	2990	<b>A052_13.9 S05 M05A6</b>	273	<b>A052_13.9 P63 BN63A6</b> 273
<b>72</b>	11.3	8.8	12.3	2880	<b>A052_12.3 S05 M05A6</b>	273	<b>A052_12.3 P63 BN63A6</b> 273
<b>83</b>	9.7	10.3	10.6	2740	<b>A052_10.6 S05 M05A6</b>	273	<b>A052_10.6 P63 BN63A6</b> 273
<b>92</b>	8.8	11.3	9.6	2670	<b>A052_9.6 S05 M05A6</b>	273	<b>A052_9.6 P63 BN63A6</b> 273
<b>103</b>	7.8	13.2	8.5	2570	<b>A052_8.5 S05 M05A6</b>	273	<b>A052_8.5 P63 BN63A6</b> 273
<b>122</b>	6.6	15.1	7.2	2440	<b>A052_7.2 S05 M05A6</b>	273	<b>A052_7.2 P63 BN63A6</b> 273
<b>139</b>	5.8	17.8	6.3	2340	<b>A052_6.3 S05 M05A6</b>	273	<b>A052_6.3 P63 BN63A6</b> 273
<b>161</b>	5.0	19.9	5.5	2230	<b>A052_5.5 S05 M05A6</b>	273	<b>A052_5.5 P63 BN63A6</b> 273

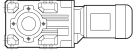



## 0.12 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			
<b>0.51</b>	2012	2.5	1715	50000			<b>A704_1715 P63 BN63B6</b> 309
<b>0.55</b>	1857	2.7	1583	50000			<b>A704_1583 P63 BN63B6</b> 309
<b>0.65</b>	1579	3.2	1346	50000			<b>A704_1346 P63 BN63B6</b> 309
<b>0.70</b>	1457	3.4	1242	50000			<b>A704_1242 P63 BN63B6</b> 309



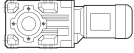




## 0.12 kW

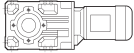


n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC	
1.1	913	1.6	778.2	20000			A504_778.2 P63 BN63B6	297
1.2	818	3.4	697.3	30000			A604_697.3 P63 BN63B6	305
1.4	740	2.0	631.2	20000			A504_631.2 P63 BN63B6	297
1.6	621	2.4	529.5	20000			A504_529.5 P63 BN63B6	297
1.7	588	2.5	778.2	20000			A504_778.2 P63 BN63A4	297
1.9	535	2.8	707.9	20000			A504_707.9 P63 BN63A4	297
2.1	477	3.1	631.2	20000			A504_631.2 P63 BN63A4	297
2.4	434	3.5	574.2	20000			A504_574.2 P63 BN63A4	297
3.4	310	1.2	400.8	9600	A303_400.8 S05 M05A4	284	A303_400.8 P63 BN63A4	285
3.4	304	1.5	393.2	12000	A353_393.2 S05 M05A4	288	A353_393.2 P63 BN63A4	289
3.6	291	2.9	376.8	15000	A413_376.8 S05 M05A4	292	A413_376.8 P63 BN63A4	293
3.8	275	1.3	356.3	9600	A303_356.3 S05 M05A4	284	A303_356.3 P63 BN63A4	285
4.0	262	2.0	339.3	12000	A353_339.3 S05 M05A4	288	A353_339.3 P63 BN63A4	289
4.1	255	1.0	329.4	6200	A203_329.4 S05 M05A4	280	A203_329.4 P63 BN63A4	281
4.2	251	3.4	324.2	15000	A413_324.2 S05 M05A4	292	A413_324.2 P63 BN63A4	293
4.3	243	1.6	314.5	9600	A303_314.5 S05 M05A4	284	A303_314.5 P63 BN63A4	285
4.4	236	2.5	305.4	12000	A353_305.4 S05 M05A4	288	A353_305.4 P63 BN63A4	289
4.6	226	1.1	292.8	6200	A203_292.8 S05 M05A4	280	A203_292.8 P63 BN63A4	281
5.0	210	1.8	271.5	9600	A303_271.5 S05 M05A4	284	A303_271.5 P63 BN63A4	285
5.0	209	2.9	270.7	12000	A353_270.7 S05 M05A4	288	A353_270.7 P63 BN63A4	289
5.2	201	1.2	260.5	6200	A203_260.5 S05 M05A4	280	A203_260.5 P63 BN63A4	281
5.4	192	3.1	248.1	12000	A353_248.1 S05 M05A4	288	A353_248.1 P63 BN63A4	289
5.5	189	2.0	244.3	9600	A303_244.3 S05 M05A4	284	A303_244.3 P63 BN63A4	285
6.0	172	3.5	223.2	12000	A353_223.2 S05 M05A4	288	A353_223.2 P63 BN63A4	289
6.1	171	1.5	221.3	6200	A203_221.3 S05 M05A4	280	A203_221.3 P63 BN63A4	281
6.2	167	2.2	216.6	9600	A303_216.6 S05 M05A4	284	A303_216.6 P63 BN63A4	285
6.8	154	1.6	199.2	6200	A203_199.2 S05 M05A4	280	A203_199.2 P63 BN63A4	281
6.8	153	2.3	198.5	9600	A303_198.5 S05 M05A4	284	A303_198.5 P63 BN63A4	285
7.6	138	2.5	178.5	9600	A303_178.5 S05 M05A4	284	A303_178.5 P63 BN63A4	285
7.6	138	1.8	178.3	6200	A203_178.3 S05 M05A4	280	A203_178.3 P63 BN63A4	281
8.3	126	1.9	163.4	6200	A203_163.4 S05 M05A4	280	A203_163.4 P63 BN63A4	281
8.4	125	2.7	161.4	9600	A303_161.4 S05 M05A4	284	A303_161.4 P63 BN63A4	285
9.0	116	2.8	150.7	9600	A303_150.7 S05 M05A4	284	A303_150.7 P63 BN63A4	285
9.2	113	2.0	146.1	6200	A203_146.1 S05 M05A4	280	A203_146.1 P63 BN63A4	281
9.8	106	3.0	137.4	9600	A303_137.4 S05 M05A4	284	A303_137.4 P63 BN63A4	285
10.5	100	2.2	129.1	6200	A203_129.1 S05 M05A4	280	A203_129.1 P63 BN63A4	281
11.2	93	2.3	120.5	6200	A203_120.5 S05 M05A4	280	A203_120.5 P63 BN63A4	281
11.2	93	3.2	120.5	9600	A303_120.5 S05 M05A4	284	A303_120.5 P63 BN63A4	285
12.4	84	2.4	109.2	6200	A203_109.2 S05 M05A4	280	A203_109.2 P63 BN63A4	281
14.6	74	2.7	92.3	6200	A202_92.3 S05 M05A4	280	A202_92.3 P63 BN63A4	281
14.7	73	1.4	91.6	4420	A052_91.6 S05 M05A4	273	A052_91.6 P63 BN63A4	273
14.7	73	1.8	91.6	5500	A102_91.6 S05 M05A4	276	A102_91.6 P63 BN63A4	277
16.9	64	3.3	79.9	6200	A202_79.9 S05 M05A4	280	A202_79.9 P63 BN63A4	281
17.7	61	1.6	76.4	4230	A052_76.4 S05 M05A4	273	A052_76.4 P63 BN63A4	273
17.7	61	2.5	76.4	5500	A102_76.4 S05 M05A4	276	A102_76.4 P63 BN63A4	277
20.5	53	1.9	65.9	4070	A052_65.9 S05 M05A4	273	A052_65.9 P63 BN63A4	273
20.5	53	2.8	65.9	5500	A102_65.9 S05 M05A4	276	A102_65.9 P63 BN63A4	277
23.0	47	2.1	58.6	3950	A052_58.6 S05 M05A4	273	A052_58.6 P63 BN63A4	273
23.0	47	3.2	58.6	5500	A102_58.6 S05 M05A4	276	A102_58.6 P63 BN63A4	277
26.3	41	2.4	51.3	3810	A052_51.3 S05 M05A4	273	A052_51.3 P63 BN63A4	273
29.7	36	2.8	45.4	3680	A052_45.4 S05 M05A4	273	A052_45.4 P63 BN63A4	273



## 0.12 kW

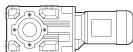



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
33	33	3.1	40.9	3570	A052_40.9 S05 M05A4	273	A052_40.9 P63 BN63A4	273
38	28	3.6	35.1	3420	A052_35.1 S05 M05A4	273	A052_35.1 P63 BN63A4	273
42	26	3.9	32.2	3340	A052_32.2 S05 M05A4	273	A052_32.2 P63 BN63A4	273
47	23	4.4	28.6	3220	A052_28.6 S05 M05A4	273	A052_28.6 P63 BN63A4	273
53	20	4.9	25.5	3110	A052_25.5 S05 M05A4	273	A052_25.5 P63 BN63A4	273
57	19	5.3	23.8	3050	A052_23.8 S05 M05A4	273	A052_23.8 P63 BN63A4	273
62	17.3	5.8	13.9	2960	A052_13.9 S05 M05B6	273	A052_13.9 P63 BN63B6	273
63	17.1	5.9	21.4	2950	A052_21.4 S05 M05A4	273	A052_21.4 P63 BN63A4	273
73	14.8	6.7	18.6	2830	A052_18.6 S05 M05A4	273	A052_18.6 P63 BN63A4	273
82	13.1	7.6	16.4	2730	A052_16.4 S05 M05A4	273	A052_16.4 P63 BN63A4	273
90	11.9	8.4	9.6	2640	A052_9.6 S05 M05B6	273	A052_9.6 P63 BN63B6	273
97	11.1	9.0	13.9	2590	A052_13.9 S05 M05A4	273	A052_13.9 P63 BN63A4	273
110	9.8	10.2	12.3	2500	A052_12.3 S05 M05A4	273	A052_12.3 P63 BN63A4	273
121	8.9	11.2	7.2	2420	A052_7.2 S05 M05B6	273	A052_7.2 P63 BN63B6	273
128	8.4	11.9	10.6	2380	A052_10.6 S05 M05A4	273	A052_10.6 P63 BN63A4	273
140	7.7	13.0	9.6	2310	A052_9.6 S05 M05A4	273	A052_9.6 P63 BN63A4	273
159	6.8	14.7	8.5	2220	A052_8.5 S05 M05A4	273	A052_8.5 P63 BN63A4	273
187	5.8	17.4	7.2	2110	A052_7.2 S05 M05A4	273	A052_7.2 P63 BN63A4	273
213	5.1	19.8	6.3	2020	A052_6.3 S05 M05A4	273	A052_6.3 P63 BN63A4	273
247	4.4	21.8	5.5	1930	A052_5.5 S05 M05A4	273	A052_5.5 P63 BN63A4	273

## 0.18 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
0.52	2917	1.7	1715	50000	A704_1715 S1 M1SC6	308	A704_1715 P71 BN71A6	309
0.58	2649	3.0	1558	65000	A804_1558 S1 M1SC6	311	A804_1558 P71 BN71A6	312
0.67	2279	3.5	1340	65000	A804_1340 S1 M1SC6	311	A804_1340 P71 BN71A6	312
0.77	1989	2.5	1715	50000			A704_1715 P63 BN63B4	309
0.83	1836	2.7	1583	50000			A704_1583 P63 BN63B4	309
0.98	1561	3.2	1346	50000			A704_1346 P63 BN63B4	309
1.1	1441	3.5	1242	50000			A704_1242 P63 BN63B4	309
1.3	1186	2.4	697.3	30000	A604_697.3 S1 M1SC6	304	A604_697.3 P71 BN71A6	305
1.5	996	2.8	585.8	30000	A604_585.8 S1 M1SC6	304	A604_585.8 P71 BN71A6	305
1.7	902	1.7	778.2	20000			A504_778.2 P63 BN63B4	297
1.7	876	3.2	755.4	30000			A604_755.4 P63 BN63B4	305
1.9	821	1.8	707.9	20000			A504_707.9 P63 BN63B4	297
1.9	809	3.5	697.3	30000			A604_697.3 P63 BN63B4	305
2.1	732	2.0	631.2	20000			A504_631.2 P63 BN63B4	297
2.3	666	2.3	574.2	20000			A504_574.2 P63 BN63B4	297
2.5	614	2.4	529.5	20000			A504_529.5 P63 BN63B4	297
2.7	559	2.7	481.6	20000			A504_481.6 P63 BN63B4	297
3.0	518	2.9	446.8	20000			A504_446.8 P63 BN63B4	297
3.2	471	3.2	406.4	20000			A504_406.4 P63 BN63B4	297
3.4	466	1.0	393.2	12000	A353_393.2 S05 M05B4	288	A353_393.2 P63 BN63B4	289
3.5	447	1.9	376.8	15000	A413_376.8 S05 M05B4	292	A413_376.8 P63 BN63B4	293
3.6	424	3.5	365.6	20000			A504_365.6 P63 BN63B4	297
3.7	422	0.9	356.3	9600	A303_356.3 S05 M05B4	284	A303_356.3 P63 BN63B4	285
3.9	402	1.3	339.3	12000	A353_339.3 S05 M05B4	288	A353_339.3 P63 BN63B4	289

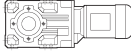





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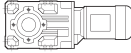



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
4.1	384	2.2	324.2	15000	A413_324.2 S05 M05B4	292	A413_324.2 P63 BN63B4	293
4.2	373	1.0	314.5	9600	A303_314.5 S05 M05B4	284	A303_314.5 P63 BN63B4	285
4.3	362	1.7	305.4	12000	A353_305.4 S05 M05B4	288	A353_305.4 P63 BN63B4	289
4.5	346	2.5	291.7	15000	A413_291.7 S05 M05B4	292	A413_291.7 P63 BN63B4	293
4.9	322	1.2	271.5	9600	A303_271.5 S05 M05B4	284	A303_271.5 P63 BN63B4	285
4.9	321	1.9	270.7	12000	A353_270.7 S05 M05B4	288	A353_270.7 P63 BN63B4	289
5.0	311	2.7	262.5	15000	A413_262.5 S05 M05B4	292	A413_262.5 P63 BN63B4	293
5.3	294	2.0	248.1	12000	A353_248.1 S05 M05B4	288	A353_248.1 P63 BN63B4	289
5.4	290	1.3	244.3	9600	A303_244.3 S05 M05B4	284	A303_244.3 P63 BN63B4	285
5.5	285	3.0	240.6	15000	A413_240.6 S05 M05B4	292	A413_240.6 P63 BN63B4	293
5.9	265	2.3	223.2	12000	A353_223.2 S05 M05B4	288	A353_223.2 P63 BN63B4	289
6.0	262	1.0	221.3	6200	A203_221.3 S05 M05B4	280	A203_221.3 P63 BN63B4	281
6.1	258	3.3	217.4	15000	A413_217.4 S05 M05B4	292	A413_217.4 P63 BN63B4	293
6.1	257	1.4	216.6	9600	A303_216.6 S05 M05B4	284	A303_216.6 P63 BN63B4	285
6.5	239	2.5	201.8	12000	A353_201.8 S05 M05B4	288	A353_201.8 P63 BN63B4	289
6.6	236	1.1	199.2	6200	A203_199.2 S05 M05B4	280	A203_199.2 P63 BN63B4	281
6.6	235	1.5	198.5	9600	A303_198.5 S05 M05B4	284	A303_198.5 P63 BN63B4	285
7.0	223	2.7	188.3	12000	A353_188.3 S05 M05B4	288	A353_188.3 P63 BN63B4	289
7.4	212	1.6	178.5	9600	A303_178.5 S05 M05B4	284	A303_178.5 P63 BN63B4	285
7.4	211	1.2	178.3	6200	A203_178.3 S05 M05B4	280	A203_178.3 P63 BN63B4	281
7.7	204	2.9	171.8	12000	A353_171.8 S05 M05B4	288	A353_171.8 P63 BN63B4	289
8.1	194	1.2	163.4	6200	A203_163.4 S05 M05B4	280	A203_163.4 P63 BN63B4	281
8.2	191	1.8	161.4	9600	A303_161.4 S05 M05B4	284	A303_161.4 P63 BN63B4	285
8.8	179	1.8	150.7	9600	A303_150.7 S05 M05B4	284	A303_150.7 P63 BN63B4	285
8.8	179	3.4	150.6	12000	A353_150.6 S05 M05B4	288	A353_150.6 P63 BN63B4	289
9.0	173	1.3	146.1	6200	A203_146.1 S05 M05B4	280	A203_146.1 P63 BN63B4	281
9.6	163	1.9	137.4	9600	A303_137.4 S05 M05B4	284	A303_137.4 P63 BN63B4	285
10.2	153	1.4	129.1	6200	A203_129.1 S05 M05B4	280	A203_129.1 P63 BN63B4	281
11.0	143	1.5	120.5	6200	A203_120.5 S05 M05B4	280	A203_120.5 P63 BN63B4	281
11.0	143	2.1	120.5	9600	A303_120.5 S05 M05B4	284	A303_120.5 P63 BN63B4	285
12.1	129	1.6	109.2	6200	A203_109.2 S05 M05B4	280	A203_109.2 P63 BN63B4	281
12.1	129	2.3	109.1	9600	A303_109.1 S05 M05B4	284	A303_109.1 P63 BN63B4	285
13.5	119	2.5	97.5	9600			A302_97.5 P63 BN63B4	285
14.3	113	1.8	92.3	6200	A202_92.3 S05 M05B4	280	A202_92.3 P63 BN63B4	281
14.4	112	0.9	91.6	4120	A052_91.6 S05 M05B4	273	A052_91.6 P63 BN63B4	273
14.4	112	1.2	91.6	5500	A102_91.6 S05 M05B4	276	A102_91.6 P63 BN63B4	277
15.2	106	3.0	86.7	9600			A302_86.7 P63 BN63B4	285
16.5	98	2.1	79.9	6200	A202_79.9 S05 M05B4	280	A202_79.9 P63 BN63B4	281
17.3	94	1.1	76.4	3980	A052_76.4 S05 M05B4	273	A052_76.4 P63 BN63B4	273
17.3	94	1.6	76.4	5500	A102_76.4 S05 M05B4	276	A102_76.4 P63 BN63B4	277
18.6	87	2.4	71.0	6200	A202_71.0 S05 M05B4	280	A202_71.0 P63 BN63B4	281
20.0	81	1.2	65.9	3860	A052_65.9 S05 M05B4	273	A052_65.9 P63 BN63B4	273
20.0	81	1.9	65.9	5500	A102_65.9 S05 M05B4	276	A102_65.9 P63 BN63B4	277
20.9	77	3.2	63.1	6200	A202_63.1 S05 M05B4	280	A202_63.1 P63 BN63B4	281
22.5	72	1.4	58.6	3760	A052_58.6 S05 M05B4	273	A052_58.6 P63 BN63B4	273
22.5	72	2.1	58.6	5500	A102_58.6 S05 M05B4	276	A102_58.6 P63 BN63B4	277
25.8	63	1.6	51.3	3640	A052_51.3 S05 M05B4	273	A052_51.3 P63 BN63B4	273
25.8	63	2.4	51.3	5500	A102_51.3 S05 M05B4	276	A102_51.3 P63 BN63B4	277
29.1	56	1.8	45.4	3540	A052_45.4 S05 M05B4	273	A052_45.4 P63 BN63B4	273
29.1	56	2.7	45.4	5500	A102_45.4 S05 M05B4	276	A102_45.4 P63 BN63B4	277
32	50	2.0	40.9	3440	A052_40.9 S05 M05B4	273	A052_40.9 P63 BN63B4	273



## 0.18 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
32	50	3.0	40.9	5500	A102_40.9 S05 M05B4	276	A102_40.9 P63 BN63B4	277
38	43	2.3	35.1	3310	A052_35.1 S05 M05B4	273	A052_35.1 P63 BN63B4	273
38	43	3.5	35.1	5380	A102_35.1 S05 M05B4	276	A102_35.1 P63 BN63B4	277
41	39	2.5	32.2	3240	A052_32.2 S05 M05B4	273	A052_32.2 P63 BN63B4	273
46	35	2.9	28.6	3130	A052_28.6 S05 M05B4	273	A052_28.6 P63 BN63B4	273
52	31	3.2	25.5	3040	A052_25.5 S05 M05B4	273	A052_25.5 P63 BN63B4	273
56	29	3.4	23.8	2980	A052_23.8 S05 M05B4	273	A052_23.8 P63 BN63B4	273
62	26	3.8	21.4	2890	A052_21.4 S05 M05B4	273	A052_21.4 P63 BN63B4	273
71	23	4.4	18.6	2780	A052_18.6 S05 M05B4	273	A052_18.6 P63 BN63B4	273
80	20	5.0	16.4	2680	A052_16.4 S05 M05B4	273	A052_16.4 P63 BN63B4	273
95	17.1	5.9	13.9	2550	A052_13.9 S05 M05B4	273	A052_13.9 P63 BN63B4	273
107	15.1	6.6	12.3	2460	A052_12.3 S05 M05B4	273	A052_12.3 P63 BN63B4	273
125	12.9	7.7	10.6	2350	A052_10.6 S05 M05B4	273	A052_10.6 P63 BN63B4	273
137	11.8	8.5	9.6	2280	A052_9.6 S05 M05B4	273	A052_9.6 P63 BN63B4	273
142	11.4	8.8	6.3	2300	A052_6.3 S1 M1SC6	273	A052_6.3 P71 BN71A6	273
155	10.4	9.6	8.5	2200	A052_8.5 S05 M05B4	273	A052_8.5 P63 BN63B4	273
183	8.8	11.3	7.2	2090	A052_7.2 S05 M05B4	273	A052_7.2 P63 BN63B4	273
208	7.8	12.9	6.3	2010	A052_6.3 S05 M05B4	273	A052_6.3 P63 BN63B4	273
242	6.7	14.2	5.5	1920	A052_5.5 S05 M05B4	273	A052_5.5 P63 BN63B4	273
284	5.7	16.7	9.6	1830	A052_9.6 S05 M05A2	273	A052_9.6 P63 BN63A2	273
321	5.0	17.8	8.5	1770	A052_8.5 S05 M05A2	273	A052_8.5 P63 BN63A2	273
379	4.3	19.9	7.2	1670	A052_7.2 S05 M05A2	273	A052_7.2 P63 BN63A2	273
431	3.8	21.3	6.3	1610	A052_6.3 S05 M05A2	273	A052_6.3 P63 BN63A2	273
499	3.2	23.2	5.5	1530	A052_5.5 S05 M05A2	273	A052_5.5 P63 BN63A2	273

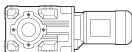




## 0.25 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
0.52	4051	1.2	1715	50000	A704_1715 S1 M1SD6	308	A704_1715 P71 BN71B6	309
0.58	3680	2.2	1558	65000	A804_1558 S1 M1SD6	311	A804_1558 P71 BN71B6	312
0.67	3165	2.5	1340	65000	A804_1340 S1 M1SD6	311	A804_1340 P71 BN71B6	312
0.80	2642	1.9	1715	50000			A704_1715 P71 BN71A4	309
0.87	2439	2.1	1583	50000			A704_1583 P71 BN71A4	309
0.89	2400	3.3	1558	65000			A804_1558 P71 BN71A4	312
1.0	2073	2.4	1346	50000			A704_1346 P71 BN71A4	309
1.1	1914	2.6	1242	50000			A704_1242 P71 BN71A4	309
1.2	1789	2.8	1161	50000			A704_1161 P71 BN71A4	309
1.3	1652	3.0	1072	50000			A704_1072 P71 BN71A4	309
1.5	1427	3.5	926.5	50000			A704_926.5 P71 BN71A4	309
1.8	1199	1.3	778.2	20000			A504_778.2 P71 BN71A4	297
1.8	1164	2.4	755.4	30000			A604_755.4 P71 BN71A4	305
1.9	1091	1.4	707.9	20000			A504_707.9 P71 BN71A4	297
2.0	1074	2.6	697.3	30000			A604_697.3 P71 BN71A4	305
2.2	978	2.9	634.6	30000			A604_634.6 P71 BN71A4	305
2.2	972	1.5	631.2	20000			A504_631.2 P71 BN71A4	297
2.4	902	3.1	585.8	30000			A604_585.8 P71 BN71A4	305
2.4	885	1.7	574.2	20000			A504_574.2 P71 BN71A4	297
2.5	835	3.4	542.0	30000			A604_542.0 P71 BN71A4	305



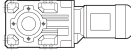





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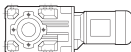



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
2.6	816	1.8	529.5	20000			A504_529.5 P71 BN71A4	297
2.9	742	2.0	481.6	20000			A504_481.6 P71 BN71A4	297
3.1	688	2.2	446.8	20000			A504_446.8 P71 BN71A4	297
3.4	626	2.4	406.4	20000			A504_406.4 P71 BN71A4	297
3.6	611	1.4	376.8	15000	A413_376.8 S05 M05C4	292	A413_376.8 P71 BN71A4	293
3.8	563	2.7	365.6	20000			A504_365.6 P71 BN71A4	297
3.9	550	0.9	339.3	12000	A353_339.3 S05 M05C4	288	A353_339.3 P71 BN71A4	289
4.1	526	1.6	324.2	15000	A413_324.2 S05 M05C4	292	A413_324.2 P71 BN71A4	293
4.1	512	2.9	332.6	20000			A504_332.6 P71 BN71A4	297
4.4	495	1.2	305.4	12000	A353_305.4 S05 M05C4	288	A353_305.4 P71 BN71A4	289
4.7	460	1.8	291.7	15000	A413_291.7 S05 M05C4	292	A413_291.7 P71 BN71A4	293
4.8	442	3.4	286.8	20000			A504_286.8 P71 BN71A4	297
4.9	440	0.9	271.5	9600	A303_271.5 S05 M05C4	284	A303_271.5 P71 BN71A4	285
5.0	439	1.4	270.7	12000	A353_270.7 S05 M05C4	288	A353_270.7 P71 BN71A4	289
5.1	426	2.0	262.5	15000	A413_262.5 S05 M05C4	292	A413_262.5 P71 BN71A4	293
5.4	403	1.5	248.1	12000	A353_248.1 S05 M05C4	288	A353_248.1 P71 BN71A4	289
5.6	385	1.0	244.3	9600	A303_244.3 S05 M05C4	284	A303_244.3 P71 BN71A4	285
5.7	379	2.2	240.6	15000	A413_240.6 S05 M05C4	292	A413_240.6 P71 BN71A4	293
6.0	362	1.7	223.2	12000	A353_223.2 S05 M05C4	288	A353_223.2 P71 BN71A4	289
6.2	353	2.4	217.4	15000	A413_217.4 S05 M05C4	292	A413_217.4 P71 BN71A4	293
6.2	351	1.0	216.6	9600	A303_216.6 S05 M05C4	284	A303_216.6 P71 BN71A4	285
6.6	327	1.8	201.8	12000	A353_201.8 S05 M05C4	288	A353_201.8 P71 BN71A4	289
7.0	313	1.1	198.5	9600	A303_198.5 S05 M05C4	284	A303_198.5 P71 BN71A4	285
7.0	311	2.7	197.5	15000	A413_197.5 S05 M05C4	292	A413_197.5 P71 BN71A4	293
7.1	306	2.0	188.3	12000	A353_188.3 S05 M05C4	288	A353_188.3 P71 BN71A4	289
7.3	299	2.8	184.4	15000	A413_184.4 S05 M05C4	292	A413_184.4 P71 BN71A4	293
7.5	290	1.2	178.5	9600	A303_178.5 S05 M05C4	284	A303_178.5 P71 BN71A4	285
7.8	279	2.2	171.8	12000	A353_171.8 S05 M05C4	288	A353_171.8 P71 BN71A4	289
8.4	257	0.9	163.4	6200	A203_163.4 S05 M05C4	280	A203_163.4 P71 BN71A4	281
8.5	254	1.3	161.4	9600	A303_161.4 S05 M05C4	284	A303_161.4 P71 BN71A4	285
8.9	244	1.4	150.7	9600	A303_150.7 S05 M05C4	284	A303_150.7 P71 BN71A4	285
8.9	244	2.5	150.6	12000	A353_150.6 S05 M05C4	288	A353_150.6 P71 BN71A4	289
9.2	237	1.0	146.1	6200	A203_146.1 S05 M05C4	280	A203_146.1 P71 BN71A4	281
9.8	221	2.6	136.3	12000	A353_136.3 S05 M05C4	288	A353_136.3 P71 BN71A4	289
10.0	216	1.5	137.4	9600	A303_137.4 S05 M05C4	284	A303_137.4 P71 BN71A4	285
10.7	203	1.1	129.1	6200	A203_129.1 S05 M05C4	280	A203_129.1 P71 BN71A4	281
11.1	196	1.1	120.5	6200	A203_120.5 S05 M05C4	280	A203_120.5 P71 BN71A4	281
11.1	195	1.5	120.5	9600	A303_120.5 S05 M05C4	284	A303_120.5 P71 BN71A4	285
11.5	190	3.0	116.9	12000	A353_116.9 S05 M05C4	288	A353_116.9 P71 BN71A4	289
12.6	172	1.2	109.2	6200	A203_109.2 S05 M05C4	280	A203_109.2 P71 BN71A4	281
12.7	172	1.7	109.1	9600	A303_109.1 S05 M05C4	284	A303_109.1 P71 BN71A4	285
12.7	171	3.1	105.5	12000	A353_105.5 S05 M05C4	288	A353_105.5 P71 BN71A4	289
14.2	159	1.9	97.5	9600			A302_97.5 P71 BN71A4	285
14.4	156	3.5	95.6	12000			A352_95.6 P71 BN71A4	289
14.5	155	1.3	92.3	6200	A202_92.3 S05 M05C4	280	A202_92.3 P71 BN71A4	281
15.9	141	2.3	86.7	9600			A302_86.7 P71 BN71A4	285
16.8	134	1.6	79.9	6200	A202_79.9 S05 M05C4	280	A202_79.9 P71 BN71A4	281
17.5	128	1.2	76.4	5500	A102_76.4 S05 M05C4	276	A102_76.4 P71 BN71A4	277
18.0	125	2.8	76.5	9600			A302_76.5 P71 BN71A4	285
19.4	116	1.8	71.0	6200	A202_71.0 S05 M05C4	280	A202_71.0 P71 BN71A4	281
20.3	110	0.9	65.9	3610	A052_65.9 S05 M05C4	273	A052_65.9 P71 BN71A4	273



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

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
20.3	110	1.4	65.9	5500	A102_65.9 S05 M05C4	276	A102_65.9 P71 BN71A4	277
21.2	106	2.3	63.1	6200	A202_63.1 S05 M05C4	280	A202_63.1 P71 BN71A4	281
22.9	98	1.0	58.6	3540	A052_58.6 S05 M05C4	273	A052_58.6 P71 BN71A4	273
23.5	95	1.6	58.6	5500	A102_58.6 S05 M05C4	276	A102_58.6 P71 BN71A4	277
25.0	90	2.8	53.7	6200	A202_53.7 S05 M05C4	280	A202_53.7 P71 BN71A4	281
26.1	86	1.2	51.3	3450	A052_51.3 S05 M05C4	273	A052_51.3 P71 BN71A4	273
26.1	86	1.7	51.3	5500	A102_51.3 S05 M05C4	276	A102_51.3 P71 BN71A4	277
28.6	79	3.2	48.3	6180	A202_48.3 S05 M05C4	280	A202_48.3 P71 BN71A4	281
29.5	76	1.3	45.4	3370	A052_45.4 S05 M05C4	273	A052_45.4 P71 BN71A4	273
29.5	76	2.0	45.4	5500	A102_45.4 S05 M05C4	276	A102_45.4 P71 BN71A4	277
33	68	1.5	40.9	3290	A052_40.9 S05 M05C4	273	A052_40.9 P71 BN71A4	273
34	66	2.3	40.9	5500	A102_40.9 S05 M05C4	276	A102_40.9 P71 BN71A4	277
38	59	1.7	35.1	3180	A052_35.1 S05 M05C4	273	A052_35.1 P71 BN71A4	273
38	59	2.5	35.1	5260	A102_35.1 S05 M05C4	276	A102_35.1 P71 BN71A4	277
42	54	1.9	32.2	3120	A052_32.2 S05 M05C4	273	A052_32.2 P71 BN71A4	273
43	52	2.9	32.2	5500	A102_32.2 S05 M05C4	276	A102_32.2 P71 BN71A4	277
47	48	2.1	28.6	3030	A052_28.6 S05 M05C4	273	A052_28.6 P71 BN71A4	273
47	48	3.1	28.6	4970	A102_28.6 S05 M05C4	276	A102_28.6 P71 BN71A4	277
53	43	2.3	25.5	2940	A052_25.5 S05 M05C4	273	A052_25.5 P71 BN71A4	273
56	40	2.5	23.8	2890	A052_23.8 S05 M05C4	273	A052_23.8 P71 BN71A4	273
63	36	2.8	21.4	2810	A052_21.4 S05 M05C4	273	A052_21.4 P71 BN71A4	273
72	31	3.2	18.6	2710	A052_18.6 S05 M05C4	273	A052_18.6 P71 BN71A4	273
84	27	3.7	16.4	2620	A052_16.4 S05 M05C4	273	A052_16.4 P71 BN71A4	273
99	23	4.4	13.9	2500	A052_13.9 S05 M05C4	273	A052_13.9 P71 BN71A4	273
112	20	5.0	12.3	2420	A052_12.3 S05 M05C4	273	A052_12.3 P71 BN71A4	273
131	17.2	5.8	10.6	2310	A052_10.6 S05 M05C4	273	A052_10.6 P71 BN71A4	273
144	15.7	6.4	9.6	2260	A052_9.6 S05 M05C4	273	A052_9.6 P71 BN71A4	273
162	13.9	7.2	8.5	2180	A052_8.5 S05 M05C4	273	A052_8.5 P71 BN71A4	273
191	11.7	8.5	7.2	2070	A052_7.2 S05 M05C4	273	A052_7.2 P71 BN71A4	273
218	10.3	9.7	6.3	1990	A052_6.3 S05 M05C4	273	A052_6.3 P71 BN71A4	273
252	8.9	10.7	5.5	1900	A052_5.5 S05 M05C4	273	A052_5.5 P71 BN71A4	273
285	7.9	12.1	9.6	1820	A052_9.6 S05 M05B2	273	A052_9.6 P63 BN63B2	273
322	7.0	12.9	8.5	1750	A052_8.5 S05 M05B2	273	A052_8.5 P63 BN63B2	273
380	5.9	14.4	7.2	1660	A052_7.2 S05 M05B2	273	A052_7.2 P63 BN63B2	273
433	5.2	15.4	6.3	1590	A052_6.3 S05 M05B2	273	A052_6.3 P63 BN63B2	273
501	4.5	16.7	5.5	1520	A052_5.5 S05 M05B2	273	A052_5.5 P63 BN63B2	273

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<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
0.56	5644	2.5	1632	75000	A904_1632 S1 M1LA6	314	A904_1632 P80 BN80A6	315
0.63	4972	1.6	1438	65000	A804_1438 S1 M1LA6	311	A804_1438 P80 BN80A6	312
0.74	4226	3.3	1222	75000	A904_1222 S1 M1LA6	314	A904_1222 P80 BN80A6	315
0.80	3939	1.3	1715	50000	A704_1715 S1 M1SD4	308	A704_1715 P71 BN71B4	309
0.87	3636	1.4	1583	50000	A704_1583 S1 M1SD4	308	A704_1583 P71 BN71B4	309
0.88	3577	2.2	1558	65000	A804_1558 S1 M1SD4	311	A804_1558 P71 BN71B4	312
0.95	3302	2.4	1438	65000	A804_1438 S1 M1SD4	311	A804_1438 P71 BN71B4	312
1.0	3091	1.6	1346	50000	A704_1346 S1 M1SD4	308	A704_1346 P71 BN71B4	309



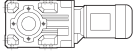



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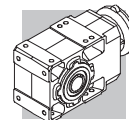
n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
1.0	3077	2.6	1340	65000	A804_1340 S1 M1SD4	311	A804_1340 P71 BN71B4	312
1.1	2853	1.8	1242	50000	A704_1242 S1 M1SD4	308	A704_1242 P71 BN71B4	309
1.1	2841	2.8	1237	65000	A804_1237 S1 M1SD4	311	A804_1237 P71 BN71B4	312
1.2	2668	1.9	1161	50000	A704_1161 S1 M1SD4	308	A704_1161 P71 BN71B4	309
1.3	2492	3.2	1085	65000	A804_1085 S1 M1SD4	311	A804_1085 P71 BN71B4	312
1.3	2462	2.0	1072	50000	A704_1072 S1 M1SD4	308	A704_1072 P71 BN71B4	309
1.4	2300	3.5	1001	65000	A804_1001 S1 M1SD4	311	A804_1001 P71 BN71B4	312
1.5	2128	2.3	926.5	50000	A704_926.5 S1 M1SD4	308	A704_926.5 P71 BN71B4	309
1.6	1964	2.5	855.3	50000	A704_855.3 S1 M1SD4	308	A704_855.3 P71 BN71B4	309
1.8	1754	2.8	763.9	50000	A704_763.9 S1 M1SD4	308	A704_763.9 P71 BN71B4	309
1.8	1735	1.6	755.4	30000	A604_755.4 S1 M1SD4	304	A604_755.4 P71 BN71B4	305
1.9	1626	0.9	707.9	20000	A504_707.9 S1 M1SD4	296	A504_707.9 P71 BN71B4	297
1.9	1619	3.1	705.1	50000	A704_705.1 S1 M1SD4	308	A704_705.1 P71 BN71B4	309
2.0	1601	1.7	697.3	30000	A604_697.3 S1 M1SD4	304	A604_697.3 P71 BN71B4	305
2.1	1481	3.4	644.6	50000	A704_644.6 S1 M1SD4	308	A704_644.6 P71 BN71B4	309
2.2	1457	1.9	634.6	30000	A604_634.6 S1 M1SD4	304	A604_634.6 P71 BN71B4	305
2.2	1450	1.0	631.2	20000	A504_631.2 S1 M1SD4	296	A504_631.2 P71 BN71B4	297
2.3	1345	2.1	585.8	30000	A604_585.8 S1 M1SD4	304	A604_585.8 P71 BN71B4	305
2.4	1319	1.1	574.2	20000	A504_574.2 S1 M1SD4	296	A504_574.2 P71 BN71B4	297
2.5	1245	2.2	542.0	30000	A604_542.0 S1 M1SD4	304	A604_542.0 P71 BN71B4	305
2.6	1216	1.2	529.5	20000	A504_529.5 S1 M1SD4	296	A504_529.5 P71 BN71B4	297
2.7	1149	2.4	500.3	30000	A604_500.3 S1 M1SD4	304	A604_500.3 P71 BN71B4	305
2.8	1106	1.4	481.6	20000	A504_481.6 S1 M1SD4	296	A504_481.6 P71 BN71B4	297
3.1	1026	1.5	446.8	20000	A504_446.8 S1 M1SD4	296	A504_446.8 P71 BN71B4	297
3.1	1007	2.8	438.4	30000	A604_438.4 S1 M1SD4	304	A604_438.4 P71 BN71B4	305
3.4	933	1.6	406.4	20000	A504_406.4 S1 M1SD4	296	A504_406.4 P71 BN71B4	297
3.4	929	3.0	404.7	30000	A604_404.7 S1 M1SD4	304	A604_404.7 P71 BN71B4	305
3.6	885	1.0	376.8	15000	A413_376.8 S1 M1SD4	292	A413_376.8 P71 BN71B4	293
3.7	840	1.8	365.6	20000	A504_365.6 S1 M1SD4	296	A504_365.6 P71 BN71B4	297
3.9	807	3.5	351.2	30000	A604_351.2 S1 M1SD4	304	A604_351.2 P71 BN71B4	305
4.1	764	2.0	332.6	20000	A504_332.6 S1 M1SD4	296	A504_332.6 P71 BN71B4	297
4.2	761	1.1	324.2	15000	A413_324.2 S1 M1SD4	292	A413_324.2 P71 BN71B4	293
4.7	685	1.2	291.7	15000	A413_291.7 S1 M1SD4	292	A413_291.7 P71 BN71B4	293
4.8	659	2.3	286.8	20000	A504_286.8 S1 M1SD4	296	A504_286.8 P71 BN71B4	297
5.1	636	0.9	270.7	12000	A353_270.7 S1 M1SD4	288	A353_270.7 P71 BN71B4	289
5.2	616	1.4	262.5	15000	A413_262.5 S1 M1SD4	292	A413_262.5 P71 BN71B4	293
5.3	599	2.5	260.9	20000	A504_260.9 S1 M1SD4	296	A504_260.9 P71 BN71B4	297
5.5	583	1.0	248.1	12000	A353_248.1 S1 M1SD4	288	A353_248.1 P71 BN71B4	289
5.7	565	1.5	240.6	15000	A413_240.6 S1 M1SD4	292	A413_240.6 P71 BN71B4	293
5.9	533	2.8	232.0	20000	A504_232.0 S1 M1SD4	296	A504_232.0 P71 BN71B4	297
6.1	524	1.1	223.2	12000	A353_223.2 S1 M1SD4	288	A353_223.2 P71 BN71B4	289
6.3	511	1.7	217.4	15000	A413_217.4 S1 M1SD4	292	A413_217.4 P71 BN71B4	293
6.5	485	3.1	211.0	20000	A504_211.0 S1 M1SD4	296	A504_211.0 P71 BN71B4	297
6.8	474	1.3	201.8	12000	A353_201.8 S1 M1SD4	288	A353_201.8 P71 BN71B4	289
6.9	464	1.8	197.5	15000	A413_197.5 S1 M1SD4	292	A413_197.5 P71 BN71B4	293
7.2	448	3.4	190.6	20000	A503_190.6 S1 M1SD4	296	A503_190.6 P71 BN71B4	297
7.3	442	1.4	188.3	12000	A353_188.3 S1 M1SD4	288	A353_188.3 P71 BN71B4	289
7.4	433	2.0	184.4	15000	A413_184.4 S1 M1SD4	292	A413_184.4 P71 BN71B4	293
8.0	403	1.5	171.8	12000	A353_171.8 S1 M1SD4	288	A353_171.8 P71 BN71B4	289
9.1	354	0.9	150.7	9600	A303_150.7 S1 M1SD4	284	A303_150.7 P71 BN71B4	285
9.1	354	1.7	150.6	12000	A353_150.6 S1 M1SD4	288	A353_150.6 P71 BN71B4	289



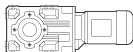





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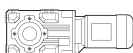



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
9.3	345	2.5	146.9	15000	A413_146.9 S1 M1SD4	292	A413_146.9 P71 BN71B4	293
10.0	323	1.0	137.4	9600	A303_137.4 S1 M1SD4	284	A303_137.4 P71 BN71B4	285
10.0	320	1.8	136.3	12000	A353_136.3 S1 M1SD4	288	A353_136.3 P71 BN71B4	289
11.4	283	1.1	120.5	9600	A303_120.5 S1 M1SD4	284	A303_120.5 P71 BN71B4	285
11.7	275	2.0	116.9	12000	A353_116.9 S1 M1SD4	288	A353_116.9 P71 BN71B4	289
11.8	272	3.1	115.9	15000	A413_115.9 S1 M1SD4	292	A413_115.9 P71 BN71B4	293
12.6	256	1.2	109.1	9600	A303_109.1 S1 M1SD4	284	A303_109.1 P71 BN71B4	285
13.0	248	2.1	105.5	12000	A353_105.5 S1 M1SD4	288	A353_105.5 P71 BN71B4	289
14.1	237	1.3	97.5	9600			A302_97.5 P71 BN71B4	285
14.3	232	2.3	95.6	12000	A352_95.6 S1 M1SD4	288	A352_95.6 P71 BN71B4	289
15.8	210	1.5	86.7	9600			A302_86.7 P71 BN71B4	285
16.6	200	3.0	82.5	12000	A352_82.5 S1 M1SD4	288	A352_82.5 P71 BN71B4	289
17.2	194	1.1	79.9	6200			A202_79.9 P71 BN71B4	281
17.9	186	1.9	76.5	9600	A302_76.5 S1 M1SD4	284	A302_76.5 P71 BN71B4	285
18.4	180	3.3	74.3	12000	A352_74.3 S1 M1SD4	288	A352_74.3 P71 BN71B4	289
19.3	172	1.2	71.0	6200			A202_71.0 P71 BN71B4	281
20.7	160	2.4	66.0	9350	A302_66.0 S1 M1SD4	284	A302_66.0 P71 BN71B4	285
20.8	160	0.9	65.9	5500			A102_65.9 P71 BN71B4	277
21.7	153	1.6	63.1	6200	A202_63.1 S1 M1SD4	280	A202_63.1 P71 BN71B4	281
23.1	144	2.8	59.4	9080	A302_59.4 S1 M1SD4	284	A302_59.4 P71 BN71B4	285
23.4	142	1.1	58.6	5500			A102_58.6 P71 BN71B4	277
25.5	130	1.9	53.7	6090	A202_53.7 S1 M1SD4	280	A202_53.7 P71 BN71B4	281
26.0	128	3.2	52.7	8790	A302_52.7 S1 M1SD4	284	A302_52.7 P71 BN71B4	285
26.7	124	1.2	51.3	5490	A102_51.3 S1 M1SD4	276	A102_51.3 P71 BN71B4	277
28.4	117	2.1	48.3	5940	A202_48.3 S1 M1SD4	280	A202_48.3 P71 BN71B4	281
28.4	117	3.5	48.3	8580	A302_48.3 S1 M1SD4	284	A302_48.3 P71 BN71B4	285
30	110	0.9	45.4	3060	A052_45.4 S1 M1SD4	273	A052_45.4 P71 BN71B4	273
30	110	1.4	45.4	5350	A102_45.4 S1 M1SD4	276	A102_45.4 P71 BN71B4	277
32	105	2.4	43.2	5780	A202_43.2 S1 M1SD4	280	A202_43.2 P71 BN71B4	281
34	99	1.0	40.9	3020	A052_40.9 S1 M1SD4	273	A052_40.9 P71 BN71B4	273
34	99	1.5	40.9	5500	A102_40.9 S1 M1SD4	276	A102_40.9 P71 BN71B4	277
35	96	2.6	39.6	5650	A202_39.6 S1 M1SD4	280	A202_39.6 P71 BN71B4	281
39	86	2.9	35.4	5480	A202_35.4 S1 M1SD4	280	A202_35.4 P71 BN71B4	281
39	85	1.2	35.1	2950	A052_35.1 S1 M1SD4	273	A052_35.1 P71 BN71B4	273
39	85	1.8	35.1	5040	A102_35.1 S1 M1SD4	276	A102_35.1 P71 BN71B4	277
43	78	1.3	32.2	2900	A052_32.2 S1 M1SD4	273	A052_32.2 P71 BN71B4	273
43	78	1.9	32.2	5500	A102_32.2 S1 M1SD4	276	A102_32.2 P71 BN71B4	277
44	76	3.3	31.3	5310	A202_31.3 S1 M1SD4	280	A202_31.3 P71 BN71B4	281
47	71	3.5	29.2	5210	A202_29.2 S1 M1SD4	280	A202_29.2 P71 BN71B4	281
48	69	1.4	28.6	2840	A052_28.6 S1 M1SD4	273	A052_28.6 P71 BN71B4	273
48	69	2.2	28.6	4790	A102_28.6 S1 M1SD4	276	A102_28.6 P71 BN71B4	277
54	62	1.6	25.5	2770	A052_25.5 S1 M1SD4	273	A052_25.5 P71 BN71B4	273
54	62	2.4	25.5	5500	A102_25.5 S1 M1SD4	276	A102_25.5 P71 BN71B4	277
58	58	1.7	23.8	2730	A052_23.8 S1 M1SD4	273	A052_23.8 P71 BN71B4	273
58	58	2.6	23.8	4570	A102_23.8 S1 M1SD4	276	A102_23.8 P71 BN71B4	277
64	52	1.9	21.4	2670	A052_21.4 S1 M1SD4	273	A052_21.4 P71 BN71B4	273
64	52	2.9	21.4	5270	A102_21.4 S1 M1SD4	276	A102_21.4 P71 BN71B4	277
74	45	2.2	18.6	2590	A052_18.6 S1 M1SD4	273	A052_18.6 P71 BN71B4	273
74	45	3.3	18.6	4270	A102_18.6 S1 M1SD4	276	A102_18.6 P71 BN71B4	277
83	40	2.5	16.4	2510	A052_16.4 S1 M1SD4	273	A052_16.4 P71 BN71B4	273
98	34	3.0	13.9	2410	A052_13.9 S1 M1SD4	273	A052_13.9 P71 BN71B4	273



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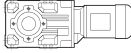



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC	
111	30	3.3	12.3	2350	A052_12.3 S1 M1SD4	273	A052_12.3 P71 BN71B4	273
130	26	3.9	10.6	2240	A052_10.6 S1 M1SD4	273	A052_10.6 P71 BN71B4	273
142	23	4.3	9.6	2190	A052_9.6 S1 M1SD4	273	A052_9.6 P71 BN71B4	273
161	21	4.8	8.5	2120	A052_8.5 S1 M1SD4	273	A052_8.5 P71 BN71B4	273
190	17.5	5.7	7.2	2030	A052_7.2 S1 M1SD4	273	A052_7.2 P71 BN71B4	273
216	15.4	6.5	6.3	1950	A052_6.3 S1 M1SD4	273	A052_6.3 P71 BN71B4	273
228	14.6	6.8	12.3	1920	A052_12.3 S05 M05C2	273	A052_12.3 P71 BN71A2	273
251	13.3	7.2	5.5	1870	A052_5.5 S1 M1SD4	273	A052_5.5 P71 BN71B4	273
265	12.5	6.4	10.6	1830	A052_10.6 S05 M05C2	273	A052_10.6 P71 BN71A2	273
291	11.4	8.3	9.6	1790	A052_9.6 S05 M05C2	273	A052_9.6 P71 BN71A2	273
331	10.0	9.0	8.5	1720	A052_8.5 S05 M05C2	273	A052_8.5 P71 BN71A2	273
388	8.6	9.9	7.2	1640	A052_7.2 S05 M05C2	273	A052_7.2 P71 BN71A2	273
445	7.5	10.7	6.3	1570	A052_6.3 S05 M05C2	273	A052_6.3 P71 BN71A2	273
512	6.5	11.6	5.5	1500	A052_5.5 S05 M05C2	273	A052_5.5 P71 BN71A2	273

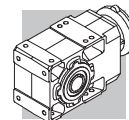
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0.56	8299	1.7	1632	75000	A904_1632 S2 M2SA6	314	A904_1632 P80 BN80B6	315
0.64	7310	1.1	1438	65000	A804_1438 S2 M2SA6	311	A804_1438 P80 BN80B6	312
0.75	6213	2.3	1222	75000	A904_1222 S2 M2SA6	314	A904_1222 P80 BN80B6	315
0.80	5813	0.9	1715	50000	A704_1715 S1 M1LA4	308	A704_1715 P80 BN80A4	309
0.85	5532	2.5	1632	75000	A904_1632 S1 M1LA4	314	A904_1632 P80 BN80A4	315
0.87	5365	0.9	1583	50000	A704_1583 S1 M1LA4	308	A704_1583 P80 BN80A4	309
0.89	5279	1.5	1558	65000	A804_1558 S1 M1LA4	311	A804_1558 P80 BN80A4	312
0.92	5070	2.8	1507	75000	A904_1507 S1 M1LA4	314	A904_1507 P80 BN80A4	315
0.96	4873	1.6	1438	65000	A804_1438 S1 M1LA4	311	A804_1438 P80 BN80A4	312
1.0	4561	1.1	1346	50000	A704_1346 S1 M1LA4	308	A704_1346 P80 BN80A4	309
1.0	4541	1.8	1340	65000	A804_1340 S1 M1LA4	311	A804_1340 P80 BN80A4	312
1.0	4455	3.1	1324	75000	A904_1324 S1 M1LA4	314	A904_1324 P80 BN80A4	315
1.1	4211	1.2	1242	50000	A704_1242 S1 M1LA4	308	A704_1242 P80 BN80A4	309
1.1	4192	1.9	1237	65000	A804_1237 S1 M1LA4	311	A804_1237 P80 BN80A4	312
1.1	4112	3.4	1222	75000	A904_1222 S1 M1LA4	314	A904_1222 P80 BN80A4	315
1.2	3937	1.3	1161	50000	A704_1161 S1 M1LA4	308	A704_1161 P80 BN80A4	309
1.3	3677	2.2	1085	65000	A804_1085 S1 M1LA4	311	A804_1085 P80 BN80A4	312
1.3	3634	1.4	1072	50000	A704_1072 S1 M1LA4	308	A704_1072 P80 BN80A4	309
1.4	3394	2.4	1001	65000	A804_1001 S1 M1LA4	311	A804_1001 P80 BN80A4	312
1.5	3140	1.6	926.5	50000	A704_926.5 S1 M1LA4	308	A704_926.5 P80 BN80A4	309
1.5	3046	2.6	898.7	65000	A804_898.7 S1 M1LA4	311	A804_898.7 P80 BN80A4	312
1.6	2899	1.7	855.3	50000	A704_855.3 S1 M1LA4	308	A704_855.3 P80 BN80A4	309
1.7	2811	2.8	829.5	65000	A804_829.5 S1 M1LA4	311	A804_829.5 P80 BN80A4	312
1.8	2589	1.9	763.9	50000	A704_763.9 S1 M1LA4	308	A704_763.9 P80 BN80A4	309
1.8	2583	3.1	762.1	65000	A804_762.1 S1 M1LA4	311	A804_762.1 P80 BN80A4	312
1.8	2560	1.1	755.4	30000	A604_755.4 S1 M1LA4	304	A604_755.4 P80 BN80A4	305
2.0	2390	2.1	705.1	50000	A704_705.1 S1 M1LA4	308	A704_705.1 P80 BN80A4	309
2.0	2384	3.4	703.5	65000	A804_703.5 S1 M1LA4	311	A804_703.5 P80 BN80A4	312
2.0	2363	1.2	697.3	30000	A604_697.3 S1 M1LA4	304	A604_697.3 P80 BN80A4	305
2.1	2185	2.3	644.6	50000	A704_644.6 S1 M1LA4	308	A704_644.6 P80 BN80A4	309

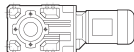





## 0.55 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
2.2	2151	1.3	634.6	30000	A604_634.6 S1 M1LA4	304	A604_634.6 P80 BN80A4	305
2.3	2017	2.5	595.0	50000	A704_595.0 S1 M1LA4	308	A704_595.0 P80 BN80A4	309
2.4	1985	1.4	585.8	30000	A604_585.8 S1 M1LA4	304	A604_585.8 P80 BN80A4	305
2.5	1837	1.5	542.0	30000	A604_542.0 S1 M1LA4	304	A604_542.0 P80 BN80A4	305
2.7	1747	2.9	515.4	50000	A704_515.4 S1 M1LA4	308	A704_515.4 P80 BN80A4	309
2.8	1696	1.7	500.3	30000	A604_500.3 S1 M1LA4	304	A604_500.3 P80 BN80A4	305
2.9	1632	0.9	481.6	20000	A504_481.6 S1 M1LA4	296	A504_481.6 P80 BN80A4	297
2.9	1612	3.1	475.8	50000	A704_475.8 S1 M1LA4	308	A704_475.8 P80 BN80A4	309
3.1	1514	1.0	446.8	20000	A504_446.8 S1 M1LA4	296	A504_446.8 P80 BN80A4	297
3.1	1486	1.9	438.4	30000	A604_438.4 S1 M1LA4	304	A604_438.4 P80 BN80A4	305
3.4	1378	1.1	406.4	20000	A504_406.4 S1 M1LA4	296	A504_406.4 P80 BN80A4	297
3.4	1372	2.0	404.7	30000	A604_404.7 S1 M1LA4	304	A604_404.7 P80 BN80A4	305
3.8	1239	1.2	365.6	20000	A504_365.6 S1 M1LA4	296	A504_365.6 P80 BN80A4	297
3.9	1190	2.4	351.2	30000	A604_351.2 S1 M1LA4	304	A604_351.2 P80 BN80A4	305
4.1	1127	1.3	332.6	20000	A504_332.6 S1 M1LA4	296	A504_332.6 P80 BN80A4	297
4.3	1099	2.5	324.2	30000	A604_324.2 S1 M1LA4	304	A604_324.2 P80 BN80A4	305
4.8	972	1.5	286.8	20000	A504_286.8 S1 M1LA4	296	A504_286.8 P80 BN80A4	297
4.8	970	2.9	286.3	30000	A604_286.3 S1 M1LA4	304	A604_286.3 P80 BN80A4	305
5.2	896	3.1	264.3	30000	A604_264.3 S1 M1LA4	304	A604_264.3 P80 BN80A4	305
5.3	910	0.9	262.5	15000	A413_262.5 S1 M1LA4	292	A413_262.5 P80 BN80A4	293
5.3	884	1.7	260.9	20000	A504_260.9 S1 M1LA4	296	A504_260.9 P80 BN80A4	297
5.7	834	1.0	240.6	15000	A413_240.6 S1 M1LA4	292	A413_240.6 P80 BN80A4	293
5.9	786	1.9	232.0	20000	A504_232.0 S1 M1LA4	296	A504_232.0 P80 BN80A4	297
6.3	753	1.1	217.4	15000	A413_217.4 S1 M1LA4	292	A413_217.4 P80 BN80A4	293
6.5	715	2.1	211.0	20000	A504_211.0 S1 M1LA4	296	A504_211.0 P80 BN80A4	297
7.0	685	1.2	197.5	15000	A413_197.5 S1 M1LA4	292	A413_197.5 P80 BN80A4	293
7.1	673	3.0	194.2	30000	A553_194.2 S1 M1LA4	300	A553_194.2 P80 BN80A4	301
7.2	660	2.3	190.6	20000	A503_190.6 S1 M1LA4	296	A503_190.6 P80 BN80A4	297
7.3	653	0.9	188.3	12000	A353_188.3 S1 M1LA4	288	A353_188.3 P80 BN80A4	289
7.5	639	1.3	184.4	15000	A413_184.4 S1 M1LA4	292	A413_184.4 P80 BN80A4	293
7.9	607	3.3	175.0	30000	A553_175.0 S1 M1LA4	300	A553_175.0 P80 BN80A4	301
8.0	601	2.5	173.4	20000	A503_173.4 S1 M1LA4	296	A503_173.4 P80 BN80A4	297
8.0	595	1.0	171.8	12000	A353_171.8 S1 M1LA4	288	A353_171.8 P80 BN80A4	289
9.0	532	2.8	154.6	20000	A503_154.6 S1 M1LA4	296	A503_154.6 P80 BN80A4	297
9.2	522	1.1	150.6	12000	A353_150.6 S1 M1LA4	288	A353_150.6 P80 BN80A4	289
9.4	509	1.7	146.9	15000	A413_146.9 S1 M1LA4	292	A413_146.9 P80 BN80A4	293
9.9	484	3.1	140.6	20000	A503_140.6 S1 M1LA4	296	A503_140.6 P80 BN80A4	297
10.1	472	1.2	136.3	12000	A353_136.3 S1 M1LA4	288	A353_136.3 P80 BN80A4	289
10.7	446	3.4	129.7	20000	A503_129.7 S1 M1LA4	296	A503_129.7 P80 BN80A4	297
11.8	405	1.4	116.9	12000	A353_116.9 S1 M1LA4	288	A353_116.9 P80 BN80A4	289
11.9	402	2.1	115.9	15000	A413_115.9 S1 M1LA4	292	A413_115.9 P80 BN80A4	293
13.1	366	1.4	105.5	12000	A353_105.5 S1 M1LA4	288	A353_105.5 P80 BN80A4	289
14.2	349	0.9	97.5	9600			A302_97.5 P80 BN80A4	285
14.4	342	1.6	95.6	12000	A352_95.6 S1 M1LA4	288	A352_95.6 P80 BN80A4	289
14.9	321	2.5	92.8	15000	A413_92.8 S1 M1LA4	292	A413_92.8 P80 BN80A4	293
15.9	310	1.0	86.7	9420			A302_86.7 P80 BN80A4	285
16.7	295	2.0	82.5	12000	A352_82.5 S1 M1LA4	288	A352_82.5 P80 BN80A4	289
17.4	284	3.0	79.2	15000	A412_79.2 S1 M1LA4	292	A412_79.2 P80 BN80A4	293
18.0	274	1.3	76.5	9180	A302_76.5 S1 M1LA4	284	A302_76.5 P80 BN80A4	285
18.6	266	2.3	74.3	12000	A352_74.3 S1 M1LA4	288	A352_74.3 P80 BN80A4	289
19.4	255	3.3	71.3	15000	A412_71.3 S1 M1LA4	292	A412_71.3 P80 BN80A4	293



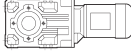


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n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
20.9	236	1.6	66.0	8880	A302_66.0 S1 M1LA4	284	A302_66.0 P80 BN80A4	285
21.0	236	2.5	65.8	12000	A352_65.8 S1 M1LA4	288	A352_65.8 P80 BN80A4	289
21.9	226	1.1	63.1	5840	A202_63.1 S1 M1LA4	280	A202_63.1 P80 BN80A4	281
22.9	216	2.8	60.4	12000	A352_60.4 S1 M1LA4	288	A352_60.4 P80 BN80A4	289
23.2	213	1.9	59.4	8660	A302_59.4 S1 M1LA4	284	A302_59.4 P80 BN80A4	285
25.4	194	3.1	54.3	12000	A352_54.3 S1 M1LA4	288	A352_54.3 P80 BN80A4	289
25.7	192	1.3	53.7	5670	A202_53.7 S1 M1LA4	280	A202_53.7 P80 BN80A4	281
26.2	189	2.2	52.7	8410	A302_52.7 S1 M1LA4	284	A302_52.7 P80 BN80A4	285
28.1	176	3.4	49.1	12000	A352_49.1 S1 M1LA4	288	A352_49.1 P80 BN80A4	289
28.6	173	1.4	48.3	5560	A202_48.3 S1 M1LA4	280	A202_48.3 P80 BN80A4	281
28.6	173	2.4	48.3	8230	A302_48.3 S1 M1LA4	284	A302_48.3 P80 BN80A4	285
30	163	0.9	45.4	4910	A102_45.4 S1 M1LA4	276	A102_45.4 P80 BN80A4	277
32	155	2.6	43.4	8010	A302_43.4 S1 M1LA4	284	A302_43.4 P80 BN80A4	285
32	155	1.6	43.2	5440	A202_43.2 S1 M1LA4	280	A202_43.2 P80 BN80A4	281
34	146	1.0	40.9	5500	A102_40.9 S1 M1LA4	276	A102_40.9 P80 BN80A4	277
35	142	1.8	39.6	5340	A202_39.6 S1 M1LA4	280	A202_39.6 P80 BN80A4	281
35	141	2.9	39.3	7800	A302_39.3 S1 M1LA4	284	A302_39.3 P80 BN80A4	285
38	131	3.1	36.6	7660	A302_36.6 S1 M1LA4	284	A302_36.6 P80 BN80A4	285
39	127	2.0	35.4	5200	A202_35.4 S1 M1LA4	280	A202_35.4 P80 BN80A4	281
39	126	1.2	35.1	4700	A102_35.1 S1 M1LA4	276	A102_35.1 P80 BN80A4	277
41	120	3.4	33.4	7480	A302_33.4 S1 M1LA4	284	A302_33.4 P80 BN80A4	285
43	115	1.3	32.2	5490	A102_32.2 S1 M1LA4	276	A102_32.2 P80 BN80A4	277
44	112	2.2	31.3	5060	A202_31.3 S1 M1LA4	280	A202_31.3 P80 BN80A4	281
47	105	2.4	29.2	4970	A202_29.2 S1 M1LA4	280	A202_29.2 P80 BN80A4	281
48	102	1.0	28.6	2550	A052_28.6 S1 M1LA4	273	A052_28.6 P80 BN80A4	273
48	102	1.5	28.6	4510	A102_28.6 S1 M1LA4	276	A102_28.6 P80 BN80A4	277
52	95	2.6	26.5	4850	A202_26.5 S1 M1LA4	280	A202_26.5 P80 BN80A4	281
54	91	1.1	25.5	2510	A052_25.5 S1 M1LA4	273	A052_25.5 P80 BN80A4	273
54	91	1.6	25.5	5230	A102_25.5 S1 M1LA4	276	A102_25.5 P80 BN80A4	277
58	85	1.2	23.8	2490	A052_23.8 S1 M1LA4	273	A052_23.8 P80 BN80A4	273
58	85	1.8	23.8	4330	A102_23.8 S1 M1LA4	276	A102_23.8 P80 BN80A4	277
60	83	3.0	23.1	4690	A202_23.1 S1 M1LA4	280	A202_23.1 P80 BN80A4	281
65	76	1.3	21.4	2450	A052_21.4 S1 M1LA4	273	A052_21.4 P80 BN80A4	273
65	76	2.0	21.4	5020	A102_21.4 S1 M1LA4	276	A102_21.4 P80 BN80A4	277
65	76	3.3	21.2	4590	A202_21.2 S1 M1LA4	280	A202_21.2 P80 BN80A4	281
74	66	1.5	18.6	2400	A052_18.6 S1 M1LA4	273	A052_18.6 P80 BN80A4	273
74	66	2.3	18.6	4090	A102_18.6 S1 M1LA4	276	A102_18.6 P80 BN80A4	277
84	59	1.7	16.4	2340	A052_16.4 S1 M1LA4	273	A052_16.4 P80 BN80A4	273
84	59	2.5	16.4	4710	A102_16.4 S1 M1LA4	276	A102_16.4 P80 BN80A4	277
99	50	2.0	13.9	2270	A052_13.9 S1 M1LA4	273	A052_13.9 P80 BN80A4	273
99	50	3.0	13.9	3800	A102_13.9 S1 M1LA4	276	A102_13.9 P80 BN80A4	277
112	44	2.3	12.3	2220	A052_12.3 S1 M1LA4	273	A052_12.3 P80 BN80A4	273
112	44	3.2	12.3	3670	A102_12.3 S1 M1LA4	276	A102_12.3 P80 BN80A4	277
131	38	2.6	10.6	2130	A052_10.6 S1 M1LA4	273	A052_10.6 P80 BN80A4	273
144	34	2.9	9.6	2100	A052_9.6 S1 M1LA4	273	A052_9.6 P80 BN80A4	273
162	30	3.3	8.5	2030	A052_8.5 S1 M1LA4	273	A052_8.5 P80 BN80A4	273
171	29	3.1	16.4	2000	A052_16.4 S1 M1SD2	273	A052_16.4 P71 BN71B2	273
191	26	3.9	7.2	1950	A052_7.2 S1 M1LA4	273	A052_7.2 P80 BN80A4	273
218	23	4.4	6.3	1880	A052_6.3 S1 M1LA4	273	A052_6.3 P80 BN80A4	273
229	22	4.6	12.3	1860	A052_12.3 S1 M1SD2	273	A052_12.3 P71 BN71B2	273
252	19.6	4.9	5.5	1810	A052_5.5 S1 M1LA4	273	A052_5.5 P80 BN80A4	273

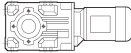






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

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>267</b>	18.5	4.3	10.6	1780	<b>A052_10.6 S1 M1SD2</b>	273	<b>A052_10.6 P71 BN71B2</b>	273
<b>293</b>	16.8	5.6	9.6	1740	<b>A052_9.6 S1 M1SD2</b>	273	<b>A052_9.6 P71 BN71B2</b>	273
<b>331</b>	14.9	6.0	8.5	1680	<b>A052_8.5 S1 M1SD2</b>	273	<b>A052_8.5 P71 BN71B2</b>	273
<b>391</b>	12.6	6.7	7.2	1600	<b>A052_7.2 S1 M1SD2</b>	273	<b>A052_7.2 P71 BN71B2</b>	273
<b>445</b>	11.1	7.2	6.3	1540	<b>A052_6.3 S1 M1SD2</b>	273	<b>A052_6.3 P71 BN71B2</b>	273
<b>516</b>	9.6	7.8	5.5	1480	<b>A052_5.5 S1 M1SD2</b>	273	<b>A052_5.5 P71 BN71B2</b>	273

## 0.75 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>0.56</b>	11316	1.2	1632	75000	<b>A904_1632 S2 M2SB6</b>	314	<b>A904_1632 P90 BN90S6</b>	315
<b>0.61</b>	10446	1.3	1507	75000	<b>A904_1507 S2 M2SB6</b>	314	<b>A904_1507 P90 BN90S6</b>	315
<b>0.69</b>	9179	1.5	1324	75000	<b>A904_1324 S2 M2SB6</b>	314	<b>A904_1324 P90 BN90S6</b>	315
<b>0.75</b>	8473	1.7	1222	75000	<b>A904_1222 S2 M2SB6</b>	314	<b>A904_1222 P90 BN90S6</b>	315
<b>0.86</b>	7436	1.9	1632	75000	<b>A904_1632 S2 M2SA4</b>	314	<b>A904_1632 P80 BN80B4</b>	315
<b>0.90</b>	7096	1.1	1558	65000	<b>A804_1558 S2 M2SA4</b>	311	<b>A804_1558 P80 BN80B4</b>	312
<b>0.93</b>	6864	2.0	1507	75000	<b>A904_1507 S2 M2SA4</b>	314	<b>A904_1507 P80 BN80B4</b>	315
<b>0.97</b>	6550	1.2	1438	65000	<b>A804_1438 S2 M2SA4</b>	311	<b>A804_1438 P80 BN80B4</b>	312
<b>1.0</b>	6104	1.3	1340	65000	<b>A804_1340 S2 M2SA4</b>	311	<b>A804_1340 P80 BN80B4</b>	312
<b>1.1</b>	6032	2.3	1324	75000	<b>A904_1324 S2 M2SA4</b>	314	<b>A904_1324 P80 BN80B4</b>	315
<b>1.1</b>	5660	0.9	1242	50000	<b>A704_1242 S2 M2SA4</b>	308	<b>A704_1242 P80 BN80B4</b>	309
<b>1.1</b>	5635	1.4	1237	65000	<b>A804_1237 S2 M2SA4</b>	311	<b>A804_1237 P80 BN80B4</b>	312
<b>1.1</b>	5568	2.5	1222	75000	<b>A904_1222 S2 M2SA4</b>	314	<b>A904_1222 P80 BN80B4</b>	315
<b>1.2</b>	5291	0.9	1161	50000	<b>A704_1161 S2 M2SA4</b>	308	<b>A704_1161 P80 BN80B4</b>	309
<b>1.3</b>	5060	2.8	1111	75000	<b>A904_1111 S2 M2SA4</b>	314	<b>A904_1111 P80 BN80B4</b>	315
<b>1.3</b>	4942	1.6	1085	65000	<b>A804_1085 S2 M2SA4</b>	311	<b>A804_1085 P80 BN80B4</b>	312
<b>1.3</b>	4884	1.0	1072	50000	<b>A704_1072 S2 M2SA4</b>	308	<b>A704_1072 P80 BN80B4</b>	309
<b>1.4</b>	4670	3.0	1025	75000	<b>A904_1025 S2 M2SA4</b>	314	<b>A904_1025 P80 BN80B4</b>	315
<b>1.4</b>	4562	1.8	1001	65000	<b>A804_1001 S2 M2SA4</b>	311	<b>A804_1001 P80 BN80B4</b>	312
<b>1.5</b>	4270	3.3	937.2	75000	<b>A904_937.2 S2 M2SA4</b>	314	<b>A904_937.2 P80 BN80B4</b>	315
<b>1.5</b>	4221	1.2	926.5	50000	<b>A704_926.5 S2 M2SA4</b>	308	<b>A704_926.5 P80 BN80B4</b>	309
<b>1.6</b>	4094	2.0	898.7	65000	<b>A804_898.7 S2 M2SA4</b>	311	<b>A804_898.7 P80 BN80B4</b>	312
<b>1.6</b>	3896	1.3	855.3	50000	<b>A704_855.3 S2 M2SA4</b>	308	<b>A704_855.3 P80 BN80B4</b>	309
<b>1.7</b>	3779	2.1	829.5	65000	<b>A804_829.5 S2 M2SA4</b>	311	<b>A804_829.5 P80 BN80B4</b>	312
<b>1.8</b>	3480	1.4	763.9	50000	<b>A704_763.9 S2 M2SA4</b>	308	<b>A704_763.9 P80 BN80B4</b>	309
<b>1.8</b>	3472	2.3	762.1	65000	<b>A804_762.1 S2 M2SA4</b>	311	<b>A804_762.1 P80 BN80B4</b>	312
<b>2.0</b>	3212	1.6	705.1	50000	<b>A704_705.1 S2 M2SA4</b>	308	<b>A704_705.1 P80 BN80B4</b>	309
<b>2.0</b>	3205	2.5	703.5	65000	<b>A804_703.5 S2 M2SA4</b>	311	<b>A804_703.5 P80 BN80B4</b>	312
<b>2.0</b>	3177	0.9	697.3	30000	<b>A604_697.3 S2 M2SA4</b>	304	<b>A604_697.3 P80 BN80B4</b>	305
<b>2.2</b>	2937	1.7	644.6	50000	<b>A704_644.6 S2 M2SA4</b>	308	<b>A704_644.6 P80 BN80B4</b>	309
<b>2.2</b>	2891	1.0	634.6	30000	<b>A604_634.6 S2 M2SA4</b>	304	<b>A604_634.6 P80 BN80B4</b>	305
<b>2.3</b>	2766	2.9	607.2	65000	<b>A804_607.2 S2 M2SA4</b>	311	<b>A804_607.2 P80 BN80B4</b>	312
<b>2.4</b>	2711	1.8	595.0	50000	<b>A704_595.0 S2 M2SA4</b>	308	<b>A704_595.0 P80 BN80B4</b>	309
<b>2.4</b>	2669	1.0	585.8	30000	<b>A604_585.8 S2 M2SA4</b>	304	<b>A604_585.8 P80 BN80B4</b>	305
<b>2.5</b>	2553	3.1	560.5	65000	<b>A804_560.5 S2 M2SA4</b>	311	<b>A804_560.5 P80 BN80B4</b>	312
<b>2.6</b>	2469	1.1	542.0	30000	<b>A604_542.0 S2 M2SA4</b>	304	<b>A604_542.0 P80 BN80B4</b>	305
<b>2.7</b>	2348	2.1	515.4	50000	<b>A704_515.4 S2 M2SA4</b>	308	<b>A704_515.4 P80 BN80B4</b>	309
<b>2.8</b>	2279	1.2	500.3	30000	<b>A604_500.3 S2 M2SA4</b>	304	<b>A604_500.3 P80 BN80B4</b>	305

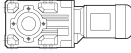





## 0.75 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
2.9	2167	2.3	475.8	50000	A704_475.8 S2 M2SA4	308	A704_475.8 P80 BN80B4	309
3.2	1997	1.4	438.4	30000	A604_438.4 S2 M2SA4	304	A604_438.4 P80 BN80B4	305
3.5	1844	1.5	404.7	30000	A604_404.7 S2 M2SA4	304	A604_404.7 P80 BN80B4	305
3.5	1823	2.7	400.2	50000	A704_400.2 S2 M2SA4	308	A704_400.2 P80 BN80B4	309
3.8	1683	3.0	369.4	50000	A704_369.4 S2 M2SA4	308	A704_369.4 P80 BN80B4	309
3.8	1666	0.9	365.6	20000	A504_365.6 S2 M2SA4	296	A504_365.6 P80 BN80B4	297
4.0	1600	1.8	351.2	30000	A604_351.2 S2 M2SA4	304	A604_351.2 P80 BN80B4	305
4.2	1515	1.0	332.6	20000	A504_332.6 S2 M2SA4	296	A504_332.6 P80 BN80B4	297
4.3	1477	1.9	324.2	30000	A604_324.2 S2 M2SA4	304	A604_324.2 P80 BN80B4	305
4.4	1441	3.5	316.4	50000	A704_316.4 S2 M2SA4	308	A704_316.4 P80 BN80B4	309
4.9	1307	1.1	286.8	20000	A504_286.8 S2 M2SA4	296	A504_286.8 P80 BN80B4	297
4.9	1304	2.1	286.3	30000	A604_286.3 S2 M2SA4	304	A604_286.3 P80 BN80B4	305
5.3	1204	2.3	264.3	30000	A604_264.3 S2 M2SA4	304	A604_264.3 P80 BN80B4	305
5.4	1189	1.3	260.9	20000	A504_260.9 S2 M2SA4	296	A504_260.9 P80 BN80B4	297
6.0	1057	1.4	232.0	20000	A504_232.0 S2 M2SA4	296	A504_232.0 P80 BN80B4	297
6.2	1030	2.7	226.1	30000	A604_226.1 S2 M2SA4	304	A604_226.1 P80 BN80B4	305
6.6	961	1.6	211.0	20000	A504_211.0 S2 M2SA4	296	A504_211.0 P80 BN80B4	297
6.7	951	2.9	208.7	30000	A604_208.7 S2 M2SA4	304	A604_208.7 P80 BN80B4	305
7.1	920	0.9	197.5	15000	A413_197.5 S2 M2SA4	292	A413_197.5 P80 BN80B4	293
7.2	905	2.2	194.2	30000	A553_194.2 S2 M2SA4	300	A553_194.2 P80 BN80B4	301
7.3	888	1.7	190.6	20000	A503_190.6 S2 M2SA4	296	A503_190.6 P80 BN80B4	297
7.5	865	3.2	185.8	30000	A603_185.8 S2 M2SA4	304	A603_185.8 P80 BN80B4	305
7.6	859	1.0	184.4	15000	A413_184.4 S2 M2SA4	292	A413_184.4 P80 BN80B4	293
8.0	815	2.5	175.0	30000	A553_175.0 S2 M2SA4	300	A553_175.0 P80 BN80B4	301
8.1	808	1.9	173.4	20000	A503_173.4 S2 M2SA4	296	A503_173.4 P80 BN80B4	297
8.2	799	3.5	171.5	30000	A603_171.5 S2 M2SA4	304	A603_171.5 P80 BN80B4	305
8.7	747	2.7	160.4	30000	A553_160.4 S2 M2SA4	300	A553_160.4 P80 BN80B4	301
9.1	720	2.1	154.6	20000	A503_154.6 S2 M2SA4	296	A503_154.6 P80 BN80B4	297
9.5	684	1.2	146.9	15000	A413_146.9 S2 M2SA4	292	A413_146.9 P80 BN80B4	293
9.5	684	2.9	146.8	30000	A553_146.8 S2 M2SA4	300	A553_146.8 P80 BN80B4	301
10.0	655	2.3	140.6	20000	A503_140.6 S2 M2SA4	296	A503_140.6 P80 BN80B4	297
10.3	635	0.9	136.3	12000	A353_136.3 S2 M2SA4	288	A353_136.3 P80 BN80B4	289
10.5	618	3.2	132.7	30000	A553_132.7 S2 M2SA4	300	A553_132.7 P80 BN80B4	301
10.8	604	2.5	129.7	20000	A503_129.7 S2 M2SA4	296	A503_129.7 P80 BN80B4	297
11.3	577	3.5	123.9	30000	A553_123.9 S2 M2SA4	300	A553_123.9 P80 BN80B4	301
11.9	549	2.7	118.0	20000	A503_118.0 S2 M2SA4	296	A503_118.0 P80 BN80B4	297
12.0	545	1.0	116.9	12000	A353_116.9 S2 M2SA4	288	A353_116.9 P80 BN80B4	289
12.1	540	1.6	115.9	15000	A413_115.9 S2 M2SA4	292	A413_115.9 P80 BN80B4	293
12.8	510	2.9	109.4	20000	A503_109.4 S2 M2SA4	296	A503_109.4 P80 BN80B4	297
13.3	492	1.1	105.5	12000	A353_105.5 S2 M2SA4	288	A353_105.5 P80 BN80B4	289
14.1	464	3.2	99.5	20000	A503_99.5 S2 M2SA4	296	A503_99.5 P80 BN80B4	297
14.6	460	1.2	95.6	12000	A352_95.6 S2 M2SA4	288	A352_95.6 P80 BN80B4	289
15.1	432	1.9	92.8	15000	A413_92.8 S2 M2SA4	292	A413_92.8 P80 BN80B4	293
17.0	397	1.5	82.5	12000	A352_82.5 S2 M2SA4	288	A352_82.5 P80 BN80B4	289
17.7	381	2.2	79.2	15000	A412_79.2 S2 M2SA4	292	A412_79.2 P80 BN80B4	293
18.3	368	1.0	76.5	8580	A302_76.5 S2 M2SA4	284	A302_76.5 P80 BN80B4	285
18.8	357	1.7	74.3	12000	A352_74.3 S2 M2SA4	288	A352_74.3 P80 BN80B4	289
19.6	343	2.5	71.3	15000	A412_71.3 S2 M2SA4	292	A412_71.3 P80 BN80B4	293
21.2	318	1.2	66.0	8360	A302_66.0 S2 M2SA4	284	A302_66.0 P80 BN80B4	285
21.3	317	1.9	65.8	12000	A352_65.8 S2 M2SA4	288	A352_65.8 P80 BN80B4	289
21.8	309	2.8	64.2	15000	A412_64.2 S2 M2SA4	292	A412_64.2 P80 BN80B4	293



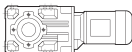




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<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
23.2	290	2.1	60.4	12000	A352_60.4 S2 M2SA4	288	A352_60.4 P80 BN80B4	289
23.6	286	1.4	59.4	8190	A302_59.4 S2 M2SA4	284	A302_59.4 P80 BN80B4	285
23.8	283	3.0	58.8	15000	A412_58.8 S2 M2SA4	292	A412_58.8 P80 BN80B4	293
25.8	261	2.3	54.3	12000	A352_54.3 S2 M2SA4	288	A352_54.3 P80 BN80B4	289
26.1	258	1.0	53.7	5210	A202_53.7 S2 M2SA4	280	A202_53.7 P80 BN80B4	281
26.3	256	3.3	53.1	15000	A412_53.1 S2 M2SA4	292	A412_53.1 P80 BN80B4	293
26.6	253	1.6	52.7	7990	A302_52.7 S2 M2SA4	284	A302_52.7 P80 BN80B4	285
28.5	236	2.5	49.1	12000	A352_49.1 S2 M2SA4	288	A352_49.1 P80 BN80B4	289
29.0	232	1.1	48.3	5140	A202_48.3 S2 M2SA4	280	A202_48.3 P80 BN80B4	281
29.0	232	1.8	48.3	7840	A302_48.3 S2 M2SA4	284	A302_48.3 P80 BN80B4	285
31	220	2.7	45.8	12000	A352_45.8 S2 M2SA4	288	A352_45.8 P80 BN80B4	289
32	209	2.0	43.4	7660	A302_43.4 S2 M2SA4	284	A302_43.4 P80 BN80B4	285
32	208	1.2	43.2	5060	A202_43.2 S2 M2SA4	280	A202_43.2 P80 BN80B4	281
34	201	3.0	41.8	11900	A352_41.8 S2 M2SA4	288	A352_41.8 P80 BN80B4	289
35	191	1.3	39.6	4990	A202_39.6 S2 M2SA4	280	A202_39.6 P80 BN80B4	281
36	189	2.2	39.3	7480	A302_39.3 S2 M2SA4	284	A302_39.3 P80 BN80B4	285
38	176	2.3	36.6	7360	A302_36.6 S2 M2SA4	284	A302_36.6 P80 BN80B4	285
38	176	3.4	36.6	11500	A352_36.6 S2 M2SA4	288	A352_36.6 P80 BN80B4	289
40	170	1.5	35.4	4890	A202_35.4 S2 M2SA4	280	A202_35.4 P80 BN80B4	281
40	169	0.9	35.1	4320	A102_35.1 S2 M2SA4	276	A102_35.1 P80 BN80B4	277
42	161	2.5	33.4	7200	A302_33.4 S2 M2SA4	284	A302_33.4 P80 BN80B4	285
43	155	1.0	32.2	5080	A102_32.2 S2 M2SA4	276	A102_32.2 P80 BN80B4	277
45	151	1.7	31.3	4780	A202_31.3 S2 M2SA4	280	A202_31.3 P80 BN80B4	281
48	141	2.9	29.3	6960	A302_29.3 S2 M2SA4	284	A302_29.3 P80 BN80B4	285
48	141	1.8	29.2	4710	A202_29.2 S2 M2SA4	280	A202_29.2 P80 BN80B4	281
49	137	1.1	28.6	4200	A102_28.6 S2 M2SA4	276	A102_28.6 P80 BN80B4	277
53	128	3.2	26.5	6790	A302_26.5 S2 M2SA4	284	A302_26.5 P80 BN80B4	285
53	127	2.0	26.5	4620	A202_26.5 S2 M2SA4	280	A202_26.5 P80 BN80B4	281
55	123	1.2	25.5	4900	A102_25.5 S2 M2SA4	276	A102_25.5 P80 BN80B4	277
59	114	1.3	23.8	4070	A102_23.8 S2 M2SA4	276	A102_23.8 P80 BN80B4	277
61	111	2.2	23.1	4480	A202_23.1 S2 M2SA4	280	A202_23.1 P80 BN80B4	281
66	103	1.0	21.4	2210	A052_21.4 S2 M2SA4	273	A052_21.4 P80 BN80B4	273
66	103	1.5	21.4	4740	A102_21.4 S2 M2SA4	276	A102_21.4 P80 BN80B4	277
66	102	2.4	21.2	4390	A202_21.2 S2 M2SA4	280	A202_21.2 P80 BN80B4	281
75	89	1.1	18.6	2190	A052_18.6 S2 M2SA4	273	A052_18.6 P80 BN80B4	273
75	89	1.7	18.6	3880	A102_18.6 S2 M2SA4	276	A102_18.6 P80 BN80B4	277
77	87	2.9	18.1	4230	A202_18.1 S2 M2SA4	280	A202_18.1 P80 BN80B4	281
85	79	1.3	16.4	2160	A052_16.4 S2 M2SA4	273	A052_16.4 P80 BN80B4	273
85	79	1.9	16.4	4490	A102_16.4 S2 M2SA4	276	A102_16.4 P80 BN80B4	277
87	78	3.2	16.2	4110	A202_16.2 S2 M2SA4	280	A202_16.2 P80 BN80B4	281
101	67	1.5	13.9	2110	A052_13.9 S2 M2SA4	273	A052_13.9 P80 BN80B4	273
101	67	2.2	13.9	3640	A102_13.9 S2 M2SA4	276	A102_13.9 P80 BN80B4	277
114	59	1.7	12.3	2080	A052_12.3 S2 M2SA4	273	A052_12.3 P80 BN80B4	273
114	59	2.4	12.3	3530	A102_12.3 S2 M2SA4	276	A102_12.3 P80 BN80B4	277
133	51	2.0	10.6	2010	A052_10.6 S2 M2SA4	273	A052_10.6 P80 BN80B4	273
133	51	3.0	10.6	3400	A102_10.6 S2 M2SA4	276	A102_10.6 P80 BN80B4	277
146	46	2.2	9.6	1990	A052_9.6 S2 M2SA4	273	A052_9.6 P80 BN80B4	273
146	46	3.0	9.6	3320	A102_9.6 S2 M2SA4	276	A102_9.6 P80 BN80B4	277
164	41	2.4	8.5	1940	A052_8.5 S2 M2SA4	273	A052_8.5 P80 BN80B4	273
164	41	3.4	8.5	3820	A102_8.5 S2 M2SA4	276	A102_8.5 P80 BN80B4	277
194	35	2.9	7.2	1870	A052_7.2 S2 M2SA4	273	A052_7.2 P80 BN80B4	273










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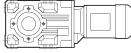



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
221	30	3.3	6.3	1810	A052_6.3 S2 M2SA4	273	A052_6.3 P80 BN80B4	273
256	26	3.6	5.5	1750	A052_5.5 S2 M2SA4	273	A052_5.5 P80 BN80B4	273
266	25	3.2	10.6	1720	A052_10.6 S1 M1LA2	273	A052_10.6 P80 BN80A2	273
292	23	4.1	9.6	1690	A052_9.6 S1 M1LA2	273	A052_9.6 P80 BN80A2	273
330	20	4.4	8.5	1640	A052_8.5 S1 M1LA2	273	A052_8.5 P80 BN80A2	273
390	17.3	4.9	7.2	1570	A052_7.2 S1 M1LA2	273	A052_7.2 P80 BN80A2	273
444	15.2	5.3	6.3	1510	A052_6.3 S1 M1LA2	273	A052_6.3 P80 BN80A2	273
514	13.1	5.7	5.5	1450	A052_5.5 S1 M1LA2	273	A052_5.5 P80 BN80A2	273

## 1.1 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
0.61	15320	0.9	1507	75000	A904_1507 S3 M3SA6	314	A904_1507 P90 BN90L6	315
0.69	13462	1.0	1324	75000	A904_1324 S3 M3SA6	314	A904_1324 P90 BN90L6	315
0.75	12427	1.1	1222	75000	A904_1222 S3 M3SA6	314	A904_1222 P90 BN90L6	315
0.86	10907	1.3	1632	75000	A904_1632 S2 M2SB4	314	A904_1632 P90 BN90S4	315
0.93	10068	1.4	1507	75000	A904_1507 S2 M2SB4	314	A904_1507 P90 BN90S4	315
1.0	8953	0.9	1340	65000	A804_1340 S2 M2SB4	311	A804_1340 P90 BN90S4	312
1.1	8847	1.6	1324	75000	A904_1324 S2 M2SB4	314	A904_1324 P90 BN90S4	315
1.1	8264	1.0	1237	65000	A804_1237 S2 M2SB4	311	A804_1237 P90 BN90S4	312
1.1	8166	1.7	1222	75000	A904_1222 S2 M2SB4	314	A904_1222 P90 BN90S4	315
1.3	7421	1.9	1111	75000	A904_1111 S2 M2SB4	314	A904_1111 P90 BN90S4	315
1.3	7249	1.1	1085	65000	A804_1085 S2 M2SB4	311	A804_1085 P90 BN90S4	312
1.4	6850	2.0	1025	75000	A904_1025 S2 M2SB4	314	A904_1025 P90 BN90S4	315
1.4	6691	1.2	1001	65000	A804_1001 S2 M2SB4	311	A804_1001 P90 BN90S4	312
1.5	6262	2.2	937.2	75000	A904_937.2 S2 M2SB4	314	A904_937.2 P90 BN90S4	315
1.6	6005	1.3	898.7	65000	A804_898.7 S2 M2SB4	311	A804_898.7 P90 BN90S4	312
1.6	5780	2.4	865.1	75000	A904_865.1 S2 M2SB4	314	A904_865.1 P90 BN90S4	315
1.6	5715	0.9	855.3	50000	A704_855.3 S2 M2SB4	308	A704_855.3 P90 BN90S4	309
1.7	5543	1.4	829.5	65000	A804_829.5 S2 M2SB4	311	A804_829.5 P90 BN90S4	312
1.8	5124	2.7	766.9	75000	A904_766.9 S2 M2SB4	314	A904_766.9 P90 BN90S4	315
1.8	5104	1.0	763.9	50000	A704_763.9 S2 M2SB4	308	A704_763.9 P90 BN90S4	309
1.8	5092	1.6	762.1	65000	A804_762.1 S2 M2SB4	311	A804_762.1 P90 BN90S4	312
2.0	4730	3.0	707.9	75000	A904_707.9 S2 M2SB4	314	A904_707.9 P90 BN90S4	315
2.0	4711	1.1	705.1	50000	A704_705.1 S2 M2SB4	308	A704_705.1 P90 BN90S4	309
2.0	4700	1.7	703.5	65000	A804_703.5 S2 M2SB4	311	A804_703.5 P90 BN90S4	312
2.2	4307	1.2	644.6	50000	A704_644.6 S2 M2SB4	308	A704_644.6 P90 BN90S4	309
2.3	4057	2.0	607.2	65000	A804_607.2 S2 M2SB4	311	A804_607.2 P90 BN90S4	312
2.3	4019	3.5	601.6	75000	A904_601.6 S2 M2SB4	314	A904_601.6 P90 BN90S4	315
2.4	3976	1.3	595.0	50000	A704_595.0 S2 M2SB4	308	A704_595.0 P90 BN90S4	309
2.5	3745	2.1	560.5	65000	A804_560.5 S2 M2SB4	311	A804_560.5 P90 BN90S4	312
2.7	3444	1.5	515.4	50000	A704_515.4 S2 M2SB4	308	A704_515.4 P90 BN90S4	309
2.9	3200	2.5	478.9	65000	A804_478.9 S2 M2SB4	311	A804_478.9 P90 BN90S4	312
2.9	3179	1.6	475.8	50000	A704_475.8 S2 M2SB4	308	A704_475.8 P90 BN90S4	309
3.2	2954	2.7	442.1	65000	A804_442.1 S2 M2SB4	311	A804_442.1 P90 BN90S4	312
3.2	2929	1.0	438.4	30000	A604_438.4 S2 M2SB4	304	A604_438.4 P90 BN90S4	305
3.5	2704	1.0	404.7	30000	A604_404.7 S2 M2SB4	304	A604_404.7 P90 BN90S4	305
3.5	2674	1.9	400.2	50000	A704_400.2 S2 M2SB4	308	A704_400.2 P90 BN90S4	309

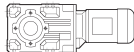





## 1.1 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
3.7	2562	3.1	383.5	65000	A804_383.5 S2 M2SB4	311	A804_383.5 P90 BN90S4	312
3.8	2468	2.0	369.4	50000	A704_369.4 S2 M2SB4	308	A704_369.4 P90 BN90S4	309
4.0	2365	3.4	354.0	65000	A804_354.0 S2 M2SB4	311	A804_354.0 P90 BN90S4	312
4.0	2347	1.2	351.2	30000	A604_351.2 S2 M2SB4	304	A604_351.2 P90 BN90S4	305
4.3	2166	1.3	324.2	30000	A604_324.2 S2 M2SB4	304	A604_324.2 P90 BN90S4	305
4.4	2114	2.4	316.4	50000	A704_316.4 S2 M2SB4	308	A704_316.4 P90 BN90S4	309
4.8	1951	2.6	292.0	50000	A704_292.0 S2 M2SB4	308	A704_292.0 P90 BN90S4	309
4.9	1913	1.5	286.3	30000	A604_286.3 S2 M2SB4	304	A604_286.3 P90 BN90S4	305
5.3	1766	1.6	264.3	30000	A604_264.3 S2 M2SB4	304	A604_264.3 P90 BN90S4	305
5.4	1743	0.9	260.9	20000	A504_260.9 S2 M2SB4	296	A504_260.9 P90 BN90S4	297
5.9	1594	3.1	238.6	50000	A704_238.6 S2 M2SB4	308	A704_238.6 P90 BN90S4	309
6.0	1550	1.0	232.0	20000	A504_232.0 S2 M2SB4	296	A504_232.0 P90 BN90S4	297
6.2	1511	1.9	226.1	30000	A604_226.1 S2 M2SB4	304	A604_226.1 P90 BN90S4	305
6.4	1472	3.4	220.3	50000	A704_220.3 S2 M2SB4	308	A704_220.3 P90 BN90S4	309
6.6	1410	1.1	211.0	20000	A504_211.0 S2 M2SB4	296	A504_211.0 P90 BN90S4	297
6.7	1395	2.0	208.7	30000	A604_208.7 S2 M2SB4	304	A604_208.7 P90 BN90S4	305
7.2	1327	1.5	194.2	30000	A553_194.2 S2 M2SB4	300	A553_194.2 P90 BN90S4	301
7.3	1302	1.2	190.6	20000	A503_190.6 S2 M2SB4	296	A503_190.6 P90 BN90S4	297
7.5	1269	2.2	185.8	30000	A603_185.8 S2 M2SB4	304	A603_185.8 P90 BN90S4	305
8.0	1196	1.7	175.0	30000	A553_175.0 S2 M2SB4	300	A553_175.0 P90 BN90S4	301
8.1	1184	1.3	173.4	20000	A503_173.4 S2 M2SB4	296	A503_173.4 P90 BN90S4	297
8.2	1171	2.4	171.5	30000	A603_171.5 S2 M2SB4	304	A603_171.5 P90 BN90S4	305
8.7	1096	1.8	160.4	30000	A553_160.4 S2 M2SB4	300	A553_160.4 P90 BN90S4	301
9.0	1066	2.6	156.0	30000	A603_156.0 S2 M2SB4	304	A603_156.0 P90 BN90S4	305
9.1	1056	1.4	154.6	20000	A503_154.6 S2 M2SB4	296	A503_154.6 P90 BN90S4	297
9.5	1003	2.0	146.8	30000	A553_146.8 S2 M2SB4	300	A553_146.8 P90 BN90S4	301
9.7	984	2.8	144.0	30000	A603_144.0 S2 M2SB4	304	A603_144.0 P90 BN90S4	305
10.0	961	1.6	140.6	20000	A503_140.6 S2 M2SB4	296	A503_140.6 P90 BN90S4	297
10.5	911	3.1	133.3	30000	A603_133.3 S2 M2SB4	304	A603_133.3 P90 BN90S4	305
10.5	907	2.2	132.7	30000	A553_132.7 S2 M2SB4	300	A553_132.7 P90 BN90S4	301
10.8	886	1.7	129.7	20000	A503_129.7 S2 M2SB4	296	A503_129.7 P90 BN90S4	297
11.3	846	2.4	123.9	30000	A553_123.9 S2 M2SB4	300	A553_123.9 P90 BN90S4	301
11.4	841	3.3	123.0	30000	A603_123.0 S2 M2SB4	304	A603_123.0 P90 BN90S4	305
11.9	806	1.9	118.0	20000	A503_118.0 S2 M2SB4	296	A503_118.0 P90 BN90S4	297
12.1	792	1.1	115.9	15000	A413_115.9 S2 M2SB4	292	A413_115.9 P90 BN90S4	293
12.8	748	2.0	109.4	20000	A503_109.4 S2 M2SB4	296	A503_109.4 P90 BN90S4	297
13.8	693	2.9	101.4	30000	A553_101.4 S2 M2SB4	300	A553_101.4 P90 BN90S4	301
14.1	680	2.2	99.5	20000	A503_99.5 S2 M2SB4	296	A503_99.5 P90 BN90S4	297
15.1	634	1.3	92.8	15000	A413_92.8 S2 M2SB4	292	A413_92.8 P90 BN90S4	293
15.6	612	2.5	89.5	20000	A503_89.5 S2 M2SB4	296	A503_89.5 P90 BN90S4	297
17.0	582	1.0	82.5	12000	A352_82.5 S2 M2SB4	288	A352_82.5 P90 BN90S4	289
17.2	556	2.7	81.5	20000	A503_81.5 S2 M2SB4	296	A503_81.5 P90 BN90S4	297
17.7	559	1.5	79.2	15000	A412_79.2 S2 M2SB4	292	A412_79.2 P90 BN90S4	293
18.8	524	1.1	74.3	12000	A352_74.3 S2 M2SB4	288	A352_74.3 P90 BN90S4	289
19.6	503	1.7	71.3	15000	A412_71.3 S2 M2SB4	292	A412_71.3 P90 BN90S4	293
19.9	480	3.1	70.2	20000	A503_70.2 S2 M2SB4	296	A503_70.2 P90 BN90S4	297
21.3	465	1.3	65.8	12000	A352_65.8 S2 M2SB4	288	A352_65.8 P90 BN90S4	289
21.8	453	1.9	64.2	15000	A412_64.2 S2 M2SB4	292	A412_64.2 P90 BN90S4	293
21.9	436	3.4	63.9	20000	A503_63.9 S2 M2SB4	296	A503_63.9 P90 BN90S4	297
23.2	426	1.4	60.4	12000	A352_60.4 S2 M2SB4	288	A352_60.4 P90 BN90S4	289
23.6	419	1.0	59.4	7420	A302_59.4 S2 M2SB4	284	A302_59.4 P90 BN90S4	285

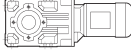




## 1.1 kW

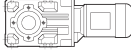


n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
23.8	415	2.0	58.8	15000	A412_58.8 S2 M2SB4	292	A412_58.8 P90 BN90S4	293
25.8	383	1.6	54.3	12000	A352_54.3 S2 M2SB4	288	A352_54.3 P90 BN90S4	289
26.3	375	2.3	53.1	15000	A412_53.1 S2 M2SB4	292	A412_53.1 P90 BN90S4	293
26.6	372	1.1	52.7	7310	A302_52.7 S2 M2SB4	284	A302_52.7 P90 BN90S4	285
28.5	346	1.7	49.1	11800	A352_49.1 S2 M2SB4	288	A352_49.1 P90 BN90S4	289
29.0	341	1.2	48.3	7220	A302_48.3 S2 M2SB4	284	A302_48.3 P90 BN90S4	285
29.0	341	2.5	48.3	15000	A412_48.3 S2 M2SB4	292	A412_48.3 P90 BN90S4	293
31	323	1.9	45.8	11700	A352_45.8 S2 M2SB4	288	A352_45.8 P90 BN90S4	289
31	318	2.6	45.1	15000	A412_45.1 S2 M2SB4	292	A412_45.1 P90 BN90S4	293
32	306	1.3	43.4	7100	A302_43.4 S2 M2SB4	284	A302_43.4 P90 BN90S4	285
34	295	2.0	41.8	11400	A352_41.8 S2 M2SB4	288	A352_41.8 P90 BN90S4	289
36	277	1.5	39.3	6970	A302_39.3 S2 M2SB4	284	A302_39.3 P90 BN90S4	285
38	259	1.6	36.6	6880	A302_36.6 S2 M2SB4	284	A302_36.6 P90 BN90S4	285
38	258	2.3	36.6	11100	A352_36.6 S2 M2SB4	288	A352_36.6 P90 BN90S4	289
39	253	3.1	35.9	14300	A412_35.9 S2 M2SB4	292	A412_35.9 P90 BN90S4	293
40	250	1.0	35.4	4380	A202_35.4 S2 M2SB4	280	A202_35.4 P90 BN90S4	281
42	236	1.7	33.4	6760	A302_33.4 S2 M2SB4	284	A302_33.4 P90 BN90S4	285
42	234	2.6	33.2	10800	A352_33.2 S2 M2SB4	288	A352_33.2 P90 BN90S4	289
45	221	1.1	31.3	4320	A202_31.3 S2 M2SB4	280	A202_31.3 P90 BN90S4	281
48	207	2.0	29.3	6580	A302_29.3 S2 M2SB4	284	A302_29.3 P90 BN90S4	285
48	206	1.2	29.2	4290	A202_29.2 S2 M2SB4	280	A202_29.2 P90 BN90S4	281
49	201	3.0	28.4	10400	A352_28.4 S2 M2SB4	288	A352_28.4 P90 BN90S4	289
53	187	2.2	26.5	6440	A302_26.5 S2 M2SB4	284	A302_26.5 P90 BN90S4	285
53	187	1.3	26.5	4230	A202_26.5 S2 M2SB4	280	A202_26.5 P90 BN90S4	281
55	181	3.3	25.7	10100	A352_25.7 S2 M2SB4	288	A352_25.7 P90 BN90S4	289
59	168	0.9	23.8	3640	A102_23.8 S2 M2SB4	276	A102_23.8 P90 BN90S4	277
61	163	1.5	23.1	4140	A202_23.1 S2 M2SB4	280	A202_23.1 P90 BN90S4	281
62	161	2.6	22.8	6220	A302_22.8 S2 M2SB4	284	A302_22.8 P90 BN90S4	285
66	151	1.0	21.4	4280	A102_21.4 S2 M2SB4	276	A102_21.4 P90 BN90S4	277
66	150	1.7	21.2	4080	A202_21.2 S2 M2SB4	280	A202_21.2 P90 BN90S4	281
68	145	2.8	20.5	6070	A302_20.5 S2 M2SB4	284	A302_20.5 P90 BN90S4	285
75	131	1.1	18.6	3540	A102_18.6 S2 M2SB4	276	A102_18.6 P90 BN90S4	277
77	128	2.0	18.1	3970	A202_18.1 S2 M2SB4	280	A202_18.1 P90 BN90S4	281
78	127	3.2	18.0	5880	A302_18.0 S2 M2SB4	284	A302_18.0 P90 BN90S4	285
85	116	1.3	16.4	4130	A102_16.4 S2 M2SB4	276	A102_16.4 P90 BN90S4	277
86	115	3.3	16.3	5740	A302_16.3 S2 M2SB4	284	A302_16.3 P90 BN90S4	285
87	114	2.2	16.2	3880	A202_16.2 S2 M2SB4	280	A202_16.2 P90 BN90S4	281
99	99	2.5	14.1	3770	A202_14.1 S2 M2SB4	280	A202_14.1 P90 BN90S4	281
101	98	1.0	13.9	1840	A052_13.9 S2 M2SB4	273		
101	98	1.5	13.9	3380	A102_13.9 S2 M2SB4	276	A102_13.9 P90 BN90S4	277
114	87	1.2	12.3	1850	A052_12.3 S2 M2SB4	273		
114	87	1.6	12.3	3300	A102_12.3 S2 M2SB4	276	A102_12.3 P90 BN90S4	277
117	84	2.5	12.0	3620	A202_12.0 S2 M2SB4	280	A202_12.0 P90 BN90S4	281
133	75	1.3	10.6	1810	A052_10.6 S2 M2SB4	273		
133	75	2.0	10.6	3210	A102_10.6 S2 M2SB4	276	A102_10.6 P90 BN90S4	277
135	73	3.1	10.3	3510	A202_10.3 S2 M2SB4	280	A202_10.3 P90 BN90S4	281
146	68	1.5	9.6	1810	A052_9.6 S2 M2SB4	273		
146	68	2.1	9.6	3140	A102_9.6 S2 M2SB4	276	A102_9.6 P90 BN90S4	277
149	66	3.2	9.4	3420	A202_9.4 S2 M2SB4	280	A202_9.4 P90 BN90S4	281
164	60	1.7	8.5	1780	A052_8.5 S2 M2SB4	273		
164	60	2.3	8.5	3630	A102_8.5 S2 M2SB4	276	A102_8.5 P90 BN90S4	277



## 1.1 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			
194	51	2.0	7.2	1730	A052_7.2 S2 M2SB4	273	
194	51	2.8	7.2	2940	A102_7.2 S2 M2SB4	276	A102_7.2 P90 BN90S4
221	45	2.2	6.3	1690	A052_6.3 S2 M2SB4	273	
221	45	3.1	6.3	3390	A102_6.3 S2 M2SB4	276	A102_6.3 P90 BN90S4
228	43	3.2	12.3	2830	A102_12.3 S2 M2SA2	276	A102_12.3 P80 BN80B2
256	39	2.5	5.5	1640	A052_5.5 S2 M2SB4	273	
291	34	2.8	9.6	1600	A052_9.6 S2 M2SA2	273	A052_9.6 P80 BN80B2
329	30	3.0	8.5	1560	A052_8.5 S2 M2SA2	273	A052_8.5 P80 BN80B2
388	25	3.3	7.2	1500	A052_7.2 S2 M2SA2	273	A052_7.2 P80 BN80B2
442	22	3.6	6.3	1450	A052_6.3 S2 M2SA2	273	A052_6.3 P80 BN80B2
512	19.3	3.9	5.5	1400	A052_5.5 S2 M2SA2	273	A052_5.5 P80 BN80B2

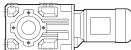




## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			
0.86	14767	0.9	1632	75000	A904_1632 S3 M3SA4	314	A904_1632 P90 BN90LA4
0.94	13631	1.0	1507	75000	A904_1507 S3 M3SA4	314	A904_1507 P90 BN90LA4
1.1	11978	1.2	1324	75000	A904_1324 S3 M3SA4	314	A904_1324 P90 BN90LA4
1.2	11057	1.3	1222	75000	A904_1222 S3 M3SA4	314	A904_1222 P90 BN90LA4
1.3	10047	1.4	1111	75000	A904_1111 S3 M3SA4	314	A904_1111 P90 BN90LA4
1.4	9274	1.5	1025	75000	A904_1025 S3 M3SA4	314	A904_1025 P90 BN90LA4
1.4	9060	0.9	1001	65000	A804_1001 S3 M3SA4	311	A804_1001 P90 BN90LA4
1.5	8478	1.7	937.2	75000	A904_937.2 S3 M3SA4	314	A904_937.2 P90 BN90LA4
1.6	8130	1.0	898.7	65000	A804_898.7 S3 M3SA4	311	A804_898.7 P90 BN90LA4
1.6	7826	1.8	865.1	75000	A904_865.1 S3 M3SA4	314	A904_865.1 P90 BN90LA4
1.7	7505	1.1	829.5	65000	A804_829.5 S3 M3SA4	311	A804_829.5 P90 BN90LA4
1.8	6938	2.0	766.9	75000	A904_766.9 S3 M3SA4	314	A904_766.9 P90 BN90LA4
1.9	6894	1.2	762.1	65000	A804_762.1 S3 M3SA4	311	A804_762.1 P90 BN90LA4
2.0	6404	2.2	707.9	75000	A904_707.9 S3 M3SA4	314	A904_707.9 P90 BN90LA4
2.0	6364	1.3	703.5	65000	A804_703.5 S3 M3SA4	311	A804_703.5 P90 BN90LA4
2.2	5832	0.9	644.6	50000	A704_644.6 S3 M3SA4	308	A704_644.6 P90 BN90LA4
2.3	5493	1.5	607.2	65000	A804_607.2 S3 M3SA4	311	A804_607.2 P90 BN90LA4
2.3	5442	2.6	601.6	75000	A904_601.6 S3 M3SA4	314	A904_601.6 P90 BN90LA4
2.4	5383	0.9	595.0	50000	A704_595.0 S3 M3SA4	308	A704_595.0 P90 BN90LA4
2.5	5070	1.6	560.5	65000	A804_560.5 S3 M3SA4	311	A804_560.5 P90 BN90LA4
2.5	5024	2.8	555.3	75000	A904_555.3 S3 M3SA4	314	A904_555.3 P90 BN90LA4
2.7	4663	1.1	515.4	50000	A704_515.4 S3 M3SA4	308	A704_515.4 P90 BN90LA4
2.9	4402	3.2	486.6	75000	A904_486.6 S3 M3SA4	314	A904_486.6 P90 BN90LA4
2.9	4333	1.8	478.9	65000	A804_478.9 S3 M3SA4	311	A804_478.9 P90 BN90LA4
3.0	4304	1.2	475.8	50000	A704_475.8 S3 M3SA4	308	A704_475.8 P90 BN90LA4
3.1	4063	3.4	449.2	75000	A904_449.2 S3 M3SA4	314	A904_449.2 P90 BN90LA4
3.2	3999	2.0	442.1	65000	A804_442.1 S3 M3SA4	311	A804_442.1 P90 BN90LA4
3.5	3620	1.4	400.2	50000	A704_400.2 S3 M3SA4	308	A704_400.2 P90 BN90LA4
3.7	3469	2.3	383.5	65000	A804_383.5 S3 M3SA4	311	A804_383.5 P90 BN90LA4
3.8	3342	1.5	369.4	50000	A704_369.4 S3 M3SA4	308	A704_369.4 P90 BN90LA4
4.0	3202	2.5	354.0	65000	A804_354.0 S3 M3SA4	311	A804_354.0 P90 BN90LA4
4.0	3177	0.9	351.2	30000	A604_351.2 S3 M3SA4	304	A604_351.2 P90 BN90LA4
4.3	2933	1.0	324.2	30000	A604_324.2 S3 M3SA4	304	A604_324.2 P90 BN90LA4



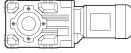





## 1.5 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
4.5	2862	1.7	316.4	50000	A704_316.4 S3 M3SA4	308	A704_316.4 P90 BN90LA4	309
4.7	2718	2.9	300.4	65000	A804_300.4 S3 M3SA4	311	A804_300.4 P90 BN90LA4	312
4.8	2642	1.9	292.0	50000	A704_292.0 S3 M3SA4	308	A704_292.0 P90 BN90LA4	309
4.9	2590	1.1	286.3	30000	A604_286.3 S3 M3SA4	304	A604_286.3 P90 BN90LA4	305
5.1	2509	3.2	277.3	65000	A804_277.3 S3 M3SA4	311	A804_277.3 P90 BN90LA4	312
5.3	2391	1.2	264.3	30000	A604_264.3 S3 M3SA4	304	A604_264.3 P90 BN90LA4	305
5.9	2159	2.3	238.6	50000	A704_238.6 S3 M3SA4	308	A704_238.6 P90 BN90LA4	309
6.2	2046	1.4	226.1	30000	A604_226.1 S3 M3SA4	304	A604_226.1 P90 BN90LA4	305
6.4	1993	2.5	220.3	50000	A704_220.3 S3 M3SA4	308	A704_220.3 P90 BN90LA4	309
6.8	1888	1.5	208.7	30000	A604_208.7 S3 M3SA4	304	A604_208.7 P90 BN90LA4	305
7.3	1796	1.1	194.2	30000	A553_194.2 S3 M3SA4	300	A553_194.2 P90 BN90LA4	301
7.6	1718	1.6	185.8	30000	A603_185.8 S3 M3SA4	304	A603_185.8 P90 BN90LA4	305
7.7	1664	3.0	183.9	50000	A704_183.9 S3 M3SA4	308	A704_183.9 P90 BN90LA4	309
8.1	1619	1.2	175.0	30000	A553_175.0 S3 M3SA4	300	A553_175.0 P90 BN90LA4	301
8.1	1604	0.9	173.4	20000	A503_173.4 S3 M3SA4	296	A503_173.4 P90 BN90LA4	297
8.2	1586	1.8	171.5	30000	A603_171.5 S3 M3SA4	304	A603_171.5 P90 BN90LA4	305
8.3	1536	3.3	169.8	50000	A704_169.8 S3 M3SA4	308	A704_169.8 P90 BN90LA4	309
8.8	1484	1.3	160.4	30000	A553_160.4 S3 M3SA4	300	A553_160.4 P90 BN90LA4	301
9.0	1443	1.9	156.0	30000	A603_156.0 S3 M3SA4	304	A603_156.0 P90 BN90LA4	305
9.1	1430	1.0	154.6	20000	A503_154.6 S3 M3SA4	296	A503_154.6 P90 BN90LA4	297
9.2	1422	2.8	153.7	50000	A703_153.7 S3 M3SA4	308	A703_153.7 P90 BN90LA4	309
9.6	1358	1.5	146.8	30000	A553_146.8 S3 M3SA4	300	A553_146.8 P90 BN90LA4	301
9.8	1332	2.1	144.0	30000	A603_144.0 S3 M3SA4	304	A603_144.0 P90 BN90LA4	305
10.0	1301	1.2	140.6	20000	A503_140.6 S3 M3SA4	296	A503_140.6 P90 BN90LA4	297
10.6	1233	2.3	133.3	30000	A603_133.3 S3 M3SA4	304	A603_133.3 P90 BN90LA4	305
10.6	1228	1.6	132.7	30000	A553_132.7 S3 M3SA4	300	A553_132.7 P90 BN90LA4	301
10.9	1199	1.3	129.7	20000	A503_129.7 S3 M3SA4	296	A503_129.7 P90 BN90LA4	297
11.4	1146	1.7	123.9	30000	A553_123.9 S3 M3SA4	300	A553_123.9 P90 BN90LA4	301
11.5	1138	2.5	123.0	30000	A603_123.0 S3 M3SA4	304	A603_123.0 P90 BN90LA4	305
12.0	1091	1.4	118.0	20000	A503_118.0 S3 M3SA4	296	A503_118.0 P90 BN90LA4	297
12.9	1012	1.5	109.4	20000	A503_109.4 S3 M3SA4	296	A503_109.4 P90 BN90LA4	297
13.1	997	2.8	107.8	30000	A603_107.8 S3 M3SA4	304	A603_107.8 P90 BN90LA4	305
13.9	938	2.1	101.4	30000	A553_101.4 S3 M3SA4	300	A553_101.4 P90 BN90LA4	301
14.2	921	1.6	99.5	20000	A503_99.5 S3 M3SA4	296	A503_99.5 P90 BN90LA4	297
14.2	920	3.0	99.5	30000	A603_99.5 S3 M3SA4	304	A603_99.5 P90 BN90LA4	305
15.2	858	0.9	92.8	15000	A413_92.8 S3 M3SA4	292	A413_92.8 P90 BN90LA4	293
15.7	828	1.8	89.5	20000	A503_89.5 S3 M3SA4	296	A503_89.5 P90 BN90LA4	297
16.3	799	3.5	86.4	30000	A603_86.4 S3 M3SA4	304	A603_86.4 P90 BN90LA4	305
17.3	753	2.0	81.5	20000	A503_81.5 S3 M3SA4	296	A503_81.5 P90 BN90LA4	297
17.7	736	2.7	79.5	30000	A553_79.5 S3 M3SA4	300	A553_79.5 P90 BN90LA4	301
17.8	757	1.1	79.2	15000	A412_79.2 S3 M3SA4	292	A412_79.2 P90 BN90LA4	293
19.8	681	1.2	71.3	15000	A412_71.3 S3 M3SA4	292	A412_71.3 P90 BN90LA4	293
20.1	650	2.3	70.2	20000	A503_70.2 S3 M3SA4	296	A503_70.2 P90 BN90LA4	297
21.4	629	1.0	65.8	11600	A352_65.8 S3 M3SA4	288	A352_65.8 P90 BN90LA4	289
21.9	595	3.4	64.3	30000	A553_64.3 S3 M3SA4	300	A553_64.3 P90 BN90LA4	301
22.0	613	1.4	64.2	15000	A412_64.2 S3 M3SA4	292	A412_64.2 P90 BN90LA4	293
22.1	591	2.5	63.9	20000	A503_63.9 S3 M3SA4	296	A503_63.9 P90 BN90LA4	297
23.4	577	1.0	60.4	11500	A352_60.4 S3 M3SA4	288	A352_60.4 P90 BN90LA4	289
24.0	562	1.5	58.8	15000	A412_58.8 S3 M3SA4	292	A412_58.8 P90 BN90LA4	293
24.8	526	2.9	56.8	20000	A503_56.8 S3 M3SA4	296	A503_56.8 P90 BN90LA4	297
26.0	519	1.2	54.3	11300	A352_54.3 S3 M3SA4	288	A352_54.3 P90 BN90LA4	289

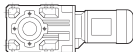






## 1.5 kW

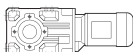




n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
26.5	508	1.7	53.1	15000	A412_53.1 S3 M3SA4	292	A412_53.1 P90 BN90LA4	293
27.3	478	3.1	51.7	19700	A503_51.7 S3 M3SA4	296	A503_51.7 P90 BN90LA4	297
28.7	469	1.3	49.1	11100	A352_49.1 S3 M3SA4	288	A352_49.1 P90 BN90LA4	289
29.2	461	1.8	48.3	14900	A412_48.3 S3 M3SA4	292	A412_48.3 P90 BN90LA4	293
31	438	1.4	45.8	11000	A352_45.8 S3 M3SA4	288	A352_45.8 P90 BN90LA4	289
31	431	1.9	45.1	14600	A412_45.1 S3 M3SA4	292	A412_45.1 P90 BN90LA4	293
32	415	1.0	43.4	6450	A302_43.4 S3 M3SA4	284	A302_43.4 P90 BN90LA4	285
34	399	1.5	41.8	10800	A352_41.8 S3 M3SA4	288	A352_41.8 P90 BN90LA4	289
36	375	1.1	39.3	6380	A302_39.3 S3 M3SA4	284	A302_39.3 P90 BN90LA4	285
38	350	1.2	36.6	6330	A302_36.6 S3 M3SA4	284	A302_36.6 P90 BN90LA4	285
38	350	1.7	36.6	10500	A352_36.6 S3 M3SA4	288	A352_36.6 P90 BN90LA4	289
39	343	2.3	35.9	13800	A412_35.9 S3 M3SA4	292	A412_35.9 P90 BN90LA4	293
42	319	1.3	33.4	6260	A302_33.4 S3 M3SA4	284	A302_33.4 P90 BN90LA4	285
43	317	1.9	33.2	10300	A352_33.2 S3 M3SA4	288	A352_33.2 P90 BN90LA4	289
48	280	1.5	29.3	6140	A302_29.3 S3 M3SA4	284	A302_29.3 P90 BN90LA4	285
50	272	2.2	28.4	9940	A352_28.4 S3 M3SA4	288	A352_28.4 P90 BN90LA4	289
50	271	2.7	28.3	13000	A412_28.3 S3 M3SA4	292	A412_28.3 P90 BN90LA4	293
53	254	1.6	26.5	6040	A302_26.5 S3 M3SA4	284	A302_26.5 P90 BN90LA4	285
53	253	1.0	26.5	3790	A202_26.5 S3 M3SA4	280	A202_26.5 P90 BN90LA4	281
55	245	2.4	25.7	9710	A352_25.7 S3 M3SA4	288	A352_25.7 P90 BN90LA4	289
61	221	1.1	23.1	3760	A202_23.1 S3 M3SA4	280	A202_23.1 P90 BN90LA4	281
62	217	1.9	22.8	5870	A302_22.8 S3 M3SA4	284	A302_22.8 P90 BN90LA4	285
62	217	3.1	22.7	12200	A412_22.7 S3 M3SA4	292	A412_22.7 P90 BN90LA4	293
63	215	2.8	22.5	9400	A352_22.5 S3 M3SA4	288	A352_22.5 P90 BN90LA4	289
66	203	1.2	21.2	3730	A202_21.2 S3 M3SA4	280	A202_21.2 P90 BN90LA4	281
69	196	2.1	20.5	5760	A302_20.5 S3 M3SA4	284	A302_20.5 P90 BN90LA4	285
69	195	3.1	20.4	9170	A352_20.4 S3 M3SA4	288	A352_20.4 P90 BN90LA4	289
78	173	1.4	18.1	3660	A202_18.1 S3 M3SA4	280	A202_18.1 P90 BN90LA4	281
78	172	2.3	18.0	5600	A302_18.0 S3 M3SA4	284	A302_18.0 P90 BN90LA4	285
86	157	1.0	16.4	3720	A102_16.4 S3 M3SA4	276	A102_16.4 P90 BN90LA4	277
86	156	2.5	16.3	5480	A302_16.3 S3 M3SA4	284	A302_16.3 P90 BN90LA4	285
87	154	1.6	16.2	3600	A202_16.2 S3 M3SA4	280	A202_16.2 P90 BN90LA4	281
100	134	1.8	14.1	3530	A202_14.1 S3 M3SA4	280	A202_14.1 P90 BN90LA4	281
101	133	1.1	13.9	3090	A102_13.9 S3 M3SA4	276	A102_13.9 P90 BN90LA4	277
104	130	2.9	13.6	5250	A302_13.6 S3 M3SA4	284	A302_13.6 P90 BN90LA4	285
115	118	1.2	12.3	3040	A102_12.3 S3 M3SA4	276	A102_12.3 P90 BN90LA4	277
118	114	1.8	12.0	3420	A202_12.0 S3 M3SA4	280	A202_12.0 P90 BN90LA4	281
120	113	2.7	11.8	5060	A302_11.8 S3 M3SA4	284	A302_11.8 P90 BN90LA4	285
123	109	3.2	22.8	5040	A302_22.8 S2 M2SB2	284	A302_22.8 P90 BN90SA2	285
134	101	1.5	10.6	2990	A102_10.6 S3 M3SA4	276	A102_10.6 P90 BN90LA4	277
135	100	3.4	10.5	4930	A302_10.5 S3 M3SA4	284	A302_10.5 P90 BN90LA4	285
136	99	2.3	10.3	3330	A202_10.3 S3 M3SA4	280	A202_10.3 P90 BN90LA4	281
147	92	1.5	9.6	2940	A102_9.6 S3 M3SA4	276	A102_9.6 P90 BN90LA4	277
150	90	2.3	9.4	3250	A202_9.4 S3 M3SA4	280	A202_9.4 P90 BN90LA4	281
151	89	3.4	9.3	4770	A302_9.3 S3 M3SA4	284	A302_9.3 P90 BN90LA4	285
166	81	1.7	8.5	3420	A102_8.5 S3 M3SA4	276	A102_8.5 P90 BN90LA4	277
168	80	2.6	8.4	3180	A202_8.4 S3 M3SA4	280	A202_8.4 P90 BN90LA4	281
193	70	3.0	7.3	3080	A202_7.3 S3 M3SA4	280	A202_7.3 P90 BN90LA4	281
196	69	2.0	7.2	2790	A102_7.2 S3 M3SA4	276	A102_7.2 P90 BN90LA4	277
216	62	3.4	6.5	3000	A202_6.5 S3 M3SA4	280	A202_6.5 P90 BN90LA4	281
223	61	2.3	6.3	3220	A102_6.3 S3 M3SA4	276	A102_6.3 P90 BN90LA4	277



## 1.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
258	52	2.7	5.5	2630	A102_5.5 S3 M3SA4	276	A102_5.5 P90 BN90LA4	277
291	46	3.0	9.6	2560	A102_9.6 S2 M2SB2	276	A102_9.6 P90 BN90SA2	277
329	41	3.4	8.5	2950	A102_8.5 S2 M2SB2	276	A102_8.5 P90 BN90SA2	277
388	35	2.4	7.2	1420	A052_7.2 S2 M2SB2	273		
442	30	2.6	6.3	1380	A052_6.3 S2 M2SB2	273		
512	26	2.9	5.5	1340	A052_5.5 S2 M2SB2	273		

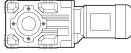



## 2.2 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC 	
1.2	16217	0.9	1222	75000	A904_1222 S3 M3LA4	314	A904_1222 P100 BN100LA4	315
1.3	14736	1.0	1111	75000	A904_1111 S3 M3LA4	314	A904_1111 P100 BN100LA4	315
1.4	13602	1.0	1025	75000	A904_1025 S3 M3LA4	314	A904_1025 P100 BN100LA4	315
1.5	12435	1.1	937.2	75000	A904_937.2 S3 M3LA4	314	A904_937.2 P100 BN100LA4	315
1.6	11479	1.2	865.1	75000	A904_865.1 S3 M3LA4	314	A904_865.1 P100 BN100LA4	315
1.8	10176	1.4	766.9	75000	A904_766.9 S3 M3LA4	314	A904_766.9 P100 BN100LA4	315
2.0	9393	1.5	707.9	75000	A904_707.9 S3 M3LA4	314	A904_707.9 P100 BN100LA4	315
2.0	9334	0.9	703.5	65000	A804_703.5 S3 M3LA4	311	A804_703.5 P100 BN100LA4	312
2.3	8056	1.0	607.2	65000	A804_607.2 S3 M3LA4	311	A804_607.2 P100 BN100LA4	312
2.3	7982	1.8	601.6	75000	A904_601.6 S3 M3LA4	314	A904_601.6 P100 BN100LA4	315
2.5	7436	1.1	560.5	65000	A804_560.5 S3 M3LA4	311	A804_560.5 P100 BN100LA4	312
2.5	7368	1.9	555.3	75000	A904_555.3 S3 M3LA4	314	A904_555.3 P100 BN100LA4	315
2.9	6456	2.2	486.6	75000	A904_486.6 S3 M3LA4	314	A904_486.6 P100 BN100LA4	315
2.9	6355	1.3	478.9	65000	A804_478.9 S3 M3LA4	311	A804_478.9 P100 BN100LA4	312
3.1	5960	2.3	449.2	75000	A904_449.2 S3 M3LA4	314	A904_449.2 P100 BN100LA4	315
3.2	5866	1.4	442.1	65000	A804_442.1 S3 M3LA4	311	A804_442.1 P100 BN100LA4	312
3.5	5310	0.9	400.2	50000	A704_400.2 S3 M3LA4	308	A704_400.2 P100 BN100LA4	309
3.7	5114	2.7	385.4	75000	A904_385.4 S3 M3LA4	314	A904_385.4 P100 BN100LA4	315
3.7	5088	1.6	383.5	65000	A804_383.5 S3 M3LA4	311	A804_383.5 P100 BN100LA4	312
3.8	4901	1.0	369.4	50000	A704_369.4 S3 M3LA4	308	A704_369.4 P100 BN100LA4	309
4.0	4721	3.0	355.8	75000	A904_355.8 S3 M3LA4	314	A904_355.8 P100 BN100LA4	315
4.0	4697	1.7	354.0	65000	A804_354.0 S3 M3LA4	311	A804_354.0 P100 BN100LA4	312
4.5	4198	1.2	316.4	50000	A704_316.4 S3 M3LA4	308	A704_316.4 P100 BN100LA4	309
4.6	4045	3.5	304.9	75000	A904_304.9 S3 M3LA4	314	A904_304.9 P100 BN100LA4	315
4.7	3986	2.0	300.4	65000	A804_300.4 S3 M3LA4	311	A804_300.4 P100 BN100LA4	312
4.8	3875	1.3	292.0	50000	A704_292.0 S3 M3LA4	308	A704_292.0 P100 BN100LA4	309
5.1	3679	2.2	277.3	65000	A804_277.3 S3 M3LA4	311	A804_277.3 P100 BN100LA4	312
5.9	3166	1.6	238.6	50000	A704_238.6 S3 M3LA4	308	A704_238.6 P100 BN100LA4	309
6.1	3087	2.6	232.6	65000	A804_232.6 S3 M3LA4	311	A804_232.6 P100 BN100LA4	312
6.2	3000	0.9	226.1	30000	A604_226.1 S3 M3LA4	304	A604_226.1 P100 BN100LA4	305
6.4	2922	1.7	220.3	50000	A704_220.3 S3 M3LA4	308	A704_220.3 P100 BN100LA4	309
6.6	2849	2.8	214.7	65000	A804_214.7 S3 M3LA4	311	A804_214.7 P100 BN100LA4	312
6.8	2770	1.0	208.7	30000	A604_208.7 S3 M3LA4	304	A604_208.7 P100 BN100LA4	305
7.6	2520	1.1	185.8	30000	A603_185.8 S3 M3LA4	304	A603_185.8 P100 BN100LA4	305
7.7	2440	2.0	183.9	50000	A704_183.9 S3 M3LA4	308	A704_183.9 P100 BN100LA4	309
8.2	2326	1.2	171.5	30000	A603_171.5 S3 M3LA4	304	A603_171.5 P100 BN100LA4	305
8.2	2273	3.5	171.3	65000	A804_171.3 S3 M3LA4	311	A804_171.3 P100 BN100LA4	312
8.3	2252	2.2	169.8	50000	A704_169.8 S3 M3LA4	308	A704_169.8 P100 BN100LA4	309



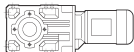





## 2.2 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
8.8	2177	0.9	160.4	30000	A553_160.4 S3 M3LA4	300	A553_160.4 P100 BN100LA4	301
9.0	2117	1.3	156.0	30000	A603_156.0 S3 M3LA4	304	A603_156.0 P100 BN100LA4	305
9.2	2085	1.9	153.7	50000	A703_153.7 S3 M3LA4	308	A703_153.7 P100 BN100LA4	309
9.6	1992	1.0	146.8	30000	A553_146.8 S3 M3LA4	300	A553_146.8 P100 BN100LA4	301
9.8	1954	1.4	144.0	30000	A603_144.0 S3 M3LA4	304	A603_144.0 P100 BN100LA4	305
9.9	1925	2.6	141.9	50000	A703_141.9 S3 M3LA4	308	A703_141.9 P100 BN100LA4	309
10.6	1808	1.5	133.3	30000	A603_133.3 S3 M3LA4	304	A603_133.3 P100 BN100LA4	305
10.6	1801	1.1	132.7	30000	A553_132.7 S3 M3LA4	300	A553_132.7 P100 BN100LA4	301
10.8	1773	2.8	130.7	50000	A703_130.7 S3 M3LA4	308	A703_130.7 P100 BN100LA4	309
11.4	1681	1.2	123.9	30000	A553_123.9 S3 M3LA4	300	A553_123.9 P100 BN100LA4	301
11.5	1669	1.7	123.0	30000	A603_123.0 S3 M3LA4	304	A603_123.0 P100 BN100LA4	305
11.7	1636	3.1	120.6	50000	A703_120.6 S3 M3LA4	308	A703_120.6 P100 BN100LA4	309
12.0	1600	0.9	118.0	20000	A503_118.0 S3 M3LA4	296	A503_118.0 P100 BN100LA4	297
12.9	1485	1.0	109.4	20000	A503_109.4 S3 M3LA4	296	A503_109.4 P100 BN100LA4	297
13.1	1463	1.9	107.8	30000	A603_107.8 S3 M3LA4	304	A603_107.8 P100 BN100LA4	305
13.5	1414	3.5	104.2	50000	A703_104.2 S3 M3LA4	308	A703_104.2 P100 BN100LA4	309
13.9	1375	1.5	101.4	30000	A553_101.4 S3 M3LA4	300	A553_101.4 P100 BN100LA4	301
14.2	1350	1.1	99.5	20000	A503_99.5 S3 M3LA4	296	A503_99.5 P100 BN100LA4	297
14.2	1350	2.1	99.5	30000	A603_99.5 S3 M3LA4	304	A603_99.5 P100 BN100LA4	305
15.7	1215	1.2	89.5	19800	A503_89.5 S3 M3LA4	296	A503_89.5 P100 BN100LA4	297
16.3	1172	2.4	86.4	30000	A603_86.4 S3 M3LA4	304	A603_86.4 P100 BN100LA4	305
17.3	1105	1.4	81.5	19600	A503_81.5 S3 M3LA4	296	A503_81.5 P100 BN100LA4	297
17.7	1082	2.6	79.7	30000	A603_79.7 S3 M3LA4	304	A603_79.7 P100 BN100LA4	305
17.7	1079	1.9	79.5	30000	A553_79.5 S3 M3LA4	300	A553_79.5 P100 BN100LA4	301
20.0	955	2.9	70.4	30000	A603_70.4 S3 M3LA4	304	A603_70.4 P100 BN100LA4	305
20.1	953	1.6	70.2	19300	A503_70.2 S3 M3LA4	296	A503_70.2 P100 BN100LA4	297
21.7	882	3.2	65.0	30000	A603_65.0 S3 M3LA4	304	A603_65.0 P100 BN100LA4	305
21.9	873	2.3	64.3	30000	A553_64.3 S3 M3LA4	300	A553_64.3 P100 BN100LA4	301
22.0	899	0.9	64.2	14500	A412_64.2 S3 M3LA4	292	A412_64.2 P100 BN100LA4	293
22.1	867	1.7	63.9	19000	A503_63.9 S3 M3LA4	296	A503_63.9 P100 BN100LA4	297
24.0	824	1.0	58.8	14400	A412_58.8 S3 M3LA4	292	A412_58.8 P100 BN100LA4	293
24.8	771	1.9	56.8	18600	A503_56.8 S3 M3LA4	296	A503_56.8 P100 BN100LA4	297
26.5	745	1.1	53.1	14100	A412_53.1 S3 M3LA4	292	A412_53.1 P100 BN100LA4	293
27.3	701	2.1	51.7	18300	A503_51.7 S3 M3LA4	296	A503_51.7 P100 BN100LA4	297
27.7	691	2.9	51.0	30000	A553_51.0 S3 M3LA4	300	A553_51.0 P100 BN100LA4	301
28.7	688	0.9	49.1	9900	A352_49.1 S3 M3LA4	288	A352_49.1 P100 BN100LA4	289
29.2	677	1.3	48.3	13900	A412_48.3 S3 M3LA4	292	A412_48.3 P100 BN100LA4	293
31	642	0.9	45.8	9840	A352_45.8 S3 M3LA4	288	A352_45.8 P100 BN100LA4	289
31	632	1.3	45.1	13700	A412_45.1 S3 M3LA4	292	A412_45.1 P100 BN100LA4	293
31	611	2.5	45.0	17900	A503_45.0 S3 M3LA4	296	A503_45.0 P100 BN100LA4	297
34	586	1.0	41.8	9750	A352_41.8 S3 M3LA4	288	A352_41.8 P100 BN100LA4	289
34	555	2.7	40.9	17500	A503_40.9 S3 M3LA4	296	A503_40.9 P100 BN100LA4	297
38	513	1.2	36.6	9600	A352_36.6 S3 M3LA4	288	A352_36.6 P100 BN100LA4	289
39	503	1.6	35.9	13100	A412_35.9 S3 M3LA4	292	A412_35.9 P100 BN100LA4	293
40	483	3.1	35.6	17000	A503_35.6 S3 M3LA4	296	A503_35.6 P100 BN100LA4	297
43	465	1.3	33.2	9460	A352_33.2 S3 M3LA4	288	A352_33.2 P100 BN100LA4	289
44	439	3.4	32.4	16600	A503_32.4 S3 M3LA4	296	A503_32.4 P100 BN100LA4	297
48	411	1.0	29.3	5380	A302_29.3 S3 M3LA4	284	A302_29.3 P100 BN100LA4	285
50	399	1.5	28.4	9230	A352_28.4 S3 M3LA4	288	A352_28.4 P100 BN100LA4	289
50	397	1.8	28.3	12400	A412_28.3 S3 M3LA4	292	A412_28.3 P100 BN100LA4	293
53	372	1.1	26.5	5350	A302_26.5 S3 M3LA4	284	A302_26.5 P100 BN100LA4	285

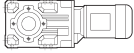






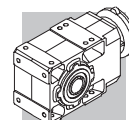
## 2.2 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
55	360	1.7	25.7	9070	A352_25.7 S3 M3LA4	288	A352_25.7 P100 BN100LA4	289
62	319	1.3	22.8	5290	A302_22.8 S3 M3LA4	284	A302_22.8 P100 BN100LA4	285
62	318	2.1	22.7	11700	A412_22.7 S3 M3LA4	292	A412_22.7 P100 BN100LA4	293
63	315	1.9	22.5	8840	A352_22.5 S3 M3LA4	288	A352_22.5 P100 BN100LA4	289
69	288	1.4	20.5	5230	A302_20.5 S3 M3LA4	284	A302_20.5 P100 BN100LA4	285
69	286	2.1	20.4	8660	A352_20.4 S3 M3LA4	288	A352_20.4 P100 BN100LA4	289
78	254	1.0	18.1	3140	A202_18.1 S3 M3LA4	280	A202_18.1 P100 BN100LA4	281
78	252	1.6	18.0	5140	A302_18.0 S3 M3LA4	284	A302_18.0 P100 BN100LA4	285
79	249	2.5	17.8	11000	A412_17.8 S3 M3LA4	292	A412_17.8 P100 BN100LA4	293
83	238	2.5	17.0	8320	A352_17.0 S3 M3LA4	288	A352_17.0 P100 BN100LA4	289
86	229	1.7	16.3	5060	A302_16.3 S3 M3LA4	284	A302_16.3 P100 BN100LA4	285
87	227	1.1	16.2	3140	A202_16.2 S3 M3LA4	280	A202_16.2 P100 BN100LA4	281
88	226	2.7	16.1	10800	A412_16.1 S3 M3LA4	292	A412_16.1 P100 BN100LA4	293
91	217	2.8	15.5	8150	A352_15.5 S3 M3LA4	288	A352_15.5 P100 BN100LA4	289
100	197	1.2	14.1	3120	A202_14.1 S3 M3LA4	280	A202_14.1 P100 BN100LA4	281
102	193	3.0	13.8	10300	A412_13.8 S3 M3LA4	292	A412_13.8 P100 BN100LA4	293
104	190	1.9	13.6	4900	A302_13.6 S3 M3LA4	284	A302_13.6 P100 BN100LA4	285
108	183	3.3	13.1	7820	A352_13.1 S3 M3LA4	288	A352_13.1 P100 BN100LA4	289
118	168	1.3	12.0	3070	A202_12.0 S3 M3LA4	280	A202_12.0 P100 BN100LA4	281
120	165	1.8	11.8	4750	A302_11.8 S3 M3LA4	284	A302_11.8 P100 BN100LA4	285
120	165	2.4	11.8	7710	A352_11.8 S3 M3LA4	288	A352_11.8 P100 BN100LA4	289
120	165	3.3	11.7	9870	A412_11.7 S3 M3LA4	292	A412_11.7 P100 BN100LA4	293
123	160	2.0	23.1	3070	A202_23.1 S3 M3SA2	280	A202_23.1 P90 BN90L2	281
133	149	2.7	10.6	7510	A352_10.6 S3 M3LA4	288	A352_10.6 P100 BN100LA4	289
134	148	1.0	10.6	2600	A102_10.6 S3 M3LA4	276	A102_10.6 P100 BN100LA4	277
135	147	2.3	10.5	4660	A302_10.5 S3 M3LA4	284	A302_10.5 P100 BN100LA4	285
136	145	1.6	10.3	3030	A202_10.3 S3 M3LA4	280	A202_10.3 P100 BN100LA4	281
147	135	1.0	9.6	2580	A102_9.6 S3 M3LA4	276	A102_9.6 P100 BN100LA4	277
150	131	1.6	9.4	2980	A202_9.4 S3 M3LA4	280	A202_9.4 P100 BN100LA4	281
151	130	2.3	9.3	4530	A302_9.3 S3 M3LA4	284	A302_9.3 P100 BN100LA4	285
151	130	3.1	9.3	7240	A352_9.3 S3 M3LA4	288	A352_9.3 P100 BN100LA4	289
166	119	1.2	8.5	3050	A102_8.5 S3 M3LA4	276	A102_8.5 P100 BN100LA4	277
167	119	2.5	8.5	4430	A302_8.5 S3 M3LA4	284	A302_8.5 P100 BN100LA4	285
167	119	3.2	8.5	7060	A352_8.5 S3 M3LA4	288	A352_8.5 P100 BN100LA4	289
168	117	1.8	8.4	2930	A202_8.4 S3 M3LA4	280	A202_8.4 P100 BN100LA4	281
193	102	2.1	7.3	2860	A202_7.3 S3 M3LA4	280	A202_7.3 P100 BN100LA4	281
196	101	1.4	7.2	2520	A102_7.2 S3 M3LA4	276	A102_7.2 P100 BN100LA4	277
201	98	3.0	7.0	4240	A302_7.0 S3 M3LA4	284	A302_7.0 P100 BN100LA4	285
216	92	2.3	6.5	2810	A202_6.5 S3 M3LA4	280	A202_6.5 P100 BN100LA4	281
220	90	3.3	6.4	4150	A302_6.4 S3 M3LA4	284	A302_6.4 P100 BN100LA4	285
223	89	1.6	6.3	2950	A102_6.3 S3 M3LA4	276	A102_6.3 P100 BN100LA4	277
258	77	1.8	5.5	2430	A102_5.5 S3 M3LA4	276	A102_5.5 P100 BN100LA4	277
263	75	2.8	5.4	2700	A202_5.4 S3 M3LA4	280	A202_5.4 P100 BN100LA4	281
304	65	3.2	9.4	2620	A202_9.4 S3 M3SA2	280	A202_9.4 P90 BN90L2	281

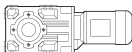





## 3.0 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
1.6	15653	0.9	865.1	75000	A904_865.1 S3 M3LB4	314	A904_865.1 P100 BN100LB4	315
1.8	13876	1.0	766.9	75000	A904_766.9 S3 M3LB4	314	A904_766.9 P100 BN100LB4	315
2.0	12809	1.1	707.9	75000	A904_707.9 S3 M3LB4	314	A904_707.9 P100 BN100LB4	315
2.3	10885	1.3	601.6	75000	A904_601.6 S3 M3LB4	314	A904_601.6 P100 BN100LB4	315
2.5	10047	1.4	555.3	75000	A904_555.3 S3 M3LB4	314	A904_555.3 P100 BN100LB4	315
2.9	8804	1.6	486.6	75000	A904_486.6 S3 M3LB4	314	A904_486.6 P100 BN100LB4	315
2.9	8665	0.9	478.9	65000	A804_478.9 S3 M3LB4	311	A804_478.9 P100 BN100LB4	312
3.1	8127	1.7	449.2	75000	A904_449.2 S3 M3LB4	314	A904_449.2 P100 BN100LB4	315
3.2	7999	1.0	442.1	65000	A804_442.1 S3 M3LB4	311	A804_442.1 P100 BN100LB4	312
3.7	6974	2.0	385.4	75000	A904_385.4 S3 M3LB4	314	A904_385.4 P100 BN100LB4	315
3.7	6938	1.2	383.5	65000	A804_383.5 S3 M3LB4	311	A804_383.5 P100 BN100LB4	312
4.0	6438	2.2	355.8	75000	A904_355.8 S3 M3LB4	314	A904_355.8 P100 BN100LB4	315
4.0	6405	1.2	354.0	65000	A804_354.0 S3 M3LB4	311	A804_354.0 P100 BN100LB4	312
4.5	5724	0.9	316.4	50000	A704_316.4 S3 M3LB4	308	A704_316.4 P100 BN100LB4	309
4.6	5517	2.5	304.9	75000	A904_304.9 S3 M3LB4	314	A904_304.9 P100 BN100LB4	315
4.7	5435	1.5	300.4	65000	A804_300.4 S3 M3LB4	311	A804_300.4 P100 BN100LB4	312
4.8	5284	0.9	292.0	50000	A704_292.0 S3 M3LB4	308	A704_292.0 P100 BN100LB4	309
5.0	5092	2.7	281.4	75000	A904_281.4 S3 M3LB4	314	A904_281.4 P100 BN100LB4	315
5.1	5017	1.6	277.3	65000	A804_277.3 S3 M3LB4	311	A804_277.3 P100 BN100LB4	312
5.9	4317	1.2	238.6	50000	A704_238.6 S3 M3LB4	308	A704_238.6 P100 BN100LB4	309
6.1	4209	1.9	232.6	65000	A804_232.6 S3 M3LB4	311	A804_232.6 P100 BN100LB4	312
6.2	4097	3.4	226.4	75000	A904_226.4 S3 M3LB4	314	A904_226.4 P100 BN100LB4	315
6.4	3985	1.3	220.3	50000	A704_220.3 S3 M3LB4	308	A704_220.3 P100 BN100LB4	309
6.6	3885	2.1	214.7	65000	A804_214.7 S3 M3LB4	311	A804_214.7 P100 BN100LB4	312
7.7	3327	1.5	183.9	50000	A704_183.9 S3 M3LB4	308	A704_183.9 P100 BN100LB4	309
8.2	3172	0.9	171.5	30000	A603_171.5 S3 M3LB4	304	A603_171.5 P100 BN100LB4	305
8.2	3099	2.6	171.3	65000	A804_171.3 S3 M3LB4	311	A804_171.3 P100 BN100LB4	312
8.3	3071	1.6	169.8	50000	A704_169.8 S3 M3LB4	308	A704_169.8 P100 BN100LB4	309
9.0	2901	2.8	156.8	65000	A803_156.8 S3 M3LB4	311	A803_156.8 P100 BN100LB4	312
9.0	2887	1.0	156.0	30000	A603_156.0 S3 M3LB4	304	A603_156.0 P100 BN100LB4	305
9.2	2843	1.4	153.7	50000	A703_153.7 S3 M3LB4	308	A703_153.7 P100 BN100LB4	309
9.7	2678	3.0	144.7	65000	A803_144.7 S3 M3LB4	311	A803_144.7 P100 BN100LB4	312
9.8	2665	1.1	144.0	30000	A603_144.0 S3 M3LB4	304	A603_144.0 P100 BN100LB4	305
9.9	2624	1.9	141.9	50000	A703_141.9 S3 M3LB4	308	A703_141.9 P100 BN100LB4	309
10.6	2466	1.1	133.3	30000	A603_133.3 S3 M3LB4	304	A603_133.3 P100 BN100LB4	305
10.8	2417	2.1	130.7	50000	A703_130.7 S3 M3LB4	308	A703_130.7 P100 BN100LB4	309
11.2	2324	3.4	125.6	65000	A803_125.6 S3 M3LB4	311	A803_125.6 P100 BN100LB4	312
11.5	2276	1.2	123.0	30000	A603_123.0 S3 M3LB4	304	A603_123.0 P100 BN100LB4	305
11.7	2231	2.2	120.6	50000	A703_120.6 S3 M3LB4	308	A703_120.6 P100 BN100LB4	309
13.1	1994	1.4	107.8	30000	A603_107.8 S3 M3LB4	304	A603_107.8 P100 BN100LB4	305
13.5	1928	2.6	104.2	50000	A703_104.2 S3 M3LB4	308	A703_104.2 P100 BN100LB4	309
13.9	1876	1.1	101.4	30000	A553_101.4 S3 M3LB4	300	A553_101.4 P100 BN100LB4	301
14.2	1841	1.5	99.5	30000	A603_99.5 S3 M3LB4	304	A603_99.5 P100 BN100LB4	305
14.7	1780	2.8	96.2	50000	A703_96.2 S3 M3LB4	308	A703_96.2 P100 BN100LB4	309
15.7	1657	0.9	89.5	17100	A503_89.5 S3 M3LB4	296	A503_89.5 P100 BN100LB4	297
16.3	1598	1.8	86.4	30000	A603_86.4 S3 M3LB4	304	A603_86.4 P100 BN100LB4	305
16.4	1590	3.1	85.9	50000	A703_85.9 S3 M3LB4	308	A703_85.9 P100 BN100LB4	309
17.3	1507	1.0	81.5	17200	A503_81.5 S3 M3LB4	296	A503_81.5 P100 BN100LB4	297
17.7	1475	1.9	79.7	30000	A603_79.7 S3 M3LB4	304	A603_79.7 P100 BN100LB4	305
17.7	1471	1.4	79.5	30000	A553_79.5 S3 M3LB4	300	A553_79.5 P100 BN100LB4	301
17.8	1468	3.4	79.3	50000	A703_79.3 S3 M3LB4	308	A703_79.3 P100 BN100LB4	309



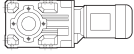




## 3.0 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
20.0	1303	2.1	70.4	30000	A603_70.4 S3 M3LB4	304	A603_70.4 P100 BN100LB4	305
20.1	1299	1.2	70.2	17200	A503_70.2 S3 M3LB4	296	A503_70.2 P100 BN100LB4	297
21.7	1202	2.3	65.0	30000	A603_65.0 S3 M3LB4	304	A603_65.0 P100 BN100LB4	305
21.9	1190	1.7	64.3	30000	A553_64.3 S3 M3LB4	300	A553_64.3 P100 BN100LB4	301
22.1	1182	1.3	63.9	17100	A503_63.9 S3 M3LB4	296	A503_63.9 P100 BN100LB4	297
24.8	1051	1.4	56.8	17000	A503_56.8 S3 M3LB4	296	A503_56.8 P100 BN100LB4	297
25.4	1029	2.7	55.6	30000	A603_55.6 S3 M3LB4	304	A603_55.6 P100 BN100LB4	305
27.3	956	1.6	51.7	16800	A503_51.7 S3 M3LB4	296	A503_51.7 P100 BN100LB4	297
27.5	950	2.9	51.3	30000	A603_51.3 S3 M3LB4	304	A603_51.3 P100 BN100LB4	305
27.7	943	2.1	51.0	30000	A553_51.0 S3 M3LB4	300	A553_51.0 P100 BN100LB4	301
29.2	923	0.9	48.3	12700	A412_48.3 S3 M3LB4	292	A412_48.3 P100 BN100LB4	293
31	861	1.0	45.1	12600	A412_45.1 S3 M3LB4	292	A412_45.1 P100 BN100LB4	293
31	836	3.3	45.2	30000	A603_45.2 S3 M3LB4	304	A603_45.2 P100 BN100LB4	305
31	833	1.8	45.0	16500	A503_45.0 S3 M3LB4	296	A503_45.0 P100 BN100LB4	297
34	757	2.0	40.9	16300	A503_40.9 S3 M3LB4	296	A503_40.9 P100 BN100LB4	297
35	746	2.7	40.3	30000	A553_40.3 S3 M3LB4	300	A553_40.3 P100 BN100LB4	301
38	700	0.9	36.6	8550	A352_36.6 S3 M3LB4	288	A352_36.6 P100 BN100LB4	289
39	686	1.1	35.9	12200	A412_35.9 S3 M3LB4	292	A412_35.9 P100 BN100LB4	293
40	659	2.3	35.6	16000	A503_35.6 S3 M3LB4	296	A503_35.6 P100 BN100LB4	297
43	634	0.9	33.2	8520	A352_33.2 S3 M3LB4	288	A352_33.2 P100 BN100LB4	289
44	599	2.5	32.4	15700	A503_32.4 S3 M3LB4	296	A503_32.4 P100 BN100LB4	297
50	543	1.1	28.4	8420	A352_28.4 S3 M3LB4	288	A352_28.4 P100 BN100LB4	289
50	541	1.3	28.3	11700	A412_28.3 S3 M3LB4	292	A412_28.3 P100 BN100LB4	293
53	489	3.1	26.4	15100	A503_26.4 S3 M3LB4	296	A503_26.4 P100 BN100LB4	297
55	491	1.2	25.7	8330	A352_25.7 S3 M3LB4	288	A352_25.7 P100 BN100LB4	289
59	445	3.4	24.0	14800	A503_24.0 S3 M3LB4	296	A503_24.0 P100 BN100LB4	297
62	435	0.9	22.8	4610	A302_22.8 S3 M3LB4	284	A302_22.8 P100 BN100LB4	285
62	433	1.6	22.7	11200	A412_22.7 S3 M3LB4	292	A412_22.7 P100 BN100LB4	293
63	430	1.4	22.5	8190	A352_22.5 S3 M3LB4	288	A352_22.5 P100 BN100LB4	289
67	400	3.0	20.9	15500	A502_20.9 S3 M3LB4	296	A502_20.9 P100 BN100LB4	297
69	392	1.0	20.5	4620	A302_20.5 S3 M3LB4	284	A302_20.5 P100 BN100LB4	285
69	390	1.5	20.4	8080	A352_20.4 S3 M3LB4	288	A352_20.4 P100 BN100LB4	289
78	344	1.2	18.0	4600	A302_18.0 S3 M3LB4	284	A302_18.0 P100 BN100LB4	285
79	339	1.9	17.8	10600	A412_17.8 S3 M3LB4	292	A412_17.8 P100 BN100LB4	293
83	324	1.9	17.0	7830	A352_17.0 S3 M3LB4	288	A352_17.0 P100 BN100LB4	289
86	312	1.2	16.3	4580	A302_16.3 S3 M3LB4	284	A302_16.3 P100 BN100LB4	285
88	308	2.0	16.1	10400	A412_16.1 S3 M3LB4	292	A412_16.1 P100 BN100LB4	293
91	296	2.0	15.5	7700	A352_15.5 S3 M3LB4	288	A352_15.5 P100 BN100LB4	289
100	269	0.9	14.1	2650	A202_14.1 S3 M3LB4	280	A202_14.1 P100 BN100LB4	281
102	263	2.2	13.8	9990	A412_13.8 S3 M3LB4	292	A412_13.8 P100 BN100LB4	293
104	259	1.4	13.6	4500	A302_13.6 S3 M3LB4	284	A302_13.6 P100 BN100LB4	285
108	250	2.4	13.1	7450	A352_13.1 S3 M3LB4	288	A352_13.1 P100 BN100LB4	289
118	229	0.9	12.0	2670	A202_12.0 S3 M3LB4	280	A202_12.0 P100 BN100LB4	281
120	225	1.3	11.8	4400	A302_11.8 S3 M3LB4	284	A302_11.8 P100 BN100LB4	285
120	225	1.8	11.8	7410	A352_11.8 S3 M3LB4	288	A352_11.8 P100 BN100LB4	289
120	224	2.5	11.7	9580	A412_11.7 S3 M3LB4	292	A412_11.7 P100 BN100LB4	293
124	218	1.5	23.1	2690	A202_23.1 S3 M3LA2	280	A202_23.1 P100 BN100L2	281
133	203	2.0	10.6	7230	A352_10.6 S3 M3LB4	288	A352_10.6 P100 BN100LB4	289
135	200	1.7	10.5	4350	A302_10.5 S3 M3LB4	284	A302_10.5 P100 BN100LB4	285
136	198	1.1	10.3	2690	A202_10.3 S3 M3LB4	280	A202_10.3 P100 BN100LB4	281
139	194	2.8	10.1	9230	A412_10.1 S3 M3LB4	292	A412_10.1 P100 BN100LB4	293

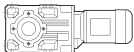








## 3.0 kW

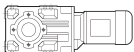
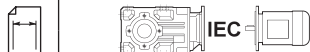

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
150	179	1.2	9.4	2670	A202_9.4 S3 M3LB4	280	A202_9.4 P100 BN100LB4	281
151	178	1.7	9.3	4240	A302_9.3 S3 M3LB4	284	A302_9.3 P100 BN100LB4	285
151	178	2.2	9.3	7000	A352_9.3 S3 M3LB4	288	A352_9.3 P100 BN100LB4	289
153	176	3.1	9.2	8980	A412_9.2 S3 M3LB4	292	A412_9.2 P100 BN100LB4	293
167	162	1.9	8.5	4170	A302_8.5 S3 M3LB4	284	A302_8.5 P100 BN100LB4	285
167	162	2.4	8.5	6840	A352_8.5 S3 M3LB4	288	A352_8.5 P100 BN100LB4	289
168	160	1.3	8.4	2650	A202_8.4 S3 M3LB4	280	A202_8.4 P100 BN100LB4	281
169	159	3.5	8.3	8740	A412_8.3 S3 M3LB4	292	A412_8.3 P100 BN100LB4	293
193	139	1.5	7.3	2620	A202_7.3 S3 M3LB4	280	A202_7.3 P100 BN100LB4	281
196	138	1.0	7.2	2220	A102_7.2 S3 M3LB4	276	A102_7.2 P100 BN100LB4	277
201	134	2.2	7.0	4030	A302_7.0 S3 M3LB4	284	A302_7.0 P100 BN100LB4	285
201	134	2.8	7.0	6520	A352_7.0 S3 M3LB4	288	A352_7.0 P100 BN100LB4	289
216	125	1.7	6.5	2590	A202_6.5 S3 M3LB4	280	A202_6.5 P100 BN100LB4	281
220	123	2.4	6.4	3950	A302_6.4 S3 M3LB4	284	A302_6.4 P100 BN100LB4	285
220	123	2.9	6.4	6360	A352_6.4 S3 M3LB4	288	A352_6.4 P100 BN100LB4	289
223	121	1.2	6.3	2640	A102_6.3 S3 M3LB4	276	A102_6.3 P100 BN100LB4	277
243	111	2.7	11.8	3870	A302_11.8 S3 M3LA2	284	A302_11.8 P100 BN100L2	285
258	104	1.3	5.5	2200	A102_5.5 S3 M3LB4	276	A102_5.5 P100 BN100LB4	277
260	103	2.9	5.4	3810	A302_5.4 S3 M3LB4	284	A302_5.4 P100 BN100LB4	285
260	103	3.3	5.4	6070	A352_5.4 S3 M3LB4	288	A352_5.4 P100 BN100LB4	289
263	102	2.1	5.4	2520	A202_5.4 S3 M3LB4	280	A202_5.4 P100 BN100LB4	281
277	97	1.9	10.3	2500	A202_10.3 S3 M3LA2	280	A202_10.3 P100 BN100L2	281
307	88	3.4	9.3	3670	A302_9.3 S3 M3LA2	284	A302_9.3 P100 BN100L2	285
342	79	2.7	8.4	2410	A202_8.4 S3 M3LA2	280	A202_8.4 P100 BN100L2	281
397	68	2.1	7.2	2090	A102_7.2 S3 M3LA2	276	A102_7.2 P100 BN100L2	277
451	60	2.3	6.3	2430	A102_6.3 S3 M3LA2	276	A102_6.3 P100 BN100L2	277
523	51	2.6	5.5	1990	A102_5.5 S3 M3LA2	276	A102_5.5 P100 BN100L2	277

## 4.0 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
2.3	14616	1.0	601.6	75000	A904_601.6 S3 M3LC4	314	A904_601.6 P112 BN112M4	315
2.5	13492	1.0	555.3	75000	A904_555.3 S3 M3LC4	314	A904_555.3 P112 BN112M4	315
2.9	11823	1.2	486.6	75000	A904_486.6 S3 M3LC4	314	A904_486.6 P112 BN112M4	315
3.1	10913	1.3	449.2	75000	A904_449.2 S3 M3LC4	314	A904_449.2 P112 BN112M4	315
3.6	9365	1.5	385.4	75000	A904_385.4 S3 M3LC4	314	A904_385.4 P112 BN112M4	315
3.7	9317	0.9	383.5	65000	A804_383.5 S3 M3LC4	311	A804_383.5 P112 BN112M4	312
3.9	8645	1.6	355.8	75000	A904_355.8 S3 M3LC4	314	A904_355.8 P112 BN112M4	315
4.0	8600	0.9	354.0	65000	A804_354.0 S3 M3LC4	311	A804_354.0 P112 BN112M4	312
4.6	7408	1.9	304.9	75000	A904_304.9 S3 M3LC4	314	A904_304.9 P112 BN112M4	315
4.7	7299	1.1	300.4	65000	A804_300.4 S3 M3LC4	311	A804_300.4 P112 BN112M4	312
5.0	6838	2.0	281.4	75000	A904_281.4 S3 M3LC4	314	A904_281.4 P112 BN112M4	315
5.0	6737	1.2	277.3	65000	A804_277.3 S3 M3LC4	311	A804_277.3 P112 BN112M4	312
5.9	5797	0.9	238.6	50000	A704_238.6 S3 M3LC4	308	A704_238.6 P112 BN112M4	309
6.0	5652	1.4	232.6	65000	A804_232.6 S3 M3LC4	311	A804_232.6 P112 BN112M4	312
6.2	5502	2.5	226.4	75000	A904_226.4 S3 M3LC4	314	A904_226.4 P112 BN112M4	315
6.4	5352	0.9	220.3	50000	A704_220.3 S3 M3LC4	308	A704_220.3 P112 BN112M4	309
6.5	5217	1.5	214.7	65000	A804_214.7 S3 M3LC4	311	A804_214.7 P112 BN112M4	312

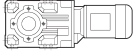






## 4.0 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			<b>IEC</b>	
6.7	5078	2.8	209.0	75000	A904_209.0 S3 M3LC4	314	A904_209.0 P112 BN112M4	315
7.6	4468	1.1	183.9	50000	A704_183.9 S3 M3LC4	308	A704_183.9 P112 BN112M4	309
7.8	4373	3.2	180.0	75000	A904_180.0 S3 M3LC4	314	A904_180.0 P112 BN112M4	315
8.2	4162	1.9	171.3	65000	A804_171.3 S3 M3LC4	311	A804_171.3 P112 BN112M4	312
8.2	4125	1.2	169.8	50000	A704_169.8 S3 M3LC4	308	A704_169.8 P112 BN112M4	309
8.4	4036	3.5	166.1	75000	A904_166.1 S3 M3LC4	314	A904_166.1 P112 BN112M4	315
8.9	3895	2.1	156.8	65000	A803_156.8 S3 M3LC4	311	A803_156.8 P112 BN112M4	312
9.1	3818	1.1	153.7	50000	A703_153.7 S3 M3LC4	308	A703_153.7 P112 BN112M4	309
9.7	3596	2.2	144.7	65000	A803_144.7 S3 M3LC4	311	A803_144.7 P112 BN112M4	312
9.9	3524	1.4	141.9	50000	A703_141.9 S3 M3LC4	308	A703_141.9 P112 BN112M4	309
10.7	3246	1.5	130.7	50000	A703_130.7 S3 M3LC4	308	A703_130.7 P112 BN112M4	309
11.1	3121	2.6	125.6	65000	A803_125.6 S3 M3LC4	311	A803_125.6 P112 BN112M4	312
11.4	3056	0.9	123.0	30000	A603_123.0 S3 M3LC4	304	A603_123.0 P112 BN112M4	305
11.6	2996	1.7	120.6	50000	A703_120.6 S3 M3LC4	308	A703_120.6 P112 BN112M4	309
12.1	2881	2.8	116.0	65000	A803_116.0 S3 M3LC4	311	A803_116.0 P112 BN112M4	312
13.0	2678	1.0	107.8	30000	A603_107.8 S3 M3LC4	304	A603_107.8 P112 BN112M4	305
13.4	2590	1.9	104.2	50000	A703_104.2 S3 M3LC4	308	A703_104.2 P112 BN112M4	309
13.5	2584	3.1	104.0	65000	A803_104.0 S3 M3LC4	311	A803_104.0 P112 BN112M4	312
14.1	2472	1.1	99.5	30000	A603_99.5 S3 M3LC4	304	A603_99.5 P112 BN112M4	305
14.6	2390	2.1	96.2	50000	A703_96.2 S3 M3LC4	308	A703_96.2 P112 BN112M4	309
14.6	2386	3.4	96.0	65000	A803_96.0 S3 M3LC4	311	A803_96.0 P112 BN112M4	312
16.2	2146	1.3	86.4	30000	A603_86.4 S3 M3LC4	304	A603_86.4 P112 BN112M4	305
16.3	2135	2.3	85.9	50000	A703_85.9 S3 M3LC4	308	A703_85.9 P112 BN112M4	309
17.6	1980	1.4	79.7	30000	A603_79.7 S3 M3LC4	304	A603_79.7 P112 BN112M4	305
17.6	1976	1.0	79.5	30000	A553_79.5 S3 M3LC4	300	A553_79.5 P112 BN112M4	301
17.6	1971	2.5	79.3	50000	A703_79.3 S3 M3LC4	308	A703_79.3 P112 BN112M4	309
19.3	1802	2.8	72.5	50000	A703_72.5 S3 M3LC4	308	A703_72.5 P112 BN112M4	309
19.9	1749	1.6	70.4	30000	A603_70.4 S3 M3LC4	304	A603_70.4 P112 BN112M4	305
20.9	1663	3.0	66.9	50000	A703_66.9 S3 M3LC4	308	A703_66.9 P112 BN112M4	309
21.5	1615	1.7	65.0	30000	A603_65.0 S3 M3LC4	304	A603_65.0 P112 BN112M4	305
21.8	1598	1.3	64.3	30000	A553_64.3 S3 M3LC4	300	A553_64.3 P112 BN112M4	301
21.9	1587	0.9	63.9	14700	A503_63.9 S3 M3LC4	296	A503_63.9 P112 BN112M4	297
24.6	1411	1.1	56.8	14800	A503_56.8 S3 M3LC4	296	A503_56.8 P112 BN112M4	297
25.2	1381	2.0	55.6	30000	A603_55.6 S3 M3LC4	304	A603_55.6 P112 BN112M4	305
27.1	1284	1.2	51.7	14900	A503_51.7 S3 M3LC4	296	A503_51.7 P112 BN112M4	297
27.3	1275	2.2	51.3	30000	A603_51.3 S3 M3LC4	304	A603_51.3 P112 BN112M4	305
28	1266	1.6	51.0	30000	A553_51.0 S3 M3LC4	300	A553_51.0 P112 BN112M4	301
31	1123	2.5	45.2	30000	A603_45.2 S3 M3LC4	304	A603_45.2 P112 BN112M4	305
31	1118	1.3	45.0	14900	A503_45.0 S3 M3LC4	296	A503_45.0 P112 BN112M4	297
34	1036	2.7	41.7	30000	A603_41.7 S3 M3LC4	304	A603_41.7 P112 BN112M4	305
34	1017	1.5	40.9	14800	A503_40.9 S3 M3LC4	296	A503_40.9 P112 BN112M4	297
35	1001	2.0	40.3	30000	A553_40.3 S3 M3LC4	300	A553_40.3 P112 BN112M4	301
39	884	1.7	35.6	14700	A503_35.6 S3 M3LC4	296	A503_35.6 P112 BN112M4	297
41	852	3.3	34.3	30000	A603_34.3 S3 M3LC4	304	A603_34.3 P112 BN112M4	305
43	804	1.9	32.4	14500	A503_32.4 S3 M3LC4	296	A503_32.4 P112 BN112M4	297
47	744	2.7	29.9	30000	A553_29.9 S3 M3LC4	300	A553_29.9 P112 BN112M4	301
49	727	1.0	28.3	10900	A412_28.3 S3 M3LC4	292	A412_28.3 P112 BN112M4	293
53	657	2.3	26.4	14100	A503_26.4 S3 M3LC4	296	A503_26.4 P112 BN112M4	297
55	659	0.9	25.7	7420	A352_25.7 S3 M3LC4	288	A352_25.7 P112 BN112M4	289
58	597	2.5	24.0	13900	A503_24.0 S3 M3LC4	296	A503_24.0 P112 BN112M4	297
59	591	3.3	23.8	30000	A553_23.8 S3 M3LC4	300	A553_23.8 P112 BN112M4	301



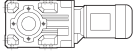



## 4.0 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
62	582	1.2	22.7	10500	A412_22.7 S3 M3LC4	292	A412_22.7 P112 BN112M4	293
62	577	1.0	22.5	7400	A352_22.5 S3 M3LC4	288	A352_22.5 P112 BN112M4	289
67	537	2.2	20.9	15100	A502_20.9 S3 M3LC4	296	A502_20.9 P112 BN112M4	297
69	524	1.1	20.4	7360	A352_20.4 S3 M3LC4	288	A352_20.4 P112 BN112M4	289
78	462	0.9	18.0	3930	A302_18.0 S3 M3LC4	284	A302_18.0 P112 BN112M4	285
79	456	1.4	17.8	10100	A412_17.8 S3 M3LC4	292	A412_17.8 P112 BN112M4	293
83	435	1.4	17.0	7240	A352_17.0 S3 M3LC4	288	A352_17.0 P112 BN112M4	289
84	425	2.8	16.6	14200	A502_16.6 S3 M3LC4	296	A502_16.6 P112 BN112M4	297
86	419	0.9	16.3	3970	A302_16.3 S3 M3LC4	284	A302_16.3 P112 BN112M4	285
87	413	1.5	16.1	9940	A412_16.1 S3 M3LC4	292	A412_16.1 P112 BN112M4	293
90	397	1.5	15.5	7160	A352_15.5 S3 M3LC4	288	A352_15.5 P112 BN112M4	289
102	353	1.7	13.8	9610	A412_13.8 S3 M3LC4	292	A412_13.8 P112 BN112M4	293
103	348	1.1	13.6	4000	A302_13.6 S3 M3LC4	284	A302_13.6 P112 BN112M4	285
107	336	3.3	13.1	13300	A502_13.1 S3 M3LC4	296	A502_13.1 P112 BN112M4	297
107	335	1.8	13.1	7000	A352_13.1 S3 M3LC4	288	A352_13.1 P112 BN112M4	289
119	302	1.0	11.8	3960	A302_11.8 S3 M3LC4	284	A302_11.8 P112 BN112M4	285
119	302	1.3	11.8	7050	A352_11.8 S3 M3LC4	288	A352_11.8 P112 BN112M4	289
119	301	1.8	11.7	9260	A412_11.7 S3 M3LC4	292	A412_11.7 P112 BN112M4	293
126	285	1.2	22.8	3980	A302_22.8 S3 M3LB2	284	A302_22.8 P112 BN112M2	285
132	273	1.5	10.6	6910	A352_10.6 S3 M3LC4	288	A352_10.6 P112 BN112M4	289
134	268	1.3	10.5	3970	A302_10.5 S3 M3LC4	284	A302_10.5 P112 BN112M4	285
138	260	2.1	10.1	8960	A412_10.1 S3 M3LC4	292	A412_10.1 P112 BN112M4	293
150	239	1.3	9.3	3900	A302_9.3 S3 M3LC4	284	A302_9.3 P112 BN112M4	285
150	239	1.7	9.3	6730	A352_9.3 S3 M3LC4	288	A352_9.3 P112 BN112M4	289
152	236	2.3	9.2	8740	A412_9.2 S3 M3LC4	292	A412_9.2 P112 BN112M4	293
165	217	1.4	8.5	3860	A302_8.5 S3 M3LC4	284	A302_8.5 P112 BN112M4	285
165	217	1.8	8.5	6590	A352_8.5 S3 M3LC4	288	A352_8.5 P112 BN112M4	289
167	215	1.0	8.4	2300	A202_8.4 S3 M3LC4	280	A202_8.4 P112 BN112M4	281
168	214	2.6	8.3	8520	A412_8.3 S3 M3LC4	292	A412_8.3 P112 BN112M4	293
192	187	1.1	7.3	2310	A202_7.3 S3 M3LC4	280	A202_7.3 P112 BN112M4	281
197	183	3.0	7.1	8180	A412_7.1 S3 M3LC4	292	A412_7.1 P112 BN112M4	293
199	180	1.7	7.0	3770	A302_7.0 S3 M3LC4	284	A302_7.0 P112 BN112M4	285
199	180	2.1	7.0	6310	A352_7.0 S3 M3LC4	288	A352_7.0 P112 BN112M4	289
214	168	1.3	6.5	2310	A202_6.5 S3 M3LC4	280	A202_6.5 P112 BN112M4	281
218	165	1.8	6.4	3720	A302_6.4 S3 M3LC4	284	A302_6.4 P112 BN112M4	285
218	165	2.1	6.4	6180	A352_6.4 S3 M3LC4	288	A352_6.4 P112 BN112M4	289
256	140	1.0	5.5	1910	A102_5.5 S3 M3LC4	276	A102_5.5 P112 BN112M4	277
259	139	2.2	5.4	3610	A302_5.4 S3 M3LC4	284	A302_5.4 P112 BN112M4	285
259	139	2.4	5.4	5920	A352_5.4 S3 M3LC4	288	A352_5.4 P112 BN112M4	289
262	137	1.5	5.4	2300	A202_5.4 S3 M3LC4	280	A202_5.4 P112 BN112M4	281
270	133	3.0	10.6	5850	A352_10.6 S3 M3LB2	288	A352_10.6 P112 BN112M2	289
308	117	3.4	9.3	5650	A352_9.3 S3 M3LB2	288	A352_9.3 P112 BN112M2	289
343	105	2.1	8.4	2230	A202_8.4 S3 M3LB2	280	A202_8.4 P112 BN112M2	281
409	88	3.4	7.0	3280	A302_7.0 S3 M3LB2	284	A302_7.0 P112 BN112M2	285
453	79	1.7	6.3	2240	A102_6.3 S3 M3LB2	276	A102_6.3 P112 BN112M2	277
536	67	2.8	5.4	2080	A202_5.4 S3 M3LB2	280	A202_5.4 P112 BN112M2	281



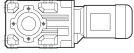






## 5.5 kW

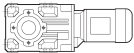




n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
3.0	15805	0.9	486.6	75000	A904_486.6 S4 M4SA4	314	A904_486.6 P132 BN132S4	315
3.2	14589	1.0	449.2	75000	A904_449.2 S4 M4SA4	314	A904_449.2 P132 BN132S4	315
3.7	12519	1.1	385.4	75000	A904_385.4 S4 M4SA4	314	A904_385.4 P132 BN132S4	315
4.0	11556	1.2	355.8	75000	A904_355.8 S4 M4SA4	314	A904_355.8 P132 BN132S4	315
4.7	9903	1.4	304.9	75000	A904_304.9 S4 M4SA4	314	A904_304.9 P132 BN132S4	315
5.1	9141	1.5	281.4	75000	A904_281.4 S4 M4SA4	314	A904_281.4 P132 BN132S4	315
5.2	9006	0.9	277.3	65000	A804_277.3 S4 M4SA4	311	A804_277.3 P132 BN132S4	312
6.2	7556	1.1	232.6	65000	A804_232.6 S4 M4SA4	311	A804_232.6 P132 BN132S4	312
6.4	7354	1.9	226.4	75000	A904_226.4 S4 M4SA4	314	A904_226.4 P132 BN132S4	315
6.7	6975	1.1	214.7	65000	A804_214.7 S4 M4SA4	311	A804_214.7 P132 BN132S4	312
6.9	6789	2.1	209.0	75000	A904_209.0 S4 M4SA4	314	A904_209.0 P132 BN132S4	315
8.0	5846	2.4	180.0	75000	A904_180.0 S4 M4SA4	314	A904_180.0 P132 BN132S4	315
8.4	5564	1.4	171.3	65000	A804_171.3 S4 M4SA4	311	A804_171.3 P132 BN132S4	312
8.5	5514	0.9	169.8	50000	A704_169.8 S4 M4SA4	308	A704_169.8 P132 BN132S4	309
8.7	5396	2.6	166.1	75000	A904_166.1 S4 M4SA4	314	A904_166.1 P132 BN132S4	315
9.2	5207	1.5	156.8	65000	A803_156.8 S4 M4SA4	311	A803_156.8 P132 BN132S4	312
9.5	5015	2.8	151.0	75000	A903_151.0 S4 M4SA4	314	A903_151.0 P132 BN132S4	315
9.9	4807	1.7	144.7	65000	A803_144.7 S4 M4SA4	311	A803_144.7 P132 BN132S4	312
10.2	4711	1.1	141.9	50000	A703_141.9 S4 M4SA4	308	A703_141.9 P132 BN132S4	309
10.3	4629	2.8	139.4	75000	A903_139.4 S4 M4SA4	314	A903_139.4 P132 BN132S4	315
11.0	4339	1.2	130.7	50000	A703_130.7 S4 M4SA4	308	A703_130.7 P132 BN132S4	309
11.4	4206	3.1	126.6	75000	A903_126.6 S4 M4SA4	314	A903_126.6 P132 BN132S4	315
11.5	4172	1.9	125.6	65000	A803_125.6 S4 M4SA4	311	A803_125.6 P132 BN132S4	312
11.9	4006	1.2	120.6	50000	A703_120.6 S4 M4SA4	308	A703_120.6 P132 BN132S4	309
12.4	3851	2.1	116.0	65000	A803_116.0 S4 M4SA4	311	A803_116.0 P132 BN132S4	312
13.8	3462	1.4	104.2	50000	A703_104.2 S4 M4SA4	308	A703_104.2 P132 BN132S4	309
13.8	3455	2.3	104.0	65000	A803_104.0 S4 M4SA4	311	A803_104.0 P132 BN132S4	312
15.0	3195	1.6	96.2	50000	A703_96.2 S4 M4SA4	308	A703_96.2 P132 BN132S4	309
15.0	3189	2.5	96.0	65000	A803_96.0 S4 M4SA4	311	A803_96.0 P132 BN132S4	312
16.1	2962	2.7	89.2	65000	A803_89.2 S4 M4SA4	311	A803_89.2 P132 BN132S4	312
16.7	2868	1.0	86.4	30000	A603_86.4 S4 M4SA4	304	A603_86.4 P132 BN132S4	305
16.8	2854	1.8	85.9	50000	A703_85.9 S4 M4SA4	308	A703_85.9 P132 BN132S4	309
17.5	2734	2.9	82.3	65000	A803_82.3 S4 M4SA4	311	A803_82.3 P132 BN132S4	312
18.1	2648	1.1	79.7	30000	A603_79.7 S4 M4SA4	304	A603_79.7 P132 BN132S4	305
18.2	2635	1.9	79.3	50000	A703_79.3 S4 M4SA4	308	A703_79.3 P132 BN132S4	309
19.9	2408	2.1	72.5	50000	A703_72.5 S4 M4SA4	308	A703_72.5 P132 BN132S4	309
19.9	2403	3.3	72.4	65000	A803_72.4 S4 M4SA4	311	A803_72.4 P132 BN132S4	312
20.5	2338	1.2	70.4	30000	A603_70.4 S4 M4SA4	304	A603_70.4 P132 BN132S4	305
21.5	2223	2.2	66.9	50000	A703_66.9 S4 M4SA4	308	A703_66.9 P132 BN132S4	309
22.2	2158	1.3	65.0	30000	A603_65.0 S4 M4SA4	304	A603_65.0 P132 BN132S4	305
22.4	2136	0.9	64.3	30000	A553_64.3 S4 M4SA4	300	A553_64.3 P132 BN132S4	301
25.0	1915	2.6	57.7	50000	A703_57.7 S4 M4SA4	308	A703_57.7 P132 BN132S4	309
25.9	1847	1.5	55.6	30000	A603_55.6 S4 M4SA4	304	A603_55.6 P132 BN132S4	305
27.1	1768	2.8	53.2	50000	A703_53.2 S4 M4SA4	308	A703_53.2 P132 BN132S4	309
28.1	1705	1.6	51.3	30000	A603_51.3 S4 M4SA4	304	A603_51.3 P132 BN132S4	305
28.3	1692	1.2	51.0	30000	A553_51.0 S4 M4SA4	300	A553_51.0 P132 BN132S4	301
29.4	1627	3.1	49.0	50000	A703_49.0 S4 M4SA4	308	A703_49.0 P132 BN132S4	309
32	1502	3.2	45.2	50000	A703_45.2 S4 M4SA4	308	A703_45.2 P132 BN132S4	309
32	1501	1.9	45.2	30000	A603_45.2 S4 M4SA4	304	A603_45.2 P132 BN132S4	305
32	1495	1.0	45.0	12400	A503_45.0 S4 M4SA4	296	A503_45.0 P132 BN132S4	297
35	1385	2.0	41.7	30000	A603_41.7 S4 M4SA4	304	A603_41.7 P132 BN132S4	305



## 5.5 kW

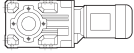
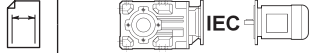

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
35	1360	1.1	40.9	12600	A503_40.9 S4 M4SA4	296	A503_40.9 P132 BN132S4	297
36	1338	1.5	40.3	30000	A553_40.3 S4 M4SA4	300	A553_40.3 P132 BN132S4	301
40	1182	1.3	35.6	12700	A503_35.6 S4 M4SA4	296	A503_35.6 P132 BN132S4	297
42	1139	2.5	34.3	30000	A603_34.3 S4 M4SA4	304	A603_34.3 P132 BN132S4	305
44	1075	1.4	32.4	12700	A503_32.4 S4 M4SA4	296	A503_32.4 P132 BN132S4	297
45	1051	2.7	31.7	30000	A603_31.7 S4 M4SA4	304	A603_31.7 P132 BN132S4	305
48	994	2.0	29.9	30000	A553_29.9 S4 M4SA4	300	A553_29.9 P132 BN132S4	301
52	925	3.0	27.9	30000	A603_27.9 S4 M4SA4	304	A603_27.9 P132 BN132S4	305
54	878	1.7	26.4	12600	A503_26.4 S4 M4SA4	296	A503_26.4 P132 BN132S4	297
56	854	3.3	25.7	30000	A603_25.7 S4 M4SA4	304	A603_25.7 P132 BN132S4	305
60	799	1.9	24.0	12500	A503_24.0 S4 M4SA4	296	A503_24.0 P132 BN132S4	297
61	790	2.5	23.8	29800	A553_23.8 S4 M4SA4	300	A553_23.8 P132 BN132S4	301
69	718	1.7	20.9	14400	A502_20.9 S4 M4SA4	296	A502_20.9 P132 BN132S4	297
70	706	2.8	20.6	30000	A602_20.6 S4 M4SA4	304	A602_20.6 P132 BN132S4	305
75	660	2.7	19.2	29300	A552_19.2 S4 M4SA4	300	A552_19.2 P132 BN132S4	301
81	609	1.0	17.8	9280	A412_17.8 S4 M4SA4	292	A412_17.8 P132 BN132S4	293
86	574	3.5	16.7	30000	A602_16.7 S4 M4SA4	304	A602_16.7 P132 BN132S4	305
87	568	2.1	16.6	13600	A502_16.6 S4 M4SA4	296	A502_16.6 P132 BN132S4	297
89	552	1.1	16.1	9160	A412_16.1 S4 M4SA4	292	A412_16.1 P132 BN132S4	293
92	538	3.3	15.7	27700	A552_15.7 S4 M4SA4	300	A552_15.7 P132 BN132S4	301
105	472	1.2	13.8	8940	A412_13.8 S4 M4SA4	292	A412_13.8 P132 BN132S4	293
110	450	2.4	13.1	12800	A502_13.1 S4 M4SA4	296	A502_13.1 P132 BN132S4	297
122	404	1.0	11.8	6450	A352_11.8 S4 M4SA4	288	A352_11.8 P132 BN132S4	289
123	403	1.4	11.7	8670	A412_11.7 S4 M4SA4	292	A412_11.7 P132 BN132S4	293
135	365	1.1	10.6	6360	A352_10.6 S4 M4SA4	288	A352_10.6 P132 BN132S4	289
142	348	1.5	10.1	8440	A412_10.1 S4 M4SA4	292	A412_10.1 P132 BN132S4	293
148	334	3.0	9.7	11800	A502_9.7 S4 M4SA4	296	A502_9.7 P132 BN132S4	297
155	319	1.3	9.3	6240	A352_9.3 S4 M4SA4	288	A352_9.3 P132 BN132S4	289
157	316	1.7	9.2	8250	A412_9.2 S4 M4SA4	292	A412_9.2 P132 BN132S4	293
170	290	1.3	8.5	6140	A352_8.5 S4 M4SA4	288	A352_8.5 P132 BN132S4	289
173	286	1.9	8.3	8080	A412_8.3 S4 M4SA4	292	A412_8.3 P132 BN132S4	293
202	244	2.3	7.1	7790	A412_7.1 S4 M4SA4	292	A412_7.1 P132 BN132S4	293
205	241	1.5	7.0	5930	A352_7.0 S4 M4SA4	288	A352_7.0 P132 BN132S4	289
225	220	1.6	6.4	5820	A352_6.4 S4 M4SA4	288	A352_6.4 P132 BN132S4	289
246	201	2.7	11.7	7430	A412_11.7 S4 M4SA2	292	A412_11.7 P132 BN132SA2	293
266	186	1.8	5.4	5610	A352_5.4 S4 M4SA4	288	A352_5.4 P132 BN132S4	289
275	180	3.1	5.2	7230	A412_5.2 S4 M4SA4	292	A412_5.2 P132 BN132S4	293
285	173	2.5	10.1	7170	A412_10.1 S4 M4SA2	292	A412_10.1 P132 BN132SA2	293
411	120	3.1	7.0	5060	A352_7.0 S4 M4SA2	288	A352_7.0 P132 BN132SA2	289

## 7.5 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
4.0	15759	0.9	355.8	75000	A904_355.8 S4 M4LA4	314	A904_355.8 P132 BN132MA4	315
4.7	13504	1.0	304.9	75000	A904_304.9 S4 M4LA4	314	A904_304.9 P132 BN132MA4	315
5.1	12465	1.1	281.4	75000	A904_281.4 S4 M4LA4	314	A904_281.4 P132 BN132MA4	315
6.4	10029	1.4	226.4	75000	A904_226.4 S4 M4LA4	314	A904_226.4 P132 BN132MA4	315
6.9	9257	1.5	209.0	75000	A904_209.0 S4 M4LA4	314	A904_209.0 P132 BN132MA4	315

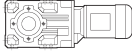





## 7.5 kW

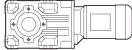



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
8.0	7971	1.8	180.0	75000	A904_180.0 S4 M4LA4	314	A904_180.0 P132 BN132MA4	315
8.4	7587	1.1	171.3	65000	A804_171.3 S4 M4LA4	311	A804_171.3 P132 BN132MA4	312
8.7	7358	1.9	166.1	75000	A904_166.1 S4 M4LA4	314	A904_166.1 P132 BN132MA4	315
9.2	7101	1.1	156.8	65000	A803_156.8 S4 M4LA4	311	A803_156.8 P132 BN132MA4	312
9.5	6839	2.0	151.0	75000	A903_151.0 S4 M4LA4	314	A903_151.0 P132 BN132MA4	315
9.9	6555	1.2	144.7	65000	A803_144.7 S4 M4LA4	311	A803_144.7 P132 BN132MA4	312
10.3	6313	2.0	139.4	75000	A903_139.4 S4 M4LA4	314	A903_139.4 P132 BN132MA4	315
11.4	5735	2.3	126.6	75000	A903_126.6 S4 M4LA4	314	A903_126.6 P132 BN132MA4	315
11.5	5689	1.4	125.6	65000	A803_125.6 S4 M4LA4	311	A803_125.6 P132 BN132MA4	312
11.9	5462	0.9	120.6	50000	A703_120.6 S4 M4LA4	308	A703_120.6 P132 BN132MA4	309
12.3	5294	2.6	116.9	75000	A903_116.9 S4 M4LA4	314	A903_116.9 P132 BN132MA4	315
12.4	5251	1.5	116.0	65000	A803_116.0 S4 M4LA4	311	A803_116.0 P132 BN132MA4	312
13.5	4838	2.9	106.8	75000	A903_106.8 S4 M4LA4	314	A903_106.8 P132 BN132MA4	315
13.8	4721	1.1	104.2	50000	A703_104.2 S4 M4LA4	308	A703_104.2 P132 BN132MA4	309
13.8	4711	1.7	104.0	65000	A803_104.0 S4 M4LA4	311	A803_104.0 P132 BN132MA4	312
14.6	4465	3.1	98.6	75000	A903_98.6 S4 M4LA4	314	A903_98.6 P132 BN132MA4	315
15.0	4357	1.1	96.2	50000	A703_96.2 S4 M4LA4	308	A703_96.2 P132 BN132MA4	309
15.0	4349	1.8	96.0	65000	A803_96.0 S4 M4LA4	311	A803_96.0 P132 BN132MA4	312
16.1	4039	2.0	89.2	65000	A803_89.2 S4 M4LA4	311	A803_89.2 P132 BN132MA4	312
16.8	3892	1.3	85.9	50000	A703_85.9 S4 M4LA4	308	A703_85.9 P132 BN132MA4	309
17.5	3728	2.1	82.3	65000	A803_82.3 S4 M4LA4	311	A803_82.3 P132 BN132MA4	312
18.2	3593	1.4	79.3	50000	A703_79.3 S4 M4LA4	308	A703_79.3 P132 BN132MA4	309
19.9	3284	1.5	72.5	50000	A703_72.5 S4 M4LA4	308	A703_72.5 P132 BN132MA4	309
19.9	3277	2.4	72.4	65000	A803_72.4 S4 M4LA4	311	A803_72.4 P132 BN132MA4	312
20.5	3188	0.9	70.4	30000	A603_70.4 S4 M4LA4	304	A603_70.4 P132 BN132MA4	305
21.5	3032	1.6	66.9	50000	A703_66.9 S4 M4LA4	308	A703_66.9 P132 BN132MA4	309
21.6	3025	2.6	66.8	65000	A803_66.8 S4 M4LA4	311	A803_66.8 P132 BN132MA4	312
22.2	2943	1.0	65.0	30000	A603_65.0 S4 M4LA4	304	A603_65.0 P132 BN132MA4	305
24.1	2707	3.0	59.8	63800	A803_59.8 S4 M4LA4	311	A803_59.8 P132 BN132MA4	312
25.0	2612	1.9	57.7	50000	A703_57.7 S4 M4LA4	308	A703_57.7 P132 BN132MA4	309
25.9	2518	1.1	55.6	30000	A603_55.6 S4 M4LA4	304	A603_55.6 P132 BN132MA4	305
26.1	2499	3.2	55.2	62600	A803_55.2 S4 M4LA4	311	A803_55.2 P132 BN132MA4	312
27.1	2411	2.1	53.2	50000	A703_53.2 S4 M4LA4	308	A703_53.2 P132 BN132MA4	309
28.1	2324	1.2	51.3	30000	A603_51.3 S4 M4LA4	304	A603_51.3 P132 BN132MA4	305
29.4	2219	2.3	49.0	50000	A703_49.0 S4 M4LA4	308	A703_49.0 P132 BN132MA4	309
32	2048	2.3	45.2	50000	A703_45.2 S4 M4LA4	308	A703_45.2 P132 BN132MA4	309
32	2046	1.4	45.2	30000	A603_45.2 S4 M4LA4	304	A603_45.2 P132 BN132MA4	305
35	1889	1.5	41.7	30000	A603_41.7 S4 M4LA4	304	A603_41.7 P132 BN132MA4	305
36	1825	1.1	40.3	30000	A553_40.3 S4 M4LA4	300	A553_40.3 P132 BN132MA4	301
38	1738	2.8	38.4	50000	A703_38.4 S4 M4LA4	308	A703_38.4 P132 BN132MA4	309
40	1612	0.9	35.6	10100	A503_35.6 S4 M4LA4	296	A503_35.6 P132 BN132MA4	297
41	1605	2.8	35.4	50000	A703_35.4 S4 M4LA4	308	A703_35.4 P132 BN132MA4	309
42	1553	1.8	34.3	30000	A603_34.3 S4 M4LA4	304	A603_34.3 P132 BN132MA4	305
44	1466	1.0	32.4	10300	A503_32.4 S4 M4LA4	296	A503_32.4 P132 BN132MA4	297
45	1434	2.0	31.7	30000	A603_31.7 S4 M4LA4	304	A603_31.7 P132 BN132MA4	305
48	1355	1.5	29.9	30000	A553_29.9 S4 M4LA4	300	A553_29.9 P132 BN132MA4	301
52	1261	2.2	27.9	30000	A603_27.9 S4 M4LA4	304	A603_27.9 P132 BN132MA4	305
54	1197	1.3	26.4	10700	A503_26.4 S4 M4LA4	296	A503_26.4 P132 BN132MA4	297
56	1164	2.4	25.7	30000	A603_25.7 S4 M4LA4	304	A603_25.7 P132 BN132MA4	305
60	1089	1.4	24.0	10800	A503_24.0 S4 M4LA4	296	A503_24.0 P132 BN132MA4	297
61	1077	1.8	23.8	28800	A553_23.8 S4 M4LA4	300	A553_23.8 P132 BN132MA4	301



## 7.5 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
69	979	1.2	20.9	13700	A502_20.9 S4 M4LA4	296	A502_20.9 P132 BN132MA4	297
70	963	2.1	20.6	30000	A602_20.6 S4 M4LA4	304	A602_20.6 P132 BN132MA4	305
75	900	2.0	19.2	28800	A552_19.2 S4 M4LA4	300	A552_19.2 P132 BN132MA4	301
86	783	2.6	16.7	30000	A602_16.7 S4 M4LA4	304	A602_16.7 P132 BN132MA4	305
87	775	1.5	16.6	13000	A502_16.6 S4 M4LA4	296	A502_16.6 P132 BN132MA4	297
92	734	2.5	15.7	27300	A552_15.7 S4 M4LA4	300	A552_15.7 P132 BN132MA4	301
105	644	0.9	13.8	8130	A412_13.8 S4 M4LA4	292	A412_13.8 P132 BN132MA4	293
110	613	1.8	13.1	12300	A502_13.1 S4 M4LA4	296	A502_13.1 P132 BN132MA4	297
110	612	2.9	13.1	26100	A552_13.1 S4 M4LA4	300	A552_13.1 P132 BN132MA4	301
113	594	3.4	12.7	30000	A602_12.7 S4 M4LA4	304	A602_12.7 P132 BN132MA4	305
123	549	1.0	11.7	7970	A412_11.7 S4 M4LA4	292	A412_11.7 P132 BN132MA4	293
142	474	1.1	10.1	7850	A412_10.1 S4 M4LA4	292	A412_10.1 P132 BN132MA4	293
148	455	2.2	9.7	11500	A502_9.7 S4 M4LA4	296	A502_9.7 P132 BN132MA4	297
155	436	0.9	9.3	5650	A352_9.3 S4 M4LA4	288	A352_9.3 P132 BN132MA4	289
157	430	1.3	9.2	7710	A412_9.2 S4 M4LA4	292	A412_9.2 P132 BN132MA4	293
170	396	1.0	8.5	5600	A352_8.5 S4 M4LA4	288	A352_8.5 P132 BN132MA4	289
173	390	1.4	8.3	7590	A412_8.3 S4 M4LA4	292	A412_8.3 P132 BN132MA4	293
186	362	2.6	7.7	10800	A502_7.7 S4 M4LA4	296	A502_7.7 P132 BN132MA4	297
202	333	1.7	7.1	7370	A412_7.1 S4 M4LA4	292	A412_7.1 P132 BN132MA4	293
205	329	1.1	7.0	5490	A352_7.0 S4 M4LA4	288	A352_7.0 P132 BN132MA4	289
225	300	1.2	6.4	5420	A352_6.4 S4 M4LA4	288	A352_6.4 P132 BN132MA4	289
266	253	1.3	5.4	5270	A352_5.4 S4 M4LA4	288	A352_5.4 P132 BN132MA4	289
275	245	2.2	5.2	6920	A412_5.2 S4 M4LA4	292	A412_5.2 P132 BN132MA4	293
315	214	2.5	9.2	6710	A412_9.2 S4 M4SB2	292	A412_9.2 P132 BN132SB2	293
348	194	2.6	8.3	6550	A412_8.3 S4 M4SB2	292	A412_8.3 P132 BN132SB2	293
413	163	2.3	7.0	4830	A352_7.0 S4 M4SB2	288	A352_7.0 P132 BN132SB2	289
536	126	2.7	5.4	4550	A352_5.4 S4 M4SB2	288	A352_5.4 P132 BN132SB2	289

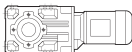




## 9.2 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
5.1	15291	0.9	281.4	75000	A904_281.4 S4 M4LB4	314	A904_281.4 P132 BN132MB4	315
6.4	12302	1.1	226.4	75000	A904_226.4 S4 M4LB4	314	A904_226.4 P132 BN132MB4	315
6.9	11356	1.2	209.0	75000	A904_209.0 S4 M4LB4	314	A904_209.0 P132 BN132MB4	315
8.0	9778	1.4	180.0	75000	A904_180.0 S4 M4LB4	314	A904_180.0 P132 BN132MB4	315
8.4	9307	0.9	171.3	65000	A804_171.3 S4 M4LB4	311	A804_171.3 P132 BN132MB4	312
8.7	9026	1.6	166.1	75000	A904_166.1 S4 M4LB4	314	A904_166.1 P132 BN132MB4	315
9.2	8711	0.9	156.8	65000	A803_156.8 S4 M4LB4	311	A803_156.8 P132 BN132MB4	312
9.5	8389	1.6	151.0	75000	A903_151.0 S4 M4LB4	314	A903_151.0 P132 BN132MB4	315
9.9	8040	1.0	144.7	65000	A803_144.7 S4 M4LB4	311	A803_144.7 P132 BN132MB4	312
10.3	7744	1.6	139.4	75000	A903_139.4 S4 M4LB4	314	A903_139.4 P132 BN132MB4	315
11.4	7035	1.9	126.6	75000	A903_126.6 S4 M4LB4	314	A903_126.6 P132 BN132MB4	315
11.5	6978	1.1	125.6	65000	A803_125.6 S4 M4LB4	311	A803_125.6 P132 BN132MB4	312
12.3	6494	2.2	116.9	75000	A903_116.9 S4 M4LB4	314	A903_116.9 P132 BN132MB4	315
12.4	6442	1.2	116.0	65000	A803_116.0 S4 M4LB4	311	A803_116.0 P132 BN132MB4	312
13.5	5934	2.4	106.8	75000	A903_106.8 S4 M4LB4	314	A903_106.8 P132 BN132MB4	315
13.8	5779	1.4	104.0	65000	A803_104.0 S4 M4LB4	311	A803_104.0 P132 BN132MB4	312
14.6	5478	2.6	98.6	75000	A903_98.6 S4 M4LB4	314	A903_98.6 P132 BN132MB4	315



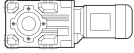





## 9.2 kW

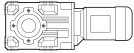



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
15.0	5345	0.9	96.2	50000	A703_96.2 S4 M4LB4	308	A703_96.2 P132 BN132MB4	309
15.0	5335	1.5	96.0	65000	A803_96.0 S4 M4LB4	311	A803_96.0 P132 BN132MB4	312
16.1	4954	1.6	89.2	65000	A803_89.2 S4 M4LB4	311	A803_89.2 P132 BN132MB4	312
16.5	4837	2.9	87.1	75000	A903_87.1 S4 M4LB4	314	A903_87.1 P132 BN132MB4	315
16.8	4774	1.0	85.9	50000	A703_85.9 S4 M4LB4	308	A703_85.9 P132 BN132MB4	309
17.5	4573	1.7	82.3	65000	A803_82.3 S4 M4LB4	311	A803_82.3 P132 BN132MB4	312
17.9	4465	3.1	80.4	75000	A903_80.4 S4 M4LB4	314	A903_80.4 P132 BN132MB4	315
18.2	4407	1.1	79.3	50000	A703_79.3 S4 M4LB4	308	A703_79.3 P132 BN132MB4	309
19.3	4137	3.4	74.5	75000	A903_74.5 S4 M4LB4	314	A903_74.5 P132 BN132MB4	315
19.9	4029	1.2	72.5	50000	A703_72.5 S4 M4LB4	308	A703_72.5 P132 BN132MB4	309
19.9	4020	2.0	72.4	65000	A803_72.4 S4 M4LB4	311	A803_72.4 P132 BN132MB4	312
21.5	3719	1.3	66.9	50000	A703_66.9 S4 M4LB4	308	A703_66.9 P132 BN132MB4	309
21.6	3711	2.2	66.8	63800	A803_66.8 S4 M4LB4	311	A803_66.8 P132 BN132MB4	312
24.1	3321	2.4	59.8	62400	A803_59.8 S4 M4LB4	311	A803_59.8 P132 BN132MB4	312
25.0	3204	1.6	57.7	50000	A703_57.7 S4 M4LB4	308	A703_57.7 P132 BN132MB4	309
25.9	3089	0.9	55.6	30000	A603_55.6 S4 M4LB4	304	A603_55.6 P132 BN132MB4	305
26.1	3065	2.6	55.2	61300	A803_55.2 S4 M4LB4	311	A803_55.2 P132 BN132MB4	312
27.1	2957	1.7	53.2	50000	A703_53.2 S4 M4LB4	308	A703_53.2 P132 BN132MB4	309
28.1	2851	1.0	51.3	30000	A603_51.3 S4 M4LB4	304	A603_51.3 P132 BN132MB4	305
29.4	2722	1.8	49.0	50000	A703_49.0 S4 M4LB4	308	A703_49.0 P132 BN132MB4	309
30	2677	3.0	48.2	59500	A803_48.2 S4 M4LB4	311	A803_48.2 P132 BN132MB4	312
32	2513	1.9	45.2	50000	A703_45.2 S4 M4LB4	308	A703_45.2 P132 BN132MB4	309
32	2510	1.1	45.2	30000	A603_45.2 S4 M4LB4	304	A603_45.2 P132 BN132MB4	305
32	2471	3.0	44.5	58400	A803_44.5 S4 M4LB4	311	A803_44.5 P132 BN132MB4	312
35	2317	1.2	41.7	30000	A603_41.7 S4 M4LB4	304	A603_41.7 P132 BN132MB4	305
38	2132	2.3	38.4	50000	A703_38.4 S4 M4LB4	308	A703_38.4 P132 BN132MB4	309
41	1968	2.3	35.4	50000	A703_35.4 S4 M4LB4	308	A703_35.4 P132 BN132MB4	309
42	1905	1.5	34.3	30000	A603_34.3 S4 M4LB4	304	A603_34.3 P132 BN132MB4	305
45	1759	1.6	31.7	30000	A603_31.7 S4 M4LB4	304	A603_31.7 P132 BN132MB4	305
48	1663	1.2	29.9	29100	A553_29.9 S4 M4LB4	300	A553_29.9 P132 BN132MB4	301
52	1547	1.8	27.9	30000	A603_27.9 S4 M4LB4	304	A603_27.9 P132 BN132MB4	305
54	1469	1.0	26.4	9130	A503_26.4 S4 M4LB4	296	A503_26.4 P132 BN132MB4	297
56	1428	2.0	25.7	30000	A603_25.7 S4 M4LB4	304	A603_25.7 P132 BN132MB4	305
60	1336	1.1	24.0	9370	A503_24.0 S4 M4LB4	296	A503_24.0 P132 BN132MB4	297
61	1322	1.5	23.8	27900	A553_23.8 S4 M4LB4	300	A553_23.8 P132 BN132MB4	301
68	1183	3.4	21.3	46000	A703_21.3 S4 M4LB4	308	A703_21.3 P132 BN132MB4	309
69	1200	1.0	20.9	13000	A502_20.9 S4 M4LB4	296	A502_20.9 P132 BN132MB4	297
70	1182	1.7	20.6	30000	A602_20.6 S4 M4LB4	304	A602_20.6 P132 BN132MB4	305
73	1092	3.4	19.7	45100	A703_19.7 S4 M4LB4	308	A703_19.7 P132 BN132MB4	309
75	1104	1.6	19.2	28400	A552_19.2 S4 M4LB4	300	A552_19.2 P132 BN132MB4	301
86	960	2.1	16.7	30000	A602_16.7 S4 M4LB4	304	A602_16.7 P132 BN132MB4	305
87	951	1.3	16.6	12500	A502_16.6 S4 M4LB4	296	A502_16.6 P132 BN132MB4	297
92	900	2.0	15.7	27000	A552_15.7 S4 M4LB4	300	A552_15.7 P132 BN132MB4	301
110	752	1.5	13.1	11900	A502_13.1 S4 M4LB4	296	A502_13.1 P132 BN132MB4	297
110	750	2.4	13.1	25800	A552_13.1 S4 M4LB4	300	A552_13.1 P132 BN132MB4	301
113	729	2.7	12.7	30000	A602_12.7 S4 M4LB4	304	A602_12.7 P132 BN132MB4	305
123	650	2.5	23.8	24100	A553_23.8 S4 M4LA2	300	A553_23.8 P132 BN132M2	301
139	594	3.0	10.4	24200	A552_10.4 S4 M4LB4	300	A552_10.4 P132 BN132MB4	301
140	592	3.4	10.3	30000	A602_10.3 S4 M4LB4	304	A602_10.3 P132 BN132MB4	305
142	581	0.9	10.1	7340	A412_10.1 S4 M4LB4	292	A412_10.1 P132 BN132MB4	293
148	559	1.8	9.7	11200	A502_9.7 S4 M4LB4	296	A502_9.7 P132 BN132MB4	297



## 9.2 kW

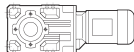



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC	
157	528	1.0	9.2	7250	A412_9.2 S4 M4LB4	292	A412_9.2 P132 BN132MB4	293
173	478	1.2	8.3	7170	A412_8.3 S4 M4LB4	292	A412_8.3 P132 BN132MB4	293
186	444	2.1	7.7	10600	A502_7.7 S4 M4LB4	296	A502_7.7 P132 BN132MB4	297
202	409	1.3	7.1	7020	A412_7.1 S4 M4LB4	292	A412_7.1 P132 BN132MB4	293
205	403	0.9	7.0	5110	A352_7.0 S4 M4LB4	288	A352_7.0 P132 BN132MB4	289
225	368	1.0	6.4	5070	A352_6.4 S4 M4LB4	288	A352_6.4 P132 BN132MB4	289
266	311	1.1	5.4	4980	A352_5.4 S4 M4LB4	288	A352_5.4 P132 BN132MB4	289
275	301	1.8	5.2	6660	A412_5.2 S4 M4LB4	292	A412_5.2 P132 BN132MB4	293
319	259	2.0	9.2	6480	A412_9.2 S4 M4LA2	292	A412_9.2 P132 BN132M2	293
379	218	3.4	7.7	8780	A502_7.7 S4 M4LA2	296	A502_7.7 P132 BN132M2	297
541	153	2.2	5.4	4410	A352_5.4 S4 M4LA2	288	A352_5.4 P132 BN132M2	289
559	148	3.0	5.2	5690	A412_5.2 S4 M4LA2	292	A412_5.2 P132 BN132M2	293

## 11 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC	
6.4	14709	1.0	226.4	75000	A904_226.4 S4 M4LC4	314	A904_226.4 P160 BN160MR4	315
6.9	13577	1.0	209.0	75000	A904_209.0 S4 M4LC4	314	A904_209.0 P160 BN160MR4	315
8.0	11691	1.2	180.0	75000	A904_180.0 S4 M4LC4	314	A904_180.0 P160 BN160MR4	315
8.7	10792	1.3	166.1	75000	A904_166.1 S4 M4LC4	314	A904_166.1 P160 BN160MR4	315
9.5	10030	1.4	151.0	75000	A903_151.0 S4 M4LC4	314	A903_151.0 P160 BN160MR4	315
10.3	9259	1.4	139.4	75000	A903_139.4 S4 M4LC4	314	A903_139.4 P160 BN160MR4	315
11.4	8412	1.6	126.6	75000	A903_126.6 S4 M4LC4	314	A903_126.6 P160 BN160MR4	315
11.5	8344	1.0	125.6	65000	A803_125.6 S4 M4LC4	311	A803_125.6 P160 BN160MR4	312
12.3	7765	1.8	116.9	75000	A903_116.9 S4 M4LC4	314	A903_116.9 P160 BN160MR4	315
12.4	7702	1.0	116.0	65000	A803_116.0 S4 M4LC4	311	A803_116.0 P160 BN160MR4	312
13.5	7095	2.0	106.8	75000	A903_106.8 S4 M4LC4	314	A903_106.8 P160 BN160MR4	315
13.8	6910	1.2	104.0	65000	A803_104.0 S4 M4LC4	311	A803_104.0 P160 BN160MR4	312
14.6	6549	2.1	98.6	75000	A903_98.6 S4 M4LC4	314	A903_98.6 P160 BN160MR4	315
15.0	6378	1.3	96.0	65000	A803_96.0 S4 M4LC4	311	A803_96.0 P160 BN160MR4	312
16.1	5923	1.4	89.2	65000	A803_89.2 S4 M4LC4	311	A803_89.2 P160 BN160MR4	312
16.5	5783	2.4	87.1	75000	A903_87.1 S4 M4LC4	314	A903_87.1 P160 BN160MR4	315
17.5	5468	1.5	82.3	64500	A803_82.3 S4 M4LC4	311	A803_82.3 P160 BN160MR4	312
17.9	5338	2.6	80.4	75000	A903_80.4 S4 M4LC4	314	A903_80.4 P160 BN160MR4	315
18.2	5269	0.9	79.3	50000	A703_79.3 S4 M4LC4	308	A703_79.3 P160 BN160MR4	309
19.3	4947	2.8	74.5	75000	A903_74.5 S4 M4LC4	314	A903_74.5 P160 BN160MR4	315
19.9	4817	1.0	72.5	50000	A703_72.5 S4 M4LC4	308	A703_72.5 P160 BN160MR4	309
19.9	4807	1.7	72.4	63200	A803_72.4 S4 M4LC4	311	A803_72.4 P160 BN160MR4	312
20.9	4566	3.1	68.8	75000	A903_68.8 S4 M4LC4	314	A903_68.8 P160 BN160MR4	315
21.5	4446	1.1	66.9	50000	A703_66.9 S4 M4LC4	308	A703_66.9 P160 BN160MR4	309
21.6	4437	1.8	66.8	62200	A803_66.8 S4 M4LC4	311	A803_66.8 P160 BN160MR4	312
24.1	3971	2.0	59.8	60900	A803_59.8 S4 M4LC4	311	A803_59.8 P160 BN160MR4	312
24.2	3960	3.5	59.6	75000	A903_59.6 S4 M4LC4	314	A903_59.6 P160 BN160MR4	315
25.0	3830	1.3	57.7	50000	A703_57.7 S4 M4LC4	308	A703_57.7 P160 BN160MR4	309
26.1	3665	2.2	55.2	59900	A803_55.2 S4 M4LC4	311	A803_55.2 P160 BN160MR4	312
27.1	3536	1.4	53.2	50000	A703_53.2 S4 M4LC4	308	A703_53.2 P160 BN160MR4	309
29.4	3255	1.5	49.0	50000	A703_49.0 S4 M4LC4	308	A703_49.0 P160 BN160MR4	309
30	3200	2.5	48.2	58300	A803_48.2 S4 M4LC4	311	A803_48.2 P160 BN160MR4	312



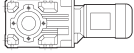




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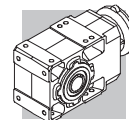
<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC	
32	3004	1.6	45.2	50000	<b>A703_45.2 S4 M4LC4</b>	308	<b>A703_45.2 P160 BN160MR4</b>	309
32	3001	0.9	45.2	30000	<b>A603_45.2 S4 M4LC4</b>	304	<b>A603_45.2 P160 BN160MR4</b>	305
32	2954	2.5	44.5	57300	<b>A803_44.5 S4 M4LC4</b>	311	<b>A803_44.5 P160 BN160MR4</b>	312
35	2771	1.0	41.7	30000	<b>A603_41.7 S4 M4LC4</b>	304	<b>A603_41.7 P160 BN160MR4</b>	305
37	2557	3.0	38.5	55500			<b>A803_38.5 P160 BN160MR4</b>	312
38	2549	1.9	38.4	50000	<b>A703_38.4 S4 M4LC4</b>	308	<b>A703_38.4 P160 BN160MR4</b>	309
41	2360	3.0	35.5	54500			<b>A803_35.5 P160 BN160MR4</b>	312
41	2353	1.9	35.4	50000	<b>A703_35.4 S4 M4LC4</b>	308	<b>A703_35.4 P160 BN160MR4</b>	309
42	2278	1.2	34.3	30000	<b>A603_34.3 S4 M4LC4</b>	304	<b>A603_34.3 P160 BN160MR4</b>	305
45	2103	1.3	31.7	30000	<b>A603_31.7 S4 M4LC4</b>	304	<b>A603_31.7 P160 BN160MR4</b>	305
47	2031	3.2	30.6	52600			<b>A803_30.6 P160 BN160MR4</b>	312
48	1999	2.3	30.1	49400			<b>A703_30.1 P160 BN160MR4</b>	309
51	1875	3.5	28.2	51600			<b>A803_28.2 P160 BN160MR4</b>	312
52	1850	1.5	27.9	30000	<b>A603_27.9 S4 M4LC4</b>	304	<b>A603_27.9 P160 BN160MR4</b>	305
52	1845	2.3	27.8	48500			<b>A703_27.8 P160 BN160MR4</b>	309
56	1708	1.6	25.7	30000	<b>A603_25.7 S4 M4LC4</b>	304	<b>A603_25.7 P160 BN160MR4</b>	305
60	1597	0.9	24.0	7800	<b>A503_24.0 S4 M4LC4</b>	296	<b>A503_24.0 P160 BN160MR4</b>	297
61	1562	2.8	23.5	46600			<b>A703_23.5 P160 BN160MR4</b>	309
68	1415	2.8	21.3	45500	<b>A703_21.3 S4 M4LC4</b>	308	<b>A703_21.3 P160 BN160MR4</b>	309
70	1413	1.4	20.6	30000	<b>A602_20.6 S4 M4LC4</b>	304	<b>A602_20.6 P160 BN160MR4</b>	305
73	1306	2.8	19.7	44500	<b>A703_19.7 S4 M4LC4</b>	308	<b>A703_19.7 P160 BN160MR4</b>	309
75	1319	1.4	19.2	27900	<b>A552_19.2 S4 M4LC4</b>	300	<b>A552_19.2 P160 BN160MR4</b>	301
86	1148	1.7	16.7	30000	<b>A602_16.7 S4 M4LC4</b>	304	<b>A602_16.7 P160 BN160MR4</b>	305
87	1137	1.1	16.6	12000	<b>A502_16.6 S4 M4LC4</b>	296	<b>A502_16.6 P160 BN160MR4</b>	297
92	1076	1.7	15.7	26600	<b>A552_15.7 S4 M4LC4</b>	300	<b>A552_15.7 P160 BN160MR4</b>	301
110	899	1.2	13.1	11500	<b>A502_13.1 S4 M4LC4</b>	296	<b>A502_13.1 P160 BN160MR4</b>	297
110	897	2.0	13.1	25400	<b>A552_13.1 S4 M4LC4</b>	300	<b>A552_13.1 P160 BN160MR4</b>	301
113	872	2.3	12.7	30000	<b>A602_12.7 S4 M4LC4</b>	304	<b>A602_12.7 P160 BN160MR4</b>	305
123	779	2.1	23.8	23600	<b>A553_23.8 S4 M4LC2</b>	300	<b>A553_23.8 P160 BN160MR2</b>	301
139	710	2.5	10.4	24000	<b>A552_10.4 S4 M4LC4</b>	300	<b>A552_10.4 P160 BN160MR4</b>	301
140	708	2.8	10.3	30000	<b>A602_10.3 S4 M4LC4</b>	304	<b>A602_10.3 P160 BN160MR4</b>	305
148	668	1.5	9.7	10800	<b>A502_9.7 S4 M4LC4</b>	296	<b>A502_9.7 P160 BN160MR4</b>	297
170	581	3.1	8.5	22800	<b>A552_8.5 S4 M4LC4</b>	300	<b>A552_8.5 P160 BN160MR4</b>	301
186	531	1.8	7.7	10300	<b>A502_7.7 S4 M4LC4</b>	296	<b>A502_7.7 P160 BN160MR4</b>	297
202	489	1.1	7.1	6640	<b>A412_7.1 S4 M4LC4</b>	292		
223	443	2.0	13.1	9920	<b>A502_13.1 S4 M4LC2</b>	296	<b>A502_13.1 P160 BN160MR2</b>	297
248	399	1.0	11.8	4690	<b>A352_11.8 S4 M4LC2</b>	288		
275	360	1.1	10.6	4660	<b>A352_10.6 S4 M4LC2</b>	288		
317	311	1.7	9.2	6230	<b>A412_9.2 S4 M4LC2</b>	292		
377	262	2.8	7.7	8650	<b>A502_7.7 S4 M4LC2</b>	296	<b>A502_7.7 P160 BN160MR2</b>	297
416	238	1.6	7.0	4440	<b>A352_7.0 S4 M4LC2</b>	288		
456	217	1.6	6.4	4380	<b>A352_6.4 S4 M4LC2</b>	288		
539	183	1.9	5.4	4250	<b>A352_5.4 S4 M4LC2</b>	288		



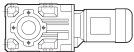





## 15 kW

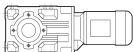



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC 	
8.1	15724	0.9	180.0	75000			A904_180.0 P160 BN160L4	315
8.8	14514	1.0	166.1	75000			A904_166.1 P160 BN160L4	315
9.7	13490	1.0	151.0	75000	A903_151.0 S5 M5SB4	314	A903_151.0 P160 BN160L4	315
10.5	12452	1.0	139.4	75000	A903_139.4 S5 M5SB4	314	A903_139.4 P160 BN160L4	315
11.5	11314	1.2	126.6	75000	A903_126.6 S5 M5SB4	314	A903_126.6 P160 BN160L4	315
12.5	10443	1.3	116.9	75000	A903_116.9 S5 M5SB4	314	A903_116.9 P160 BN160L4	315
13.7	9543	1.5	106.8	75000	A903_106.8 S5 M5SB4	314	A903_106.8 P160 BN160L4	315
14.8	8808	1.6	98.6	75000	A903_98.6 S5 M5SB4	314	A903_98.6 P160 BN160L4	315
15.2	8578	0.9	96.0	60600	A803_96.0 S5 M5SB4	311	A803_96.0 P160 BN160L4	312
16.4	7967	1.0	89.2	60400	A803_89.2 S5 M5SB4	311	A803_89.2 P160 BN160L4	312
16.8	7778	1.8	87.1	75000	A903_87.1 S5 M5SB4	314	A903_87.1 P160 BN160L4	315
17.7	7354	1.1	82.3	59800	A803_82.3 S5 M5SB4	311	A803_82.3 P160 BN160L4	312
18.2	7180	1.9	80.4	75000	A903_80.4 S5 M5SB4	314	A903_80.4 P160 BN160L4	315
19.6	6654	2.1	74.5	75000	A903_74.5 S5 M5SB4	314	A903_74.5 P160 BN160L4	315
20.2	6465	1.2	72.4	59100	A803_72.4 S5 M5SB4	311	A803_72.4 P160 BN160L4	312
21.2	6142	2.3	68.8	75000	A903_68.8 S5 M5SB4	314	A903_68.8 P160 BN160L4	315
21.9	5968	1.3	66.8	58300	A803_66.8 S5 M5SB4	311	A803_66.8 P160 BN160L4	312
24.4	5340	1.5	59.8	57500	A803_59.8 S5 M5SB4	311	A803_59.8 P160 BN160L4	312
24.5	5326	2.6	59.6	75000	A903_59.6 S5 M5SB4	314	A903_59.6 P160 BN160L4	315
25.3	5152	1.0	57.7	50000	A703_57.7 S5 M5SB4	308	A703_57.7 P160 BN160L4	309
26.5	4930	1.6	55.2	56700	A803_55.2 S5 M5SB4	311	A803_55.2 P160 BN160L4	312
26.5	4916	2.8	55.0	75000	A903_55.0 S5 M5SB4	314	A903_55.0 P160 BN160L4	315
27.4	4755	1.1	53.2	50000	A703_53.2 S5 M5SB4	308	A703_53.2 P160 BN160L4	309
29.8	4377	1.1	49.0	50000	A703_49.0 S5 M5SB4	308	A703_49.0 P160 BN160L4	309
30	4315	3.2	48.3	74900			A903_48.3 P160 BN160L4	315
30	4304	1.9	48.2	55500	A803_48.2 S5 M5SB4	311	A803_48.2 P160 BN160L4	312
32	4041	1.2	45.2	50000	A703_45.2 S5 M5SB4	308	A703_45.2 P160 BN160L4	309
33	3983	3.5	44.6	73500			A903_44.6 P160 BN160L4	315
33	3973	1.9	44.5	54700	A803_44.5 S5 M5SB4	311	A803_44.5 P160 BN160L4	312
38	3439	2.2	38.5	53200			A803_38.5 P160 BN160L4	312
38	3429	1.4	38.4	49900	A703_38.4 S5 M5SB4	308	A703_38.4 P160 BN160L4	309
41	3175	2.2	35.5	52300			A803_35.5 P160 BN160L4	312
41	3165	1.4	35.4	49100	A703_35.4 S5 M5SB4	308	A703_35.4 P160 BN160L4	309
43	3064	0.9	34.3	30000	A603_34.3 S5 M5SB4	304	A603_34.3 P160 BN160L4	305
46	2828	1.0	31.7	30000	A603_31.7 S5 M5SB4	304	A603_31.7 P160 BN160L4	305
48	2731	2.4	30.6	50800			A803_30.6 P160 BN160L4	312
49	2689	1.7	30.1	47600			A703_30.1 P160 BN160L4	309
52	2521	2.6	28.2	49900			A803_28.2 P160 BN160L4	312
52	2488	1.1	27.9	30000	A603_27.9 S5 M5SB4	304	A603_27.9 P160 BN160L4	305
53	2482	1.7	27.8	46700			A703_27.8 P160 BN160L4	309
57	2297	1.2	25.7	30000	A603_25.7 S5 M5SB4	304	A603_25.7 P160 BN160L4	305
61	2125	0.9	23.8	25000	A553_23.8 S5 M5SB4	300	A553_23.8 P160 BN160L4	301
62	2101	2.0	23.5	45100			A703_23.5 P160 BN160L4	309
69	1903	2.1	21.3	44100	A703_21.3 S5 M5SB4	308	A703_21.3 P160 BN160L4	309
70	1871	3.5	20.9	46600	A803_20.9 S5 M5SB4	311	A803_20.9 P160 BN160L4	312
71	1900	1.1	20.6	30000	A602_20.6 S5 M5SB4	304	A602_20.6 P160 BN160L4	305
74	1757	2.1	19.7	43300	A703_19.7 S5 M5SB4	308	A703_19.7 P160 BN160L4	309
75	1728	3.5	19.3	45700	A803_19.3 S5 M5SB4	311	A803_19.3 P160 BN160L4	312
76	1775	1.0	19.2	26800	A552_19.2 S5 M5SB4	300	A552_19.2 P160 BN160L4	301
87	1544	1.3	16.7	30000	A602_16.7 S5 M5SB4	304	A602_16.7 P160 BN160L4	305
87	1491	2.7	16.7	41600	A703_16.7 S5 M5SB4	308	A703_16.7 P160 BN160L4	309



## 15 kW

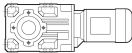



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
93	1447	1.2	15.7	25700	A552_15.7 S5 M5SB4	300	A552_15.7 P160 BN160L4	301
95	1376	2.7	15.4	40800	A703_15.4 S5 M5SB4	308	A703_15.4 P160 BN160L4	309
111	1209	0.9	13.1	10500			A502_13.1 P160 BN160L4	297
112	1207	1.5	13.1	24700	A552_13.1 S5 M5SB4	300	A552_13.1 P160 BN160L4	301
112	1169	3.3	13.1	39200			A703_13.1 P160 BN160L4	309
115	1172	1.7	12.7	30000	A602_12.7 S5 M5SB4	304	A602_12.7 P160 BN160L4	305
121	1079	3.3	12.1	38400			A703_12.1 P160 BN160L4	309
123	1059	1.5	23.8	22600	A553_23.8 S5 M5SB4	300	A553_23.8 P160 BN160L4	301
141	956	1.9	10.4	23400	A552_10.4 S5 M5SB4	300	A552_10.4 P160 BN160L4	301
142	952	2.1	10.3	30000	A602_10.3 S5 M5SB4	304	A602_10.3 P160 BN160L4	305
150	898	1.1	9.7	10100			A502_9.7 P160 BN160L4	297
173	781	2.3	8.5	22200	A552_8.5 S5 M5SB4	300	A552_8.5 P160 BN160L4	301
186	726	2.8	7.9	28300	A602_7.9 S5 M5SB4	304	A602_7.9 P160 BN160L4	305
189	714	1.3	7.7	9750		296	A502_7.7 P160 BN160L4	297
228	592	2.9	6.4	20700	A552_6.4 S5 M5SB4	300	A552_6.4 P160 BN160L4	301
295	456	3.5	4.9	19400	A552_4.9 S5 M5SB4	300	A552_4.9 P160 BN160L4	301
301	448	1.8	9.7	8830			A502_9.7 P160 BN160MB2	297
352	383	1.3	8.3	5630			A412_8.3 P160 BN160MB2	293
379	356	2.1	7.7	8350			A502_7.7 P160 BN160MB2	297

## 18.5 kW

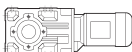



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
11.5	13954	0.9	126.6	75000	A903_126.6 S5 M5LA4	314	A903_126.6 P180 BN180M4	315
12.5	12880	1.1	116.9	75000	A903_116.9 S5 M5LA4	314	A903_116.9 P180 BN180M4	315
13.7	11769	1.2	106.8	75000	A903_106.8 S5 M5LA4	314	A903_106.8 P180 BN180M4	315
14.8	10864	1.3	98.6	75000	A903_98.6 S5 M5LA4	314	A903_98.6 P180 BN180M4	315
16.8	9593	1.5	87.1	75000	A903_87.1 S5 M5LA4	314	A903_87.1 P180 BN180M4	315
18.2	8855	1.6	80.4	75000	A903_80.4 S5 M5LA4	314	A903_80.4 P180 BN180M4	315
19.6	8206	1.7	74.5	75000	A903_74.5 S5 M5LA4	314	A903_74.5 P180 BN180M4	315
20.2	7973	1.0	72.4	55600	A803_72.4 S5 M5LA4	311	A803_72.4 P180 BN180M4	312
21.2	7575	1.8	68.8	75000	A903_68.8 S5 M5LA4	314	A903_68.8 P180 BN180M4	315
21.9	7360	1.1	66.8	55100			A803_66.8 P180 BN180M4	312
24.4	6586	1.2	59.8	54700	A803_59.8 S5 M5LA4	311	A803_59.8 P180 BN180M4	312
24.5	6568	2.1	59.6	75000	A903_59.6 S5 M5LA4	314	A903_59.6 P180 BN180M4	315
26.5	6080	1.3	55.2	54100	A803_55.2 S5 M5LA4	311	A803_55.2 P180 BN180M4	312
26.5	6063	2.3	55.0	74900	A903_55.0 S5 M5LA4	314	A903_55.0 P180 BN180M4	315
29.8	5399	0.9	49.0	49600	A703_49.0 S5 M5LA4	308	A703_49.0 P180 BN180M4	309
30	5322	2.6	48.3	73100			A903_48.3 P180 BN180M4	315
30	5309	1.5	48.2	53200	A803_48.2 S5 M5LA4	311	A803_48.2 P180 BN180M4	312
32	4983	1.0	45.2	49000	A703_45.2 S5 M5LA4	308	A703_45.2 P180 BN180M4	309
33	4912	2.9	44.6	71800			A903_44.6 P180 BN180M4	315
33	4900	1.5	44.5	52500	A803_44.5 S5 M5LA4	311	A803_44.5 P180 BN180M4	312
38	4276	3.3	38.8	69700			A903_38.8 P180 BN180M4	315
38	4242	1.8	38.5	51400			A803_38.5 P180 BN180M4	312
38	4229	1.1	38.4	48000	A703_38.4 S5 M5LA4	308	A703_38.4 P180 BN180M4	309
41	3947	3.5	35.8	68500			A903_35.8 P180 BN180M4	315
41	3916	1.8	35.5	50600			A803_35.5 P180 BN180M4	312

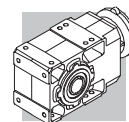


## 18.5 kW

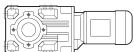



$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
41	3904	1.2	35.4	47300	<b>A703_35.4 S5 M5LA4</b>	308	<b>A703_35.4 P180 BN180M4</b>	309
48	3369	1.9	30.6	49300			<b>A803_30.6 P180 BN180M4</b>	312
49	3316	1.4	30.1	46100			<b>A703_30.1 P180 BN180M4</b>	309
52	3110	2.1	28.2	48500			<b>A803_28.2 P180 BN180M4</b>	312
52	3069	0.9	27.9	30000			<b>A603_27.9 S5 M5LA4</b>	304
53	3061	1.4	27.8	45300	<b>A603_25.7 S5 M5LA4</b>	<b>A703_27.8 P180 BN180M4</b>	309	
57	2833	1.0	25.7	30000		<b>A603_25.7 P180 BN180M4</b>	304	305
60	2699	2.5	24.5	47200		<b>A803_24.5 P180 BN180M4</b>	312	
62	2591	1.7	23.5	43900		<b>A703_23.5 P180 BN180M4</b>	309	
65	2492	2.5	22.6	46300		<b>A803_22.6 P180 BN180M4</b>	312	
69	2347	1.7	21.3	43000	<b>A703_21.3 S5 M5LA4</b>	308	<b>A703_21.3 P180 BN180M4</b>	309
70	2308	2.8	20.9	45600	<b>A803_20.9 S5 M5LA4</b>	311	<b>A803_20.9 P180 BN180M4</b>	312
74	2167	1.7	19.7	42300	<b>A703_19.7 S5 M5LA4</b>	308	<b>A703_19.7 P180 BN180M4</b>	309
75	2131	2.8	19.3	44800	<b>A803_19.3 S5 M5LA4</b>	311	<b>A803_19.3 P180 BN180M4</b>	312
87	1905	1.0	16.7	30000	<b>A602_16.7 S5 M5LA4</b>	304	<b>A602_16.7 P180 BN180M4</b>	305
87	1839	2.2	16.7	40800	<b>A703_16.7 S5 M5LA4</b>	308	<b>A703_16.7 P180 BN180M4</b>	309
93	1785	1.0	15.7	25000	<b>A552_15.7 S5 M5LA4</b>	300	<b>A552_15.7 P180 BN180M4</b>	301
95	1697	2.2	15.4	40100	<b>A703_15.4 S5 M5LA4</b>	308	<b>A703_15.4 P180 BN180M4</b>	309
112	1488	1.2	13.1	24100	<b>A552_13.1 S5 M5LA4</b>	300	<b>A552_13.1 P180 BN180M4</b>	301
112	1442	2.7	13.1	38600	<b>A602_12.7 S5 M5LA4</b>	304	<b>A703_13.1 P180 BN180M4</b>	309
115	1446	1.4	12.7	30000			<b>A602_12.7 P180 BN180M4</b>	305
121	1331	2.7	12.1	37800	<b>A553_23.8 S5 M5SC2</b>	300	<b>A703_12.1 P180 BN180M4</b>	309
123	1306	1.2	23.8	21600			<b>A553_23.8 P160 BN160L2</b>	301
141	1179	1.5	10.4	22900	<b>A552_10.4 S5 M5LA4</b>	300	<b>A552_10.4 P180 BN180M4</b>	301
142	1174	1.7	10.3	29900	<b>A602_10.3 S5 M5LA4</b>	304	<b>A602_10.3 P180 BN180M4</b>	305
143	1127	2.9	10.2	36300	<b>A502_9.7 S5 M5LA4</b>	296	<b>A703_10.2 P180 BN180M4</b>	309
150	1108	0.9	9.7	9530			<b>A502_9.7 P180 BN180M4</b>	297
155	1040	2.9	9.4	35600	<b>A552_8.5 S5 M5LA4</b>	300	<b>A703_9.4 P180 BN180M4</b>	309
173	963	1.9	8.5	21900			<b>A552_8.5 P180 BN180M4</b>	301
186	895	2.2	7.9	27900	<b>A602_7.9 S5 M5LA4</b>	304	<b>A602_7.9 P180 BN180M4</b>	305
189	881	1.1	7.7	9260	<b>A552_6.4 S5 M5LA4</b>	300	<b>A502_7.7 P180 BN180M4</b>	297
228	730	2.3	6.4	20400			<b>A552_6.4 P180 BN180M4</b>	301
295	563	2.8	4.9	19100			<b>A552_4.9 P180 BN180M4</b>	301
379	439	1.7	7.7	8100	<b>A552_4.9 S5 M5LA4</b>	300	<b>A502_7.7 P160 BN160L2</b>	297

## 22 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
12.5	15317	0.9	116.9	75000			<b>A903_116.9 P180 BN180L4</b>	315
13.7	13996	1.0	106.8	75000			<b>A903_106.8 P180 BN180L4</b>	315
14.8	12919	1.1	98.6	75000			<b>A903_98.6 P180 BN180L4</b>	315
16.8	11408	1.2	87.1	75000			<b>A903_87.1 P180 BN180L4</b>	315
18.2	10530	1.3	80.4	75000			<b>A903_80.4 P180 BN180L4</b>	315
19.6	9758	1.4	74.5	75000			<b>A903_74.5 P180 BN180L4</b>	315
21.2	9008	1.6	68.8	75000	<b>A903_68.8 P180 BN180L4</b>	315		
21.9	8753	0.9	66.8	51900	<b>A803_66.8 P180 BN180L4</b>	312		
24.4	7832	1.0	59.8	51800	<b>A803_59.8 P180 BN180L4</b>	312		
24.5	7811	1.8	59.6	73800	<b>A903_59.6 P180 BN180L4</b>	315		

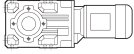






## 22 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
26.5	7230	1.1	55.2	51400			A803_55.2 P180 BN180L4	312
26.5	7210	1.9	55.0	72700			A903_55.0 P180 BN180L4	315
30	6328	2.2	48.3	71100			A903_48.3 P180 BN180L4	315
30	6313	1.3	48.2	50900			A803_48.2 P180 BN180L4	312
33	5842	2.4	44.6	70000			A903_44.6 P180 BN180L4	315
33	5827	1.3	44.5	50300			A803_44.5 P180 BN180L4	312
38	5085	2.8	38.8	68100			A903_38.8 P180 BN180L4	315
38	5044	1.5	38.5	49500			A803_38.5 P180 BN180L4	312
38	5029	1.0	38.4	46000			A703_38.4 P180 BN180L4	309
41	4694	2.9	35.8	67000			A903_35.8 P180 BN180L4	315
41	4656	1.5	35.5	48900			A803_35.5 P180 BN180L4	312
41	4642	1.0	35.4	45500			A703_35.4 P180 BN180L4	309
46	4127	3.4	31.5	65200			A903_31.5 P180 BN180L4	315
48	4006	1.6	30.6	47800			A803_30.6 P180 BN180L4	312
49	3944	1.2	30.1	44500			A703_30.1 P180 BN180L4	309
50	3810	3.4	29.1	64000			A903_29.1 P180 BN180L4	315
52	3698	1.8	28.2	47100			A803_28.2 P180 BN180L4	312
53	3640	1.2	27.8	43900			A703_27.8 P180 BN180L4	309
60	3210	2.1	24.5	45900			A803_24.5 P180 BN180L4	312
62	3082	1.4	23.5	42700			A703_23.5 P180 BN180L4	309
65	2963	2.1	22.6	45200			A803_22.6 P180 BN180L4	312
69	2791	1.4	21.3	41900			A703_21.3 P180 BN180L4	309
70	2745	2.4	20.9	44600			A803_20.9 P180 BN180L4	312
74	2577	1.4	19.7	41200			A703_19.7 P180 BN180L4	309
75	2534	2.4	19.3	43800			A803_19.3 P180 BN180L4	312
87	2193	3.0	16.7	42500			A803_16.7 P180 BN180L4	312
87	2187	1.8	16.7	39900			A703_16.7 P180 BN180L4	309
94	2024	3.0	15.5	41700			A803_15.5 P180 BN180L4	312
95	2018	1.8	15.4	39200			A703_15.4 P180 BN180L4	309
112	1770	1.0	13.1	23500			A552_13.1 P180 BN180L4	301
112	1715	2.2	13.1	37900			A703_13.1 P180 BN180L4	309
115	1719	1.2	12.7	30000			A602_12.7 P180 BN180L4	305
121	1583	2.2	12.1	37200			A703_12.1 P180 BN180L4	309
123	1553	1.0	23.8	20900	A553_23.8 S5 M5LA2	300	A553_23.8 P180 BN180M2	301
141	1401	1.3	10.4	22400			A552_10.4 P180 BN180L4	301
142	1396	1.4	10.3	29300			A602_10.3 P180 BN180L4	305
143	1340	2.4	10.2	35800			A703_10.2 P180 BN180L4	309
155	1237	2.4	9.4	35100			A703_9.4 P180 BN180L4	309
173	1145	1.6	8.5	21400			A552_8.5 P180 BN180L4	301
186	1064	1.9	7.9	27500			A602_7.9 P180 BN180L4	305
189	1047	0.9	7.7	8760			A502_7.7 P180 BN180L4	297
228	868	2.0	6.4	20100			A552_6.4 P180 BN180L4	301
283	698	2.6	10.4	19100	A552_10.4 S5 M5LA2	300	A552_10.4 P180 BN180M2	301
295	669	2.4	4.9	18900			A552_4.9 P180 BN180L4	301
346	571	3.0	8.5	18200	A552_8.5 S5 M5LA2	300	A552_8.5 P180 BN180M2	301
379	522	1.4	7.7	7860			A502_7.7 P180 BN180M2	297



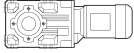



## 30 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N			 IEC 	
16.8	15556	0.9	87.1	70100			A903_87.1 P200 BN200L4	315
18.2	14360	1.0	80.4	70000			A903_80.4 P200 BN200L4	315
19.6	13307	1.1	74.5	69700			A903_74.5 P200 BN200L4	315
21.2	12283	1.1	68.8	69200			A903_68.8 P200 BN200L4	315
24.5	10651	1.3	59.6	68500			A903_59.6 P200 BN200L4	315
26.5	9832	1.4	55.0	67800			A903_55.0 P200 BN200L4	315
30.0	8630	1.6	48.3	66900			A903_48.3 P200 BN200L4	315
30	8609	0.9	48.2	45700			A803_48.2 P200 BN200L4	312
33	7966	1.8	44.6	66000			A903_44.6 P200 BN200L4	315
33	7946	0.9	44.5	45500			A803_44.5 P200 BN200L4	312
38	6934	2.0	38.8	64700			A903_38.8 P200 BN200L4	315
38	6879	1.1	38.5	45300			A803_38.5 P200 BN200L4	312
41	6400	2.1	35.8	63800			A903_35.8 P200 BN200L4	315
41	6349	1.1	35.5	45000			A803_35.5 P200 BN200L4	312
46	5628	2.5	31.5	62400			A903_31.5 P200 BN200L4	315
48	5463	1.2	30.6	44500			A803_30.6 P200 BN200L4	312
50	5195	2.5	29.1	61400			A903_29.1 P200 BN200L4	315
52	5043	1.3	28.2	44000			A803_28.2 P200 BN200L4	312
60	4377	1.5	24.5	43300			A803_24.5 P200 BN200L4	312
61	4307	3.1	24.1	59200			A903_24.1 P200 BN200L4	315
62	4202	1.0	23.5	40100			A703_23.5 P200 BN200L4	309
65	4041	1.5	22.6	42700			A803_22.6 P200 BN200L4	312
66	3976	3.1	22.3	58200			A903_22.3 P200 BN200L4	315
70	3752	3.3	21.0	57500			A903_21.0 P200 BN200L4	315
70	3743	1.7	20.9	42300			A803_20.9 P200 BN200L4	312
75	3463	3.3	19.4	56500			A903_19.4 P200 BN200L4	315
75	3455	1.8	19.3	41700			A803_19.3 P200 BN200L4	312
87	2991	2.2	16.7	40700			A803_16.7 P200 BN200L4	312
87	2982	1.3	16.7	38100			A703_16.7 P200 BN200L4	309
94	2761	2.2	15.5	40000			A803_15.5 P200 BN200L4	312
95	2752	1.3	15.4	37500			A703_15.4 P200 BN200L4	309
110	2375	2.8	13.3	38900			A803_13.3 P200 BN200L4	312
112	2338	1.6	13.1	36400			A703_13.1 P200 BN200L4	309
119	2192	2.8	12.3	38200			A803_12.3 P200 BN200L4	312
121	2158	1.6	12.1	35800			A703_12.1 P200 BN200L4	309
125	2094	1.7	23.5	35600			A703_23.5 P200 BN200LA2	309
137	1903	3.4	10.7	37100			A803_10.7 P200 BN200L4	312
143	1827	1.8	10.2	34600			A703_10.2 P200 BN200L4	309
148	1757	3.4	9.8	36500			A803_9.8 P200 BN200L4	312
155	1687	1.8	9.4	34000			A703_9.4 P200 BN200L4	309
176	1486	2.3	16.7	33100			A703_16.7 P200 BN200LA2	309
190	1371	2.3	15.4	32500			A703_15.4 P200 BN200LA2	309
224	1165	2.7	13.1	31300			A703_13.1 P200 BN200LA2	309
243	1075	2.7	12.1	30600			A703_12.1 P200 BN200LA2	309
287	910	3.2	10.2	29400			A703_10.2 P200 BN200LA2	309
310	840	3.2	9.4	28800			A703_9.4 P200 BN200LA2	309

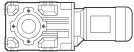







## 37 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC (*)	
21.5	14945	0.9	68.8	63900			A903_68.8 P225 IEC225S4	315
24.8	12959	1.1	59.6	63900			A903_59.6 P225 IEC225S4	315
26.9	11962	1.2	55.0	63600			A903_55.0 P225 IEC225S4	315
31	10499	1.3	48.3	63100			A903_48.3 P225 IEC225S4	315
33	9692	1.4	44.6	62500			A903_44.6 P225 IEC225S4	315
38	8436	1.7	38.8	61700			A903_38.8 P225 IEC225S4	315
38	8369	0.9	38.5	41700			A803_38.5 P225 IEC225S4	312
41	7787	1.8	35.8	61000			A903_35.8 P225 IEC225S4	315
42	7725	0.9	35.5	41600			A803_35.5 P225 IEC225S4	312
47	6847	2.0	31.5	59900			A903_31.5 P225 IEC225S4	315
48	6647	1.0	30.6	41600			A803_30.6 P225 IEC225S4	312
51	6321	2.1	29.1	59100			A903_29.1 P225 IEC225S4	315
52	6135	1.1	28.2	41300			A803_28.2 P225 IEC225S4	312
60	5326	1.3	24.5	40900			A803_24.5 P225 IEC225S4	312
61	5241	2.5	24.1	57300			A903_24.1 P225 IEC225S4	315
65	4916	1.3	22.6	40500			A803_22.6 P225 IEC225S4	312
67	4837	2.5	22.3	56400			A903_22.3 P225 IEC225S4	315
70	4565	2.7	21.0	55900			A903_21.0 P225 IEC225S4	315
71	4554	1.4	20.9	40300			A803_20.9 P225 IEC225S4	312
76	4214	2.7	19.4	54900			A903_19.4 P225 IEC225S4	315
77	4204	1.4	19.3	39800			A803_19.3 P225 IEC225S4	312
88	3668	3.2	16.9	53400			A903_16.9 P225 IEC225S4	315
88	3639	1.8	16.7	39100			A803_16.7 P225 IEC225S4	312
95	3386	3.2	15.6	52500			A903_15.6 P225 IEC225S4	315
96	3359	1.8	15.5	38500			A803_15.5 P225 IEC225S4	312
111	2890	2.3	13.3	37600			A803_13.3 P225 IEC225S4	312
121	2667	2.3	12.3	37000			A803_12.3 P225 IEC225S4	312
139	2316	2.8	10.7	36100			A803_10.7 P225 IEC225S4	312
151	2137	2.8	9.8	35500			A803_9.8 P225 IEC225S4	312

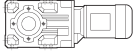




## 45 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N			 IEC (*)	
26.9	14549	1.0	55.0	58700			A903_55.0 P225 IEC225M4	315
31	12769	1.1	48.3	58900			A903_48.3 P225 IEC225M4	315
33	11787	1.2	44.6	58600			A903_44.6 P225 IEC225M4	315
38	10260	1.4	38.8	58300			A903_38.8 P225 IEC225M4	315
41	9471	1.5	35.8	57800			A903_35.8 P225 IEC225M4	315
47	8328	1.7	31.5	57200			A903_31.5 P225 IEC225M4	315
51	7687	1.7	29.1	56600			A903_29.1 P225 IEC225M4	315
60	6477	1.0	24.5	38300			A803_24.5 P225 IEC225M4	312
61	6374	2.1	24.1	55200			A903_24.1 P225 IEC225M4	315
65	5979	1.0	22.6	38100			A803_22.6 P225 IEC225M4	312
67	5883	2.1	22.3	54500			A903_22.3 P225 IEC225M4	315
70	5552	2.2	21.0	54000			A903_21.0 P225 IEC225M4	315
71	5539	1.2	20.9	38000			A803_20.9 P225 IEC225M4	312
76	5125	2.3	19.4	53200			A903_19.4 P225 IEC225M4	315
77	5112	1.2	19.3	37700			A803_19.3 P225 IEC225M4	312

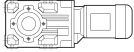




\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



## 45 kW

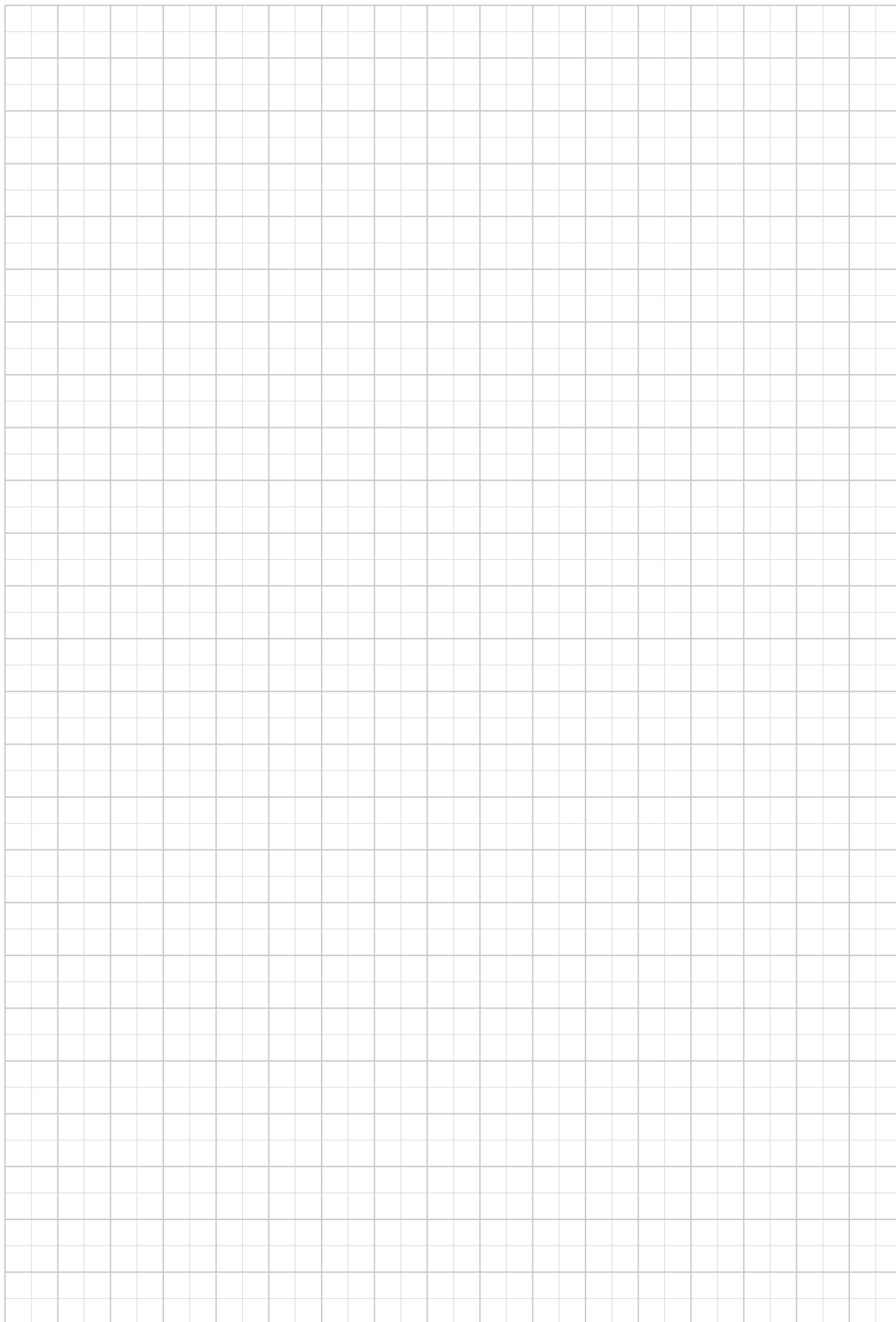
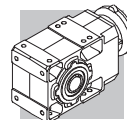
$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC  (*)	
88	4461	2.7	16.9	52000			A903_16.9 P225 IEC225M4	315
88	4425	1.5	16.7	37300			A803_16.7 P225 IEC225M4	312
95	4118	2.7	15.6	51100			A903_15.6 P225 IEC225M4	315
96	4085	1.5	15.5	36900			A803_15.5 P225 IEC225M4	312
108	3621	3.1	13.7	49900			A903_13.7 P225 IEC225M4	315
111	3515	1.9	13.3	36200			A803_13.3 P225 IEC225M4	312
117	3342	3.1	12.6	49000			A903_12.6 P225 IEC225M4	315
121	3244	1.9	12.3	35700			A803_12.3 P225 IEC225M4	312
139	2816	2.3	10.7	34900			A803_10.7 P225 IEC225M4	312
141	2771	3.5	10.5	47100			A903_10.5 P225 IEC225M4	315
151	2600	2.3	9.8	34400			A803_9.8 P225 IEC225M4	312
153	2558	3.5	9.7	46200			A903_9.7 P225 IEC225M4	315

## 55 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N			 IEC  (*)	
33	14406	1.0	44.6	53900			A903_44.6 P250 IEC250M4	315
38	12540	1.1	38.8	54100			A903_38.8 P250 IEC250M4	315
41	11575	1.2	35.8	54000			A903_35.8 P250 IEC250M4	315
47	10179	1.4	31.5	53800			A903_31.5 P250 IEC250M4	315
51	9396	1.4	29.1	53400			A903_29.1 P250 IEC250M4	315
61	7790	1.7	24.1	52600			A903_24.1 P250 IEC250M4	315
67	7191	1.7	22.3	52000			A903_22.3 P250 IEC250M4	315
70	6786	1.8	21.0	51700			A903_21.0 P250 IEC250M4	315
76	6264	1.8	19.4	51100			A903_19.4 P250 IEC250M4	315
88	5452	2.2	16.9	50100			A903_16.9 P250 IEC250M4	315
95	5033	2.2	15.6	49400			A903_15.6 P250 IEC250M4	315
108	4425	2.5	13.7	48400			A903_13.7 P250 IEC250M4	315
117	4085	2.6	12.6	47600			A903_12.6 P250 IEC250M4	315
141	3387	2.9	10.5	45900			A903_10.5 P250 IEC250M4	315
153	3126	2.9	9.7	45100			A903_9.7 P250 IEC250M4	315

\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



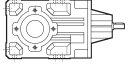





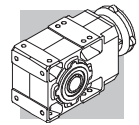
## 39 GEARBOX RATING CHARTS

### A 10

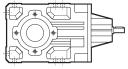

### 150 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 10 2_5.5</b>	5.5	512	73	4.2	—	1830	256	73	2.1	960	2460	277
<b>A 10 2_6.3</b>	6.3	442	80	3.9	—	1900	221	80	2.0	830	2560	
<b>A 10 2_7.2</b>	7.2	388	92	4.0	—	1910	194	93	2.0	630	2600	
<b>A 10 2_8.5</b>	8.5	329	92	3.4	—	2060	164	93	1.7	720	2790	
<b>A 10 2_9.6</b>	9.6	291	102	3.3	—	2090	146	128	2.1	—	2650	
<b>A 10 2_10.6</b>	10.6	265	125	3.7	540	2010	133	150	2.2	810	2590	
<b>A 10 2_12.3</b>	12.3	228	110	2.8	—	2280	114	138	1.7	—	2880	
<b>A 10 2_13.9</b>	13.9	201	135	3.0	620	2220	101	150	1.7	1080	2960	
<b>A 10 2_16.4</b>	16.4	170	140	2.7	610	2370	85	150	1.4	1140	3200	
<b>A 10 2_18.6</b>	18.6	151	147	2.5	650	2460	75	150	1.3	1180	3380	
<b>A 10 2_21.4</b>	21.4	131	150	2.2	650	2610	66	150	1.1	1200	3600	
<b>A 10 2_23.8</b>	23.8	118	150	2.0	750	2750	59	150	0.98	1220	3780	
<b>A 10 2_25.5</b>	25.5	110	150	1.8	750	2840	55	150	0.92	1220	3900	
<b>A 10 2_28.6</b>	28.6	98	150	1.6	830	3000	49	150	0.82	1250	4100	
<b>A 10 2_32.2</b>	32.2	87	150	1.5	880	3170	43	150	0.73	1270	4310	
<b>A 10 2_35.1</b>	35.1	80	150	1.3	880	3300	40	150	0.67	1270	4470	
<b>A 10 2_40.9</b>	40.9	69	150	1.1	910	3530	34	150	0.57	1300	4770	
<b>A 10 2_45.4</b>	45.4	62	150	1.0	910	3700	31	150	0.52	1300	4980	
<b>A 10 2_51.3</b>	51.3	55	150	0.91	910	3910	27.3	150	0.46	1290	5240	
<b>A 10 2_58.6</b>	58.6	48	150	0.80	920	4140	23.9	150	0.40	1300	5500	
<b>A 10 2_65.9</b>	65.9	42	150	0.71	920	4360	21.2	150	0.35	1300	5500	
<b>A 10 2_76.4</b>	76.4	37	150	0.61	930	4640	18.3	150	0.31	1300	5500	
<b>A 10 2_91.6</b>	91.6	31	130	0.44	1020	5160	15.3	130	0.22	1300	5500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



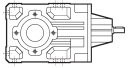

# A 10 150 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
A 10 2_5.5	5.5	165	73	1.3	1300	2950	91	73	0.74	1300	3720	277
A 10 2_6.3	6.3	142	80	1.3	1300	3070	79	80	0.70	1300	4100	
A 10 2_7.2	7.2	125	93	1.3	1160	3130	69	93	0.72	1300	3970	
A 10 2_8.5	8.5	106	95	1.1	1200	3330	59	110	0.72	1300	4100	
A 10 2_9.6	9.6	94	128	1.3	500	3230	52	128	0.74	1300	4160	
A 10 2_10.6	10.6	85	150	1.4	1300	3200	47	150	0.79	1300	4160	
A 10 2_12.3	12.3	73	150	1.2	180	3420	41	150	0.68	1030	4430	
A 10 2_13.9	13.9	65	150	1.1	1300	3630	36	150	0.60	1300	4680	
A 10 2_16.4	16.4	55	150	0.91	1300	3900	30	150	0.51	1300	5010	
A 10 2_18.6	18.6	48	150	0.81	1300	4120	26.9	150	0.45	1300	5270	
A 10 2_21.4	21.4	42	150	0.70	1300	4370	23.4	150	0.39	1300	5500	
A 10 2_23.8	23.8	38	150	0.63	1300	4570	21.0	150	0.35	1300	5500	
A 10 2_25.5	25.5	35	150	0.59	1300	4710	19.6	150	0.33	1300	5500	
A 10 2_28.6	28.6	31	150	0.53	1300	4940	17.5	150	0.29	1300	5500	
A 10 2_32.2	32.2	28.0	150	0.47	1300	5190	15.5	150	0.26	1300	5500	
A 10 2_35.1	35.1	25.6	150	0.43	1300	5380	14.2	150	0.24	1300	5500	
A 10 2_40.9	40.9	22.0	150	0.37	1300	5500	12.2	150	0.20	1300	5500	
A 10 2_45.4	45.4	19.8	150	0.33	1300	5500	11.0	150	0.18	1300	5500	
A 10 2_51.3	51.3	17.6	150	0.29	1300	5500	9.8	150	0.16	1300	5500	
A 10 2_58.6	58.6	15.4	150	0.26	1300	5500	8.5	150	0.14	1300	5500	
A 10 2_65.9	65.9	13.7	150	0.23	1300	5500	7.6	150	0.13	1300	5500	
A 10 2_76.4	76.4	11.8	150	0.20	1300	5500	6.5	150	0.11	1300	5500	
A 10 2_91.6	91.6	9.8	130	0.14	1300	5500	5.5	130	0.08	1300	5500	



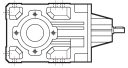

# A 20

# 250 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 20 2_5.4	5.4	523	96	5.6	610	1910	262	121	3.5	770	2400	281
A 20 2_6.5	6.5	428	107	5.1	490	2010	214	135	3.2	610	2530	
A 20 2_7.3	7.3	384	113	4.8	510	2070	192	143	3.1	630	2600	
A 20 2_8.4	8.4	334	116	4.3	510	2180	167	146	2.7	650	2750	
A 20 2_9.4	9.4	299	122	4.1	530	2260	149	154	2.6	660	2840	
A 20 2_10.3	10.3	271	183	5.5	650	1970	135	225	3.4	890	2520	
A 20 2_12.0	12.0	234	128	3.3	550	2280	117	161	2.1	690	3120	
A 20 2_14.1	14.1	199	199	4.4	750	2210	99	245	2.7	960	2820	
A 20 2_16.2	16.2	173	209	4.0	700	2310	87	250	2.4	1040	2990	
A 20 2_18.1	18.1	155	216	3.7	760	2400	77	250	2.2	1210	3170	
A 20 2_21.2	21.2	132	226	3.3	710	2540	66	250	1.8	1290	3430	
A 20 2_23.1	23.1	121	232	3.1	710	2620	61	250	1.7	1360	3580	
A 20 2_26.5	26.5	106	241	2.8	660	2750	53	250	1.5	1410	3820	
A 20 2_29.2	29.2	96	249	2.7	670	2850	48	250	1.3	1510	4000	
A 20 2_31.3	31.3	89	250	2.5	660	2940	45	250	1.2	1510	4130	
A 20 2_35.4	35.4	79	250	2.2	800	3140	40	250	1.1	1650	4380	
A 20 2_39.6	39.6	71	250	2.0	880	3320	35	250	0.98	1710	4600	
A 20 2_43.2	43.2	65	250	1.8	880	3460	32	250	0.90	1710	4790	
A 20 2_48.3	48.3	58	250	1.6	920	3650	29.0	250	0.81	1720	5030	
A 20 2_53.7	53.7	52	250	1.5	920	3840	26.1	250	0.73	1720	5270	
A 20 2_63.1	63.1	44	245	1.2	1040	4180	22.2	245	0.61	1740	5680	
A 20 2_71.0	71.0	39	210	0.92	1360	4640	19.7	210	0.46	1790	6200	
A 20 2_79.9	79.9	35	210	0.82	1360	4880	17.5	210	0.41	1790	6200	
A 20 2_92.3	92.3	30	200	0.68	1380	5250	15.2	200	0.34	1810	6200	
A 20 3_109.2	109.2	25.6	165	0.49	1180	5900	12.8	205	0.30	1300	6200	
A 20 3_120.5	120.5	23.2	168	0.45	1130	6110	11.6	210	0.28	1300	6200	
A 20 3_129.1	129.1	21.7	175	0.44	1210	6200	10.8	215	0.27	1300	6200	
A 20 3_146.1	146.1	19.2	183	0.40	1160	6200	9.6	230	0.25	1300	6200	
A 20 3_163.4	163.4	17.1	190	0.37	1240	6200	8.6	235	0.23	1300	6200	
A 20 3_178.3	178.3	15.7	195	0.35	1200	6200	7.9	245	0.22	1300	6200	
A 20 3_199.2	199.2	14.1	200	0.32	1270	6200	7.0	250	0.20	1300	6200	
A 20 3_221.3	221.3	12.7	203	0.30	1240	6200	6.3	250	0.18	1300	6200	
A 20 3_260.5	260.5	10.8	214	0.26	1270	6200	5.4	250	0.15	1300	6200	
A 20 3_292.8	292.8	9.6	218	0.24	1300	6200	4.8	250	0.14	1300	6200	
A 20 3_329.4	329.4	8.5	221	0.22	1300	6200	4.3	250	0.12	1300	6200	
A 20 3_380.9	380.9	7.4	226	0.19	1300	6200	3.7	250	0.11	1300	6200	

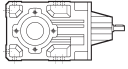



# A 20 250 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 20 2_5.4	5.4	168	140	2.6	900	2780	93	170	1.8	1100	3390	281
A 20 2_6.5	6.5	138	156	2.4	720	2930	76	190	1.6	860	3570	
A 20 2_7.3	7.3	123	165	2.3	740	3020	69	201	1.5	890	3670	
A 20 2_8.4	8.4	108	170	2.0	730	3180	60	206	1.4	910	3870	
A 20 2_9.4	9.4	96	179	1.9	760	3290	53	210	1.2	1090	4050	
A 20 2_10.3	10.3	87	250	2.4	1190	2990	48	250	1.3	2200	3980	
A 20 2_12.0	12.0	75	187	1.6	790	2990	42	210	0.98	1336	4510	
A 20 2_14.1	14.1	64	250	1.8	1610	3490	36	250	0.99	2200	4590	
A 20 2_16.2	16.2	56	250	1.6	1690	3730	31	250	0.86	2200	4880	
A 20 2_18.1	18.1	50	250	1.4	1860	3930	27.6	250	0.77	2200	5140	
A 20 2_21.2	21.2	42	250	1.2	1940	4230	23.6	250	0.66	2200	5500	
A 20 2_23.1	23.1	39	250	1.1	1970	4400	21.6	250	0.60	2200	5710	
A 20 2_26.5	26.5	34	250	0.95	1980	4680	18.9	250	0.53	2200	6050	
A 20 2_29.2	29.2	31	250	0.86	2000	4890	17.1	250	0.48	2200	6200	
A 20 2_31.3	31.3	28.7	250	0.80	2000	5040	16.0	250	0.44	2200	6200	
A 20 2_35.4	35.4	25.4	250	0.71	2020	5330	14.1	250	0.39	2200	6200	
A 20 2_39.6	39.6	22.7	250	0.63	2040	5590	12.6	250	0.35	2200	6200	
A 20 2_43.2	43.2	20.8	250	0.58	2040	5800	11.6	250	0.32	2200	6200	
A 20 2_48.3	48.3	18.6	250	0.52	2040	6080	10.4	250	0.29	2200	6200	
A 20 2_53.7	53.7	16.8	250	0.47	2050	6200	9.3	250	0.26	2200	6200	
A 20 2_63.1	63.1	14.3	245	0.39	2060	6200	7.9	245	0.22	2200	6200	
A 20 2_71.0	71.0	12.7	210	0.30	2120	6200	7.0	210	0.16	2200	6200	
A 20 2_79.9	79.9	11.3	210	0.26	2120	6200	6.3	210	0.15	2200	6200	
A 20 2_92.3	92.3	9.7	200	0.22	2140	6200	5.4	200	0.12	2200	6200	
A 20 3_109.2	109.2	8.2	240	0.23	1300	6200	4.6	250	0.13	1300	6200	
A 20 3_120.5	120.5	7.5	245	0.21	1300	6200	4.1	250	0.12	1300	6200	
A 20 3_129.1	129.1	7.0	250	0.20	1300	6200	3.9	250	0.11	1300	6200	
A 20 3_146.1	146.1	6.2	250	0.18	1300	6200	3.4	250	0.10	1300	6200	
A 20 3_163.4	163.4	5.5	250	0.16	1300	6200	3.1	250	0.09	1300	6200	
A 20 3_178.3	178.3	5.0	250	0.15	1300	6200	2.8	250	0.08	1300	6200	
A 20 3_199.2	199.2	4.5	250	0.13	1300	6200	2.5	250	0.07	1300	6200	
A 20 3_221.3	221.3	4.1	250	0.12	1300	6200	2.3	250	0.06	1300	6200	
A 20 3_260.5	260.5	3.5	250	0.10	1300	6200	1.9	250	0.06	1300	6200	
A 20 3_292.8	292.8	3.1	250	0.09	1300	6200	1.7	250	0.05	1300	6200	
A 20 3_329.4	329.4	2.7	250	0.08	1300	6200	1.5	250	0.04	1300	6200	
A 20 3_380.9	380.9	2.4	250	0.07	1300	6200	1.3	250	0.04	1300	6200	



# A 30 410 Nm

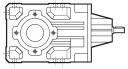

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 30 2_5.4</b>	5.4	517	175	10.1	1130	2480	259	220	6.3	1430	3130	285
<b>A 30 2_6.4</b>	6.4	437	185	9.0	1120	2630	218	230	5.6	1470	3330	
<b>A 30 2_7.0</b>	7.0	399	194	8.6	1140	2690	199	245	5.4	1430	3380	
<b>A 30 2_8.5</b>	8.5	331	200	7.4	1220	2900	165	250	4.6	1570	3660	
<b>A 30 2_9.3</b>	9.3	301	214	7.2	1140	2950	150	270	4.5	1440	3710	
<b>A 30 2_10.5</b>	10.5	268	278	8.3	1800	2770	134	340	5.1	2200	3550	
<b>A 30 2_11.8</b>	11.8	238	230	6.1	1130	3200	119	290	3.8	1420	4030	
<b>A 30 2_13.6</b>	13.6	206	301	6.9	1830	3030	103	370	4.3	2200	3870	
<b>A 30 2_16.3</b>	16.3	171	318	6.1	1830	3240	86	385	3.7	2200	4170	
<b>A 30 2_18.0</b>	18.0	156	327	5.7	1840	3350	78	400	3.5	2200	4290	
<b>A 30 2_20.5</b>	20.5	136	340	5.2	1830	3510	68	410	3.1	2200	4530	
<b>A 30 2_22.8</b>	22.8	123	351	4.8	1850	3640	62	410	2.8	2200	4770	
<b>A 30 2_26.5</b>	26.5	106	367	4.3	1840	3850	53	410	2.4	2200	5150	
<b>A 30 2_29.3</b>	29.3	96	378	4.0	1847	3980	48	410	2.2	2200	5400	
<b>A 30 2_33.4</b>	33.4	84	393	3.7	1840	4170	42	410	1.9	2200	5750	
<b>A 30 2_36.6</b>	36.6	76	404	3.4	1840	4310	38	410	1.7	2200	6010	
<b>A 30 2_39.3</b>	39.3	71	410	3.3	1810	4430	36	410	1.6	2200	6200	
<b>A 30 2_43.4</b>	43.4	64	410	2.9	1850	4660	32	410	1.5	2200	6490	
<b>A 30 2_48.3</b>	48.3	58	410	2.6	1860	4920	29.0	410	1.3	2200	6810	
<b>A 30 2_52.7</b>	52.7	53	410	2.4	1860	5130	26.6	410	1.2	2200	7080	
<b>A 30 2_59.4</b>	59.4	47	400	2.1	1890	5500	23.6	400	1.0	2200	7530	
<b>A 30 2_66.0</b>	66.0	42	390	1.8	1900	5840	21.2	390	0.92	2200	7940	
<b>A 30 2_76.5</b>	76.5	37	350	1.4	1950	6480	18.3	350	0.71	2200	8690	
<b>A 30 2_86.7</b>	86.7	32	320	1.2	2000	7010	16.2	320	0.58	2200	9310	
<b>A 30 2_97.5</b>	97.5	28.7	300	0.96	2020	7480	14.4	300	0.48	2200	9600	
<b>A 30 3_109.1</b>	109.1	25.7	240	0.71	1300	8240	12.8	300	0.44	1300	9600	
<b>A 30 3_120.5</b>	120.5	23.2	243	0.65	1120	8540	11.6	300	0.40	1300	9600	
<b>A 30 3_137.4</b>	137.4	20.4	250	0.59	1300	8950	10.2	315	0.37	1300	9600	
<b>A 30 3_150.7</b>	150.7	18.6	261	0.56	1170	9210	9.3	330	0.35	1300	9600	
<b>A 30 3_161.4</b>	161.4	17.3	270	0.54	1300	9410	8.7	340	0.34	1300	9600	
<b>A 30 3_178.5</b>	178.5	15.7	274	0.49	1210	9600	7.8	345	0.31	1300	9600	
<b>A 30 3_198.5</b>	198.5	14.1	280	0.45	1300	9600	7.1	350	0.28	1300	9600	
<b>A 30 3_216.6</b>	216.6	12.9	287	0.43	1240	9600	6.5	360	0.27	1300	9600	
<b>A 30 3_244.3</b>	244.3	11.5	295	0.39	1300	9600	5.7	370	0.24	1300	9600	
<b>A 30 3_271.5</b>	271.5	10.3	301	0.36	1280	9600	5.2	380	0.23	1300	9600	
<b>A 30 3_314.5</b>	314.5	8.9	309	0.32	1300	9600	4.5	390	0.20	1300	9600	
<b>A 30 3_356.3</b>	356.3	7.9	320	0.29	1300	9600	3.9	370	0.17	1300	9600	
<b>A 30 3_400.8</b>	400.8	7.0	320	0.26	1300	9600	3.5	360	0.14	1300	9600	





# A 30

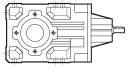

# 410 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 30 2_5.4	5.4	166	255	4.7	1660	3630	92	300	3.1	2200	4470	285
A 30 2_6.4	6.4	140	270	4.2	1630	3830	78	300	2.6	2200	4830	
A 30 2_7.0	7.0	128	284	4.1	1650	3920	71	300	2.4	2200	5040	
A 30 2_8.5	8.5	106	290	3.4	1810	4240	59	300	2.0	2200	5470	
A 30 2_9.3	9.3	97	300	3.2	1900	4380	54	300	1.8	2200	5710	
A 30 2_10.5	10.5	86	391	3.7	2200	4130	48	410	2.2	2200	5400	
A 30 2_11.8	11.8	76	300	2.6	2200	4880	42	300	1.4	2200	6320	
A 30 2_13.6	13.6	66	410	3.0	2200	4600	37	410	1.7	2200	6110	
A 30 2_16.3	16.3	55	410	2.5	2200	5044	31	410	1.4	2200	6650	
A 30 2_18.0	18.0	50	410	2.3	2200	5280	27.8	410	1.3	2200	6940	
A 30 2_20.5	20.5	44	410	2.0	2200	5630	24.3	410	1.1	2200	7360	
A 30 2_22.8	22.8	40	410	1.8	2200	5910	22.0	410	1.0	2200	7700	
A 30 2_26.5	26.5	34	410	1.5	2200	6340	18.8	410	0.86	2200	8230	
A 30 2_29.3	29.3	31	410	1.4	2200	6640	17.1	410	0.78	2200	8590	
A 30 2_33.4	33.4	26.9	410	1.2	2200	7040	15.0	410	0.68	2200	9080	
A 30 2_36.6	36.6	24.6	410	1.1	2200	7340	13.6	410	0.62	2200	9440	
A 30 2_39.3	39.3	22.9	410	1.0	2200	7560	12.7	410	0.58	2200	9600	
A 30 2_43.4	43.4	20.7	410	0.95	2200	7900	11.5	410	0.53	2200	9600	
A 30 2_48.3	48.3	18.6	410	0.85	2200	8270	10.4	410	0.47	2200	9600	
A 30 2_52.7	52.7	17.1	410	0.78	2200	8590	9.5	410	0.43	2200	9600	
A 30 2_59.4	59.4	15.1	400	0.67	2200	9090	8.4	400	0.37	2200	9600	
A 30 2_66.0	66.0	13.6	390	0.59	2200	9560	7.6	390	0.33	2200	9600	
A 30 2_76.5	76.5	11.8	350	0.46	2200	9600	6.5	350	0.25	2200	9600	
A 30 2_86.7	86.7	10.4	320	0.37	2200	9600	5.8	320	0.21	2200	9600	
A 30 2_97.5	97.5	9.2	300	0.31	2200	9600	5.1	300	0.17	2200	9600	
A 30 3_109.1	109.1	8.3	350	0.33	1300	9600	4.6	370	0.20	1300	9600	
A 30 3_120.5	120.5	7.5	354	0.30	1300	9600	4.2	410	0.20	1300	9600	
A 30 3_137.4	137.4	6.5	370	0.28	1300	9600	3.6	410	0.17	1300	9600	
A 30 3_150.7	150.7	6.0	381	0.26	1300	9600	3.3	410	0.16	1300	9600	
A 30 3_161.4	161.4	5.6	390	0.25	1300	9600	3.1	410	0.15	1300	9600	
A 30 3_178.5	178.5	5.0	400	0.23	1300	9600	2.8	410	0.13	1300	9600	
A 30 3_198.5	198.5	4.5	410	0.21	1300	9600	2.5	410	0.12	1300	9600	
A 30 3_216.6	216.6	4.2	410	0.20	1300	9600	2.3	410	0.11	1300	9600	
A 30 3_244.3	244.3	3.7	410	0.17	1300	9600	2.0	410	0.10	1300	9600	
A 30 3_271.5	271.5	3.3	410	0.16	1300	9600	1.8	410	0.09	1300	9600	
A 30 3_314.5	314.5	2.9	410	0.13	1300	9600	1.6	410	0.07	1300	9600	
A 30 3_356.3	356.3	2.5	380	0.11	1300	9600	1.4	380	0.06	1300	9600	
A 30 3_400.8	400.8	2.2	360	0.09	1300	9600	1.2	360	0.05	1300	9600	



# A 35

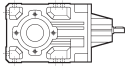

# 600 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 35 2_5.4</b>	5.4	517	246	14.2	1420	4000	259	310	8.9	1790	5050	289
<b>A 35 2_6.4</b>	6.4	437	262	12.7	1420	4230	218	330	8.0	1790	5330	
<b>A 35 2_7.0</b>	7.0	399	278	12.3	1410	4320	199	350	7.8	1790	5440	
<b>A 35 2_8.5</b>	8.5	331	286	10.5	1450	4650	165	360	6.6	1830	5850	
<b>A 35 2_9.3</b>	9.3	301	302	10.1	1450	4760	150	380	6.4	1830	6000	
<b>A 35 2_10.6</b>	10.6	263	310	9.1	1440	5010	132	390	5.7	1830	6310	
<b>A 35 2_11.8</b>	11.8	238	317	8.4	1480	5200	119	400	5.3	1860	6550	
<b>A 35 2_13.1</b>	13.1	214	400	10.9	1630	4470	107	550	6.6	2100	5780	
<b>A 35 2_15.5</b>	15.5	181	430	10.0	1620	4670	90	570	5.7	2120	6190	
<b>A 35 2_17.0</b>	17.0	165	465	9.7	1620	4730	83	600	5.5	2130	6310	
<b>A 35 2_20.4</b>	20.4	137	500	8.4	1630	5080	69	600	4.6	2170	6930	
<b>A 35 2_22.5</b>	22.5	125	540	7.8	1660	5290	62	600	4.2	2200	7260	
<b>A 35 2_25.7</b>	25.7	109	585	7.1	1640	5540	55	600	3.6	2200	7740	
<b>A 35 2_28.4</b>	28.4	98	600	6.6	1660	5760	49	600	3.3	2200	8130	
<b>A 35 2_33.2</b>	33.2	84	600	5.6	910	6240	42	600	2.8	2200	8730	
<b>A 35 2_36.6</b>	36.6	76	600	5.1	1080	6560	38	600	2.6	2200	9140	
<b>A 35 2_41.8</b>	41.8	67	600	4.5	1140	7010	34	600	2.2	2200	9700	
<b>A 35 2_45.8</b>	45.8	61	600	4.1	1260	7330	31	600	2.0	2200	10100	
<b>A 35 2_49.1</b>	49.1	57	600	3.8	1260	7580	28.5	600	1.9	2200	10400	
<b>A 35 2_54.3</b>	54.3	52	600	3.4	1360	7950	25.8	600	1.7	2200	10900	
<b>A 35 2_60.4</b>	60.4	46	600	3.1	1470	8360	23.2	600	1.6	2200	11400	
<b>A 35 2_65.8</b>	65.8	43	600	2.8	1470	8700	21.3	600	1.4	2200	11800	
<b>A 35 2_74.3</b>	74.3	38	600	2.5	1560	9200	18.8	600	1.3	2200	12000	
<b>A 35 2_82.5</b>	82.5	34	600	2.3	1560	9650	17.0	600	1.1	2200	12000	
<b>A 35 2_95.6</b>	95.6	29.3	540	1.8	1860	10600	14.6	540	0.88	2200	12000	
<b>A 35 3_105.5</b>	105.5	26.5	430	1.3	550	12000	13.3	525	0.80	780	12000	
<b>A 35 3_116.9</b>	116.9	24.0	455	1.3	650	12000	12.0	560	0.77	870	12000	
<b>A 35 3_136.3</b>	136.3	20.5	470	1.1	870	12000	10.3	575	0.68	1110	12000	
<b>A 35 3_150.6</b>	150.6	18.6	495	1.1	900	12000	9.3	600	0.64	1160	12000	
<b>A 35 3_171.8</b>	171.8	16.3	505	0.95	960	12000	8.1	600	0.56	1250	12000	
<b>A 35 3_188.3</b>	188.3	14.9	525	0.90	990	12000	7.4	600	0.51	1300	12000	
<b>A 35 3_201.8</b>	201.8	13.9	525	0.84	1020	12000	6.9	600	0.48	1300	12000	
<b>A 35 3_223.2</b>	223.2	12.5	545	0.79	1050	12000	6.3	600	0.43	1300	12000	
<b>A 35 3_248.1</b>	248.1	11.3	565	0.73	1080	12000	5.6	600	0.39	1300	12000	
<b>A 35 3_270.7</b>	270.7	10.3	570	0.68	1110	12000	5.2	600	0.36	1300	12000	
<b>A 35 3_305.4</b>	305.4	9.2	585	0.62	1140	12000	4.6	600	0.32	1300	12000	
<b>A 35 3_339.3</b>	339.3	8.3	520	0.49	1210	12000	4.1	520	0.25	1300	12000	
<b>A 35 3_393.2</b>	393.2	7.1	465	0.38	1260	12000	3.6	465	0.19	1300	12000	



# A 35

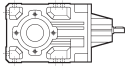

# 600 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 35 2_5.4	5.4	166	340	6.3	2150	5940	92	340	3.5	2200	7600	289
A 35 2_6.4	6.4	140	350	5.5	2190	6340	78	350	3.0	2200	8090	
A 35 2_7.0	7.0	128	370	5.3	2200	6490	71	370	2.9	2200	8290	
A 35 2_8.5	8.5	106	380	4.5	2200	6970	59	380	2.5	2200	8890	
A 35 2_9.3	9.3	97	400	4.3	2200	7160	54	400	2.4	2200	9140	
A 35 2_10.6	10.6	85	400	3.8	2200	7570	47	400	2.1	2200	9650	
A 35 2_11.8	11.8	76	400	3.4	2200	7910	42	400	1.9	2200	10100	
A 35 2_13.1	13.1	69	600	4.6	2200	6910	38	600	2.6	2200	9140	
A 35 2_15.5	15.5	58	600	3.9	2090	7510	32	600	2.2	2200	9860	
A 35 2_17.0	17.0	53	600	3.5	2200	7840	29.5	600	2.0	2200	10300	
A 35 2_20.4	20.4	44	600	2.9	2200	8560	24.5	600	1.6	2200	11100	
A 35 2_22.5	22.5	40	600	2.7	2200	8950	22.2	600	1.5	2200	11600	
A 35 2_25.7	25.7	35	600	2.3	2200	9500	19.5	600	1.3	2200	12000	
A 35 2_28.4	28.4	32	600	2.1	2200	9950	17.6	600	1.2	2200	12000	
A 35 2_33.2	33.2	27.1	600	1.8	2200	10700	15.1	600	1.0	2200	12000	
A 35 2_36.6	36.6	24.6	600	1.6	2200	11100	13.7	600	0.91	2200	12000	
A 35 2_41.8	41.8	21.5	600	1.4	2200	11800	12.0	600	0.80	2200	12000	
A 35 2_45.8	45.8	19.6	600	1.3	2200	12000	10.9	600	0.73	2200	12000	
A 35 2_49.1	49.1	18.3	600	1.2	2200	12000	10.2	600	0.68	2200	12000	
A 35 2_54.3	54.3	16.6	600	1.1	2200	12000	9.2	600	0.62	2200	12000	
A 35 2_60.4	60.4	14.9	600	1.0	2200	12000	8.3	600	0.55	2200	12000	
A 35 2_65.8	65.8	13.7	600	0.91	2200	12000	7.6	600	0.51	2200	12000	
A 35 2_74.3	74.3	12.1	600	0.81	2200	12000	6.7	600	0.45	2200	12000	
A 35 2_82.5	82.5	10.9	600	0.73	2200	12000	6.1	600	0.40	2200	12000	
A 35 2_95.6	95.6	9.4	540	0.57	2200	12000	5.2	540	0.31	2200	12000	
A 35 3_105.5	105.5	8.5	600	0.59	940	12000	4.7	600	0.33	1300	12000	
A 35 3_116.9	116.9	7.7	600	0.53	1230	12000	4.3	600	0.30	1300	12000	
A 35 3_136.3	136.3	6.6	600	0.46	1300	12000	3.7	600	0.25	1300	12000	
A 35 3_150.6	150.6	6.0	600	0.41	1300	12000	3.3	600	0.23	1300	12000	
A 35 3_171.8	171.8	5.2	600	0.36	1300	12000	2.9	600	0.20	1300	12000	
A 35 3_188.3	188.3	4.8	600	0.33	1300	12000	2.7	600	0.18	1300	12000	
A 35 3_201.8	201.8	4.5	600	0.31	1300	12000	2.5	600	0.17	1300	12000	
A 35 3_223.2	223.2	4.0	600	0.28	1300	12000	2.2	600	0.15	1300	12000	
A 35 3_248.1	248.1	3.6	600	0.25	1300	12000	2.0	600	0.14	1300	12000	
A 35 3_270.7	270.7	3.3	600	0.23	1300	12000	1.8	600	0.13	1300	12000	
A 35 3_305.4	305.4	2.9	600	0.20	1300	12000	1.6	600	0.11	1300	12000	
A 35 3_339.3	339.3	2.7	520	0.16	1300	12000	1.5	520	0.09	1300	12000	
A 35 3_393.2	393.2	2.3	465	0.12	1300	12000	1.3	465	0.07	1300	12000	



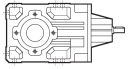

# A 41

# 850 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 41 2_5.2	5.2	534	450	27	1790	4350	267	550	16.4	2450	5560	293
A 41 2_7.1	7.1	393	490	22	1890	4850	197	550	12.0	2670	6430	
A 41 2_8.3	8.3	336	510	19.1	1900	5140	168	550	10.3	2750	6920	
A 41 2_9.2	9.2	304	530	18.0	1980	5300	152	550	9.3	2860	7240	
A 41 2_10.1	10.1	276	435	13.4	2680	6030	138	535	8.2	3390	7650	
A 41 2_11.7	11.7	238	550	14.6	2050	5870	119	550	7.3	2950	8070	
A 41 2_13.8	13.8	204	480	10.9	2690	6680	102	585	6.6	3430	8510	
A 41 2_16.1	16.1	174	500	9.7	2700	7070	87	610	5.9	3430	9000	
A 41 2_17.8	17.8	158	515	9.0	2730	7310	79	630	5.5	3470	9300	
A 41 2_22.7	22.7	123	550	7.6	2730	7970	62	680	4.7	3460	10100	
A 41 2_28.3	28.3	99	595	6.6	2670	8570	49	730	4.0	3450	10900	
A 41 2_35.9	35.9	78	635	5.5	2590	9320	39	780	3.4	3410	11800	
A 41 2_45.1	45.1	62	680	4.7	2500	10100	31	830	2.9	3330	12800	
A 41 2_48.3	48.3	58	690	4.5	2430	10300	29.0	850	2.7	3200	13100	
A 41 2_53.1	53.1	53	700	4.1	2470	10700	26.3	850	2.5	3330	13700	
A 41 2_58.8	58.8	48	730	3.9	2390	11100	23.8	850	2.3	3460	14300	
A 41 2_64.2	64.2	44	740	3.6	2320	11500	21.8	850	2.1	3460	14800	
A 41 2_71.3	71.3	39	780	3.4	2120	11800	19.6	850	1.9	3470	15000	
A 41 2_79.2	79.2	35	800	3.1	1990	12300	17.7	800	1.6	3500	15000	
A 41 3_92.8	92.8	30	650	2.3	270	14000	15.1	800	1.4	430	15000	
A 41 3_115.9	115.9	24.2	800	2.2	310	14600	12.1	850	1.2	980	15000	
A 41 3_146.9	146.9	19.1	850	1.9	790	15000	9.5	850	0.93	1640	15000	
A 41 3_184.4	184.4	15.2	850	1.5	1290	15000	7.6	850	0.74	1770	15000	
A 41 3_197.5	197.5	14.2	850	1.4	1360	15000	7.1	850	0.69	1790	15000	
A 41 3_217.4	217.4	12.9	850	1.3	1390	15000	6.4	850	0.63	1820	15000	
A 41 3_240.6	240.6	11.6	850	1.1	1410	15000	5.8	850	0.57	1840	15000	
A 41 3_262.5	262.5	10.7	850	1.0	1430	15000	5.3	850	0.52	1860	15000	
A 41 3_291.7	291.7	9.6	850	0.94	1450	15000	4.8	850	0.47	1880	15000	
A 41 3_324.2	324.2	8.6	850	0.84	1470	15000	4.3	850	0.42	1900	15000	
A 41 3_376.8	376.8	7.4	850	0.73	1500	15000	3.7	850	0.36	1930	15000	

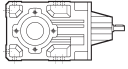



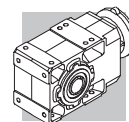
# A 41 850 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 41 2_5.2	5.2	172	550	10.5	3140	6850	95	550	5.8	3500	8900	293
A 41 2_7.1	7.1	126	550	7.7	3360	7870	70	550	4.3	3500	10100	
A 41 2_8.3	8.3	108	550	6.6	3440	8430	60	550	3.7	3500	10800	
A 41 2_9.2	9.2	98	550	6.0	3500	8800	54	550	3.3	3500	11300	
A 41 2_10.1	10.1	89	610	6.0	3500	8920	49	730	4.0	3500	10900	
A 41 2_11.7	11.7	77	550	4.7	3500	9760	43	550	2.6	3500	12400	
A 41 2_13.8	13.8	65	670	4.9	3500	9900	36	800	3.2	3500	12100	
A 41 2_16.1	16.1	56	700	4.4	3500	10500	31	830	2.9	3500	12800	
A 41 2_17.8	17.8	51	720	4.1	3500	10800	28.1	850	2.7	3500	13300	
A 41 2_22.7	22.7	40	780	3.4	3500	11700	22.0	850	2.1	3500	14800	
A 41 2_28.3	28.3	32	830	2.9	3500	12700	17.7	850	1.7	3500	15000	
A 41 2_35.9	35.9	25.1	850	2.4	3500	14000	13.9	850	1.3	3500	15000	
A 41 2_45.1	45.1	20.0	850	1.9	3500	15000	11.1	850	1.1	3500	15000	
A 41 2_48.3	48.3	18.6	850	1.8	3500	15000	10.4	850	0.98	3500	15000	
A 41 2_53.1	53.1	16.9	850	1.6	3500	15000	9.4	850	0.89	3500	15000	
A 41 2_58.8	58.8	15.3	850	1.4	3500	15000	8.5	850	0.81	3500	15000	
A 41 2_64.2	64.2	14.0	850	1.3	3300	15000	7.8	850	0.74	3500	15000	
A 41 2_71.3	71.3	12.6	850	1.2	3500	15000	7.0	850	0.66	3500	15000	
A 41 2_79.2	79.2	11.4	800	1.0	3500	15000	6.3	800	0.56	3500	15000	
A 41 3_92.8	92.8	9.7	800	0.89	1080	15000	5.4	800	0.50	2110	15000	
A 41 3_115.9	115.9	7.8	850	0.76	1630	15000	4.3	850	0.42	2200	15000	
A 41 3_146.9	146.9	6.1	850	0.60	2020	15000	3.4	850	0.33	2200	15000	
A 41 3_184.4	184.4	4.9	850	0.48	2100	15000	2.7	850	0.27	2200	15000	
A 41 3_197.5	197.5	4.6	850	0.45	2120	15000	2.5	850	0.25	2200	15000	
A 41 3_217.4	217.4	4.1	850	0.40	2150	15000	2.3	850	0.22	2200	15000	
A 41 3_240.6	240.6	3.7	850	0.37	2170	15000	2.1	850	0.20	2200	15000	
A 41 3_262.5	262.5	3.4	850	0.34	2190	15000	1.9	850	0.19	2200	15000	
A 41 3_291.7	291.7	3.1	850	0.30	2200	15000	1.7	850	0.17	2200	15000	
A 41 3_324.2	324.2	2.8	850	0.27	2200	15000	1.5	850	0.15	2200	15000	
A 41 3_376.8	376.8	2.4	850	0.23	2200	15000	1.3	850	0.13	2200	15000	

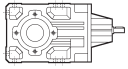



# A 50 1500 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 50 2_7.7</b>	7.7	362	550	22	2300	7920	181	700	14.1	2890	9960	297
<b>A 50 2_9.7</b>	9.7	288	600	19.2	2330	8530	144	750	12.0	2950	10800	
<b>A 50 2_13.1</b>	13.1	214	600	14.3	2460	9600	107	750	8.9	3110	12100	
<b>A 50 2_16.6</b>	16.6	169	640	12.0	2490	10400	84	800	7.5	3150	13100	
<b>A 50 2_20.9</b>	20.9	134	640	9.5	2540	11400	67	800	6.0	3210	14400	
<b>A 50 3_24.0</b>	24.0	116	1150	15.4	1850	7020	58	1500	10.0	2100	8540	
<b>A 50 3_26.4</b>	26.4	106	1200	14.6	2100	7170	53	1500	9.1	2690	9100	
<b>A 50 3_32.4</b>	32.4	86	1290	12.8	1800	4630	43	1500	7.5	2760	10400	
<b>A 50 3_35.6</b>	35.6	79	1340	12.1	2080	7830	39	1500	6.8	3290	11000	
<b>A 50 3_40.9</b>	40.9	68	1415	11.1	1740	8130	34	1500	5.9	3220	11900	
<b>A 50 3_45.0</b>	45.0	62	1470	10.5	2030	8340	31	1500	5.4	3440	12600	
<b>A 50 3_51.7</b>	51.7	54	1500	9.4	1680	8970	27.1	1500	4.7	3400	13600	
<b>A 50 3_56.8</b>	56.8	49	1500	8.5	2150	9540	24.6	1500	4.3	3480	14400	
<b>A 50 3_63.9</b>	63.9	44	1500	7.6	1900	10300	21.9	1500	3.8	3450	15300	
<b>A 50 3_70.2</b>	70.2	40	1500	6.9	2350	10900	19.9	1500	3.4	3500	16100	
<b>A 50 3_81.5</b>	81.5	34	1500	5.9	2170	11900	17.2	1500	3.0	3500	17300	
<b>A 50 3_89.5</b>	89.5	31	1500	5.4	2590	12600	15.6	1500	2.7	3500	18200	
<b>A 50 3_99.5</b>	99.5	28.1	1500	4.9	2260	13400	14.1	1500	2.4	3500	19200	
<b>A 50 3_109.4</b>	109.4	25.6	1500	4.4	2680	14100	12.8	1500	2.2	3500	20000	
<b>A 50 3_118.0</b>	118.0	23.7	1500	4.1	2390	14700	11.9	1500	2.0	3500	20000	
<b>A 50 3_129.7</b>	129.7	21.6	1500	3.7	2720	15400	10.8	1500	1.9	3500	20000	
<b>A 50 3_140.6</b>	140.6	19.9	1500	3.4	2440	16100	10.0	1500	1.7	3500	20000	
<b>A 50 3_154.6</b>	154.6	18.1	1500	3.1	2730	16900	9.1	1500	1.6	3500	20000	
<b>A 50 3_173.4</b>	173.4	16.2	1500	2.8	2480	17900	8.1	1500	1.4	3500	20000	
<b>A 50 3_190.6</b>	190.6	14.7	1500	2.5	2740	18800	7.3	1500	1.3	3500	20000	
<b>A 50 4_211.0</b>	211.0	13.3	1500	2.3	1930	20000	6.6	1500	1.2	2200	20000	
<b>A 50 4_232.0</b>	232.0	12.1	1500	2.1	1970	20000	6.0	1500	1.1	2200	20000	
<b>A 50 4_260.9</b>	260.9	10.7	1500	1.9	2010	20000	5.4	1500	0.95	2200	20000	
<b>A 50 4_286.8</b>	286.8	9.8	1500	1.7	2040	20000	4.9	1500	0.86	2200	20000	
<b>A 50 4_332.6</b>	332.6	8.4	1500	1.5	2080	20000	4.2	1500	0.74	2200	20000	
<b>A 50 4_365.6</b>	365.6	7.7	1500	1.4	2100	20000	3.8	1500	0.68	2200	20000	
<b>A 50 4_406.4</b>	406.4	6.9	1500	1.2	2130	20000	3.4	1500	0.61	2200	20000	
<b>A 50 4_446.8</b>	446.8	6.3	1500	1.1	2140	20000	3.1	1500	0.55	2200	20000	
<b>A 50 4_481.6</b>	481.6	5.8	1500	1.0	2160	20000	2.9	1500	0.51	2200	20000	
<b>A 50 4_529.5</b>	529.5	5.3	1500	0.93	2170	20000	2.6	1500	0.47	2200	20000	
<b>A 50 4_574.2</b>	574.2	4.9	1500	0.86	2190	20000	2.4	1500	0.43	2200	20000	
<b>A 50 4_631.2</b>	631.2	4.4	1500	0.78	2200	20000	2.2	1500	0.39	2200	20000	
<b>A 50 4_707.9</b>	707.9	4.0	1500	0.70	2200	20000	2.0	1500	0.35	2200	20000	
<b>A 50 4_778.2</b>	778.2	3.6	1500	0.63	2200	20000	1.8	1500	0.32	2200	20000	



# A 50 1500 Nm

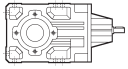

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 50 2_7.7	7.7	116	770	10.0	3430	11700	65	900	6.5	3500	14300	297
A 50 2_9.7	9.7	92	830	8.5	3490	12600	51	1000	5.7	3500	15300	
A 50 2_13.1	13.1	69	830	6.3	3500	14200	38	1000	4.2	3500	17300	
A 50 2_16.6	16.6	54	880	5.3	3500	15400	30	1000	3.4	3500	18900	
A 50 2_20.9	20.9	43	880	4.2	3500	16800	23.9	1000	2.7	3500	20000	
A 50 3_24.0	24.0	37	1500	6.5	3480	11300	20.8	1500	3.6	3500	15700	
A 50 3_26.4	26.4	34	1500	5.9	3500	12000	18.9	1500	3.3	3500	16500	
A 50 3_32.4	32.4	27.8	1500	4.8	3500	13400	15.4	1500	2.7	3500	18300	
A 50 3_35.6	35.6	25.3	1500	4.4	3500	14200	14.0	1500	2.4	3500	19200	
A 50 3_40.9	40.9	22.0	1500	3.8	3500	15300	12.2	1500	2.1	3500	20000	
A 50 3_45.0	45.0	20.0	1500	3.5	3500	16000	11.1	1500	1.9	3500	20000	
A 50 3_51.7	51.7	17.4	1500	3.0	3450	17200	9.7	1500	1.7	3500	20000	
A 50 3_56.8	56.8	15.8	1500	2.7	3500	18100	8.8	1500	1.5	3500	20000	
A 50 3_63.9	63.9	14.1	1500	2.4	3500	19200	7.8	1500	1.4	3500	20000	
A 50 3_70.2	70.2	12.8	1500	2.2	3500	20000	7.1	1500	1.2	3500	20000	
A 50 3_81.5	81.5	11.0	1500	1.9	3500	20000	6.1	1500	1.1	3500	20000	
A 50 3_89.5	89.5	10.1	1500	1.7	3500	20000	5.6	1500	0.96	3500	20000	
A 50 3_99.5	99.5	9.0	1500	1.6	3500	20000	5.0	1500	0.87	3500	20000	
A 50 3_109.4	109.4	8.2	1500	1.4	3500	20000	4.6	1500	0.79	3500	20000	
A 50 3_118.0	118.0	7.6	1500	1.3	3500	20000	4.2	1500	0.73	3500	20000	
A 50 3_129.7	129.7	6.9	1500	1.2	3500	20000	3.9	1500	0.67	3500	20000	
A 50 3_140.6	140.6	6.4	1500	1.1	3500	20000	3.6	1500	0.61	3500	20000	
A 50 3_154.6	154.6	5.8	1500	1.0	3500	20000	3.2	1500	0.56	3500	20000	
A 50 3_173.4	173.4	5.2	1500	0.90	3500	20000	2.9	1500	0.50	3500	20000	
A 50 3_190.6	190.6	4.7	1500	0.82	3500	20000	2.6	1500	0.45	3500	20000	
A 50 4_211.0	211.0	4.3	1500	0.75	2200	20000	2.4	1500	0.42	2200	20000	
A 50 4_232.0	232.0	3.9	1500	0.68	2200	20000	2.2	1500	0.38	2200	20000	
A 50 4_260.9	260.9	3.4	1500	0.61	2200	20000	1.9	1500	0.34	2200	20000	
A 50 4_286.8	286.8	3.1	1500	0.55	2200	20000	1.7	1500	0.31	2200	20000	
A 50 4_332.6	332.6	2.7	1500	0.48	2200	20000	1.5	1500	0.27	2200	20000	
A 50 4_365.6	365.6	2.5	1500	0.43	2200	20000	1.4	1500	0.24	2200	20000	
A 50 4_406.4	406.4	2.2	1500	0.39	2200	20000	1.2	1500	0.22	2200	20000	
A 50 4_446.8	446.8	2.0	1500	0.36	2200	20000	1.1	1500	0.20	2200	20000	
A 50 4_481.6	481.6	1.9	1500	0.33	2200	20000	1.0	1500	0.18	2200	20000	
A 50 4_529.5	529.5	1.7	1500	0.30	2200	20000	0.94	1500	0.17	2200	20000	
A 50 4_574.2	574.2	1.6	1500	0.28	2200	20000	0.87	1500	0.15	2200	20000	
A 50 4_631.2	631.2	1.4	1500	0.25	2200	20000	0.79	1500	0.14	2200	20000	
A 50 4_707.9	707.9	1.3	1500	0.22	2200	20000	0.71	1500	0.12	2200	20000	
A 50 4_778.2	778.2	1.2	1500	0.20	2200	20000	0.64	1500	0.11	2200	20000	





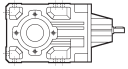

# A 55

# 2000 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 55 2_4.9</b>	4.9	571	760	48	1320	15100	286	900	28	2150	18700	301
<b>A 55 2_6.4</b>	6.4	438	800	39	1950	16400	219	950	23	2860	20300	
<b>A 55 2_8.5</b>	8.5	329	800	30	2810	18000	165	950	17.5	3500	22200	
<b>A 55 2_10.4</b>	10.4	269	840	25	2900	19100	135	1000	15.1	3500	23600	
<b>A 55 2_13.1</b>	13.1	214	840	20	3230	20600	107	1000	11.9	3500	25500	
<b>A 55 2_15.7</b>	15.7	178	840	16.7	3440	21900	89	1000	9.9	3500	27000	
<b>A 55 2_19.2</b>	19.2	146	925	15.0	3160	23200	73	1100	8.9	3500	28600	
<b>A 55 3_23.8</b>	23.8	118	1600	22	2050	21000	59	1950	13.2	2640	26000	
<b>A 55 3_29.9</b>	29.9	94	1700	18.3	2110	22500	47	2000	10.8	2770	28200	
<b>A 55 3_40.3</b>	40.3	69	1850	14.8	2150	24800	35	2000	8.0	2930	30000	
<b>A 55 3_51.0</b>	51.0	55	2000	12.6	2170	26500	27.5	2000	6.3	3050	30000	
<b>A 55 3_64.3</b>	64.3	44	2000	10.0	2230	29000	21.8	2000	5.0	3110	30000	
<b>A 55 3_79.5</b>	79.5	35	2000	8.1	1040	30000	17.6	2000	4.1	2820	30000	
<b>A 55 3_101.4</b>	101.4	27.6	2000	6.4	1340	30000	13.8	2000	3.2	3130	30000	
<b>A 55 3_123.9</b>	123.9	22.6	2000	5.2	1450	30000	11.3	2000	2.6	3230	30000	
<b>A 55 3_132.7</b>	132.7	21.1	2000	4.9	1450	30000	10.6	2000	2.4	3240	30000	
<b>A 55 3_146.8</b>	146.8	19.1	2000	4.4	1610	30000	9.5	2000	2.2	3290	30000	
<b>A 55 3_160.4</b>	160.4	17.5	2000	4.0	1660	30000	8.7	2000	2.0	3300	30000	
<b>A 55 3_175.0</b>	175.0	16.0	2000	3.7	1660	30000	8.0	2000	1.8	3300	30000	
<b>A 55 3_194.2</b>	194.2	14.4	2000	3.3	1710	30000	7.2	2000	1.7	3310	30000	
<b>A 55 4_208.1</b>	208.1	13.5	1600	2.5	1890	30000	6.7	1950	1.5	2200	30000	
<b>A 55 4_262.6</b>	262.6	10.7	1650	2.1	1980	30000	5.3	2000	1.3	2200	30000	
<b>A 55 4_324.7</b>	324.7	8.6	1750	1.8	2030	30000	4.3	2000	1.0	2200	30000	
<b>A 55 4_414.0</b>	414.0	6.8	1850	1.5	2080	30000	3.4	2000	0.80	2200	30000	
<b>A 55 4_505.9</b>	505.9	5.5	1900	1.2	2120	30000	2.8	2000	0.65	2200	30000	
<b>A 55 4_542.0</b>	542.0	5.2	1900	1.2	2140	30000	2.6	2000	0.61	2200	30000	
<b>A 55 4_599.5</b>	599.5	4.7	1950	1.1	2150	30000	2.3	2000	0.55	2200	30000	
<b>A 55 4_655.1</b>	655.1	4.3	1950	1.0	2180	30000	2.1	2000	0.50	2200	30000	
<b>A 55 4_714.7</b>	714.7	3.9	1950	0.90	2200	30000	2.0	2000	0.46	2200	30000	
<b>A 55 4_793.0</b>	793.0	3.5	2000	0.83	2200	30000	1.8	2000	0.42	2200	30000	

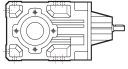



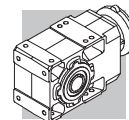
# A 55 2000 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 55 2_4.9	4.9	184	1000	20	2850	21400	102	1160	13.1	3500	25600	301
A 55 2_6.4	6.4	141	1060	16.6	3500	23200	78	1230	10.7	3500	27700	
A 55 2_8.5	8.5	106	1060	12.6	3500	25400	59	1230	8.1	3500	30000	
A 55 2_10.4	10.4	87	1120	10.8	3500	27000	48	1290	6.9	3500	30000	
A 55 2_13.1	13.1	69	1120	8.6	3500	29100	38	1290	5.5	3500	30000	
A 55 2_15.7	15.7	57	1120	7.2	3500	30000	32	1290	4.6	3500	30000	
A 55 2_19.2	19.2	47	1230	6.4	3500	30000	26.0	1420	4.1	3500	30000	
A 55 3_23.8	23.8	38	2000	8.7	3280	30000	21.0	2000	4.8	3500	30000	
A 55 3_29.9	29.9	30	2000	6.9	3450	30000	16.7	2000	3.8	3500	30000	
A 55 3_40.3	40.3	22.3	2000	5.1	3500	30000	12.4	2000	2.9	3500	30000	
A 55 3_51.0	51.0	17.6	2000	4.1	3500	30000	9.8	2000	2.3	3500	30000	
A 55 3_64.3	64.3	14.0	2000	3.2	3500	30000	7.8	2000	1.8	3500	30000	
A 55 3_79.5	79.5	11.3	2000	2.6	3500	30000	6.3	2000	1.4	3500	30000	
A 55 3_101.4	101.4	8.9	2000	2.0	3500	30000	4.9	2000	1.1	3500	30000	
A 55 3_123.9	123.9	7.3	2000	1.7	3500	30000	4.0	2000	0.93	3500	30000	
A 55 3_132.7	132.7	6.8	2000	1.6	3500	30000	3.8	2000	0.87	3500	30000	
A 55 3_146.8	146.8	6.1	2000	1.4	3500	30000	3.4	2000	0.78	3500	30000	
A 55 3_160.4	160.4	5.6	2000	1.3	3500	30000	3.1	2000	0.72	3500	30000	
A 55 3_175.0	175.0	5.1	2000	1.2	3500	30000	2.9	2000	0.66	3500	30000	
A 55 3_194.2	194.2	4.6	2000	1.1	3500	30000	2.6	2000	0.59	3500	30000	
A 55 4_208.1	208.1	4.3	2000	1.0	2200	30000	2.4	2000	0.57	2200	30000	
A 55 4_262.6	262.6	3.4	2000	0.81	2200	30000	1.9	2000	0.45	2200	30000	
A 55 4_324.7	324.7	2.8	2000	0.65	2200	30000	1.5	2000	0.36	2200	30000	
A 55 4_414.0	414.0	2.2	2000	0.51	2200	30000	1.2	2000	0.28	2200	30000	
A 55 4_505.9	505.9	1.8	2000	0.42	2200	30000	1.0	2000	0.23	2200	30000	
A 55 4_542.0	542.0	1.7	2000	0.39	2200	30000	0.92	2000	0.22	2200	30000	
A 55 4_599.5	599.5	1.5	2000	0.35	2200	30000	0.83	2000	0.20	2200	30000	
A 55 4_655.1	655.1	1.4	2000	0.32	2200	30000	0.76	2000	0.18	2200	30000	
A 55 4_714.7	714.7	1.3	2000	0.30	2200	30000	0.70	2000	0.16	2200	30000	
A 55 4_793.0	793.0	1.1	2000	0.27	2200	30000	0.63	2000	0.15	2200	30000	

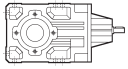



# A 60 2800 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 60 2_7.9</b>	7.9	356	950	38	2770	22500	178	1200	24	3400	27700	305
<b>A 60 2_10.3</b>	10.3	271	950	29	2970	24600	136	1200	18.1	3740	30000	
<b>A 60 2_12.7</b>	12.7	220	1000	25	3020	26200	110	1250	15.3	3810	30000	
<b>A 60 2_16.7</b>	16.7	167	1050	19.6	3080	28600	84	1300	12.1	3910	30000	
<b>A 60 2_20.6</b>	20.6	136	1100	16.7	3100	30000	68	1400	10.6	3890	30000	
<b>A 60 3_25.7</b>	25.7	109	2760	35	2380	26900	54	2800	17.5	3800	30000	
<b>A 60 3_27.9</b>	27.9	101	2800	32	2780	27700	50	2800	16.2	3930	30000	
<b>A 60 3_31.7</b>	31.7	88	2800	29	2790	29000	44	2800	14.2	3940	30000	
<b>A 60 3_34.3</b>	34.3	82	2800	26	2920	30000	41	2800	13.2	4060	30000	
<b>A 60 3_41.7</b>	41.7	67	2800	22	2940	30000	34	2800	10.8	4090	30000	
<b>A 60 3_45.2</b>	45.2	62	2800	20	3060	30000	31	2800	10.0	4200	30000	
<b>A 60 3_51.3</b>	51.3	55	2800	17.6	3030	30000	27.3	2800	8.8	4180	30000	
<b>A 60 3_55.6</b>	55.6	50	2800	16.2	3140	30000	25.2	2800	8.1	4280	30000	
<b>A 60 3_65.0</b>	65.0	43	2800	13.9	3110	30000	21.5	2800	6.9	4260	30000	
<b>A 60 3_70.4</b>	70.4	40	2800	12.8	3210	30000	19.9	2800	6.4	4360	30000	
<b>A 60 3_79.7</b>	79.7	35	2800	11.3	3160	30000	17.6	2800	5.7	4310	30000	
<b>A 60 3_86.4</b>	86.4	32	2800	10.4	3260	30000	16.2	2800	5.2	4410	30000	
<b>A 60 3_99.5</b>	99.5	28.1	2800	9.1	3210	30000	14.1	2800	4.5	4360	30000	
<b>A 60 3_107.8</b>	107.8	26.0	2800	8.4	3300	30000	13.0	2800	4.2	4450	30000	
<b>A 60 3_123.0</b>	123.0	22.8	2800	7.3	3250	30000	11.4	2800	3.7	4400	30000	
<b>A 60 3_133.3</b>	133.3	21.0	2800	6.8	3340	30000	10.5	2800	3.4	4490	30000	
<b>A 60 3_144.0</b>	144.0	19.4	2800	6.3	3280	30000	9.7	2800	3.1	4420	30000	
<b>A 60 3_156.0</b>	156.0	17.9	2800	5.8	3360	30000	9.0	2800	2.9	4510	30000	
<b>A 60 3_171.5</b>	171.5	16.3	2800	5.3	3290	30000	8.2	2800	2.6	4430	30000	
<b>A 60 3_185.8</b>	185.8	15.1	2800	4.9	3370	30000	7.5	2800	2.4	4520	30000	
<b>A 60 4_208.7</b>	208.7	13.4	2800	4.4	2720	30000	6.7	2800	2.2	3500	30000	
<b>A 60 4_226.1</b>	226.1	12.4	2800	4.1	2770	30000	6.2	2800	2.0	3500	30000	
<b>A 60 4_264.3</b>	264.3	10.6	2800	3.5	2860	30000	5.3	2800	1.7	3500	30000	
<b>A 60 4_286.3</b>	286.3	9.8	2800	3.2	2900	30000	4.9	2800	1.6	3500	30000	
<b>A 60 4_324.2</b>	324.2	8.6	2800	2.8	2960	30000	4.3	2800	1.4	3500	30000	
<b>A 60 4_351.2</b>	351.2	8.0	2800	2.6	2990	30000	4.0	2800	1.3	3500	30000	
<b>A 60 4_404.7</b>	404.7	6.9	2800	2.3	3050	30000	3.5	2800	1.1	3500	30000	
<b>A 60 4_438.4</b>	438.4	6.4	2800	2.1	3070	30000	3.2	2800	1.1	3500	30000	
<b>A 60 4_500.3</b>	500.3	5.6	2800	1.8	3110	30000	2.8	2800	0.92	3500	30000	
<b>A 60 4_542.0</b>	542.0	5.2	2800	1.7	3140	30000	2.6	2800	0.85	3500	30000	
<b>A 60 4_585.8</b>	585.8	4.8	2800	1.6	3150	30000	2.4	2800	0.79	3500	30000	
<b>A 60 4_634.6</b>	634.6	4.4	2800	1.5	3170	30000	2.2	2800	0.73	3500	30000	
<b>A 60 4_697.3</b>	697.3	4.0	2800	1.3	3190	30000	2.0	2800	0.66	3500	30000	
<b>A 60 4_755.4</b>	755.4	3.7	2800	1.2	3210	30000	1.9	2800	0.61	3500	30000	

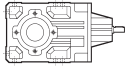



# A 60 2800 Nm

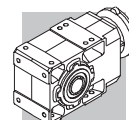
	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 60 2_7.9</b>	7.9	114	1300	16.6	4190	30000	64	1550	11.0	4700	30000	305
<b>A 60 2_10.3</b>	10.3	87	1300	12.6	4470	30000	48	1550	8.4	4700	30000	
<b>A 60 2_12.7</b>	12.7	71	1400	11.0	4490	30000	39	1700	7.5	4700	30000	
<b>A 60 2_16.7</b>	16.7	54	1450	8.7	4610	30000	29.9	1700	5.7	4700	30000	
<b>A 60 2_20.6</b>	20.6	44	1550	7.5	4600	30000	24.3	1800	4.9	4700	30000	
<b>A 60 3_25.7</b>	25.7	35	2800	11.3	4680	30000	19.4	2800	6.3	4700	30000	
<b>A 60 3_27.9</b>	27.9	32	2800	10.4	4700	30000	18.0	2800	5.8	4700	30000	
<b>A 60 3_31.7</b>	31.7	28.4	2800	9.2	4700	30000	15.8	2800	5.1	4700	30000	
<b>A 60 3_34.3</b>	34.3	26.2	2800	8.5	4700	30000	14.6	2800	4.7	4700	30000	
<b>A 60 3_41.7</b>	41.7	21.6	2800	7.0	4700	30000	12.0	2800	3.9	4700	30000	
<b>A 60 3_45.2</b>	45.2	19.9	2800	6.4	4700	30000	11.1	2800	3.6	4700	30000	
<b>A 60 3_51.3</b>	51.3	17.5	2800	5.6	4700	30000	9.7	2800	3.1	4700	30000	
<b>A 60 3_55.6</b>	55.6	16.2	2800	5.2	4700	30000	9.0	2800	2.9	4700	30000	
<b>A 60 3_65.0</b>	65.0	13.8	2800	4.5	4700	30000	7.7	2800	2.5	4700	30000	
<b>A 60 3_70.4</b>	70.4	12.8	2800	4.1	4700	30000	7.1	2800	2.3	4700	30000	
<b>A 60 3_79.7</b>	79.7	11.3	2800	3.6	4700	30000	6.3	2800	2.0	4700	30000	
<b>A 60 3_86.4</b>	86.4	10.4	2800	3.4	4700	30000	5.8	2800	1.9	4700	30000	
<b>A 60 3_99.5</b>	99.5	9.0	2800	2.9	4700	30000	5.0	2800	1.6	4700	30000	
<b>A 60 3_107.8</b>	107.8	8.3	2800	2.7	4700	30000	4.6	2800	1.5	4700	30000	
<b>A 60 3_123.0</b>	123.0	7.3	2800	2.4	4700	30000	4.1	2800	1.3	4700	30000	
<b>A 60 3_133.3</b>	133.3	6.8	2800	2.2	4700	30000	3.8	2800	1.2	4700	30000	
<b>A 60 3_144.0</b>	144.0	6.2	2800	2.0	4700	30000	3.5	2800	1.1	4700	30000	
<b>A 60 3_156.0</b>	156.0	5.8	2800	1.9	4700	30000	3.2	2800	1.0	4700	30000	
<b>A 60 3_171.5</b>	171.5	5.2	2800	1.7	4700	30000	2.9	2800	0.94	4700	30000	
<b>A 60 3_185.8</b>	185.8	4.8	2800	1.6	4700	30000	2.7	2800	0.87	4700	30000	
<b>A 60 4_208.7</b>	208.7	4.3	2800	1.4	3500	30000	2.4	2800	0.79	3500	30000	
<b>A 60 4_226.1</b>	226.1	4.0	2800	1.3	3500	30000	2.2	2800	0.73	3500	30000	
<b>A 60 4_264.3</b>	264.3	3.4	2800	1.1	3500	30000	1.9	2800	0.62	3500	30000	
<b>A 60 4_286.3</b>	286.3	3.1	2800	1.0	3500	30000	1.7	2800	0.58	3500	30000	
<b>A 60 4_324.2</b>	324.2	2.8	2800	0.91	3500	30000	1.5	2800	0.51	3500	30000	
<b>A 60 4_351.2</b>	351.2	2.6	2800	0.84	3500	30000	1.4	2800	0.47	3500	30000	
<b>A 60 4_404.7</b>	404.7	2.2	2800	0.73	3500	30000	1.2	2800	0.41	3500	30000	
<b>A 60 4_438.4</b>	438.4	2.1	2800	0.68	3500	30000	1.1	2800	0.38	3500	30000	
<b>A 60 4_500.3</b>	500.3	1.8	2800	0.59	3500	30000	1.0	2800	0.33	3500	30000	
<b>A 60 4_542.0</b>	542.0	1.7	2800	0.55	3500	30000	0.92	2800	0.30	3500	30000	
<b>A 60 4_585.8</b>	585.8	1.5	2800	0.51	3500	30000	0.85	2800	0.28	3500	30000	
<b>A 60 4_634.6</b>	634.6	1.4	2800	0.47	3500	30000	0.79	2800	0.26	3500	30000	
<b>A 60 4_697.3</b>	697.3	1.3	2800	0.43	3500	30000	0.72	2800	0.24	3500	30000	
<b>A 60 4_755.4</b>	755.4	1.2	2800	0.39	3500	30000	0.66	2800	0.22	3500	30000	



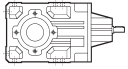

# A 70 5000 Nm

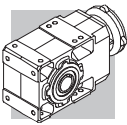
	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 70 3_9.4	9.4	297	2300	79	1900	25900	148	2800	48	2550	31900	
A 70 3_10.2	10.2	274	2400	76	2480	26400	137	3200	50	1480	31900	
A 70 3_12.1	12.1	232	2400	64	2420	28000	116	3200	43	1400	33900	
A 70 3_13.1	13.1	214	2600	64	2420	28400	107	3350	41	2100	34600	
A 70 3_15.4	15.4	182	2700	56	2100	29900	91	3350	35	2430	36700	
A 70 3_16.7	16.7	168	2850	55	2500	30400	84	3600	35	2590	37200	
A 70 3_19.7	19.7	142	2900	48	2030	32100	71	3700	30	1790	39300	
A 70 3_21.3	21.3	131	3000	45	2750	32900	66	4000	30	1830	39800	
A 70 3_23.5	23.5	119	3500	48	4930	32900	60	4300	30	6250	40500	
A 70 3_27.8	27.8	101	3450	40	4960	35100	50	4200	24	6300	43300	
A 70 3_30.1	30.1	93	3700	40	4970	35600	47	4550	24	6300	43900	
A 70 3_35.4	35.4	79	3650	33	5040	37900	40	4500	21	6370	46600	
A 70 3_38.4	38.4	73	3950	33	5040	38400	36	4850	20	6380	47300	
A 70 3_45.2	45.2	62	3900	28	5050	40800	31	4800	17.1	6400	50000	
A 70 3_49.0	49.0	57	4250	28	5050	41300	28.6	5000	16.4	6450	50000	
A 70 3_53.2	53.2	53	4100	25	5030	42900	26.3	5000	15.1	6380	50000	
A 70 3_57.7	57.7	49	4450	25	5030	43400	24.3	5000	14.0	6490	50000	
A 70 3_66.9	66.9	42	4350	21	5050	46000	20.9	5000	12.0	6480	50000	
A 70 3_72.5	72.5	39	4750	21	5040	46500	19.3	5000	11.1	6580	50000	
A 70 3_79.3	79.3	35	4600	18.7	5020	48400	17.6	5000	10.2	6520	50000	
A 70 3_85.9	85.9	33	4950	18.6	5030	49100	16.3	5000	9.4	6620	50000	
A 70 3_96.2	96.2	29.1	4850	16.2	5000	50000	14.6	5000	8.4	6570	50000	
A 70 3_104.2	104.2	26.9	5000	15.5	5060	50000	13.4	5000	7.7	6660	50000	
A 70 3_120.6	120.6	23.2	5000	13.4	5010	50000	11.6	5000	6.7	6610	50000	
A 70 3_130.7	130.7	21.4	5000	12.3	5100	50000	10.7	5000	6.2	6690	50000	
A 70 3_141.9	141.9	19.7	5000	11.4	5040	50000	9.9	5000	5.7	6640	50000	
A 70 3_153.7	153.7	18.2	3300	6.9	5410	50000	9.1	4050	4.2	6920	50000	
A 70 4_169.8	169.8	16.5	5000	9.7	1130	50000	8.2	5000	4.9	2520	50000	
A 70 4_183.9	183.9	15.2	5000	9.0	1450	50000	7.6	5000	4.5	2670	50000	
A 70 4_220.3	220.3	12.7	5000	7.5	1560	50000	6.4	5000	3.7	2710	50000	
A 70 4_238.6	238.6	11.7	5000	6.9	1860	50000	5.9	5000	3.5	2770	50000	
A 70 4_292.0	292.0	9.6	5000	5.6	1900	50000	4.8	5000	2.8	2790	50000	
A 70 4_316.4	316.4	8.9	5000	5.2	2110	50000	4.4	5000	2.6	2850	50000	
A 70 4_369.4	369.4	7.6	5000	4.5	2110	50000	3.8	5000	2.2	2840	50000	
A 70 4_400.2	400.2	7.0	5000	4.1	2160	50000	3.5	5000	2.1	2900	50000	
A 70 4_475.8	475.8	5.9	5000	3.5	2150	50000	2.9	5000	1.7	2890	50000	
A 70 4_515.4	515.4	5.4	5000	3.2	2200	50000	2.7	5000	1.6	2940	50000	
A 70 4_595.0	595.0	4.7	5000	2.8	2190	50000	2.4	5000	1.4	2920	50000	
A 70 4_644.6	644.6	4.3	5000	2.6	2230	50000	2.2	5000	1.3	2970	50000	
A 70 4_705.1	705.1	4.0	5000	2.3	2200	50000	2.0	5000	1.2	2940	50000	
A 70 4_763.9	763.9	3.7	5000	2.2	2250	50000	1.8	5000	1.1	2990	50000	
A 70 4_855.3	855.3	3.3	5000	1.9	2220	50000	1.6	5000	0.96	2960	50000	
A 70 4_926.5	926.5	3.0	5000	1.8	2270	50000	1.5	5000	0.89	3000	50000	
A 70 4_1072	1072	2.6	5000	1.5	2240	50000	1.3	5000	0.77	2970	50000	
A 70 4_1161	1161	2.4	5000	1.4	2280	50000	1.2	5000	0.71	3020	50000	
A 70 4_1242	1242	2.3	5000	1.3	2250	50000	1.1	5000	0.66	2980	50000	
A 70 4_1346	1346	2.1	5000	1.2	2290	50000	1.0	5000	0.61	3030	50000	
A 70 4_1583	1583	1.8	5000	1.0	2260	50000	0.88	5000	0.52	2990	50000	
A 70 4_1715	1715	1.6	5000	0.96	2300	50000	0.82	5000	0.48	3040	50000	

309



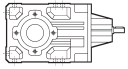

# A 70 5000 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 70 3_9.4	9.4	95	3000	33	4290	36900	53	3000	18.3	7000	45400	309
A 70 3_10.2	10.2	88	3250	33	4290	37400	49	3250	18.3	7000	46100	
A 70 3_12.1	12.1	75	3650	31	1620	38700	41	3650	17.4	6470	47900	
A 70 3_13.1	13.1	69	3950	31	1650	39200	38	3950	17.4	6500	48600	
A 70 3_15.4	15.4	58	3700	25	3510	42200	32	3700	13.8	7000	50000	
A 70 3_16.7	16.7	54	4000	25	3560	42800	30	4000	13.8	7000	50000	
A 70 3_19.7	19.7	46	3700	19.5	4910	46100	25.4	3700	10.8	7000	50000	
A 70 3_21.3	21.3	42	4000	19.4	4950	46800	23.5	4000	10.8	7000	50000	
A 70 3_23.5	23.5	38	4900	21.6	7000	46300	21.3	5000	12.2	7000	50000	
A 70 3_27.8	27.8	32	4800	17.9	7000	49400	18.0	5000	10.4	7000	50000	
A 70 3_30.1	30.1	29.9	5000	17.2	7000	50000	16.6	5000	9.6	7000	50000	
A 70 3_35.4	35.4	25.4	5000	14.6	7000	50000	14.1	5000	8.1	7000	50000	
A 70 3_38.4	38.4	23.4	5000	13.5	7000	50000	13.0	5000	7.5	7000	50000	
A 70 3_45.2	45.2	19.9	5000	11.4	7000	50000	11.1	5000	6.4	7000	50000	
A 70 3_49.0	49.0	18.4	5000	10.6	7000	50000	10.2	5000	5.9	7000	50000	
A 70 3_53.2	53.2	16.9	5000	9.7	7000	50000	9.4	5000	5.4	7000	50000	
A 70 3_57.7	57.7	15.6	5000	9.0	7000	50000	8.7	5000	5.0	7000	50000	
A 70 3_66.9	66.9	13.4	5000	7.7	7000	50000	7.5	5000	4.3	7000	50000	
A 70 3_72.5	72.5	12.4	5000	7.1	7000	50000	6.9	5000	4.0	7000	50000	
A 70 3_79.3	79.3	11.3	5000	6.5	7000	50000	6.3	5000	3.6	7000	50000	
A 70 3_85.9	85.9	10.5	5000	6.0	7000	50000	5.8	5000	3.3	7000	50000	
A 70 3_96.2	96.2	9.4	5000	5.4	7000	50000	5.2	5000	3.0	7000	50000	
A 70 3_104.2	104.2	8.6	5000	5.0	7000	50000	4.8	5000	2.8	7000	50000	
A 70 3_120.6	120.6	7.5	5000	4.3	7000	50000	4.1	5000	2.4	7000	50000	
A 70 3_130.7	130.7	6.9	5000	4.0	7000	50000	3.8	5000	2.2	7000	50000	
A 70 3_141.9	141.9	6.3	5000	3.7	7000	50000	3.5	5000	2.0	7000	50000	
A 70 3_153.7	153.7	5.9	4600	3.1	7000	50000	3.3	5000	1.9	7000	50000	
A 70 4_169.8	169.8	5.3	5000	3.1	3170	50000	2.9	5000	1.7	3500	50000	
A 70 4_183.9	183.9	4.9	5000	2.9	3240	50000	2.7	5000	1.6	3500	50000	
A 70 4_220.3	220.3	4.1	5000	2.4	3270	50000	2.3	5000	1.3	3500	50000	
A 70 4_238.6	238.6	3.8	5000	2.2	3340	50000	2.1	5000	1.2	3500	50000	
A 70 4_292.0	292.0	3.1	5000	1.8	3350	50000	1.7	5000	1.0	3500	50000	
A 70 4_316.4	316.4	2.8	5000	1.7	3410	50000	1.6	5000	0.93	3500	50000	
A 70 4_369.4	369.4	2.4	5000	1.4	3410	50000	1.4	5000	0.80	3500	50000	
A 70 4_400.2	400.2	2.2	5000	1.3	3460	50000	1.2	5000	0.74	3500	50000	
A 70 4_475.8	475.8	1.9	5000	1.1	3450	50000	1.1	5000	0.62	3500	50000	
A 70 4_515.4	515.4	1.7	5000	1.0	3500	50000	0.97	5000	0.57	3500	50000	
A 70 4_595.0	595.0	1.5	5000	0.89	3480	50000	0.84	5000	0.49	3500	50000	
A 70 4_644.6	644.6	1.4	5000	0.82	3500	50000	0.78	5000	0.46	3500	50000	
A 70 4_705.1	705.1	1.3	5000	0.75	3500	50000	0.71	5000	0.42	3500	50000	
A 70 4_763.9	763.9	1.2	5000	0.69	3500	50000	0.65	5000	0.39	3500	50000	
A 70 4_855.3	855.3	1.1	5000	0.62	3500	50000	0.58	5000	0.34	3500	50000	
A 70 4_926.5	926.5	0.97	5000	0.57	3500	50000	0.54	5000	0.32	3500	50000	
A 70 4_1072	1072	0.84	5000	0.49	3500	50000	0.47	5000	0.27	3500	50000	
A 70 4_1161	1161	0.77	5000	0.46	3500	50000	0.43	5000	0.25	3500	50000	
A 70 4_1242	1242	0.72	5000	0.43	3500	50000	0.40	5000	0.24	3500	50000	
A 70 4_1346	1346	0.67	5000	0.39	3500	50000	0.37	5000	0.22	3500	50000	
A 70 4_1583	1583	0.57	5000	0.33	3500	50000	0.32	5000	0.19	3500	50000	
A 70 4_1715	1715	0.52	5000	0.31	3500	50000	0.29	5000	0.17	3500	50000	



# A 80

# 8000 Nm

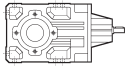

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 80 3_9.8	9.8	285	3100	102	—	26300	142	3900	64	—	32100	312
A 80 3_10.7	10.7	263	3450	104	—	26300	131	4300	65	—	32300	
A 80 3_12.3	12.3	228	3450	91	—	27700	114	4300	56	—	34000	
A 80 3_13.3	13.3	211	3450	84	1150	28700	105	4300	52	1150	35200	
A 80 3_15.5	15.5	181	3300	69	1560	30600	91	4100	43	1730	37600	
A 80 3_16.7	16.7	167	3600	69	1440	30900	84	4500	43	1460	37900	
A 80 3_19.3	19.3	145	3500	58	1870	32800	72	4400	37	1880	40200	
A 80 3_20.9	20.9	134	3840	59	1670	33100	67	4800	37	1740	40600	
A 80 3_22.6	22.6	124	5050	72	4500	31200	62	6250	45	5830	38400	
A 80 3_24.5	24.5	114	5500	72	4470	31300	57	6750	44	5840	38600	
A 80 3_28.2	28.2	99	5350	61	4700	33500	50	6600	38	5960	41200	
A 80 3_30.6	30.6	92	5250	55	4840	34900	46	6450	34	6140	43000	
A 80 3_35.5	35.5	79	5700	52	4700	36000	39	7000	32	6000	44300	
A 80 3_38.5	38.5	73	6150	51	4720	36200	36	7600	32	6000	44500	
A 80 3_44.5	44.5	63	6050	44	4790	38600	31	7450	27	6070	47500	
A 80 3_48.2	48.2	58	6550	44	4790	38800	29.1	8000	27	6090	47900	
A 80 3_55.2	55.2	51	6400	37	4710	41300	25.4	7900	23	6050	50800	
A 80 3_59.8	59.8	47	6950	37	4690	41500	23.4	8000	22	6170	52300	
A 80 3_66.8	66.8	42	6800	33	4670	43700	21.0	8000	19.3	6150	54600	
A 80 3_72.4	72.4	39	7350	33	4680	44000	19.3	8000	17.8	6280	56500	
A 80 3_82.3	82.3	34	7200	28	4570	46600	17.0	8000	15.7	6230	59300	
A 80 3_89.2	89.2	31	7800	28	4570	46900	15.7	8000	14.5	6350	61400	
A 80 3_96.0	96.0	29.2	7500	25	4410	48900	14.6	8000	13.4	6260	63000	
A 80 3_104.0	104.0	26.9	8000	25	4500	49500	13.5	8000	12.4	6380	65000	
A 80 3_116.0	116.0	24.1	7950	22	4230	51700	12.1	8000	11.1	6300	65000	
A 80 3_125.6	125.6	22.3	8000	21	4630	53400	11.1	8000	10.3	6420	65000	
A 80 3_144.7	144.7	19.3	8000	17.8	4320	56400	9.7	8000	8.9	6350	65000	
A 80 3_156.8	156.8	17.9	8000	16.4	4750	58300	8.9	8000	8.2	6460	65000	
A 80 4_171.3	171.3	16.3	8000	15.4	—	65000	8.2	8000	7.7	1230	65000	
A 80 4_214.7	214.7	13.0	8000	12.3	—	65000	6.5	8000	6.1	1400	65000	
A 80 4_232.6	232.6	12.0	8000	11.3	—	65000	6.0	8000	5.7	1810	65000	
A 80 4_277.3	277.3	10.1	8000	9.5	540	65000	5.0	8000	4.8	1930	65000	
A 80 4_300.4	300.4	9.3	8000	8.8	900	65000	4.7	8000	4.4	2290	65000	
A 80 4_354.0	354.0	7.9	8000	7.4	800	65000	4.0	8000	3.7	2190	65000	
A 80 4_383.5	383.5	7.3	8000	6.9	1140	65000	3.7	8000	3.4	2530	65000	
A 80 4_442.1	442.1	6.3	8000	6.0	1040	65000	3.2	8000	3.0	2430	65000	
A 80 4_478.9	478.9	5.8	8000	5.5	1370	65000	2.9	8000	2.8	2670	65000	
A 80 4_560.5	560.5	5.0	8000	4.7	1240	65000	2.5	8000	2.4	2630	65000	
A 80 4_607.2	607.2	4.6	8000	4.3	1550	65000	2.3	8000	2.2	2720	65000	
A 80 4_703.5	703.5	4.0	8000	3.7	1440	65000	2.0	8000	1.9	2690	65000	
A 80 4_762.1	762.1	3.7	8000	3.5	1730	65000	1.8	8000	1.7	2760	65000	
A 80 4_829.5	829.5	3.4	8000	3.2	1530	65000	1.7	8000	1.6	2720	65000	
A 80 4_898.7	898.7	3.1	8000	2.9	1820	65000	1.6	8000	1.5	2780	65000	
A 80 4_1001	1001	2.8	8000	2.6	1620	65000	1.4	8000	1.3	2740	65000	
A 80 4_1085	1085	2.6	8000	2.4	1900	65000	1.3	8000	1.2	2800	65000	
A 80 4_1237	1237	2.3	8000	2.1	1660	65000	1.1	8000	1.1	2750	65000	
A 80 4_1340	1340	2.1	8000	2.0	1940	65000	1.0	8000	0.98	2810	65000	
A 80 4_1438	1438	1.9	8000	1.8	1730	65000	0.97	8000	0.92	2770	65000	
A 80 4_1558	1558	1.8	8000	1.7	2000	65000	0.90	8000	0.85	2830	65000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





# A 80 8000 Nm

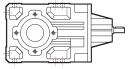

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 80 3_9.8	9.8	92	4450	47	—	36700	51	5300	31	—	43800	
A 80 3_10.7	10.7	84	4900	48	—	36900	47	5850	32	—	44000	
A 80 3_12.3	12.3	73	4900	41	—	38900	41	5850	27	—	46400	
A 80 3_13.3	13.3	68	4900	38	1360	40200	38	5850	25	1600	47900	
A 80 3_15.5	15.5	58	4650	31	2130	43000	32	5550	21	2530	51300	
A 80 3_16.7	16.7	54	5100	32	1840	43400	29.9	6100	21	2120	51700	
A 80 3_19.3	19.3	47	5000	27	2260	46000	25.9	6000	17.9	2530	54800	
A 80 3_20.9	20.9	43	5470	27	2030	46400	23.9	6500	17.9	2530	55400	
A 80 3_22.6	22.6	40	7100	33	6810	43900	22.1	8000	20.4	7000	53400	
A 80 3_24.5	24.5	37	7700	33	6800	44100	20.4	8000	18.8	7000	55300	
A 80 3_28.2	28.2	32	7550	28	6940	47000	17.7	8000	16.3	7000	58400	
A 80 3_30.6	30.6	29.4	7400	25	7000	49000	16.4	8000	15.1	7000	60400	
A 80 3_35.5	35.5	25.3	8000	23	6980	50600	14.1	8000	13.0	7000	63900	
A 80 3_38.5	38.5	23.4	8000	22	7000	52400	13.0	8000	12.0	7000	65000	
A 80 3_44.5	44.5	20.2	8000	18.6	7000	55400	11.2	8000	10.3	7000	65000	
A 80 3_48.2	48.2	18.7	8000	17.2	7000	57300	10.4	8000	9.6	7000	65000	
A 80 3_55.2	55.2	16.3	8000	15.0	7000	60300	9.1	8000	8.3	7000	65000	
A 80 3_59.8	59.8	15.1	8000	13.9	7000	62300	8.4	8000	7.7	7000	65000	
A 80 3_66.8	66.8	13.5	8000	12.4	7000	65000	7.5	8000	6.9	7000	65000	
A 80 3_72.4	72.4	12.4	8000	11.4	7000	65000	6.9	8000	6.4	7000	65000	
A 80 3_82.3	82.3	10.9	8000	10.1	7000	65000	6.1	8000	5.6	7000	65000	
A 80 3_89.2	89.2	10.1	8000	9.3	7000	65000	5.6	8000	5.2	7000	65000	
A 80 3_96.0	96.0	9.4	8000	8.6	7000	65000	5.2	8000	4.8	7000	65000	
A 80 3_104.0	104.0	8.7	8000	8.0	7000	65000	4.8	8000	4.4	7000	65000	
A 80 3_116.0	116.0	7.8	8000	7.1	7000	65000	4.3	8000	4.0	7000	65000	
A 80 3_125.6	125.6	7.2	8000	6.6	7000	65000	4.0	8000	3.7	7000	65000	
A 80 3_144.7	144.7	6.2	8000	5.7	7000	65000	3.5	8000	3.2	7000	65000	
A 80 3_156.8	156.8	5.7	8000	5.3	7000	65000	3.2	8000	2.9	7000	65000	
A 80 4_171.3	171.3	5.3	8000	4.9	2300	65000	2.9	8000	2.7	3500	65000	
A 80 4_214.7	214.7	4.2	8000	3.9	2470	65000	2.3	8000	2.2	3500	65000	
A 80 4_232.6	232.6	3.9	8000	3.6	2870	65000	2.1	8000	2.0	3500	65000	
A 80 4_277.3	277.3	3.2	8000	3.1	3000	65000	1.8	8000	1.7	3500	65000	
A 80 4_300.4	300.4	3.0	8000	2.8	3120	65000	1.7	8000	1.6	3500	65000	
A 80 4_354.0	354.0	2.5	8000	2.4	3100	65000	1.4	8000	1.3	3500	65000	
A 80 4_383.5	383.5	2.3	8000	2.2	3180	65000	1.3	8000	1.2	3500	65000	
A 80 4_442.1	442.1	2.0	8000	1.9	3160	65000	1.1	8000	1.1	3500	65000	
A 80 4_478.9	478.9	1.9	8000	1.8	3230	65000	1.0	8000	0.98	3500	65000	
A 80 4_560.5	560.5	1.6	8000	1.5	3210	65000	0.89	8000	0.84	3500	65000	
A 80 4_607.2	607.2	1.5	8000	1.4	3280	65000	0.82	8000	0.78	3500	65000	
A 80 4_703.5	703.5	1.3	8000	1.2	3260	65000	0.71	8000	0.67	3500	65000	
A 80 4_762.1	762.1	1.2	8000	1.1	3320	65000	0.66	8000	0.62	3500	65000	
A 80 4_829.5	829.5	1.1	8000	1.0	3280	65000	0.60	8000	0.57	3500	65000	
A 80 4_898.7	898.7	1.0	8000	0.94	3340	65000	0.56	8000	0.52	3500	65000	
A 80 4_1001	1001	0.90	8000	0.85	3300	65000	0.50	8000	0.47	3500	65000	
A 80 4_1085	1085	0.83	8000	0.78	3360	65000	0.46	8000	0.43	3500	65000	
A 80 4_1237	1237	0.73	8000	0.68	3310	65000	0.40	8000	0.38	3500	65000	
A 80 4_1340	1340	0.67	8000	0.63	3370	65000	0.37	8000	0.35	3500	65000	
A 80 4_1438	1438	0.63	8000	0.59	3330	65000	0.35	8000	0.33	3500	65000	
A 80 4_1558	1558	0.58	8000	0.54	3390	65000	0.32	8000	0.30	3500	65000	

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(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



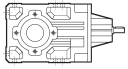

# A 90 14000 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>A 90 3_9.7</b>	9.7	289	7800	260	2440	27600	145	9050	151	5520	35000	315
<b>A 90 3_10.5</b>	10.5	267	8350	257	2620	27700	134	9800	151	5530	34900	
<b>A 90 3_12.6</b>	12.6	221	8500	217	2700	29800	111	10450	133	4790	36700	
<b>A 90 3_13.7</b>	13.7	204	8050	189	4670	31800	102	11150	131	5060	36900	
<b>A 90 3_15.6</b>	15.6	180	8900	184	3240	32000	90	10950	113	5410	39400	
<b>A 90 3_16.9</b>	16.9	166	9650	184	3230	31900	83	11850	113	5440	39300	
<b>A 90 3_19.4</b>	19.4	144	9400	156	3160	34300	72	11550	96	5350	42300	
<b>A 90 3_21.0</b>	21.0	133	10150	156	3210	34300	67	12400	95	5510	42400	
<b>A 90 3_22.3</b>	22.3	126	9850	143	9660	35700	63	12150	88	12200	43900	
<b>A 90 3_24.1</b>	24.1	116	10700	143	9660	35500	58	13150	88	12200	43800	
<b>A 90 3_29.1</b>	29.1	96	10550	117	9800	38900	48	13000	72	12400	47900	
<b>A 90 3_31.5</b>	31.5	89	11450	117	9800	38800	44	14000	72	12400	47900	
<b>A 90 3_35.8</b>	35.8	78	11150	100	9910	41600	39	13750	62	12500	51100	
<b>A 90 3_38.8</b>	38.8	72	12100	100	9900	41500	36	14000	58	12700	52700	
<b>A 90 3_44.6</b>	44.6	63	11800	85	9920	44600	31	14000	51	12700	56000	
<b>A 90 3_48.3</b>	48.3	58	12800	85	9920	44500	29.0	14000	47	12800	58000	
<b>A 90 3_55.0</b>	55.0	51	12550	73	9960	47500	25.4	14000	41	12800	61400	
<b>A 90 3_59.6</b>	59.6	47	13550	73	9970	47500	23.5	14000	38	13000	63500	
<b>A 90 3_68.8</b>	68.8	41	13350	63	9960	50900	20.4	14000	33	13000	67400	
<b>A 90 3_74.5</b>	74.5	38	14000	61	10000	51700	18.8	14000	30	13100	69700	
<b>A 90 3_80.4</b>	80.4	35	13900	56	9920	53500	17.4	14000	28	13000	71900	
<b>A 90 3_87.1</b>	87.1	32	14000	52	10100	55500	16.1	14000	26	13200	74300	
<b>A 90 3_98.6</b>	98.6	28.4	14000	46	9990	58500	14.2	14000	23	13100	75000	
<b>A 90 3_106.8</b>	106.8	26.2	14000	42	10100	60600	13.1	14000	21	13300	75000	
<b>A 90 3_116.9</b>	116.9	24.0	14000	39	10100	63000	12.0	14000	19.3	13200	75000	
<b>A 90 3_126.6</b>	126.6	22.1	10650	27	10600	71400	11.1	13150	16.7	13400	75000	
<b>A 90 3_139.4</b>	139.4	20.1	10350	24	10600	74500	10.0	12750	14.7	13400	75000	
<b>A 90 3_151.0</b>	151.0	18.5	11200	24	10600	75000	9.3	13800	14.7	13400	75000	
<b>A 90 4_166.1</b>	166.1	16.9	14000	28	—	75000	8.4	14000	13.9	—	75000	
<b>A 90 4_180.0</b>	180.0	15.6	14000	26	—	75000	7.8	14000	12.8	—	75000	
<b>A 90 4_209.0</b>	209.0	13.4	14000	22	—	75000	6.7	14000	11.0	—	75000	
<b>A 90 4_226.4</b>	226.4	12.4	14000	20	—	75000	6.2	14000	10.2	—	75000	
<b>A 90 4_281.4</b>	281.4	9.9	14000	16.4	—	75000	5.0	14000	8.2	—	75000	
<b>A 90 4_304.9</b>	304.9	9.2	14000	15.1	—	75000	4.6	14000	7.6	—	75000	
<b>A 90 4_355.8</b>	355.8	7.9	14000	13.0	—	75000	3.9	14000	6.5	—	75000	
<b>A 90 4_385.4</b>	385.4	7.3	14000	12.0	—	75000	3.6	14000	6.0	680	75000	
<b>A 90 4_449.2</b>	449.2	6.2	14000	10.3	—	75000	3.1	14000	5.1	—	75000	
<b>A 90 4_486.6</b>	486.6	5.8	14000	9.5	—	75000	2.9	14000	4.7	950	75000	
<b>A 90 4_555.3</b>	555.3	5.0	14000	8.3	—	75000	2.5	14000	4.2	740	75000	
<b>A 90 4_601.6</b>	601.6	4.7	14000	7.7	—	75000	2.3	14000	3.8	1200	75000	
<b>A 90 4_707.9</b>	707.9	4.0	14000	6.5	—	75000	2.0	14000	3.3	1050	75000	
<b>A 90 4_766.9</b>	766.9	3.7	14000	6.0	—	75000	1.8	14000	3.0	1490	75000	
<b>A 90 4_865.1</b>	865.1	3.2	14000	5.3	—	75000	1.6	14000	2.7	1170	75000	
<b>A 90 4_937.2</b>	937.2	3.0	14000	4.9	—	75000	1.5	14000	2.5	1590	75000	
<b>A 90 4_1025</b>	1025	2.7	14000	4.5	—	75000	1.4	14000	2.2	1330	75000	
<b>A 90 4_1111</b>	1111	2.5	14000	4.2	—	75000	1.3	14000	2.1	1740	75000	
<b>A 90 4_1222</b>	1222	2.3	14000	3.8	—	75000	1.1	14000	1.9	1380	75000	
<b>A 90 4_1324</b>	1324	2.1	14000	3.5	—	75000	1.1	14000	1.7	1790	75000	
<b>A 90 4_1507</b>	1507	1.9	14000	3.1	—	75000	0.93	14000	1.5	1440	75000	
<b>A 90 4_1632</b>	1632	1.7	14000	2.8	—	75000	0.86	14000	1.4	1840	75000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# A 90 14000 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
A 90 3_9.7	9.7	93	9050	97	9800	42300	52	9050	54	15000	53700	315
A 90 3_10.5	10.5	86	9800	97	9810	42500	48	9800	54	15000	54200	
A 90 3_12.6	12.6	71	11800	97	6720	42100	40	11800	54	13500	54500	
A 90 3_13.7	13.7	66	12750	96	6770	42100	37	12800	54	13500	54600	
A 90 3_15.6	15.6	58	11550	77	8730	46700	32	11550	43	15000	59900	
A 90 3_16.9	16.9	53	12500	77	8750	46800	29.6	12500	43	15000	60300	
A 90 3_19.4	19.4	46	11550	62	9630	51400	25.8	11550	34	15000	65400	
A 90 3_21.0	21.0	43	12400	61	9790	51700	23.8	12400	34	15000	66100	
A 90 3_22.3	22.3	40	13850	64	14200	50200	22.5	14000	36	15000	64700	
A 90 3_24.1	24.1	37	14000	60	14400	51900	20.7	14000	33	15000	66900	
A 90 3_29.1	29.1	31	14000	50	14600	56200	17.2	14000	28	15000	72100	
A 90 3_31.5	31.5	28.6	14000	46	14800	58400	15.9	14000	26	15000	74700	
A 90 3_35.8	35.8	25.1	14000	40	14900	61700	14.0	14000	23	15000	75000	
A 90 3_38.8	38.8	23.2	14000	37	15000	63900	12.9	14000	21	15000	75000	
A 90 3_44.6	44.6	20.2	14000	33	15000	67700	11.2	14000	18.1	15000	75000	
A 90 3_48.3	48.3	18.6	14000	30	15000	70000	10.4	14000	16.7	15000	75000	
A 90 3_55.0	55.0	16.4	14000	26	15000	73800	9.1	14000	14.6	15000	75000	
A 90 3_59.6	59.6	15.1	14000	24	15000	75000	8.4	14000	13.5	15000	75000	
A 90 3_68.8	68.8	13.1	14000	21	15000	75000	7.3	14000	11.7	15000	75000	
A 90 3_74.5	74.5	12.1	14000	19.5	15000	75000	6.7	14000	10.8	15000	75000	
A 90 3_80.4	80.4	11.2	14000	18.0	15000	75000	6.2	14000	10.0	15000	75000	
A 90 3_87.1	87.1	10.3	14000	16.7	15000	75000	5.7	14000	9.3	15000	75000	
A 90 3_98.6	98.6	9.1	14000	14.7	15000	75000	5.1	14000	8.2	15000	75000	
A 90 3_106.8	106.8	8.4	14000	13.6	15000	75000	4.7	14000	7.5	15000	75000	
A 90 3_116.9	116.9	7.7	14000	12.4	15000	75000	4.3	14000	6.9	15000	75000	
A 90 3_126.6	126.6	7.1	14000	11.4	15000	75000	3.9	14000	6.4	15000	75000	
A 90 3_139.4	139.4	6.5	14000	10.4	15000	75000	3.6	14000	5.8	15000	75000	
A 90 3_151.0	151.0	6.0	14000	9.6	15000	75000	3.3	14000	5.3	15000	75000	
A 90 4_166.1	166.1	5.4	14000	8.9	—	75000	3.0	14000	5.0	700	75000	
A 90 4_180.0	180.0	5.0	14000	8.2	—	75000	2.8	14000	4.6	1400	75000	
A 90 4_209.0	209.0	4.3	14000	7.1	—	75000	2.4	14000	3.9	1500	75000	
A 90 4_226.4	226.4	4.0	14000	6.5	500	75000	2.2	14000	3.6	2100	75000	
A 90 4_281.4	281.4	3.2	14000	5.3	690	75000	1.8	14000	2.9	2300	75000	
A 90 4_304.9	304.9	3.0	14000	4.9	1230	75000	1.6	14000	2.7	2900	75000	
A 90 4_355.8	355.8	2.5	14000	4.2	1240	75000	1.4	14000	2.3	2900	75000	
A 90 4_385.4	385.4	2.3	14000	3.8	1750	75000	1.3	14000	2.1	3400	75000	
A 90 4_449.2	449.2	2.0	14000	3.3	1540	75000	1.1	14000	1.8	3200	75000	
A 90 4_486.6	486.6	1.8	14000	3.0	2020	75000	1.0	14000	1.7	3500	75000	
A 90 4_555.3	555.3	1.6	14000	2.7	1810	75000	0.90	14000	1.5	3500	75000	
A 90 4_601.6	601.6	1.5	14000	2.5	2270	75000	0.83	14000	1.4	3500	75000	
A 90 4_707.9	707.9	1.3	14000	2.1	2120	75000	0.71	14000	1.2	3500	75000	
A 90 4_766.9	766.9	1.2	14000	1.9	2560	75000	0.65	14000	1.1	3500	75000	
A 90 4_865.1	865.1	1.0	14000	1.7	2240	75000	0.58	14000	0.95	3500	75000	
A 90 4_937.2	937.2	0.96	14000	1.6	2660	75000	0.53	14000	0.88	3500	75000	
A 90 4_1025	1025	0.88	14000	1.4	2400	75000	0.49	14000	0.80	3500	75000	
A 90 4_1111	1111	0.81	14000	1.3	2810	75000	0.45	14000	0.74	3500	75000	
A 90 4_1222	1222	0.74	14000	1.2	2450	75000	0.41	14000	0.67	3500	75000	
A 90 4_1324	1324	0.68	14000	1.1	2860	75000	0.38	14000	0.62	3500	75000	
A 90 4_1507	1507	0.60	14000	0.98	2410	75000	0.33	14000	0.55	3500	75000	
A 90 4_1632	1632	0.55	14000	0.91	2910	75000	0.31	14000	0.50	3500	75000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)




## 40 MOTOR AVAILABILITY

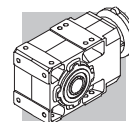
Please be aware that motor-gearbox combinations resulting from the following charts are purely based on geometrical compatibility.

**When selecting a gearmotor, refer to procedure specified at paragraph 12 and observe particularly the condition  $S \geq f_s$ .**


(C 40)

		IEC_  (IM B5)												
		BN										IEC		
P <sub>n1</sub> (#) [kW]	2p	0.37	0.75	1.5	2.2	4	4	9.2	18.5	22	30	45	55	
	4p	0.25	0.55	1.1	1.85	3	4	9.2	15	22	30	45	55	
	6p	0.12	0.37	0.75	1.1	1.85	2.2	5.5	11	15	18.5	30	37	
		P63	P71	P80	P90	P100	P112	P132	P160	P180	P200	P225	P250	
A 05 2	i =	5.5_91.6	5.5_51.3	5.5_51.3										
A 10 2		5.5_91.6	5.5_91.6	5.5_65.9	5.5_65.9	5.5_65.9	5.5_65.9							
A 20 2		7.3_92.3 ⊖(10.3)	7.3_92.3 ⊖(10.3)	5.4_79.9	5.4_79.9	5.4_79.9	5.4_79.9							
A 20 3		109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9							
A 30 2		9.3_97.5 ⊖(10.5; 13.6_16.3)	9.3_97.5 ⊖(10.5; 13.6_16.3)	5.4_97.5	5.4_97.5	5.4_97.5	5.4_97.5							
A 30 3		109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8							
A 35 2		9.3_95.6 ⊖(13.1_20.4)	9.3_95.6 ⊖(13.1_20.4)	5.4_95.6	5.4_95.6	5.4_95.6	5.4_95.6	5.4_11.8						
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2							
A 41 2		11.7_79.2 ⊖(13.8_17.8)	11.7_79.2 ⊖(13.8_17.8)	5.2_79.2	5.2_79.2	5.2_79.2	5.2_79.2	5.2_45.1						
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8							
A 50 2		20.9	20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9			
A 50 3		51.7_190.6	51.7_190.6	24.0_190.6	24.0_190.6	24.0_190.6	24.0_190.6	24.0_109.4	24.0_109.4	24.0_109.4	24.0_109.4			
A 50 4		211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2							
A 55 2				13.1_19.2	13.1_19.2	13.1_19.2	13.1_19.2	4.9_19.2	4.9_19.2	4.9_19.2				
A 55 3		64.3_194.2	64.3_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_123.9	23.8_123.9	23.8_123.9				
A 55 4		208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0							
A 60 2				10.3_20.6	10.3_20.6	10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6	7.9_20.6				
A 60 3		65.0_185.8	65.0_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3	25.7_133.3				
A 60 4		208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4							
A 70 3				66.9_153.7	66.9_153.7	66.9_153.7	66.9_153.7	15.4_153.7 ⊖(23.5_30.1)	9.4_153.7	9.4_153.7	9.4_153.7	9.4_38.4 ⊖(19.7_21.3)		
A 70 4		292.0_1715	292.0_1715	169.8_1715	169.8_1715	169.8_1715	169.8_1715	169.8_644.6						
A 80 3				82.3_156.8	82.3_156.8	82.3_156.8	82.3_156.8	19.3_156.8 ⊖(22.6_38.5)	12.3_156.8 ⊖(22.6_24.5)	9.8_156.8	9.8_104.0	9.8_104.0		
A 80 4		354.0_1558	354.0_1558	171.3_1558	171.3_1558	171.3_1558	171.3_1558	171.3_762.1						
A 90 3				98.6_151.0	98.6_151.0	98.6_151.0	98.6_151.0	55.0_151.0	19.4_151.0 ⊖(22.3_38.8)	9.7_151.0	9.7_126.6	9.7_126.6	9.7_126.6	9.7_126.6
A 90 4		449.2_1632	449.2_1632	166.1_1632	166.1_1632	166.1_1632	166.1_1632	166.1_937.2	166.1_937.2	166.1_937.2				

(#) P<sub>n1</sub> = maximum installable power on input P<sub>—</sub>



(C 41)

							
		M05	M1	M2	M3	M4	M5
A 05 2		5.5_91.6	5.5_51.3	5.5_65.9			
A 10 2		5.5_91.6	5.5_51.3	5.5_65.9	5.5_65.9		
A 20 2		7.3_92.3 ⊖ (10.3)	7.3_63.1 ⊖ (10.3)	5.4_79.9	5.4_79.9		
A 20 3		109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9		
A 30 2			9.3_76.5 ⊖ (10.5 ; 13.6_16.3)	5.4_97.5	5.4_97.5		
A 30 3		109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8		
A 35 2			9.3_95.6 ⊖ (13.1_20.4)	5.4_95.6	5.4_95.6	5.4_11.8	
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2		
A 41 2			11.7_79.2 ⊖ (13.8_17.8)	5.2_79.2	5.2_79.2	5.2_45.1	
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8		
A 50 2			20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9
A 50 3			51.7_190.6	24.0_190.6	24.0_190.6	24.0_109.4	24.0_109.4
A 50 4	i =		211.0_778.2	211.0_778.2	211.0_778.2		
A 55 2				13.1_19.2	13.1_19.2	4.9_19.2	4.9_19.2
A 55 3			64.3_194.2	23.8_194.2	23.8_194.2	23.8_123.9	23.8_123.9
A 55 4			208.1_793.0	208.1_793.0	208.1_793.0		
A 60 2				10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6
A 60 3				25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3
A 60 4			208.7_755.4	208.7_755.4	208.7_755.4		
A 70 3				66.9_153.7	66.9_153.7	15.4_153.7 ⊖ (23.5_30.1)	15.4_153.7 ⊖ (23.5_30.1)
A 70 4			292.0_1715	169.8_1715	169.8_1715	169.8_644.6	
A 80 3					82.3_156.8 ⊖ (22.6_38.5)	19.3_156.8 ⊖ (22.6_38.5)	19.3_156.8 ⊖ (22.6_38.5)
A 80 4			354.0_1558	171.3_1558	171.3_1558	171.3_762.1	
A 90 3					98.6_151.0	55.0_151.0	55.0_151.0
A 90 4			449.2_1632	166.1_1632	166.1_1632	166.1_937.2	



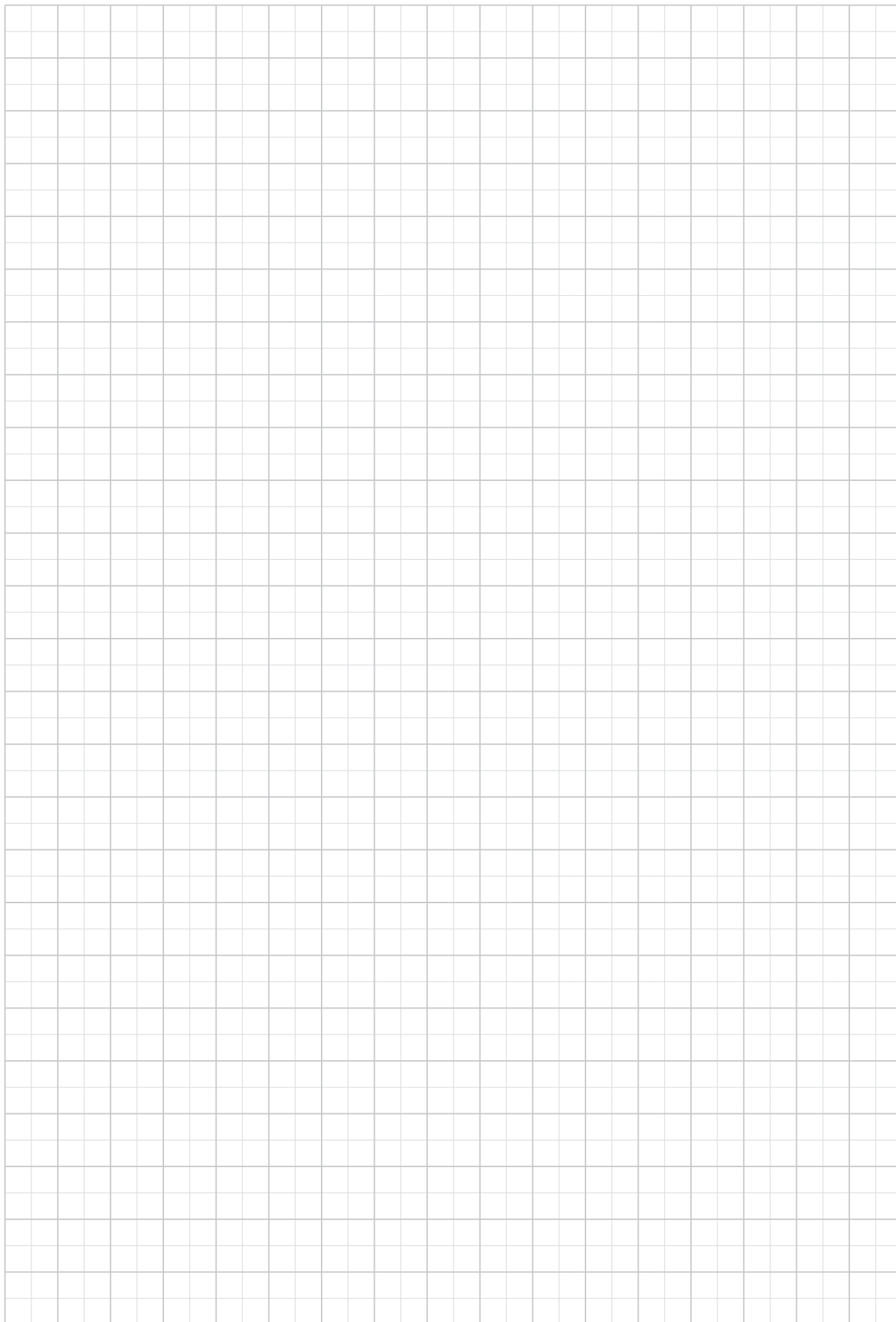
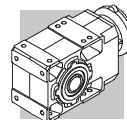
Motor adapters matching the most popular brands of servomotors are available for units size A05... A60. Dimensions of servomotor inputs are provided within the drawing section for each frame size. The code **SK** applies for inputs featuring a conventional keyway, while through the specification of the **SC** code the input shaft will feature a clamping device instead.

(C 42)

		SERVO INPUT							
		SK40A	SK60A	SK60B	SK80A	SK80B	SK80C		
		SC40A	SC60A	SC60B	SC80A	SC80B	SC80C		
A 05 2	i =	5.5_91.6	5.5_91.6	5.5_51.3	5.5_51.3				
A 10 2			5.5_91.6	5.5_51.3	5.5_51.3			5.5_65.9	
A 20 2			7.3_92.3 ⌀(10.3)	7.3_63.1 ⌀(10.3)	7.3_63.1 ⌀(10.3)			5.4_79.9	
A 20 3			109.2_380.9	109.2_380.9	109.2_380.9			109.2_380.9	
A 30 2			9.3_97.5 ⌀(10.5; 13.6_16.3)	9.3_76.5 ⌀(10.5; 13.6_16.3)	9.3_76.5 ⌀(10.5; 13.6_16.3)			5.4_97.5	
A 30 3			109.1_400.8	109.1_400.8	109.1_400.8			109.1_400.8	
A 35 2			9.3_95.6 ⌀(13.1_20.4)	9.3_95.6 ⌀(13.1_20.4)	9.3_95.6 ⌀(13.1_20.4)			5.4_95.6	
A 35 3			105.5_393.2	105.5_393.2	105.5_393.2			105.5_393.2	
A 41 2							11.7_79.2 ⌀(13.8_17.8)	5.2_79.2	
A 41 3			92.8_376.8	92.8_376.8	92.8_376.8			92.8_376.8	
A 50 2							20.9	7.7_20.9	
A 50 3							51.7_190.6	24.0_190.6	
A 50 4								211.0_778.2	
A 55 2								13.1_19.2	
A 55 3							64.3_194.2	23.8_194.2	
A 55 4								208.1_793.0	
A 60 2								10.3_20.6	
A 60 3								25.7_185.8	
A 60 4							208.7_755.4	208.7_755.4	

(C 43)

		SERVO INPUT									
		SK95A	SK95B	SK95C	SK110A	SK110B	SK130A	SK130B	SK180A	SK180B	
		SC95A	SC95B	SC95C	SC110A	SC110B	SC130A	SC130B	SC180A	SC180B	
A 10 2	i =	5.5_51.3	5.5_65.9	5.5_65.9	5.5_65.9	5.5_65.9					
A 20 2		7.3_63.1 ⌀(10.3)	5.4_79.9	5.4_79.9	5.4_79.9	5.4_79.9					
A 20 3		109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9	109.2_380.9					
A 30 2		9.3_76.5 ⌀(10.5; 13.6_16.3)	5.4_97.5	5.4_97.5	5.4_97.5	5.4_97.5	5.4_97.5				
A 30 3		109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8	109.1_400.8					
A 35 2		9.3_95.6 ⌀(13.1_20.4)	5.4_95.6	5.4_95.6	5.4_95.6	5.4_95.6	5.4_95.6				
A 35 3		105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2	105.5_393.2					
A 41 2		11.7_79.2 ⌀(13.8_17.8)	5.2_79.2	5.2_79.2	5.2_79.2	5.2_79.2	5.2_79.2	5.2_45.1	5.2_45.1	5.2_45.1	
A 41 3		92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8	92.8_376.8					
A 50 2		20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	7.7_20.9	
A 50 3		51.7_190.6	24.0_190.6	24.0_190.6	24.0_190.6	24.0_190.6	24.0_190.6	24.0_109.4	24.0_109.4	24.0_109.4	
A 50 4		211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2	211.0_778.2				
A 55 2			13.1_19.2	13.1_19.2	13.1_19.2	13.1_19.2	13.1_19.2	4.9_19.2	4.9_19.2	4.9_19.2	
A 55 3		64.3_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_194.2	23.8_123.9	23.8_123.9	23.8_123.9	
A 55 4		208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0	208.1_793.0				
A 60 2			10.3_20.6	10.3_20.6	10.3_20.6	10.3_20.6	10.3_20.6	7.9_20.6	7.9_20.6	7.9_20.6	
A 60 3			65.0_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_185.8	25.7_133.3	25.7_133.3	25.7_133.3	
A 60 4			208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4	208.7_755.4				





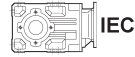


## 41 MOMENT OF INERTIA

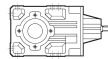
The following charts indicate moment of inertia values  $J_r$  [kgm<sup>2</sup>] referred to the gear unit high speed shaft. A key to the symbols used follows:



Values under this icon refer to compact gear units, without motor. To obtain the overall moment of inertia for the gearmotor just add the value of the inertia for the specific compact motor, given in the relevant rating chart.



Values under this symbol refer to gearboxes with IEC motor adapter (IEC size...).



This symbol refers to gearbox values.




Values under this symbol refer to gear unit with servomotor input adapter.

## A 05

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]				
			63	71		80
A 05 2_5.5	5.5	0.72	0.99	1.0	1.4	—
A 05 2_6.3	6.3	0.56	0.83	0.86	1.2	—
A 05 2_7.2	7.2	0.48	0.74	0.77	1.1	—
A 05 2_8.5	8.5	0.36	0.63	0.65	1.0	—
A 05 2_9.6	9.6	0.29	0.55	0.58	0.92	—
A 05 2_10.6	10.6	0.50	0.77	0.80	1.1	—
A 05 2_12.3	12.3	0.18	0.45	0.48	0.82	—
A 05 2_13.9	13.9	0.35	0.62	0.65	0.99	—
A 05 2_16.4	16.4	0.27	0.54	0.57	0.91	—
A 05 2_18.6	18.6	0.22	0.49	0.51	0.86	—
A 05 2_21.4	21.4	0.16	0.43	0.46	0.80	—
A 05 2_23.8	23.8	0.14	0.41	0.43	0.78	—
A 05 2_25.5	25.5	0.13	0.39	0.42	0.76	—
A 05 2_28.6	28.6	0.11	0.38	0.40	0.75	—
A 05 2_32.2	32.2	0.09	0.36	0.39	0.73	—
A 05 2_35.1	35.1	0.08	0.35	0.37	0.72	—
A 05 2_40.9	40.9	0.07	0.33	0.36	0.70	—
A 05 2_45.4	45.4	0.05	0.32	0.35	0.69	—
A 05 2_51.3	51.3	0.04	0.31	0.34	0.68	—
A 05 2_58.6	58.6	0.04	0.31	—	—	—
A 05 2_65.9	65.9	0.03	0.30	—	—	—
A 05 2_76.4	76.4	0.02	0.29	—	—	—
A 05 2_91.6	91.6	0.02	0.28	—	—	—



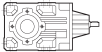


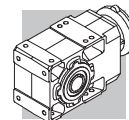
## A 05

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]					
		 SERVO					
	i	40A		60A		60B 80A	
		SK	SC	SK	SC	SK	SC
A 05 2_5.5	5.5	0.89	1.1	0.99	1.3	1.0	1.4
A 05 2_6.3	6.3	0.73	0.89	0.83	1.1	0.86	1.3
A 05 2_7.2	7.2	0.65	0.81	0.74	1.0	0.77	1.2
A 05 2_8.5	8.5	0.53	0.69	0.63	0.89	0.65	1.1
A 05 2_9.6	9.6	0.46	0.62	0.55	0.81	0.58	1.0
A 05 2_10.6	10.6	0.67	0.83	0.77	1.0	0.80	1.2
A 05 2_12.3	12.3	0.35	0.51	0.45	0.71	0.48	0.92
A 05 2_13.9	13.9	0.52	0.68	0.62	0.88	0.65	1.1
A 05 2_16.4	16.4	0.44	0.60	0.54	0.80	0.57	1.0
A 05 2_18.6	18.6	0.39	0.55	0.49	0.75	0.51	0.95
A 05 2_21.4	21.4	0.33	0.49	0.43	0.69	0.46	0.90
A 05 2_23.8	23.8	0.31	0.47	0.41	0.67	0.43	0.87
A 05 2_25.5	25.5	0.30	0.46	0.39	0.65	0.42	0.86
A 05 2_28.6	28.6	0.28	0.44	0.38	0.64	0.40	0.84
A 05 2_32.2	32.2	0.26	0.42	0.36	0.62	0.39	0.83
A 05 2_35.1	35.1	0.25	0.41	0.35	0.61	0.37	0.81
A 05 2_40.9	40.9	0.24	0.40	0.33	0.59	0.36	0.80
A 05 2_45.4	45.4	0.22	0.38	0.32	0.58	0.35	0.79
A 05 2_51.3	51.3	0.21	0.37	0.31	0.57	0.34	0.78
A 05 2_58.6	58.6	0.21	0.37	0.31	0.57	—	—
A 05 2_65.9	65.9	0.20	0.36	0.30	0.56	—	—
A 05 2_76.4	76.4	0.19	0.35	0.29	0.55	—	—
A 05 2_91.6	91.6	0.19	0.35	0.28	0.54	—	—




# A 10

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100	112	
<b>A 10 2_5.5</b>	5.5	1.0	2.5	2.5	3.9	3.8	5.1	5.1	1.8
<b>A 10 2_6.3</b>	6.3	0.80	2.3	2.3	3.7	3.6	4.9	4.9	1.6
<b>A 10 2_7.2</b>	7.2	0.60	2.1	2.1	3.5	3.4	4.7	4.7	1.5
<b>A 10 2_8.5</b>	8.5	0.45	1.9	1.9	3.3	3.1	4.5	4.5	1.4
<b>A 10 2_9.6</b>	9.6	0.30	1.8	1.8	3.2	3.1	4.4	4.4	1.3
<b>A 10 2_10.6</b>	10.6	0.50	2.0	2.0	3.4	3.3	4.6	4.6	1.4
<b>A 10 2_12.3</b>	12.3	0.20	1.7	1.7	3.1	3.0	4.3	4.3	1.1
<b>A 10 2_13.9</b>	13.9	0.30	1.8	1.8	3.2	3.1	4.6	4.6	1.2
<b>A 10 2_16.4</b>	16.4	0.25	1.7	1.7	3.1	3.0	4.3	4.3	1.1
<b>A 10 2_18.6</b>	18.6	0.20	1.7	1.7	3.1	3.0	4.3	4.3	1.0
<b>A 10 2_21.4</b>	21.4	0.15	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>A 10 2_23.8</b>	23.8	0.10	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>A 10 2_25.5</b>	25.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>A 10 2_28.6</b>	28.6	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 10 2_32.2</b>	32.2	0.08	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 10 2_35.1</b>	35.1	0.07	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 10 2_40.9</b>	40.9	0.06	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 10 2_45.4</b>	45.4	0.05	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 10 2_51.3</b>	51.3	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.90
<b>A 10 2_58.6</b>	58.6	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.90
<b>A 10 2_65.9</b>	65.9	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
<b>A 10 2_76.4</b>	76.4	0.02	1.5	1.5	—	—	—	—	0.90
<b>A 10 2_91.6</b>	91.6	0.01	1.5	1.5	—	—	—	—	0.90


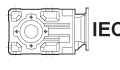
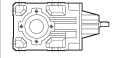


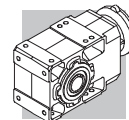
# A 10

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 SERVO									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 10 2_5.5	5.5	1.3	1.5	1.3	1.7	3.8	4.3	3.9	4.4	3.8	4.8
A 10 2_6.3	6.3	1.1	1.3	1.1	1.5	3.6	4.1	3.7	4.2	3.6	4.6
A 10 2_7.2	7.2	0.87	1.1	0.89	1.3	3.4	3.9	3.5	4.0	3.4	4.4
A 10 2_8.5	8.5	0.72	0.98	0.74	1.2	3.3	3.7	3.3	3.8	3.1	4.1
A 10 2_9.6	9.6	0.57	0.83	0.59	1.0	3.1	3.6	3.2	3.7	3.1	4.1
A 10 2_10.6	10.6	0.77	1.0	0.79	1.2	3.3	3.8	3.4	3.9	3.3	4.3
A 10 2_12.3	12.3	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
A 10 2_13.9	13.9	0.57	0.83	0.59	1.0	3.1	3.6	3.2	3.7	3.1	4.1
A 10 2_16.4	16.4	0.52	0.78	0.54	0.98	3.1	3.5	3.1	3.6	3.0	4.0
A 10 2_18.6	18.6	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
A 10 2_21.4	21.4	0.42	0.68	0.44	0.88	3.0	3.4	3.0	3.5	2.9	3.9
A 10 2_23.8	23.8	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 10 2_25.5	25.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 10 2_28.6	28.6	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 10 2_32.2	32.2	0.35	0.61	0.37	0.81	2.9	3.3	3.0	3.5	2.9	3.9
A 10 2_35.1	35.1	0.34	0.60	0.36	0.80	2.9	3.3	3.0	3.5	2.9	3.9
A 10 2_40.9	40.9	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9
A 10 2_45.4	45.4	0.32	0.58	0.34	0.78	2.9	3.3	3.0	3.5	2.9	3.9
A 10 2_51.3	51.3	0.30	0.56	0.32	0.76	2.9	3.3	2.9	3.4	2.8	3.8
A 10 2_58.6	58.6	0.30	0.56	—	—	—	—	2.9	3.4	2.8	3.8
A 10 2_65.9	65.9	0.29	0.55	—	—	—	—	2.9	3.4	2.8	3.8
A 10 2_76.4	76.4	0.29	0.55	—	—	—	—	—	—	—	—
A 10 2_91.6	91.6	0.28	0.54	—	—	—	—	—	—	—	—




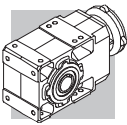
## A 20

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100	112	
A 20 2_5.4	5.4	2.4	—	—	5.3	5.2	6.5	6.5	4.3
A 20 2_6.5	6.5	1.9	—	—	4.8	4.7	6.0	6.0	3.8
A 20 2_7.3	7.3	1.4	2.9	2.9	4.3	4.2	5.5	5.5	3.3
A 20 2_8.4	8.4	1.1	2.6	2.6	4.0	3.9	5.2	5.2	3.0
A 20 2_9.4	9.4	0.90	2.4	2.4	3.8	3.7	5.0	5.0	2.8
A 20 2_10.3	10.3	1.2	—	—	4.1	4.0	5.3	5.3	3.0
A 20 2_12.0	12.0	0.50	2.0	2.0	3.4	3.3	4.6	4.6	2.4
A 20 2_14.1	14.1	0.70	2.2	2.2	3.6	3.5	4.8	4.8	2.6
A 20 2_16.2	16.2	0.55	2.0	2.0	3.4	3.3	4.6	4.6	2.5
A 20 2_18.1	18.1	0.40	1.9	1.9	3.3	3.2	4.5	4.5	2.4
A 20 2_21.2	21.2	0.35	1.8	1.8	3.2	3.1	4.4	4.4	2.3
A 20 2_23.1	23.1	0.30	1.8	1.8	3.2	3.1	4.4	4.4	2.2
A 20 2_26.5	26.5	0.25	1.7	1.7	3.1	3.0	4.3	4.3	2.1
A 20 2_29.2	29.2	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.1
A 20 2_31.3	31.3	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.1
A 20 2_35.4	35.4	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.1
A 20 2_39.6	39.6	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
A 20 2_43.2	43.2	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
A 20 2_48.3	48.3	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
A 20 2_53.7	53.7	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
A 20 2_63.1	63.1	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.0
A 20 2_71.0	71.0	0.05	1.5	1.5	2.9	2.8	4.1	4.1	2.0
A 20 2_79.9	79.9	0.03	1.5	1.5	2.9	2.8	4.1	4.1	2.0
A 20 2_92.3	92.3	0.02	1.5	1.5	—	—	—	—	2.0
A 20 3_109.2	109.2	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_120.5	120.5	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_129.1	129.1	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_146.1	146.1	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_163.4	163.4	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_178.3	178.3	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_199.2	199.2	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_221.3	221.3	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_260.5	260.5	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_292.8	292.8	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_329.4	329.4	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 20 3_380.9	380.9	0.01	1.5	1.5	2.9	2.8	4.1	4.1	0.90



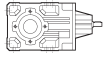


# A 20

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]									
		 <b>SERVO</b>									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 20 2_5.4	5.4	—	—	—	—	—	—	5.3	5.8	5.2	6.2
A 20 2_6.5	6.5	—	—	—	—	—	—	4.8	5.3	4.7	5.7
A 20 2_7.3	7.3	1.7	1.9	1.7	2.1	4.2	4.7	4.3	4.8	4.2	5.2
A 20 2_8.4	8.4	1.4	1.6	1.4	1.8	3.9	4.6	4.0	4.5	3.9	4.9
A 20 2_9.4	9.4	1.2	1.4	1.2	1.6	3.7	4.2	3.8	4.3	3.7	4.7
A 20 2_10.3	10.3	—	—	—	—	—	—	4.1	4.6	4.0	5.0
A 20 2_12.0	12.0	0.77	1.0	0.79	1.2	3.3	3.8	3.4	3.9	3.3	4.3
A 20 2_14.1	14.1	0.97	1.2	0.99	1.4	3.5	4.0	3.6	4.1	3.5	4.5
A 20 2_16.2	16.2	0.82	1.1	0.84	1.3	3.4	3.8	3.4	3.9	3.3	4.3
A 20 2_18.1	18.1	0.67	0.93	0.69	1.1	3.2	3.7	3.3	3.8	3.2	4.2
A 20 2_21.2	21.2	0.62	0.88	0.64	1.1	3.2	3.6	3.2	3.7	3.1	4.1
A 20 2_23.1	23.1	0.57	0.83	0.59	1.0	3.1	3.6	3.2	3.7	3.1	4.1
A 20 2_26.5	26.5	0.52	0.78	0.54	0.98	3.1	3.5	3.1	3.6	3.0	4.0
A 20 2_29.2	29.2	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
A 20 2_31.3	31.3	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
A 20 2_35.4	35.4	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0
A 20 2_39.6	39.6	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 20 2_43.2	43.2	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 20 2_48.3	48.3	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 20 2_53.7	53.7	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 20 2_63.1	63.1	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9
A 20 2_71.0	71.0	0.32	0.58	—	—	—	—	2.9	3.4	2.8	3.8
A 20 2_79.9	79.9	0.30	0.56	—	—	—	—	2.9	3.4	2.8	3.8
A 20 2_92.3	92.3	0.29	0.55	—	—	—	—	—	—	—	—
A 20 3_109.2	109.2	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_120.5	120.5	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_129.1	129.1	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_146.1	146.1	0.29	0.55	0.31	0.75	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_163.4	163.4	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_178.3	178.3	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_199.2	199.2	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_221.3	221.3	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_260.5	260.5	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_292.8	292.8	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_329.4	329.4	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8
A 20 3_380.9	380.9	0.28	0.54	0.30	0.74	2.8	3.3	2.9	3.4	2.8	3.8




# A 30

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100	112	
<b>A 30 2_5.4</b>	5.4	4.5	—	—	7.4	7.3	8.6	8.6	6.9
<b>A 30 2_6.4</b>	6.4	3.4	—	—	6.6	6.6	7.8	7.8	6.0
<b>A 30 2_7.0</b>	7.0	2.9	—	—	5.8	5.8	7.0	7.0	5.2
<b>A 30 2_8.5</b>	8.5	2.2	—	—	5.1	5.1	6.3	6.3	4.6
<b>A 30 2_9.3</b>	9.3	1.6	3.1	3.1	4.5	4.4	5.7	5.7	4.0
<b>A 30 2_10.5</b>	10.5	2.3	—	—	5.2	5.1	6.4	6.4	4.6
<b>A 30 2_11.8</b>	11.8	1.1	2.6	2.6	4.0	3.9	5.2	5.2	3.4
<b>A 30 2_13.6</b>	13.6	1.5	—	—	4.4	4.3	5.6	5.6	3.9
<b>A 30 2_16.3</b>	16.3	1.2	—	—	4.1	4.0	5.3	5.3	3.5
<b>A 30 2_18.0</b>	18.0	0.90	2.4	2.4	3.8	3.7	5.0	5.0	3.2
<b>A 30 2_20.5</b>	20.5	0.70	2.2	2.2	3.6	3.5	4.8	4.8	3.1
<b>A 30 2_22.8</b>	22.8	0.60	2.1	2.1	3.5	3.4	4.7	4.7	3.0
<b>A 30 2_26.5</b>	26.5	0.50	2.0	2.0	3.4	3.3	4.6	4.6	2.9
<b>A 30 2_29.3</b>	29.3	0.40	1.9	1.9	3.3	3.2	4.5	4.5	2.8
<b>A 30 2_33.4</b>	33.4	0.35	1.8	1.8	3.2	3.1	4.4	4.4	2.7
<b>A 30 2_36.6</b>	36.6	0.30	1.8	1.8	3.2	3.1	4.4	4.4	2.7
<b>A 30 2_39.3</b>	39.3	0.25	1.7	1.7	3.1	3.0	4.3	4.3	2.6
<b>A 30 2_43.4</b>	43.4	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.6
<b>A 30 2_48.3</b>	48.3	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.6
<b>A 30 2_52.7</b>	52.7	0.20	1.7	1.7	3.1	3.0	4.3	4.3	2.5
<b>A 30 2_59.4</b>	59.4	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.5
<b>A 30 2_66.0</b>	66.0	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.5
<b>A 30 2_76.5</b>	76.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.5
<b>A 30 2_86.7</b>	86.7	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.5
<b>A 30 2_97.5</b>	97.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	2.4
<b>A 30 3_109.1</b>	109.1	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_120.5</b>	120.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_137.4</b>	137.4	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_150.7</b>	150.7	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_161.4</b>	161.4	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_178.5</b>	178.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_198.5</b>	198.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_216.6</b>	216.6	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_244.3</b>	244.3	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_271.5</b>	271.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_314.5</b>	314.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_356.3</b>	356.3	0.06	1.6	1.6	3.0	2.9	4.2	4.2	0.90
<b>A 30 3_400.8</b>	400.8	0.04	1.5	1.6	2.9	2.8	4.1	4.1	0.90





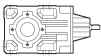


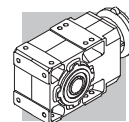
# A 30

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
		 <b>SERVO</b>											
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B		130A	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 30 2_5.4	5.4	—	—	—	—	—	—	7.4	7.9	7.3	8.3	7.3	8.3
A 30 2_6.4	6.4	—	—	—	—	—	—	6.6	7.1	6.6	7.6	6.6	7.6
A 30 2_7.0	7.0	—	—	—	—	—	—	5.8	6.3	5.8	6.8	5.8	6.8
A 30 2_8.5	8.5	—	—	—	—	—	—	5.1	5.6	5.1	6.1	5.1	6.1
A 30 2_9.3	9.3	1.9	2.1	1.9	2.3	4.4	4.9	4.5	5.0	4.4	5.4	4.4	5.4
A 30 2_10.5	10.5	—	—	—	—	—	—	5.2	5.7	5.1	6.1	5.1	6.1
A 30 2_11.8	11.8	1.4	1.6	1.4	1.8	3.9	4.4	4.0	4.5	3.9	4.9	3.9	4.9
A 30 2_13.6	13.6	—	—	—	—	—	—	4.4	4.9	4.3	5.3	4.3	5.3
A 30 2_16.3	16.3	—	—	—	—	—	—	4.1	4.6	4.0	5.0	4.0	5.0
A 30 2_18.0	18.0	1.2	1.4	1.2	1.6	3.7	4.2	3.8	4.3	3.7	4.7	3.7	4.7
A 30 2_20.5	20.5	0.97	1.2	0.99	1.4	3.5	4.0	3.6	4.1	3.5	4.5	3.5	4.5
A 30 2_22.8	22.8	0.87	1.1	0.89	1.3	3.4	3.9	3.5	4.0	3.4	4.4	3.4	4.4
A 30 2_26.5	26.5	0.77	1.0	0.79	1.2	3.3	3.8	3.4	3.9	3.3	4.3	3.3	4.3
A 30 2_29.3	29.3	0.67	0.93	0.69	1.1	3.2	3.7	3.3	3.8	3.2	4.2	3.2	4.2
A 30 2_33.4	33.4	0.62	0.88	0.64	1.1	3.2	3.6	3.2	3.7	3.1	4.1	3.1	4.1
A 30 2_36.6	36.6	0.57	0.83	0.59	1.0	3.1	3.6	3.2	3.7	3.1	4.1	3.1	4.1
A 30 2_39.3	39.3	0.52	0.78	0.54	0.98	3.1	3.5	3.1	3.6	3.0	4.0	3.0	4.0
A 30 2_43.4	43.4	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0
A 30 2_48.3	48.3	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0
A 30 2_52.7	52.7	0.47	0.73	0.49	0.93	3.0	3.5	3.1	3.6	3.0	4.0	3.0	4.0
A 30 2_59.4	59.4	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9
A 30 2_66.0	66.0	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9
A 30 2_76.5	76.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	2.9	3.9
A 30 2_86.7	86.7	0.37	0.63	—	—	—	—	3.0	3.5	2.9	3.9	2.9	3.9
A 30 2_97.5	97.5	0.37	0.63	—	—	—	—	3.0	3.5	2.9	3.9	2.9	3.9
A 30 3_109.1	109.1	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_120.5	120.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_137.4	137.4	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_150.7	150.7	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_161.4	161.4	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_178.5	178.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_198.5	198.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_216.6	216.6	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_244.3	244.3	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_271.5	271.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_314.5	314.5	0.37	0.63	0.39	0.83	2.9	3.4	3.0	3.5	2.9	3.9	—	—
A 30 3_356.3	356.3	0.33	0.59	0.35	0.79	2.9	3.3	3.0	3.5	2.9	3.9	—	—
A 30 3_400.8	400.8	0.31	0.57	0.33	0.77	2.9	3.3	2.9	3.4	2.8	3.8	—	—




# A 35

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]								
			IEC 							
			63	71	80	90	100	112	132	
A 35 2_5.4	5.4	7.3	—	—	10	9.9	11	11	24	9.4
A 35 2_6.4	6.4	5.4	—	—	8.1	8.0	9.2	9.2	22	7.4
A 35 2_7.0	7.0	4.6	—	—	7.3	7.2	8.4	8.4	21	6.6
A 35 2_8.5	8.5	3.3	—	—	6.1	5.9	7.1	7.1	20	5.4
A 35 2_9.3	9.3	2.8	3.5	3.5	5.6	5.4	6.6	6.6	19	4.9
A 35 2_10.6	10.6	2.1	2.9	2.9	4.9	4.8	6.0	6.0	19	4.2
A 35 2_11.8	11.8	1.8	2.5	2.5	4.6	4.4	5.7	5.7	18	3.9
A 35 2_13.1	13.1	3.0	—	—	5.7	5.6	6.8	6.8	—	5.0
A 35 2_15.5	15.5	2.2	—	—	5.0	4.9	6.1	6.1	—	4.3
A 35 2_17.0	17.0	2.0	—	—	4.7	4.6	5.8	5.8	—	4.0
A 35 2_20.4	20.4	1.6	—	—	4.3	4.2	5.4	5.4	—	3.6
A 35 2_22.5	22.5	1.3	2.0	2.0	4.1	3.9	5.1	5.1	—	3.4
A 35 2_25.7	25.7	0.97	1.7	1.7	3.7	3.6	4.8	4.8	—	3.0
A 35 2_28.4	28.4	0.86	1.6	1.6	3.6	3.5	4.7	4.7	—	2.9
A 35 2_33.2	33.2	0.69	1.4	1.4	3.5	3.3	4.5	4.5	—	2.8
A 35 2_36.6	36.6	0.58	1.3	1.3	3.3	3.2	4.4	4.4	—	2.6
A 35 2_41.8	41.8	0.48	1.2	1.2	3.2	3.1	4.3	4.3	—	2.5
A 35 2_45.8	45.8	0.42	1.1	1.1	3.2	3.1	4.3	4.3	—	2.5
A 35 2_49.1	49.1	0.38	1.1	1.1	3.1	3.0	4.2	4.2	—	2.4
A 35 2_54.3	54.3	0.33	1.1	1.0	3.1	3.0	4.2	4.2	—	2.4
A 35 2_60.4	60.4	0.29	1.0	1.0	3.0	2.9	4.1	4.1	—	2.3
A 35 2_65.8	65.8	0.25	1.0	1.0	3.0	2.9	4.1	4.1	—	2.3
A 35 2_74.3	74.3	0.21	0.95	0.93	3.0	2.8	4.1	4.1	—	2.3
A 35 2_82.5	82.5	0.18	0.92	0.90	2.9	2.8	4.0	4.0	—	2.2
A 35 2_95.6	95.6	0.15	0.88	0.87	2.9	2.8	4.0	4.0	—	2.2
A 35 3_105.5	105.5	0.11	0.89	0.87	2.9	2.8	4.0	4.0	—	0.80
A 35 3_116.9	116.9	0.11	0.88	0.87	2.9	2.8	4.0	4.0	—	0.79
A 35 3_136.3	136.3	0.10	0.87	0.86	2.9	2.8	4.0	4.0	—	0.78
A 35 3_150.6	150.6	0.09	0.86	0.85	2.9	2.8	4.0	4.0	—	0.77
A 35 3_171.8	171.8	0.08	0.86	0.84	2.9	2.8	4.0	4.0	—	0.77
A 35 3_188.3	188.3	0.08	0.85	0.84	2.9	2.7	4.0	4.0	—	0.76
A 35 3_201.8	201.8	0.08	0.85	0.84	2.9	2.7	4.0	4.0	—	0.76
A 35 3_223.2	223.2	0.08	0.85	0.84	2.9	2.7	4.0	4.0	—	0.76
A 35 3_248.1	248.1	0.07	0.85	0.83	2.9	2.7	4.0	4.0	—	0.76
A 35 3_270.7	270.7	0.07	0.84	0.83	2.9	2.7	4.0	4.0	—	0.75
A 35 3_305.4	305.4	0.07	0.84	0.83	2.9	2.7	4.0	4.0	—	0.75
A 35 3_339.3	339.3	0.07	0.84	0.83	2.9	2.7	4.0	4.0	—	0.75
A 35 3_393.2	393.2	0.07	0.84	0.83	2.9	2.7	3.9	3.9	—	0.75



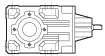


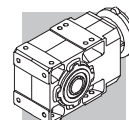
# A 35

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
		 <b>SERVO</b>											
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B		130A	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 35 2_5.4	5.4	—	—	—	—	—	—	10	11	9.9	10.9	9.9	11
A 35 2_6.4	6.4	—	—	—	—	—	—	8.1	8.6	8.0	9.0	8.0	9.0
A 35 2_7.0	7.0	—	—	—	—	—	—	7.3	7.8	7.2	8.2	7.2	8.2
A 35 2_8.5	8.5	—	—	—	—	—	—	6.1	6.6	5.9	6.9	5.9	6.9
A 35 2_9.3	9.3	3.1	3.3	3.1	3.5	5.6	6.1	5.6	6.1	5.4	6.4	5.4	6.4
A 35 2_10.6	10.6	2.4	2.6	2.4	2.8	4.9	5.4	4.9	5.4	4.8	5.8	4.8	5.8
A 35 2_11.8	11.8	2.1	2.3	2.1	2.5	4.6	5.1	4.6	5.1	4.4	5.4	4.4	5.4
A 35 2_13.1	13.1	—	—	—	—	—	—	5.7	6.2	5.6	6.6	5.6	6.6
A 35 2_15.5	15.5	—	—	—	—	—	—	5.0	5.5	4.9	5.9	4.9	5.9
A 35 2_17.0	17.0	—	—	—	—	—	—	4.7	5.2	4.6	5.6	4.6	5.6
A 35 2_20.4	20.4	—	—	—	—	—	—	4.3	4.8	4.2	5.2	4.2	5.2
A 35 2_22.5	22.5	1.6	1.8	1.6	2.0	4.1	4.6	4.1	4.6	3.9	4.9	3.9	4.9
A 35 2_25.7	25.7	1.2	1.5	1.3	1.7	3.8	4.2	3.7	4.2	3.6	4.6	3.6	4.6
A 35 2_28.4	28.4	1.1	1.4	1.2	1.6	3.7	4.1	3.6	4.1	3.5	4.5	3.5	4.5
A 35 2_33.2	33.2	0.96	1.2	0.98	1.4	3.5	3.9	3.5	4.0	3.3	4.3	3.3	4.3
A 35 2_36.6	36.6	0.85	1.1	0.87	1.3	3.4	3.8	3.3	3.8	3.2	4.2	3.2	4.2
A 35 2_41.8	41.8	0.75	1.0	0.77	1.2	3.3	3.7	3.2	3.7	3.1	4.1	3.1	4.1
A 35 2_45.8	45.8	0.69	0.95	0.71	1.1	3.2	3.7	3.2	3.7	3.1	4.1	3.1	4.1
A 35 2_49.1	49.1	0.65	0.91	0.67	1.1	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0
A 35 2_54.3	54.3	0.60	0.86	0.62	1.1	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0
A 35 2_60.4	60.4	0.56	0.82	0.58	1.0	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9
A 35 2_65.8	65.8	0.52	0.78	0.54	0.98	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9
A 35 2_74.3	74.3	0.48	0.74	0.50	0.94	3.0	3.5	3.0	3.5	2.8	3.8	2.8	3.8
A 35 2_82.5	82.5	0.45	0.71	0.47	0.91	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8
A 35 2_95.6	95.6	0.42	0.68	0.44	0.88	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8
A 35 3_105.5	105.5	0.38	0.64	0.40	0.84	2.9	3.4	2.9	3.4	2.8	3.8	—	—
A 35 3_116.9	116.9	0.38	0.64	0.40	0.84	2.9	3.4	2.9	3.4	2.8	3.8	—	—
A 35 3_136.3	136.3	0.37	0.63	0.39	0.83	2.9	3.4	2.9	3.4	2.8	3.8	—	—
A 35 3_150.6	150.6	0.36	0.62	0.38	0.82	2.9	3.3	2.9	3.4	2.8	3.8	—	—
A 35 3_171.8	171.8	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.8	3.8	—	—
A 35 3_188.3	188.3	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_201.8	201.8	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_223.2	223.2	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_248.1	248.1	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_270.7	270.7	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_305.4	305.4	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_339.3	339.3	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
A 35 3_393.2	393.2	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—




# A 41

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]								
			 IEC							
			63	71	80	90	100	112	132	
A 41 2_5.2	5.2	13	—	—	16	16	17	17	32	23
A 41 2_7.1	7.1	7.3	—	—	10	10	11	11	26	18
A 41 2_8.3	8.3	5.9	—	—	8.8	8.7	10	10	25	16
A 41 2_9.2	9.2	4.5	—	—	7.4	7.3	8.6	8.6	23	15
A 41 2_10.1	10.1	5.9	—	—	8.8	8.7	10	10	25	16
A 41 2_11.7	11.7	2.9	4.4	4.4	5.8	5.7	7.0	7.0	22	13
A 41 2_13.8	13.8	3.6	—	—	6.5	6.4	7.7	7.7	23	14
A 41 2_16.1	16.1	2.9	—	—	5.8	5.7	7.0	7.0	22	13
A 41 2_17.8	17.8	2.2	—	—	5.1	5.0	6.3	6.3	21	11
A 41 2_22.7	22.7	1.5	3.0	3.0	4.4	4.3	5.6	5.6	20	11
A 41 2_28.3	28.3	1.1	2.6	2.6	4.0	3.9	5.2	5.2	20	10
A 41 2_35.9	35.9	1.7	3.2	3.2	4.6	4.5	5.8	5.8	20	9.8
A 41 2_45.1	45.1	1.5	3.0	3.0	4.4	4.3	5.6	5.6	20	9.6
A 41 2_48.3	48.3	1.4	2.9	2.9	4.3	4.2	5.5	5.5	—	9.5
A 41 2_53.1	53.1	1.4	2.9	2.9	4.3	4.2	5.5	5.5	—	9.5
A 41 2_58.8	58.8	1.3	2.8	2.8	4.2	4.1	5.4	5.4	—	9.4
A 41 2_64.2	64.2	1.3	2.8	2.8	4.2	4.1	5.4	5.4	—	9.4
A 41 2_71.3	71.3	1.2	2.7	2.7	4.1	4.0	5.3	5.3	—	9.3
A 41 2_79.2	79.2	1.2	2.7	2.7	4.1	4.0	5.3	5.3	—	9.3
A 41 3_92.8	92.8	1.1	2.6	2.6	4.0	3.9	5.2	5.2	—	9.2
A 41 3_115.9	115.9	0.20	1.7	1.7	2.9	3.0	4.3	4.3	—	2.1
A 41 3_146.9	146.9	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.1
A 41 3_184.4	184.4	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.1
A 41 3_197.5	197.5	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_217.4	217.4	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_240.6	240.6	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_262.5	262.5	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_291.7	291.7	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_324.2	324.2	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0
A 41 3_376.8	376.8	0.10	1.6	1.6	2.8	2.9	4.2	4.2	—	2.0



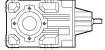


# A 41

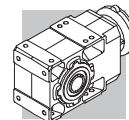
		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]																	
		 <b>SERVO</b>																	
	i	60A		60B 80A		80B		95A		80C 95B 110A		95C 110B		130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 41 2_5.2	5.2	—	—	—	—	—	—	—	—	16	16.5	16	17	16	17	30	32	32	37
A 41 2_7.1	7.1	—	—	—	—	—	—	—	—	10	10.5	10	11	10	11	24	27	26	31
A 41 2_8.3	8.3	—	—	—	—	—	—	—	—	8.8	9.3	8.7	9.7	8.7	9.7	23	25	25	30
A 41 2_9.2	9.2	—	—	—	—	—	—	—	—	7.4	7.9	7.3	8.3	7.3	8.3	21	24	23	28
A 41 2_10.1	10.1	—	—	—	—	—	—	—	—	8.8	9.3	8.7	9.7	8.7	9.7	23	25	25	30
A 41 2_11.7	11.7	—	—	—	—	5.7	6.2	5.7	6.2	5.8	6.3	5.7	6.7	5.7	6.7	20	22	22	27
A 41 2_13.8	13.8	—	—	—	—	—	—	—	—	6.5	7.0	6.4	7.4	6.4	7.4	21	23	23	28
A 41 2_16.1	16.1	—	—	—	—	—	—	—	—	5.8	6.3	5.7	6.7	5.7	6.7	20	22	22	27
A 41 2_17.8	17.8	—	—	—	—	—	—	—	—	5.1	5.6	5.0	6.0	5.0	6.0	19	22	21	26
A 41 2_22.7	22.7	—	—	—	—	4.3	4.8	4.3	4.8	4.4	4.9	4.3	5.3	4.3	5.3	18	21	20	25
A 41 2_28.3	28.3	—	—	—	—	3.9	4.4	3.9	4.4	4.0	4.5	3.9	4.9	3.9	4.9	18	21	20	25
A 41 2_35.9	35.9	—	—	—	—	4.5	5.0	4.5	5.0	4.6	5.1	4.5	5.5	4.5	5.5	19	21	20	25
A 41 2_45.1	45.1	—	—	—	—	4.3	4.8	4.3	4.8	4.4	4.9	4.3	5.3	4.3	5.3	18	21	20	25
A 41 2_48.3	48.3	—	—	—	—	4.2	4.7	4.2	4.7	4.3	4.8	4.2	5.2	4.2	5.2	—	—	—	—
A 41 2_53.1	53.1	—	—	—	—	4.2	4.7	4.2	4.7	4.3	4.8	4.2	5.2	4.2	5.2	—	—	—	—
A 41 2_58.8	58.8	—	—	—	—	4.1	4.6	4.1	4.6	4.2	4.7	4.1	5.1	4.1	5.1	—	—	—	—
A 41 2_64.2	64.2	—	—	—	—	4.1	4.6	4.1	4.6	4.2	4.7	4.1	5.1	4.1	5.1	—	—	—	—
A 41 2_71.3	71.3	—	—	—	—	4.0	4.5	4.0	4.5	4.1	4.6	4.0	5.0	4.0	5.0	—	—	—	—
A 41 2_79.2	79.2	—	—	—	—	4.0	4.5	4.0	4.5	4.1	4.6	4.0	5.0	4.0	5.0	—	—	—	—
A 41 3_92.8	92.8	1.4	1.6	1.4	1.8	—	—	3.9	4.4	4.0	4.5	3.9	4.9	—	—	—	—	—	—
A 41 3_115.9	115.9	0.47	0.73	0.49	0.93	—	—	3.0	3.5	2.9	3.4	3.0	4.0	—	—	—	—	—	—
A 41 3_146.9	146.9	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_184.4	184.4	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_197.5	197.5	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_217.4	217.4	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_240.6	240.6	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_262.5	262.5	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_291.7	291.7	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_324.2	324.2	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—
A 41 3_376.8	376.8	0.37	0.63	0.39	0.83	—	—	2.9	3.4	2.8	3.3	2.9	3.9	—	—	—	—	—	—




## A 50

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
			 IEC 									
			63	71	80	90	100	112	132	160	180	
<b>A 50 2_7.7</b>	7.7	15	—	—	18	18	19	19	34	93	91	24
<b>A 50 2_9.7</b>	9.7	10	—	—	13	13	14	14	29	89	86	19
<b>A 50 2_13.1</b>	13.1	6.3	—	—	9.2	9.1	10	10	25	85	82	15
<b>A 50 2_16.6</b>	16.6	4.2	—	—	7.0	7.0	8.2	8.2	23	82	80	13
<b>A 50 2_20.9</b>	20.9	2.8	4.2	4.2	5.7	5.6	6.9	6.9	22	81	79	12
<b>A 50 3_24.0</b>	24.0	6.0	—	—	8.9	8.8	10	10	25	84	82	15
<b>A 50 3_26.4</b>	26.4	5.8	—	—	8.7	8.6	9.9	9.9	25	84	82	15
<b>A 50 3_32.4</b>	32.4	4.0	—	—	6.8	6.8	8.1	8.1	23	82	80	13
<b>A 50 3_35.6</b>	35.6	3.9	—	—	6.7	6.7	8.0	8.0	23	82	80	13
<b>A 50 3_40.9</b>	40.9	2.7	—	—	5.6	5.5	6.8	6.8	22	81	79	12
<b>A 50 3_45.0</b>	45.0	2.6	—	—	5.5	5.4	6.7	6.7	22	81	79	12
<b>A 50 3_51.7</b>	51.7	1.9	3.4	3.4	4.7	4.7	6.0	6.0	21	80	78	11
<b>A 50 3_56.8</b>	56.8	1.9	3.3	3.3	4.7	4.6	5.9	5.9	21	80	78	11
<b>A 50 3_63.9</b>	63.9	1.4	2.9	2.8	4.2	4.2	5.5	5.5	20	80	77	11
<b>A 50 3_70.2</b>	70.2	1.4	2.8	2.8	4.2	4.1	5.4	5.4	20	80	77	10
<b>A 50 3_81.5</b>	81.5	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	79	77	10
<b>A 50 3_89.5</b>	89.5	0.90	2.4	2.4	3.7	3.7	5.0	5.0	20	79	77	10
<b>A 50 3_99.5</b>	99.5	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	79	77	9.7
<b>A 50 3_109.4</b>	109.4	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	79	77	9.7
<b>A 50 3_118.0</b>	118.0	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	9.6
<b>A 50 3_129.7</b>	129.7	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	9.6
<b>A 50 3_140.6</b>	140.6	0.40	1.8	1.8	3.2	3.2	4.4	4.4	—	—	—	9.4
<b>A 50 3_154.6</b>	154.6	0.40	1.8	1.8	3.2	3.2	4.4	4.4	—	—	—	9.4
<b>A 50 3_173.4</b>	173.4	0.30	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	9.3
<b>A 50 3_190.6</b>	190.6	0.20	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	9.3

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



# A 50



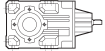
		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]									
		 <b>SERVO</b>									
	i	80B 95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 50 2_7.7	7.7	—	—	18	19	18	19	32	34	34	39
A 50 2_9.7	9.7	—	—	13	14	13	14	27	29	29	34
A 50 2_13.1	13.1	—	—	9.2	9.7	9.1	10	23	26	25	30
A 50 2_16.6	16.6	—	—	7.0	7.5	7.0	8.0	21	24	23	28
A 50 2_20.9	20.9	5.6	6.1	5.7	6.2	5.6	6.6	20	22	22	27
A 50 3_24.0	24.0	—	—	8.9	9.4	8.8	9.8	23	25	25	30
A 50 3_26.4	26.4	—	—	8.7	9.2	8.6	9.6	23	25	25	30
A 50 3_32.4	32.4	—	—	6.8	7.3	6.8	7.8	21	23	23	28
A 50 3_35.6	35.6	—	—	6.7	7.2	6.7	7.7	21	23	23	28
A 50 3_40.9	40.9	—	—	5.6	6.1	5.5	6.5	20	22	22	27
A 50 3_45.0	45.0	—	—	5.5	6.0	5.4	6.4	20	22	22	27
A 50 3_51.7	51.7	4.7	5.1	4.7	5.2	4.7	5.7	19	21	21	26
A 50 3_56.8	56.8	4.7	5.1	4.7	5.2	4.6	5.6	19	21	21	26
A 50 3_63.9	63.9	4.2	4.7	4.2	5.2	4.2	5.2	18	21	20	25
A 50 3_70.2	70.2	4.2	4.7	4.2	5.2	4.1	5.1	18	21	20	25
A 50 3_81.5	81.5	3.7	4.1	3.8	4.3	3.7	4.7	18	20	20	25
A 50 3_89.5	89.5	3.7	4.1	3.7	4.2	3.7	4.7	18	20	20	25
A 50 3_99.5	99.5	3.4	3.9	3.5	4.0	3.4	4.4	18	20	20	25
A 50 3_109.4	109.4	3.4	3.9	3.5	4.0	3.4	4.4	18	20	20	25
A 50 3_118.0	118.0	3.3	3.8	3.4	4.0	3.3	4.3	—	—	—	—
A 50 3_129.7	129.7	3.3	3.8	3.4	4.0	3.3	4.3	—	—	—	—
A 50 3_140.6	140.6	3.2	3.7	3.2	3.7	3.2	4.2	—	—	—	—
A 50 3_154.6	154.6	3.2	3.7	3.2	3.7	3.2	4.2	—	—	—	—
A 50 3_173.4	173.4	3.1	3.6	3.1	3.6	3.0	4.0	—	—	—	—
A 50 3_190.6	190.6	3.0	3.5	3.1	3.6	3.0	4.0	—	—	—	—

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.





## A 55

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
			 IEC										
			63	71	80	90	100	112	132	160	180		
<b>A 55 2_4.9</b>	4.9	61	—	—	—	—	—	—	—	77	123	120	70
<b>A 55 2_6.4</b>	6.4	41	—	—	—	—	—	—	—	57	103	100	50
<b>A 55 2_8.5</b>	8.5	26	—	—	—	—	—	—	—	42	88	85	35
<b>A 55 2_10.4</b>	10.4	19	—	—	—	—	—	—	—	35	81	78	28
<b>A 55 2_13.1</b>	13.1	12	—	—	14	14	17	17	28	28	74	72	21
<b>A 55 2_15.7</b>	15.7	8.9	—	—	11	11	14	14	25	25	71	68	18
<b>A 55 2_19.2</b>	19.2	6.2	—	—	8.6	8.5	11	11	23	23	68	66	15
<b>A 55 3_23.8</b>	23.8	11	—	—	13	13	16	16	27	27	73	70	20
<b>A 55 3_29.9</b>	29.9	7.9	—	—	10	10	13	13	24	24	70	67	17
<b>A 55 3_40.3</b>	40.3	5.3	—	—	7.8	7.6	10	10	22	22	68	65	14
<b>A 55 3_51.0</b>	51.0	3.6	—	—	6.0	5.9	8.6	8.6	20	20	66	63	13
<b>A 55 3_64.3</b>	64.3	2.6	3.1	3.0	5.1	5.0	7.7	7.7	19	19	65	62	12
<b>A 55 3_79.5</b>	79.5	2.0	2.4	2.4	4.5	4.4	7.1	7.1	18	18	64	62	11
<b>A 55 3_101.4</b>	101.4	1.3	1.8	1.8	3.8	3.7	6.5	6.5	18	18	64	61	10
<b>A 55 3_123.9</b>	123.9	1.0	1.5	1.5	3.6	3.4	6.2	6.2	17	17	63	61	10
<b>A 55 3_132.7</b>	132.7	0.71	1.4	1.4	3.5	3.3	6.1	6.1	—	—	—	—	9.5
<b>A 55 3_146.8</b>	146.8	0.66	1.4	1.4	3.4	3.3	6.0	6.0	—	—	—	—	9.4
<b>A 55 3_160.4</b>	160.4	0.58	1.3	1.3	3.3	3.2	6.0	6.0	—	—	—	—	9.4
<b>A 55 3_175.0</b>	175.0	0.50	1.2	1.2	3.3	3.1	5.9	5.9	—	—	—	—	9.3
<b>A 55 3_194.2</b>	194.2	0.43	1.2	1.2	3.2	3.1	5.8	5.8	—	—	—	—	9.2

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.





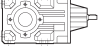
## A 55

		J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]									
		<b>SERVO</b>									
	i	80B 95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
<b>A 55 2_4.9</b>	4.9	—	—	—	—	—	—	78	80	77	82
<b>A 55 2_6.4</b>	6.4	—	—	—	—	—	—	58	60	57	62
<b>A 55 2_8.5</b>	8.5	—	—	—	—	—	—	43	45	42	47
<b>A 55 2_10.4</b>	10.4	—	—	—	—	—	—	36	38	35	40
<b>A 55 2_13.1</b>	13.1	—	—	14	15	14	15	29	31	28	33
<b>A 55 2_15.7</b>	15.7	—	—	11	12	11	12	26	28	25	30
<b>A 55 2_19.2</b>	19.2	—	—	8.6	9.1	8.5	9.5	23	26	23	28
<b>A 55 3_23.8</b>	23.8	—	—	13	14	13	14	28	30	27	32
<b>A 55 3_29.9</b>	29.9	—	—	10	11	10	11	25	27	24	29
<b>A 55 3_40.3</b>	40.3	—	—	7.8	8.3	7.6	8.6	22	25	22	27
<b>A 55 3_51.0</b>	51.0	—	—	6.0	6.5	5.9	6.9	21	23	20	25
<b>A 55 3_64.3</b>	64.3	5.4	5.9	5.1	5.6	5.0	6.0	20	22	19	24
<b>A 55 3_79.5</b>	79.5	4.8	5.3	4.5	5.0	4.4	5.4	19	21	18	23
<b>A 55 3_101.4</b>	101.4	4.1	4.6	3.8	4.3	3.7	4.7	18	21	18	23
<b>A 55 3_123.9</b>	123.9	3.8	4.3	3.6	4.1	3.4	4.4	18	20	17	22
<b>A 55 3_132.7</b>	132.7	3.5	4.0	3.5	4.0	3.3	4.3	—	—	—	—
<b>A 55 3_146.8</b>	146.8	3.5	3.9	3.4	3.9	3.3	4.3	—	—	—	—
<b>A 55 3_160.4</b>	160.4	3.4	3.8	3.3	3.8	3.2	4.2	—	—	—	—
<b>A 55 3_175.0</b>	175.0	3.3	3.8	3.3	3.8	3.1	4.1	—	—	—	—
<b>A 55 3_194.2</b>	194.2	3.3	3.7	3.2	3.7	3.1	4.1	—	—	—	—

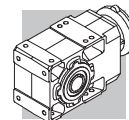
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



## A 60

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
			 IEC										
			63	71	80	90	100	112	132	160	180		
<b>A 60 2_7.9</b>	7.9	36	—	—	—	—	—	—	—	54	114	112	57
<b>A 60 2_10.3</b>	10.3	23	—	—	25	25	27	27	41	101	99	44	
<b>A 60 2_12.7</b>	12.7	16	—	—	19	19	20	20	35	94	92	37	
<b>A 60 2_16.7</b>	16.7	9.4	—	—	12	12	14	14	28	88	85	30	
<b>A 60 2_20.6</b>	20.6	6.7	—	—	9.6	9.5	11	11	26	85	83	28	
<b>A 60 3_25.7</b>	25.7	14	—	—	17	17	18	18	33	92	90	35	
<b>A 60 3_27.9</b>	27.9	14	—	—	17	17	18	18	33	92	90	35	
<b>A 60 3_31.7</b>	31.7	10	—	—	13	13	15	15	29	89	86	31	
<b>A 60 3_34.3</b>	34.3	10	—	—	13	13	14	14	29	89	86	31	
<b>A 60 3_41.7</b>	41.7	6.1	—	—	9.0	8.9	10	10	25	84	82	27	
<b>A 60 3_45.2</b>	45.2	6.1	—	—	8.9	8.9	10	10	25	84	82	27	
<b>A 60 3_51.3</b>	51.3	5.0	—	—	7.4	7.4	8.7	8.7	24	83	81	26	
<b>A 60 3_55.6</b>	55.6	4.5	—	—	7.4	7.3	8.6	8.6	23	83	81	26	
<b>A 60 3_65.0</b>	65.0	3.2	4.7	4.6	6.1	6.0	7.3	7.3	22	82	79	24	
<b>A 60 3_70.4</b>	70.4	3.2	4.7	4.6	6.1	6.0	7.3	7.3	22	81	79	24	
<b>A 60 3_79.7</b>	79.7	2.1	3.6	3.5	5.0	4.9	6.2	6.2	21	80	78	23	
<b>A 60 3_86.4</b>	86.4	2.1	3.6	3.5	5.0	4.9	6.2	6.2	21	80	78	23	
<b>A 60 3_99.5</b>	99.5	2.0	3.5	3.4	4.3	4.3	5.6	5.6	20	80	78	23	
<b>A 60 3_107.8</b>	107.8	1.5	3.0	2.9	4.3	4.3	5.6	5.6	20	80	78	22	
<b>A 60 3_123.0</b>	123.0	1.1	2.6	2.5	4.0	3.9	5.2	5.2	20	79	77	22	
<b>A 60 3_133.3</b>	133.3	1.1	2.6	2.5	3.9	3.9	5.2	5.2	20	79	77	22	
<b>A 60 3_144.0</b>	144.0	0.80	2.3	2.2	3.7	3.6	5.0	5.0	—	—	—	22	
<b>A 60 3_156.0</b>	156.0	0.80	2.3	2.2	3.7	3.6	5.0	5.0	—	—	—	22	
<b>A 60 3_171.5</b>	171.5	0.60	2.1	2.0	3.5	3.4	4.7	4.7	—	—	—	22	
<b>A 60 3_185.8</b>	185.8	0.60	2.1	2.0	3.5	3.4	4.7	4.7	—	—	—	22	

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.





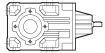
## A 60

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		<b>SERVO</b>									
	i	95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
<b>A 60 2_7.9</b>	7.9	—	—	—	—	—	—	53	55	54	59
<b>A 60 2_10.3</b>	10.3	—	—	25	26	25	26	40	42	41	46
<b>A 60 2_12.7</b>	12.7	—	—	19	20	19	20	33	35	35	40
<b>A 60 2_16.7</b>	16.7	—	—	12	13	12	13	26	29	28	33
<b>A 60 2_20.6</b>	20.6	—	—	9.6	10	9.5	10	24	26	26	31
<b>A 60 3_25.7</b>	25.7	—	—	17	18	17	18	31	33	33	38
<b>A 60 3_27.9</b>	27.9	—	—	17	18	17	18	31	33	33	38
<b>A 60 3_31.7</b>	31.7	—	—	13	14	13	14	27	29	29	34
<b>A 60 3_34.3</b>	34.3	—	—	13	14	13	14	27	29	29	34
<b>A 60 3_41.7</b>	41.7	—	—	9.0	9.5	8.9	9.9	23	26	25	30
<b>A 60 3_45.2</b>	45.2	—	—	8.9	9.4	8.9	9.9	23	26	25	30
<b>A 60 3_51.3</b>	51.3	—	—	7.4	7.9	7.4	8.4	22	24	24	29
<b>A 60 3_55.6</b>	55.6	—	—	7.4	7.9	7.3	8.3	21	24	23	28
<b>A 60 3_65.0</b>	65.0	6.0	6.5	6.1	6.6	6.0	7.0	20	23	22	27
<b>A 60 3_70.4</b>	70.4	6.0	6.5	6.1	6.6	6.0	7.0	20	23	22	27
<b>A 60 3_79.7</b>	79.7	4.9	5.4	5.0	5.5	4.9	5.9	19	22	21	26
<b>A 60 3_86.4</b>	86.4	4.9	5.4	5.0	5.5	4.9	5.9	19	22	21	26
<b>A 60 3_99.5</b>	99.5	4.8	5.3	4.3	4.8	4.3	5.3	19	21	20	25
<b>A 60 3_107.8</b>	107.8	4.3	4.8	4.3	4.8	4.3	5.3	18	21	20	25
<b>A 60 3_123.0</b>	123.0	3.9	4.4	4.0	4.5	3.9	4.9	18	21	20	25
<b>A 60 3_133.3</b>	133.3	3.9	4.4	3.9	4.4	3.9	4.9	18	21	20	25
<b>A 60 3_144.0</b>	144.0	3.6	4.1	3.7	4.2	3.6	4.6	—	—	—	—
<b>A 60 3_156.0</b>	156.0	3.6	4.1	3.7	4.2	3.6	4.6	—	—	—	—
<b>A 60 3_171.5</b>	171.5	3.4	3.9	3.5	4.0	3.4	4.4	—	—	—	—
<b>A 60 3_185.8</b>	185.8	3.4	3.9	3.5	4.0	3.4	4.4	—	—	—	—

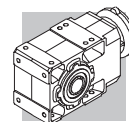
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


## A 70

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
			 IEC										
			80	90	100	112	132	160	180	200	225	250	
<b>A 70 3_9.4</b>	9.4	—	—	—	—	—	—	187	185	194	—	—	150
<b>A 70 3_10.2</b>	10.2	—	—	—	—	—	—	183	180	190	—	—	146
<b>A 70 3_12.1</b>	12.1	—	—	—	—	—	—	150	148	157	—	—	113
<b>A 70 3_13.1</b>	13.1	—	—	—	—	—	—	147	145	154	—	—	111
<b>A 70 3_15.4</b>	15.4	45	—	—	—	—	64	124	121	161	—	—	87
<b>A 70 3_16.7</b>	16.7	44	—	—	—	—	63	122	120	129	—	—	85
<b>A 70 3_19.7</b>	19.7	30	—	—	—	—	49	109	107	—	—	—	72
<b>A 70 3_21.3</b>	21.3	29	—	—	—	—	48	108	106	—	—	—	71
<b>A 70 3_23.5</b>	23.5	—	—	—	—	—	—	116	114	123	—	—	79
<b>A 70 3_27.8</b>	27.8	—	—	—	—	—	—	118	116	125	—	—	81
<b>A 70 3_30.1</b>	30.1	—	—	—	—	—	—	117	115	124	—	—	81
<b>A 70 3_35.4</b>	35.4	26	—	—	—	—	45	104	102	111	—	—	67
<b>A 70 3_38.4</b>	38.4	25	—	—	—	—	44	104	101	111	—	—	67
<b>A 70 3_45.2</b>	45.2	18	—	—	—	—	37	97	94	—	—	—	59
<b>A 70 3_49.0</b>	49.0	18	—	—	—	—	37	96	94	—	—	—	59
<b>A 70 3_53.2</b>	53.2	15	—	—	—	—	34	93	91	—	—	—	56
<b>A 70 3_57.7</b>	57.7	15	—	—	—	—	34	93	91	—	—	—	56
<b>A 70 3_66.9</b>	66.9	9.7	12	12	13	13	29	88	86	—	—	—	51
<b>A 70 3_72.5</b>	72.5	9.6	12	12	13	13	28	88	86	—	—	—	51
<b>A 70 3_79.3</b>	79.3	6.8	9.4	9.3	11	11	26	85	83	—	—	—	48
<b>A 70 3_85.9</b>	85.9	6.7	9.3	9.3	11	11	26	85	83	—	—	—	48
<b>A 70 3_96.2</b>	96.2	5.4	8.2	8.2	9.4	9.4	24	84	82	—	—	—	47
<b>A 70 3_104.2</b>	104.2	5.4	8.2	8.1	9.4	9.4	24	84	81	—	—	—	47
<b>A 70 3_120.6</b>	120.6	3.4	6.2	6.2	7.5	7.5	22	82	79	—	—	—	45
<b>A 70 3_130.7</b>	130.7	3.4	6.2	6.2	7.4	7.4	22	82	79	—	—	—	45
<b>A 70 3_141.9</b>	141.9	2.4	5.3	5.2	6.5	6.5	21	81	78	—	—	—	44
<b>A 70 3_153.7</b>	153.7	2.4	5.2	5.2	6.5	6.5	21	81	78	—	—	—	44

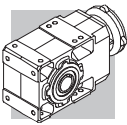
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

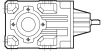
## A 80

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
			 IEC										
		80	90	100	112	132	160	180	200	225	250		
A 80 3_9.8	9.8	—	—	—	—	—	—	320	333	611	—	286	
A 80 3_10.7	10.7	—	—	—	—	—	—	309	323	601	—	276	
A 80 3_12.3	12.3	—	—	—	—	—	239	239	253	531	—	205	
A 80 3_13.3	13.3	—	—	—	—	—	232	233	246	524	—	199	
A 80 3_15.5	15.5	—	—	—	—	—	187	185	194	478	—	150	
A 80 3_16.7	16.7	—	—	—	—	—	183	180	190	474	—	150	
A 80 3_19.3	19.3	69	—	—	—	88	147	145	154	440	—	111	
A 80 3_20.9	20.9	66	—	—	—	85	145	142	152	437	—	108	
A 80 3_22.6	22.6	—	—	—	—	—	—	205	219	496	—	171	
A 80 3_24.5	24.5	—	—	—	—	—	—	203	217	494	—	169	
A 80 3_28.2	28.2	—	—	—	—	—	165	166	179	457	—	132	
A 80 3_30.6	30.6	—	—	—	—	—	164	164	178	456	—	130	
A 80 3_35.5	35.5	—	—	—	—	—	140	138	147	432	—	104	
A 80 3_38.5	38.5	—	—	—	—	—	140	137	147	431	—	103	
A 80 3_44.5	44.5	39	—	—	—	58	118	115	125	410	—	81	
A 80 3_48.2	48.2	39	—	—	—	58	117	115	124	410	—	90	
A 80 3_55.2	55.2	29	—	—	—	48	108	105	136	399	—	70	
A 80 3_59.8	59.8	29	—	—	—	48	107	105	136	399	—	70	
A 80 3_66.8	66.8	22	—	—	—	41	101	98	128	391	—	63	
A 80 3_72.4	72.4	22	—	—	—	41	100	98	128	391	—	63	
A 80 3_82.3	82.3	15	17	17	18	18	34	94	91	120	384	—	56
A 80 3_89.2	89.2	15	17	17	18	18	34	93	91	120	386	—	56
A 80 3_96.0	96.0	14	16	16	17	17	32	92	90	119	382	—	55
A 80 3_104.0	104.0	13	16	16	17	17	32	92	89	119	382	—	55
A 80 3_116.0	116.0	9.1	12	12	13	13	28	87	85	—	—	—	50
A 80 3_125.6	125.6	9.1	12	12	13	13	28	87	85	—	—	—	50
A 80 3_144.7	144.7	5.4	8.3	8.2	10	10	24	84	82	—	—	—	47
A 80 3_156.8	156.8	5.4	3.0	2.9	4.2	4.2	19	78	76	—	—	—	41

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



## A 90

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]											
			 IEC										
			80	90	100	112	132	160	180	200	225	250	
<b>A 90 3_9.7</b>	9.7	—	—	—	—	—	—	—	597	611	889	918	898
<b>A 90 3_10.5</b>	10.5	—	—	—	—	—	—	—	575	589	867	896	876
<b>A 90 3_12.6</b>	12.6	—	—	—	—	—	—	—	402	416	693	723	703
<b>A 90 3_13.7</b>	13.7	—	—	—	—	—	—	—	389	403	681	710	690
<b>A 90 3_15.6</b>	15.6	—	—	—	—	—	—	—	306	319	597	627	607
<b>A 90 3_16.9</b>	16.9	—	—	—	—	—	—	—	297	311	589	618	598
<b>A 90 3_19.4</b>	19.4	—	—	—	—	—	—	236	234	243	527	559	530
<b>A 90 3_21.0</b>	21.0	—	—	—	—	—	—	231	228	238	522	553	524
<b>A 90 3_22.3</b>	22.3	—	—	—	—	—	—	—	326	340	618	647	627
<b>A 90 3_24.1</b>	24.1	—	—	—	—	—	—	—	322	336	614	643	623
<b>A 90 3_29.1</b>	29.1	—	—	—	—	—	—	—	243	257	535	564	544
<b>A 90 3_31.5</b>	31.5	—	—	—	—	—	—	—	241	254	532	562	542
<b>A 90 3_35.8</b>	35.8	—	—	—	—	—	—	—	201	215	493	522	502
<b>A 90 3_38.8</b>	38.8	—	—	—	—	—	—	—	200	213	491	521	500
<b>A 90 3_44.6</b>	44.6	—	—	—	—	—	—	169	166	176	460	491	462
<b>A 90 3_48.3</b>	48.3	—	—	—	—	—	—	168	165	175	459	490	461
<b>A 90 3_55.0</b>	55.0	66	—	—	—	—	85	144	142	151	437	468	438
<b>A 90 3_59.6</b>	59.6	66	—	—	—	—	84	144	141	151	436	468	437
<b>A 90 3_68.8</b>	68.8	48	—	—	—	—	67	126	124	154	418	449	416
<b>A 90 3_74.5</b>	74.5	47	—	—	—	—	66	126	123	154	417	449	416
<b>A 90 3_80.4</b>	80.4	43	—	—	—	—	62	121	119	149	412	443	412
<b>A 90 3_87.1</b>	87.1	43	—	—	—	—	62	121	119	148	412	443	412
<b>A 90 3_98.6</b>	98.6	28	30	30	32	32	47	106	104	134	397	428	399
<b>A 90 3_106.8</b>	106.8	28	30	30	31	31	47	106	104	133	397	428	399
<b>A 90 3_116.9</b>	116.9	23	25	25	26	26	41	101	99	128	391	423	394
<b>A 90 3_126.6</b>	126.6	22	25	25	26	26	41	101	98	128	391	422	394
<b>A 90 3_139.4</b>	139.4	15	17	17	19	19	33	93	91	—	—	—	386
<b>A 90 3_151.0</b>	151.0	14	3.0	3.0	4.3	4.3	19	79	76	—	—	—	372

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.

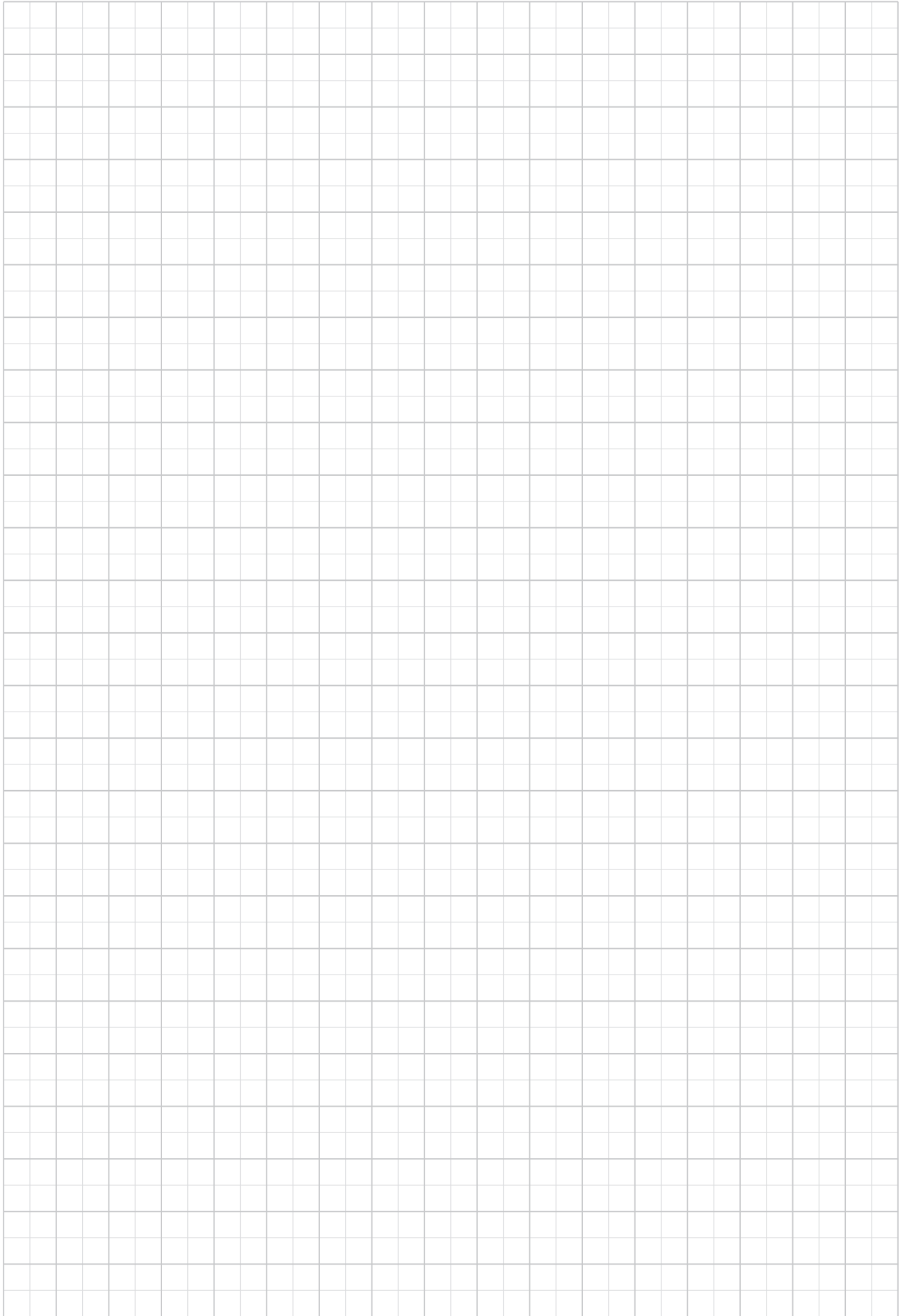
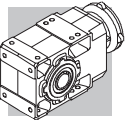




## 42 EXACT RATIOS

$i_N$	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 55	A 60	A 70	A 80	A 90
5.0								4.94505				
5.6	5.46559	5.46559	5.35117	5.41311	5.41311	5.24476						
6.3	6.33484	6.33484	6.53846	6.41026	6.41026			6.41026				
7.1	7.21154	7.21154	7.28745	7.02341	7.02341	7.12251						
8.0	8.51648	8.51648	8.37104	8.46154	8.46154	8.33333	7.73684	8.46154	7.86420			
9.0	9.61538	9.61538	9.37500	9.31174	9.31174	9.19732				9.43946		9.67545
10.0	10.55639	10.55639	10.33540	10.45503	10.63348	10.12987	9.73401	10.35503	10.31579	10.22609	9.83278	10.48174
11.2				11.77885	11.77885	11.74089				12.08027	10.65217	12.64214
12.5	12.30769	12.30769	11.96581		13.06878		13.10700	13.07692	12.70370	13.08696	12.27130	13.69565
14.0	13.92857	13.92857	14.07519	13.56522	15.47619	13.75661				15.40468	13.29391	15.57512
16.0	16.44898	16.44898	16.16807	16.34286	16.95652	16.09524	16.57005	15.68047	16.73663	16.68841	15.45151	16.87304
18.0	18.57143	18.57143	18.10714	17.98496		17.76398					19.33779	19.38462
20.0	21.35714	21.35714	21.22449	20.53782	20.42857		20.91813	19.23077	20.5942	19.66555	20.94928	21.00000
22.4	23.77143	23.77143	23.11111	22.75000	22.48120	22.67669				21.30435	22.61538	22.25354
25.0	25.46939	25.46939	26.46429	26.53061	25.67227		24.04795	23.79021	25.71012	23.52000	24.50000	24.10800
28.0	28.57143	28.57143	29.21905	29.30159	28.43750	28.32143	26.43733		27.85263	27.78462	28.22400	29.07692
31.5	32.19048	32.19048	31.30612	33.42857	33.16327		32.38095	29.93134	31.66154	30.10000	30.57600	31.50000
35.5	35.11688	35.11688	35.42857	36.64762	36.62698	35.90476	35.59829		34.30000	35.43077	35.53846	35.82277
40.0	40.85714	40.85714	39.61905	39.26531	41.78571	45.06667	40.93645	40.30303	41.71282	38.38333	38.50000	38.80800
45.0	45.39683	45.39683	43.22078	43.42857	45.80952	48.28571	45.00386		45.18889	45.23077	44.47692	44.58462
50.0	51.25714	51.25714	48.28571	48.28571	49.08163	53.14286	51.67843	50.95166	51.32709	49.00000	48.18333	48.30000
56.0	58.60317	58.60317	53.65079	52.67532	54.28571	58.80952	56.81314		55.60435	53.23314	55.18154	55.03077
63.0	65.92857	65.92857	63.14286	59.42857	60.35714	64.15584	63.89011	64.32168	64.98947	66.94154	66.80237	59.61667
71.0			70.98413	66.03175	65.84416	71.31429	70.23817		70.40526	72.52000	72.36923	68.75077
80.0	76.40816	76.40816	79.85714	76.51429	74.28571	79.23810	81.45055	79.52098	79.71923	79.32781	82.32000	80.37160
90.0	91.61905	91.61905	92.32653	86.66667	82.53968	92.76828	89.54339		86.36250	85.93846	89.18000	87.06923
100.0				97.50000	95.64286		99.53407	101.37762	99.50769	96.21818	104.03077	98.60308
112.2			109.16518	109.07029	105.54155	115.86039	109.42367	123.88531	107.80000	104.23636	115.95524	116.90414
125.0			120.52857	120.46208	116.90972		129.67046	132.73427	123.02769	120.61538	125.61818	126.64615
140.0			146.14286	137.42857	136.33787	146.88312	140.61938	146.80796	144.04260	141.86014	144.73846	139.39301
160.0			163.42857	161.42404	150.57760		154.59118	160.43706	171.46573	169.75499	156.80000	166.12694
180.0			178.28571	178.53968	171.78571	184.36364	173.36264	175.02225	185.75455	183.90123	171.29752	179.97085
200.0			199.17857	198.50794	201.78005	197.53247	190.58777	194.19860	208.73017		214.73193	209.01044
225.0			221.30952	216.55411	223.17460	217.40260	231.98700	208.05260	226.12435	220.25418	232.62626	226.42797
250.0			260.46429	244.31746	248.13492	240.58442	260.88462		264.29053	238.60870		
280.0			292.80952	271.46384	270.69264	291.74026	286.80584	262.64685	286.31474	292.01619	277.28428	281.43590
315.0			329.41071	314.55873	305.39683	324.15584	332.58974		324.19154	316.35088	300.39130	304.88889
355.0				356.29630	339.32981	376.83117	365.63552	324.71066	351.20750	369.38462	353.96864	355.79521
400.0			380.84694	400.83333	393.19841		406.43077		404.66462	400.16667	383.46603	385.44482
450.0							446.81331	413.95862	438.38667	475.76068	442.07937	449.15802
500.0							481.63314	505.86503	500.31262	515.40741	478.91932	486.58785
560.0							574.19580	541.99825	585.77325	595.03590	560.45035	555.29467
630.0							631.24731	655.11801	634.58769	644.62222	607.15455	601.56923
710.0							707.89744	714.67419	697.29399	705.13609	703.46182	707.91953
800.0							778.23340	792.97762	755.40182		829.52598	766.91282
900.0										926.54545	898.65315	865.09065
1000.0										1072.13675	1001.43166	1025.1594
1125.0										1161.48148	1084.88430	1110.58935
1250.0										1242.33846	1236.85594	1222.17967
1400.0										1345.86667	1339.92727	1324.02797
1600.0										1583.07692	1557.66545	1506.76450
1800.0										1715.00000		1632.32821

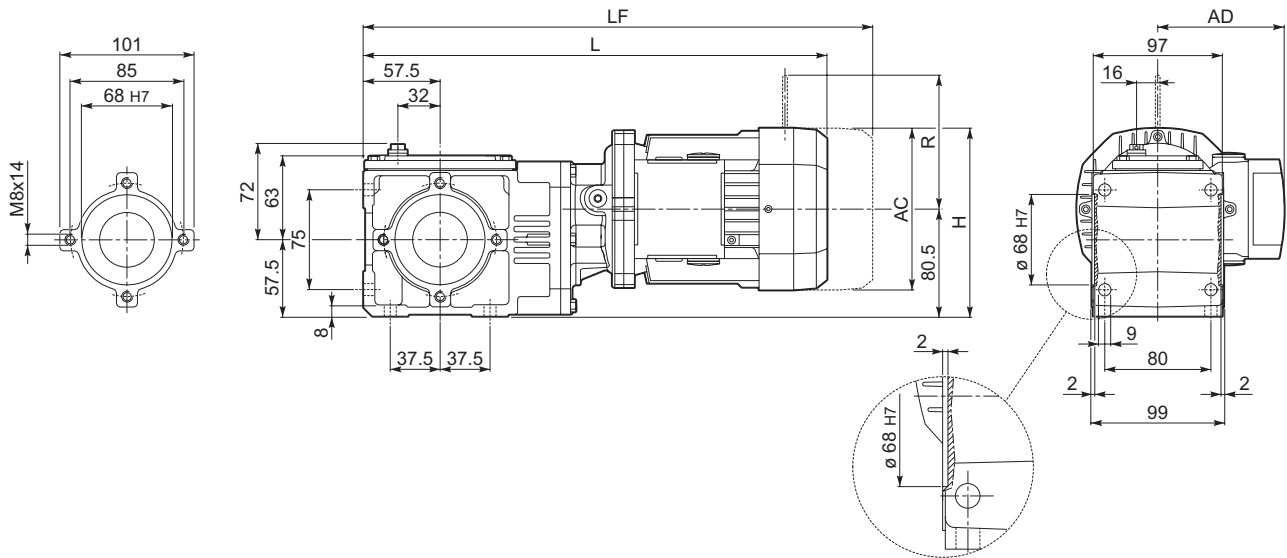






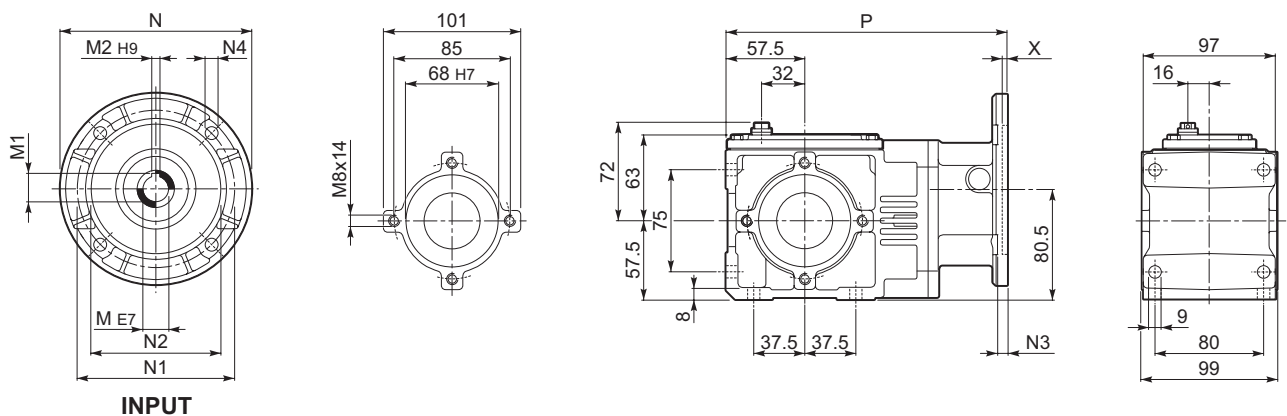
43 DIMENSIONS

A 05...M



	AC	H	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
						LF	Kg	R	AD	R	AD
A 05 2 S05 M05	121	141	360.5	95	7.5	426.5	9	96	122	116	95
A 05 2 S1 M1	138	149.5	389.5	108	11.5	450.5	14	103	135	124	108
A 05 2 S2 M2S	156	158.5	418.5	119	15.5	488.5	19	129	146	134	119

A 05...P(IEC)

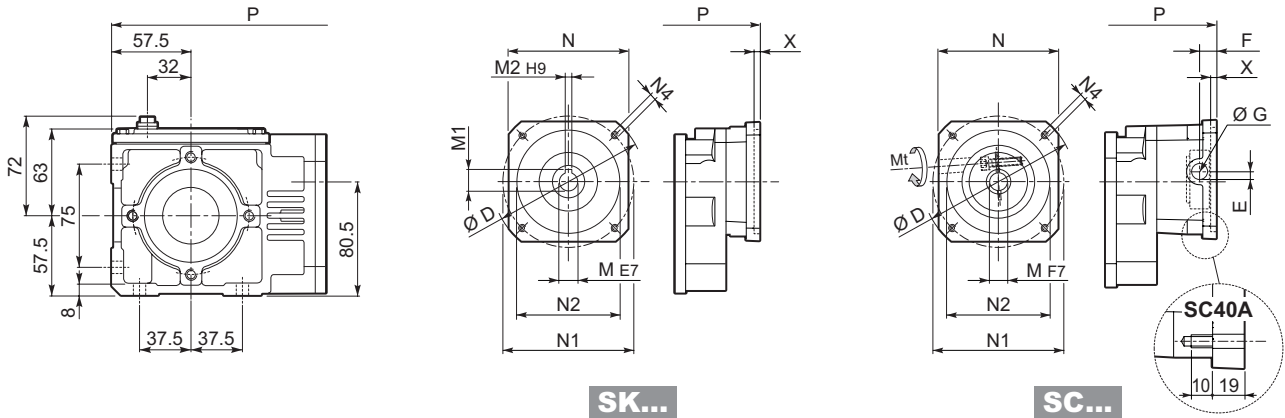


	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 05 2 P71	14	16.3	5	160	130	110	7	9.5	4	213	5
A 05 2 P80	19	20.8	6	200	165	130	7	11.5	4	223	5.5

# Lowered key of Bonfiglioli supply



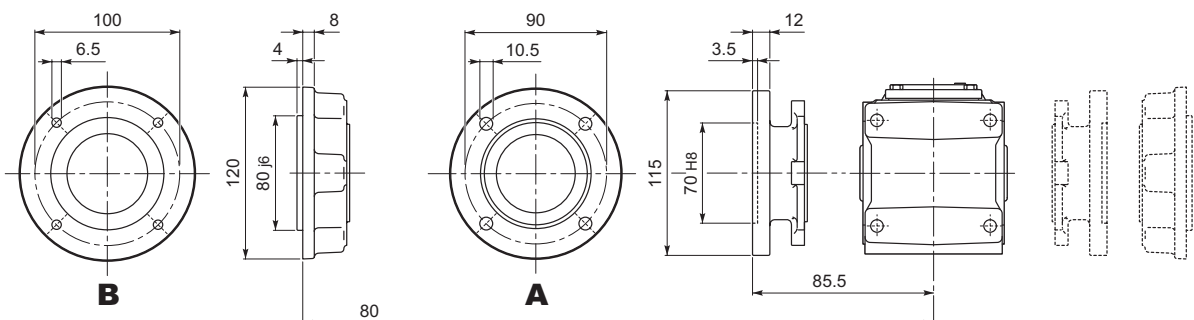
## A 05...SK / SC



		D	M	M1	M2	N	N1	N2	N4	X	P	kg
A 05 2	SK40A	74	9	10.4	3	55	63	40	M5x10	3	207.5	5
A 05 2	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	206	5
A 05 2	SK60B	102	14	16.3	5	82	75	60	M5x10	4	213	5
A 05 2	SK80A	115	14	16.3	5	90	100	80	M6x12	4	213	5

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P	kg
A 05 2	SC40A	M5	15	74	10.5	9.5	12.5	9	55	63	40	M5x10	3	226.5	6
A 05 2	SC60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	233	6
A 05 2	SC60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	233	6
A 05 2	SC80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	233	6

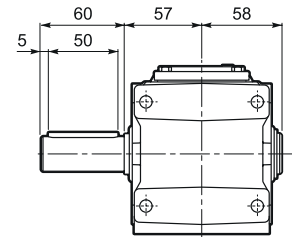
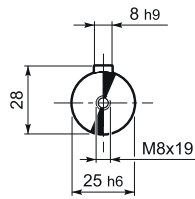
## A 05...F...



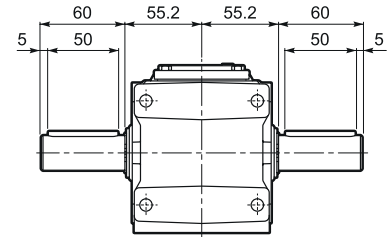
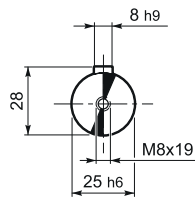


# A 05

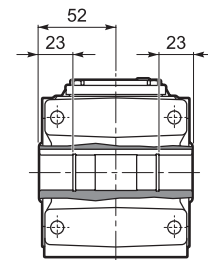
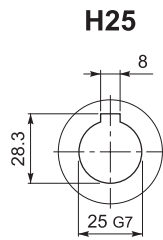
## A 05...UR



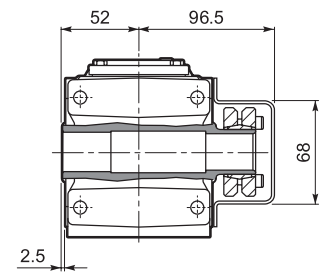
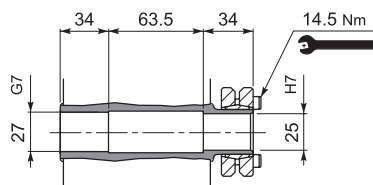
## A 05...UD



## A 05...UH

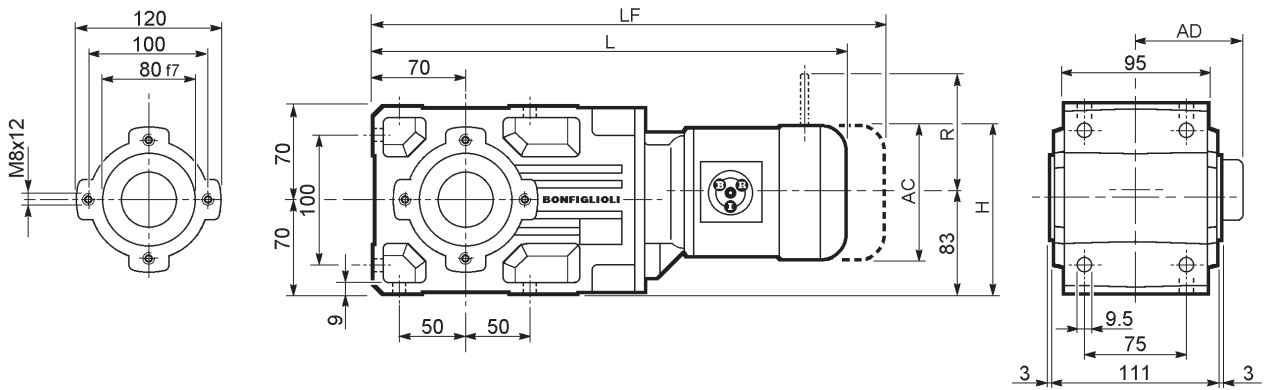


## A 05...US





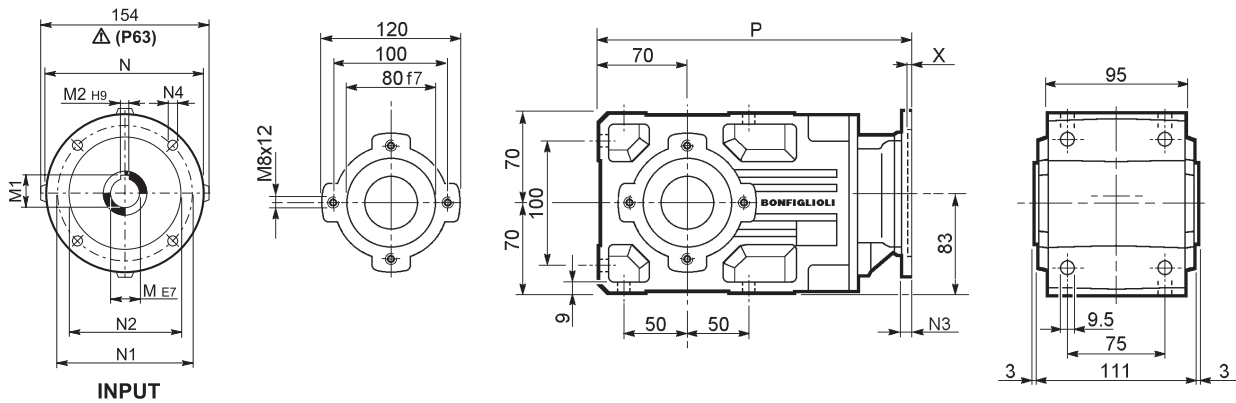
## A 10...M



			AC	H	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
								LF	Kg	R	AD	R	AD
			121	143.5	408.5	95	12	474.5	14	96	122	116	95
<b>A 10 2</b>	<b>S05</b>	<b>M05</b>	138	152	437.5	108	14	498.5	17	103	135	124	108
<b>A 10 2</b>	<b>S1</b>	<b>M1</b>	156	161	466.5	119	18	536.5	22	129	146	134	119
<b>A 10 2</b>	<b>S2</b>	<b>M2S</b>	195	180.5	509.5	142	23	605.5	30	160	158	160	142
<b>A 10 2</b>	<b>S3</b>	<b>M3S</b>	195	180.5	541.5	142	30	632.5	37	160	158	160	142

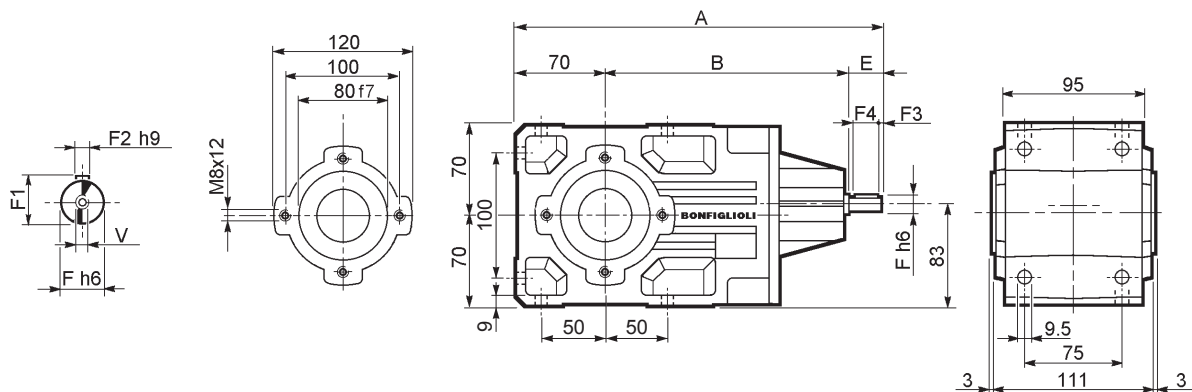


## A 10...P(IEC)



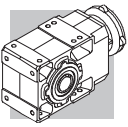
		M	M1	M2	N	N1	N2	N3	N4	X	P	
A 10 2	P63	11	12.8	4	140	115	95	—	M8x10	4	282.5	8
A 10 2	P71	14	16.3	5	160	130	110	—	M8x10	4.5	282.5	9
A 10 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	302	9
A 10 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	302	9
A 10 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	312	13
A 10 2	P112	28	31.3	8	250	215	180	—	M12x16	4.5	312	13

## A 10...HS

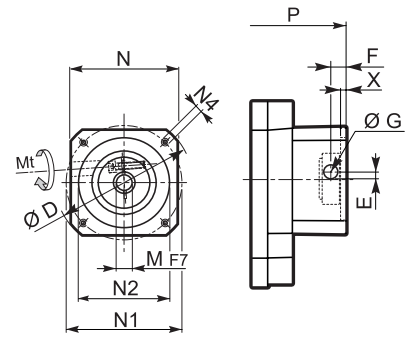
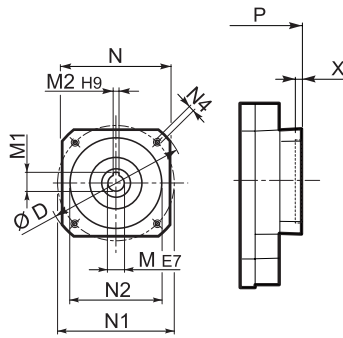
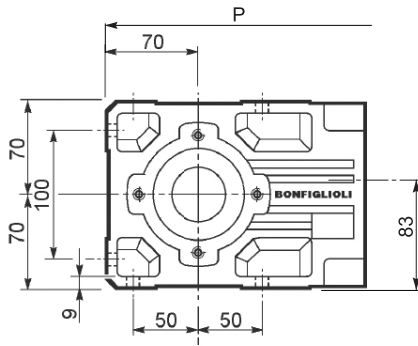


		A	B	E	F	F1	F2	F3	F4	V	
A 10 2	HS	289.5	179.5	40	16	18	5	2.5	35	M6x16	7.8





## A 10...SK / SC



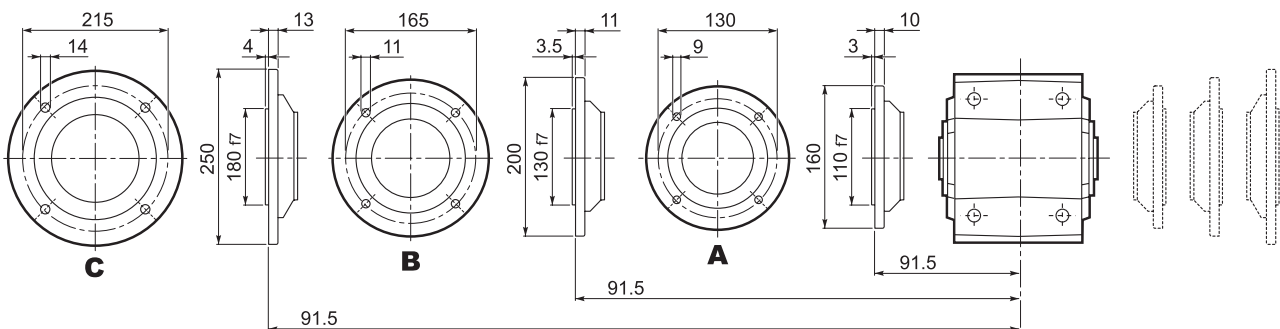
SK...

SC...

		D	M	M1	M2	N	N1	N2	N4	X	P	
A 10 2	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	254	8
A 10 2	SK60B	102	14	16.3	5	82	75	60	M5x10	4	261	8
A 10 2	SK80A	115	14	16.3	5	90	100	80	M6x12	4	261	8
A 10 2	SK80C	120	19	21.8	6	96	100	80	M6x12	4	302	9
A 10 2	SK95A	130	14	16.3	5	102	115	95	M8x12	4	302	9
A 10 2	SK95B	130	19	21.8	6	102	115	95	M8x12	4	302	9
A 10 2	SK95C	130	24	27.3	8	102	115	95	M8x12	4	302	9
A 10 2	SK110A	150	19	21.8	6	120	130	110	M8x12	5	302	9
A 10 2	SK110B	150	24	27.3	8	120	130	110	M8x12	5	302	9

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P	
A 10 2	SC60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	281	9
A 10 2	SC60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	281	9
A 10 2	SC80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	281	9
A 10 2	SC80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	325.5	10
A 10 2	SC95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	325.5	10
A 10 2	SC95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	325.5	10
A 10 2	SC95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	325.5	10
A 10 2	SC110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	325.5	12
A 10 2	SC110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	325.5	12

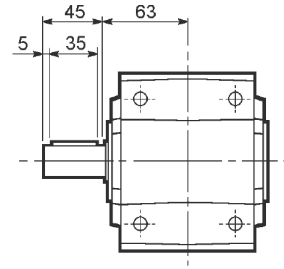
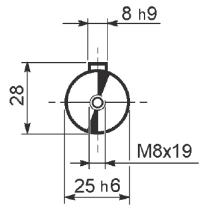
## A 10...F...



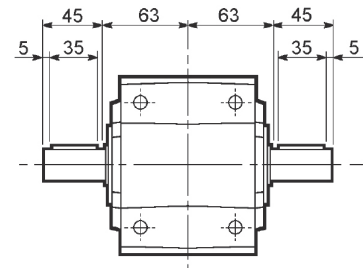
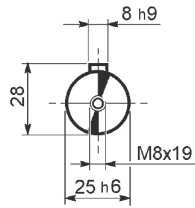


# A 10

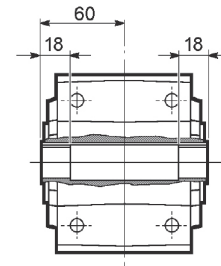
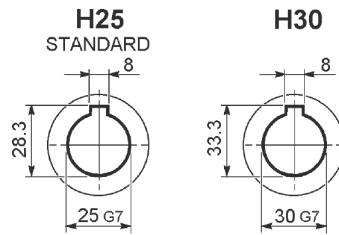
## A 10...UR



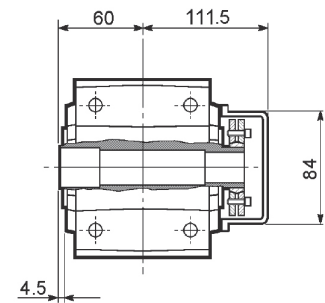
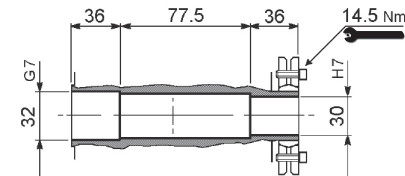
## A 10...UD



## A 10...UH

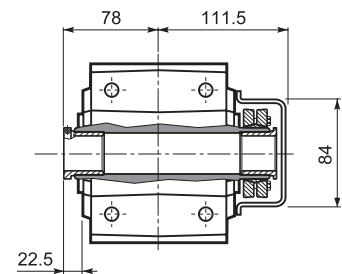
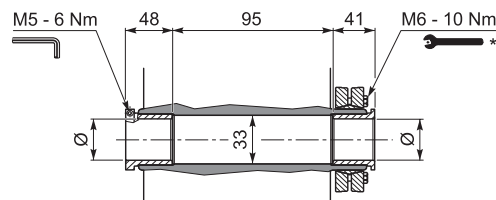


## A 10...US

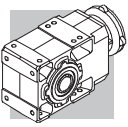


## A10...QF

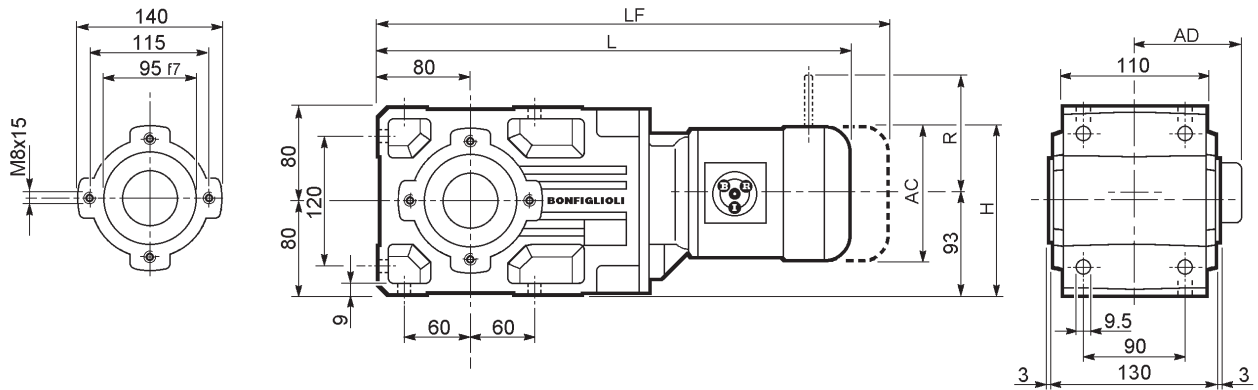
	∅
QF25	25
QF30	30



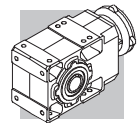
\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox. supplied with the gearbox.



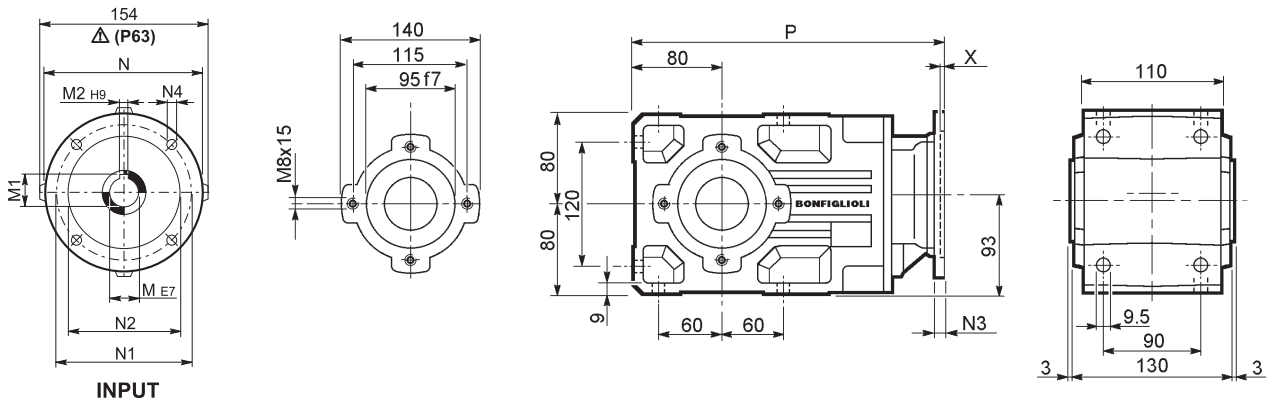
## A 20...M



	AC	H	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
						LF	Kg	R	AD	R	AD
<b>A 20 2</b>   <b>S05</b>   <b>M05</b>	121	143.5	432	95	16	498	18	96	122	116	95
<b>A 20 2</b>   <b>S1</b>   <b>M1</b>	138	152	461	108	18	522	21	103	135	124	108
<b>A 20 2</b>   <b>S2</b>   <b>M2S</b>	156	161	490	119	22	560	26	129	146	134	119
<b>A 20 2</b>   <b>S3</b>   <b>M3S</b>	195	180.5	533	142	27	629	34	160	158	160	142
<b>A 20 2</b>   <b>S3</b>   <b>M3L</b>	195	180.5	565	142	34	656	41	160	158	160	142
<b>A 20 3</b>   <b>S05</b>   <b>M05</b>	121	143.5	457.5	95	16	553.5	18	96	122	116	95
<b>A 20 3</b>   <b>S1</b>   <b>M1</b>	138	152	486.5	108	19	577.5	21	103	135	124	108
<b>A 20 3</b>   <b>S2</b>   <b>M2S</b>	156	161	545.5	119	23	615.5	27	129	146	134	119
<b>A 20 3</b>   <b>S3</b>   <b>M3S</b>	195	180.5	588.5	142	28	684.5	35	160	158	160	142
<b>A 20 3</b>   <b>S3</b>   <b>M3L</b>	195	180.5	620.5	142	35	711.5	42	160	158	160	142

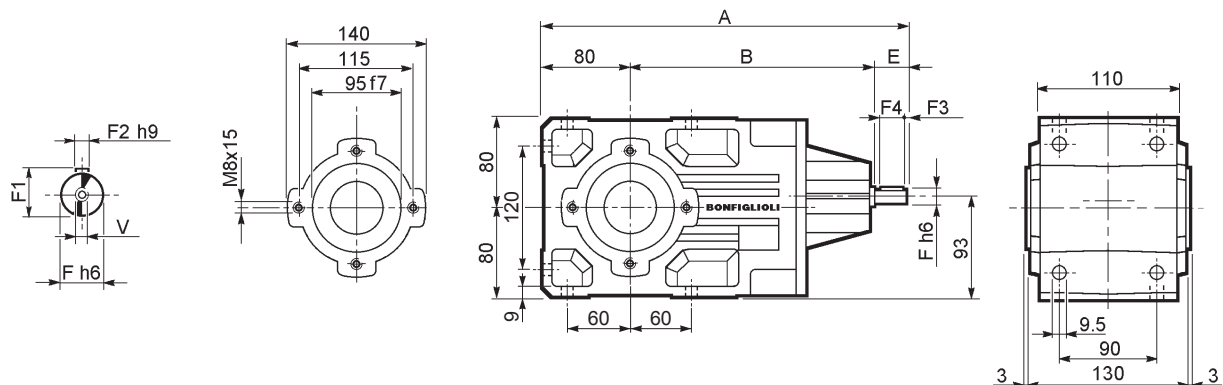


## A 20...P(IEC)

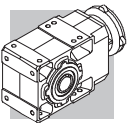


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 20 2	P63	11	12.8	4	140	115	95	—	M8x19	4	306	12
A 20 2	P71	14	16.3	5	160	130	110	—	M8x16	4.5	306	12
A 20 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	325.5	13
A 20 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	325.5	13
A 20 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	335.5	17
A 20 2	P112	28	31.3	8	250	215	180	—	M12x16	4.5	335.5	17
A 20 3	P63	11	12.8	4	140	115	95	—	M8x19	4	361.5	13
A 20 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	361.5	13
A 20 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	381	14
A 20 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	381	14
A 20 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	391	18
A 20 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	391	18

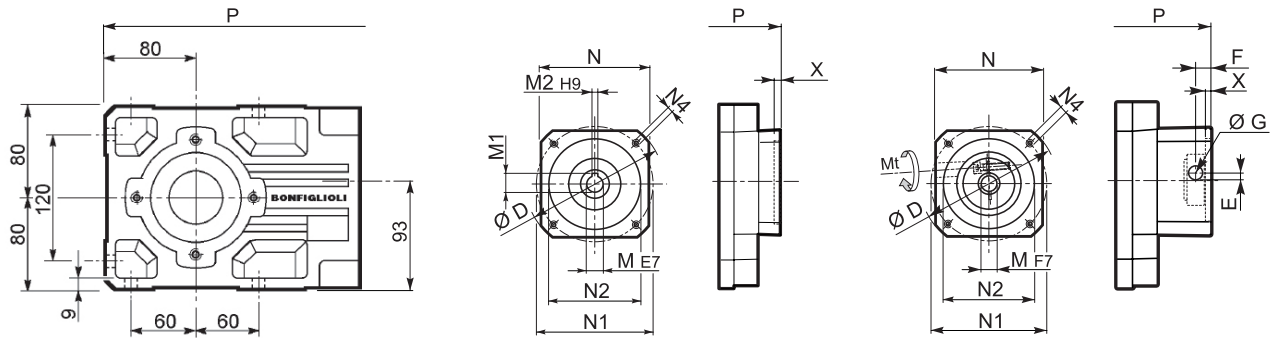
## A 20...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
A 20 2	HS	356	236	40	19	21.5	6	2.5	35	M6x16	11.9
A 20 3		368.5	248.5	40	16	18	5	2.5	35	M6x16	12.2



## A 20...SK / SC



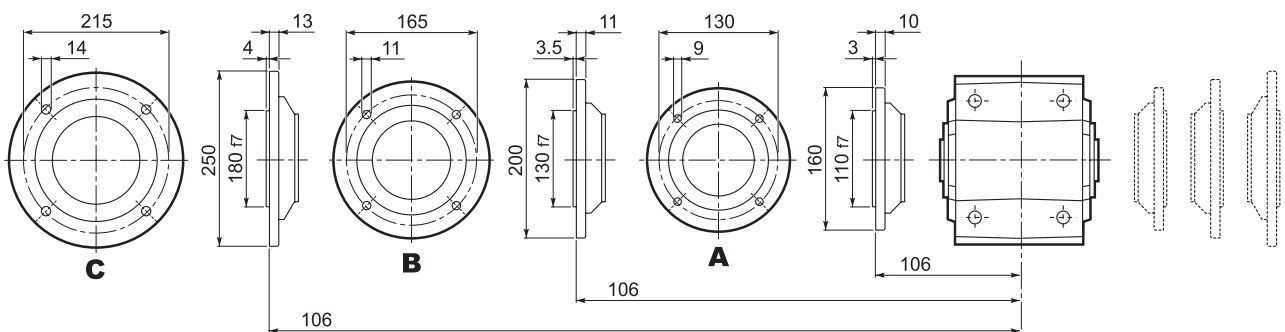
**SK...**

**SC...**

		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
A 20 2/3	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	277.5	333	11/12
A 20 2/3	SK60B	102	14	16.3	5	82	75	60	M5x10	4	284.5	340	12/13
A 20 2/3	SK80A	115	14	16.3	5	90	100	80	M6x12	4	284.5	340	12/13
A 20 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	325.5	381	13/14
A 20 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	325.5	381	13/14
A 20 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	325.5	381	13/14
A 20 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	325.5	381	13/14
A 20 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	325.5	381	13/14
A 20 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	325.5	381	13/14

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2x	3x	
A 20 2/3	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	304.5	360	12/13
A 20 2/3	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	304.5	360	13/14
A 20 2/3	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	304.5	360	13/14
A 20 2/3	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	349	404.5	14/15
A 20 2/3	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	349	404.5	14/15
A 20 2/3	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	349	404.5	14/15
A 20 2/3	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	349	404.5	14/15
A 20 2/3	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	349	404.5	15/16
A 20 2/3	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	349	404.5	15/16

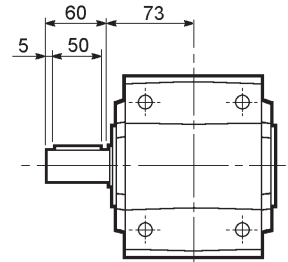
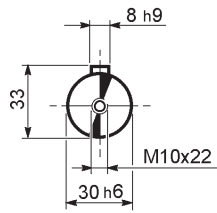
## A 20...F...



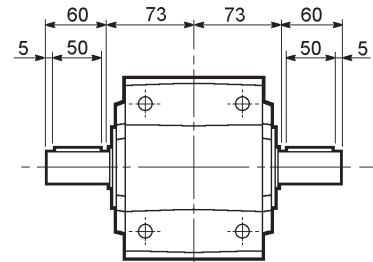
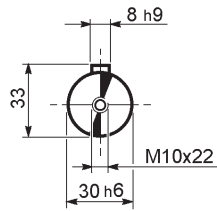


# A 20

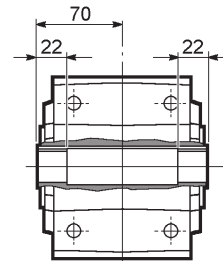
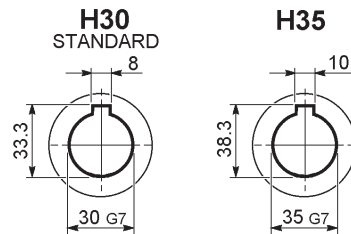
## A 20...UR



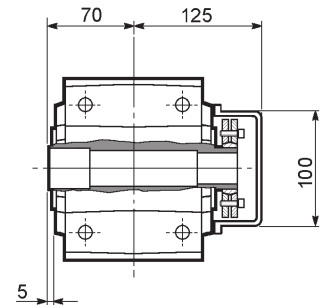
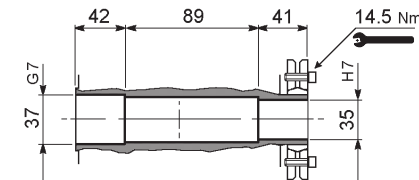
## A 20...UD



## A 20...UH

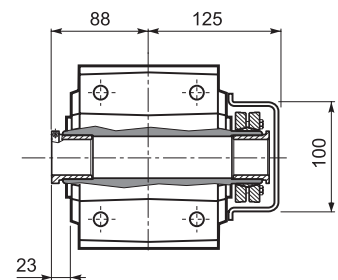
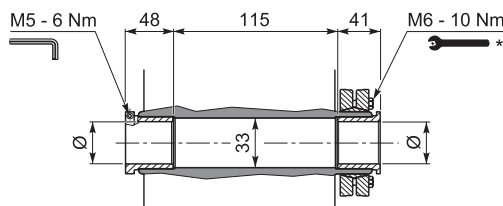


## A 20...US

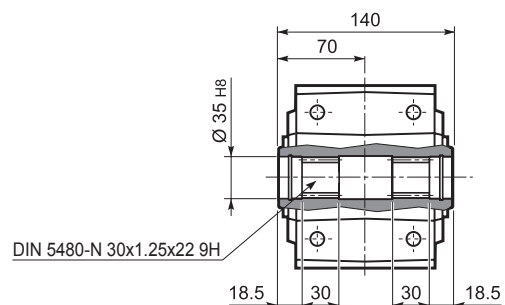


## A 20...QF

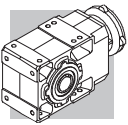
	Ø
QF25	25
QF30	30



## A 20...UV



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



## A 30...M

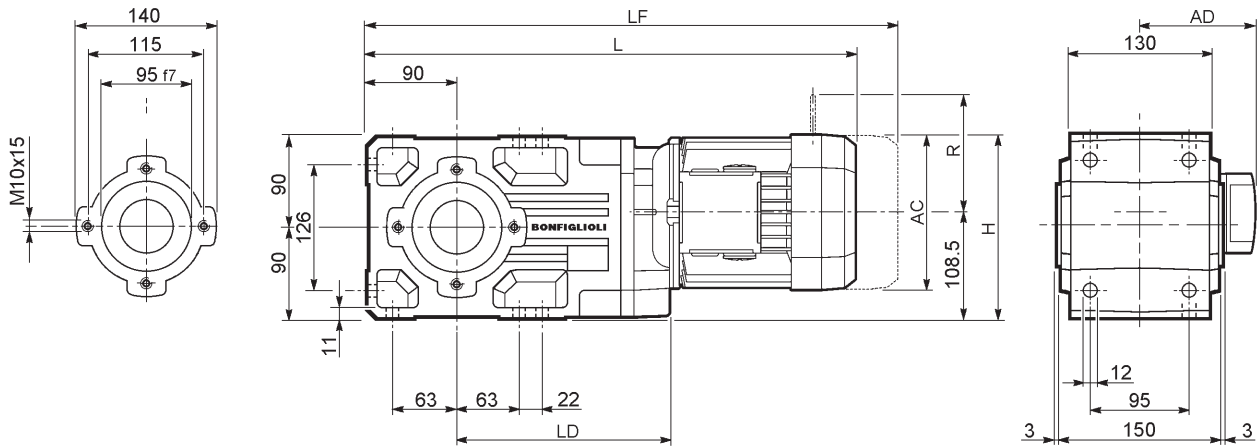
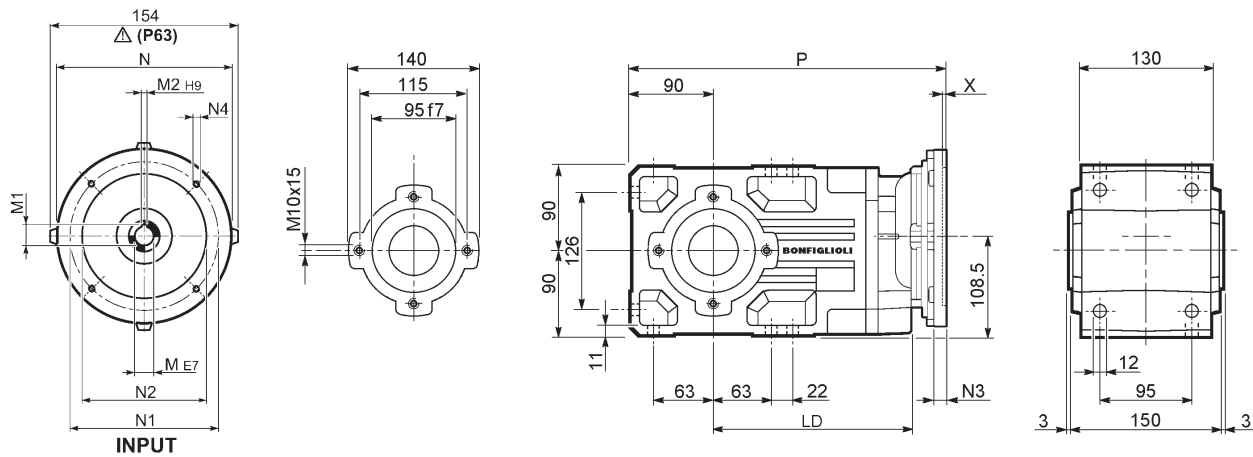


Image	S	M	AC	H	L	LD	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
	<b>S1</b>	<b>M1</b>	138	177.5	488	201	108	22	549	24	103	135	124	108
	<b>S2</b>	<b>M2S</b>	156	186.5	517	213	119	25	587	29	129	146	134	119
	<b>S3</b>	<b>M3S</b>	195	206	560	223	142	30	656	38	160	158	160	142
	<b>S3</b>	<b>M3L</b>	195	206	592	223	142	38	683	45	160	158	160	142
	<b>S05</b>	<b>M05</b>	121	169	516.5	—	95	21	582.5	22	96	122	116	95
	<b>S1</b>	<b>M1</b>	138	177.5	545.5	—	108	23	606.5	26	103	135	124	108
	<b>S2</b>	<b>M2S</b>	156	186.5	574.5	—	119	25	644.5	29	129	146	134	119
	<b>S3</b>	<b>M3S</b>	195	206	617.5	—	142	30	713.5	38	160	158	160	142
	<b>S3</b>	<b>M3L</b>	195	206	649.5	—	142	38	740.5	45	160	158	160	142



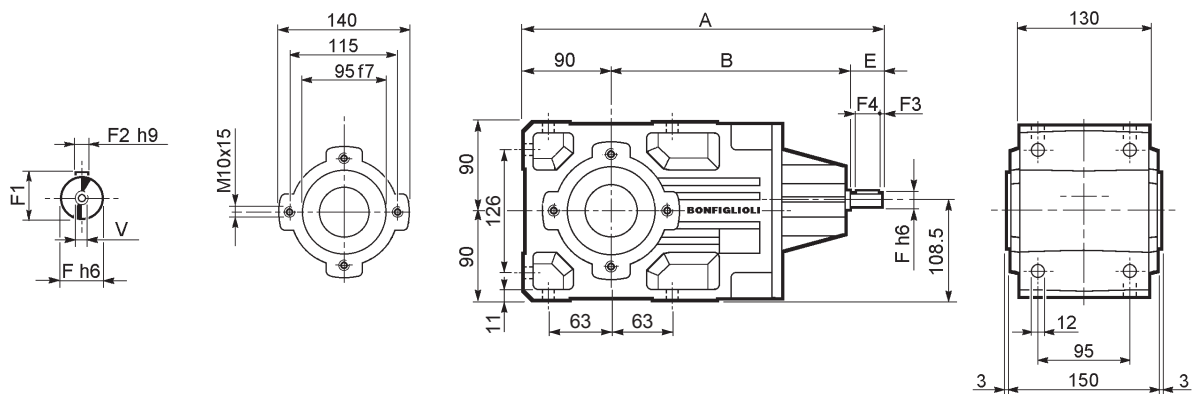


## A 30...P(IEC)



		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 30 2	P63	213	11	12.8	4	140	115	95	—	M8x19	4	333	16
A 30 2	P71	213	14	16.3	5	160	130	110	—	M8x16	4.5	333	16
A 30 2	P80	223	19	21.8	6	200	165	130	—	M10x14.5	4	352.5	17
A 30 2	P90	223	24	27.3	8	200	165	130	—	M10x14.5	4	352.5	17
A 30 2	P100	223	28	31.3	8	250	215	180	—	M12x16	4.5	362.5	20
A 30 2	P112	223	28	31.3	8	250	215	180	—	M12x16	4.5	362.5	20
A 30 3	P63	—	11	12.8	4	140	115	95	—	M8x19	4	390.5	17
A 30 3	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	390.5	17
A 30 3	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	410	18
A 30 3	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	410	18
A 30 3	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	420	22
A 30 3	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	420	22

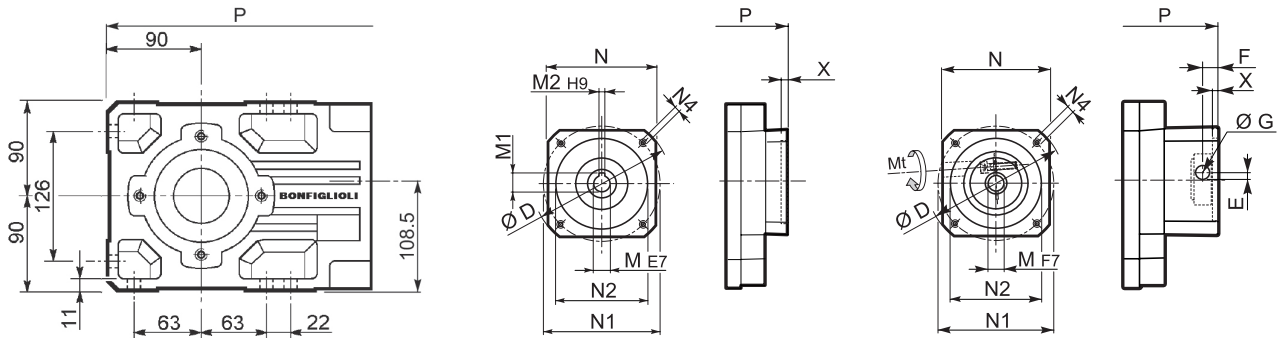
## A 30...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
A 30 2	HS	383	253	40	19	21.5	6	2.5	35	M6x16	16.7
A 30 3	HS	397.5	267.5	40	16	18	5	2.5	35	M6x16	16.5



## A 30...SK / SC



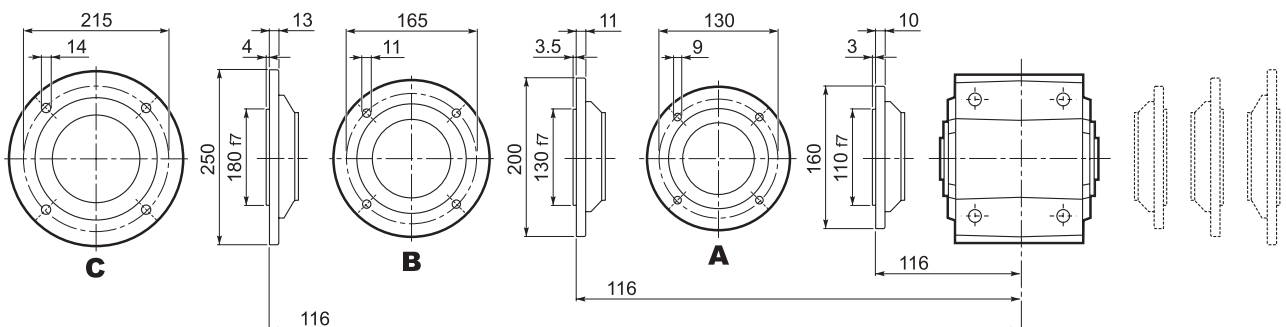
**SK...**

**SC...**

		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
A 30 2/3	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	304.5	362	15/16
A 30 2/3	SK60B	102	14	16.3	5	82	75	60	M5x10	4	311.5	369	16/17
A 30 2/3	SK80A	115	14	16.3	5	90	100	80	M6x12	4	311.5	369	16/17
A 30 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	352.5	410	17/18
A 30 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	352.5	410	17/18
A 30 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	352.5	410	17/18
A 30 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	352.5	410	17/18
A 30 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	352.5	410	17/18
A 30 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	352.5	410	17/18
A 30 2	SK130A	188	24	27.3	8	142	165	130	M10x20	5	352.5	—	18

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2x	3x	
A 30 2/3	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	331.5	389	16/17
A 30 2/3	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	331.5	389	17/18
A 30 2/3	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	331.5	389	17/18
A 30 2/3	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	376	433.5	18/19
A 30 2/3	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	376	433.5	18/19
A 30 2/3	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	376	433.5	18/19
A 30 2/3	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	376	433.5	18/19
A 30 2/3	SC 110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	376	433.5	19/20
A 30 2/3	SC 110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	376	433.5	19/20
A 30 2	SC 130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	376	—	20

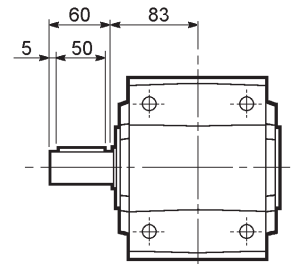
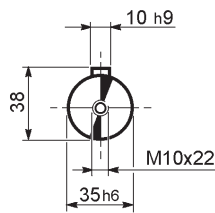
## A 30...F...



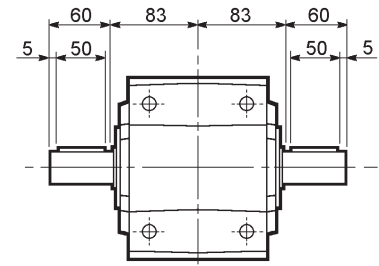
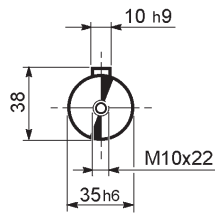


# A 30

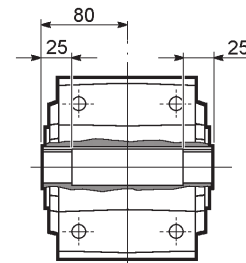
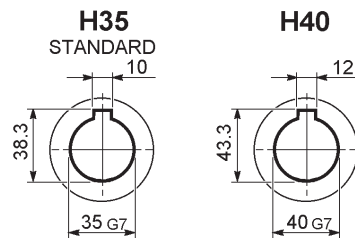
## A 30...UR



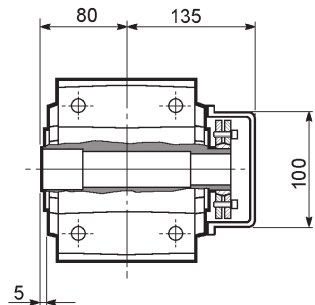
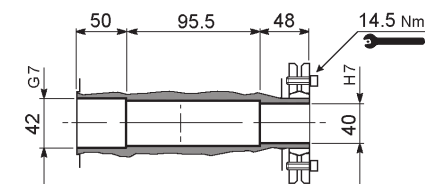
## A 30...UD



## A 30...UH

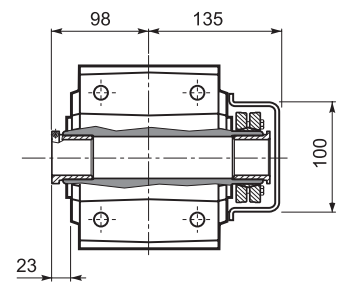
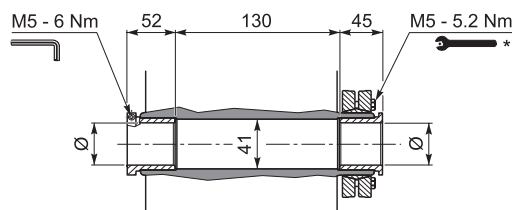


## A 30...US

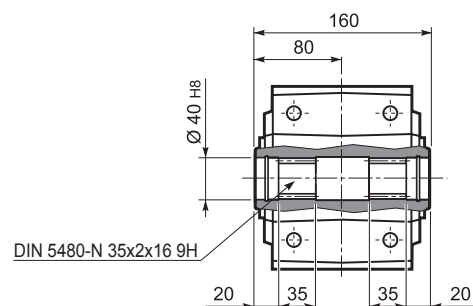


## A 30...QF

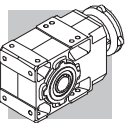
	Ø
QF35	35
QF40	40



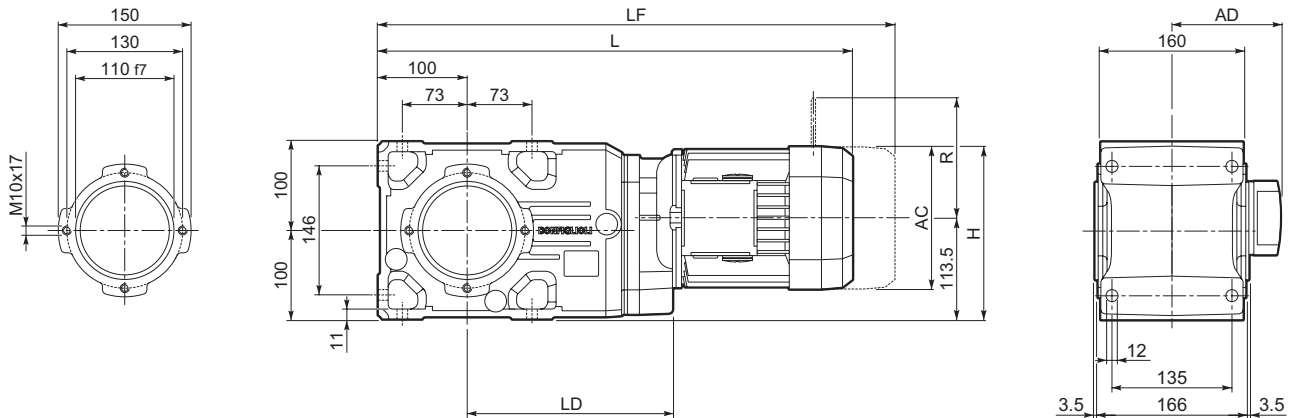
## A 30...UV



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



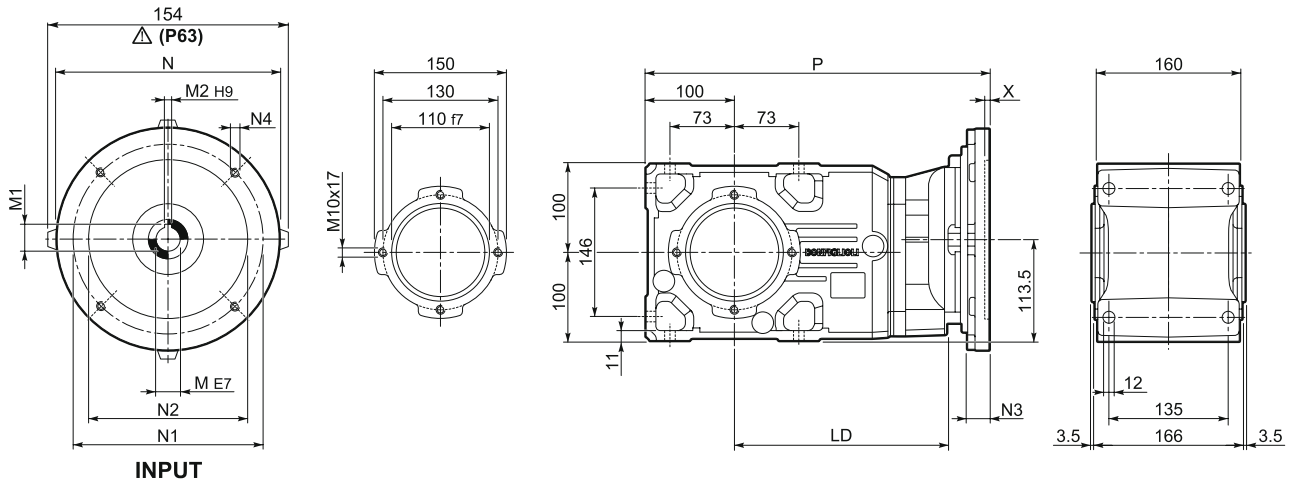
## A 35...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD		LF		R	AD	R	AD			
			A 35 2	S1	M1	138	182.5	514.5	217.5	108	34	575.5	36	103	135	124	108
			A 35 2	S2	M2S	156	191.5	543.5	229.5	119	37	613.5	41	129	146	134	119
			A 35 2	S3	M3S	195	211	586.5	239.5	142	42	682.5	50	160	158	160	142
			A 35 2	S3	M3L	195	211	618.5	239.5	142	50	709.5	57	160	158	160	142
			A 35 2	S4	M4S	258	242.5	726.5	—	193	89	835.5	107	226	210	217	193
			A 35 2	S4	M4L	258	242.5	761.5	—	193	97	860.5	115	226	210	217	193
			A 35 3	S05	M05S	121	174	543	—	95	33	609	34	96	122	116	95
			A 35 3	S1	M1	138	182.5	572	—	108	35	633	38	103	135	124	108
			A 35 3	S2	M2S	156	191.5	601	—	119	37	671	41	129	146	134	119
			A 35 3	S3	M3S	195	211	644	—	142	42	740	50	160	158	160	142
			A 35 3	S3	M3L	195	211	676	—	142	50	767	57	160	158	160	142

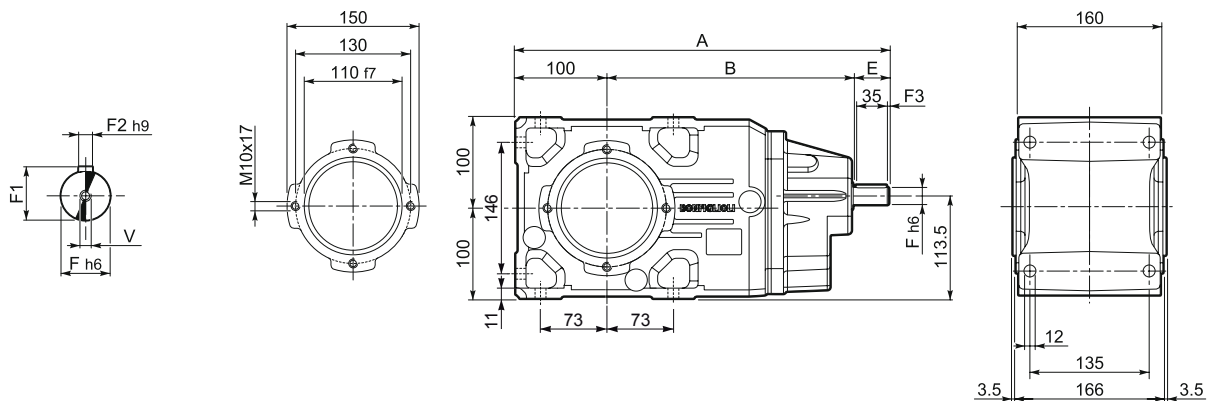


## A 35...P(IEC)



		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
		229.5	11	12.8	4	140	115	95	—	M8x19	4	359.5	28
		229.5	14	16.3	5	160	130	110	—	M8x16	4.5	359.5	28
		239.5	19	21.8	6	200	165	130	—	M10x14.5	4	379	29
		239.5	24	27.3	8	200	165	130	—	M10x14.5	4	379	29
		239.5	28	31.3	8	250	215	180	—	M12x16	4.5	389	32
		239.5	28	31.3	8	250	215	180	—	M12x16	4.5	389	32
		—	38	41.3	10	300	265	230	16	14	5	425.5	40
		—	11	12.8	4	140	115	95	—	M8x19	4	417	29
		—	14	16.3	5	160	130	110	—	M8x16	4.5	417	29
		—	19	21.8	6	200	165	130	—	M10x14.5	4	436.5	30
		—	24	27.3	8	200	165	130	—	M10x14.5	4	436.5	30
		—	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	34
		—	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	34

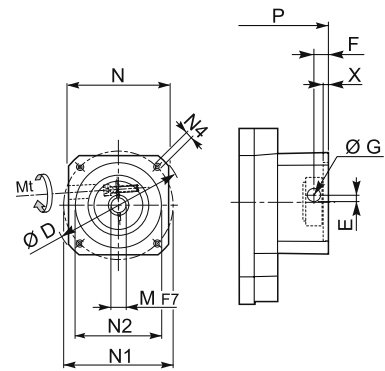
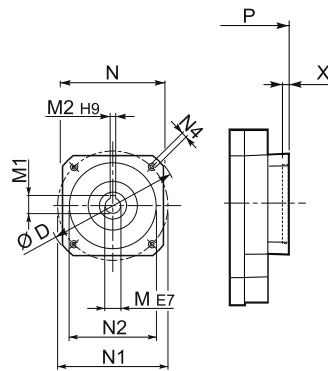
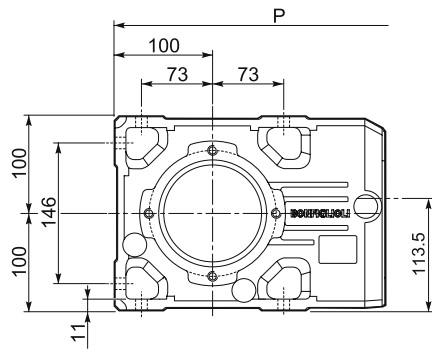
## A 35...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
		409.5	269.5	40	19	21.5	6	2.5	35	M6x16	29
		424	284	40	16	18	5	2.5	35	M6x16	29



## A 35...SK / SC



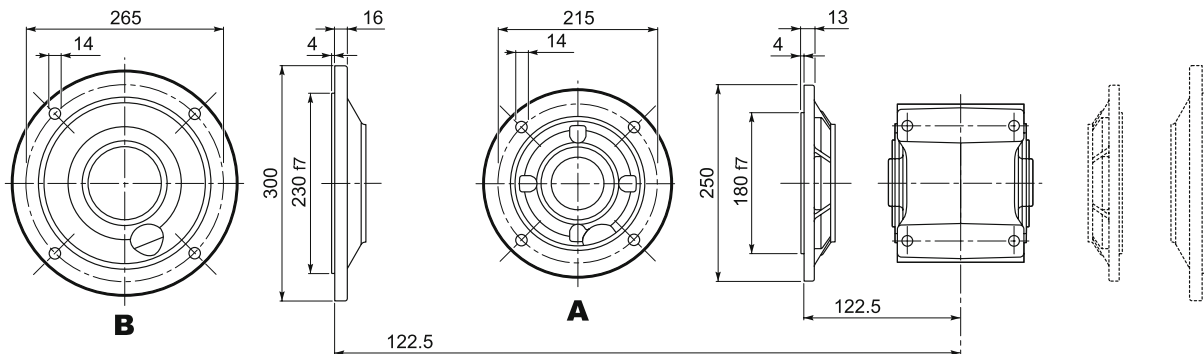
SK...

SC...

		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
A 35 2/3	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	331	388.5	27/28
A 35 2/3	SK60B	102	14	16.3	5	82	75	60	M5x10	4	338	395.5	28/29
A 35 2/3	SK80A	115	14	16.3	5	90	100	80	M6x12	4	338	395.5	28/29
A 35 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	379	436.5	29/30
A 35 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	379	436.5	29/30
A 35 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	379	436.5	29/30
A 35 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	379	436.5	29/30
A 35 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	379	436.5	29/30
A 35 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	379	436.5	29/30
A 35 2	SK130A	188	24	27.3	8	142	165	130	M10x20	5	379	—	30

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2x	3x	
A 35 2/3	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	358	415.5	28/29
A 35 2/3	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	358	415.5	29/30
A 35 2/3	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	358	415.5	29/30
A 35 2/3	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	402.5	460	30/31
A 35 2/3	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	402.5	460	30/31
A 35 2/3	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	402.5	460	30/31
A 35 2/3	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	402.5	460	30/31
A 35 2/3	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	402.5	460	32/33
A 35 2/3	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	402.5	460	32/33
A 35 2	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	402.5	—	33

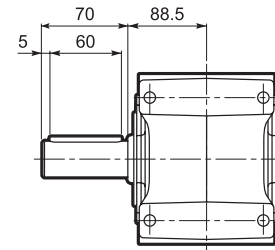
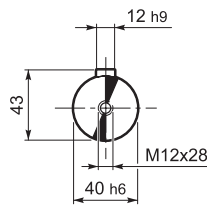
## A 35...F...



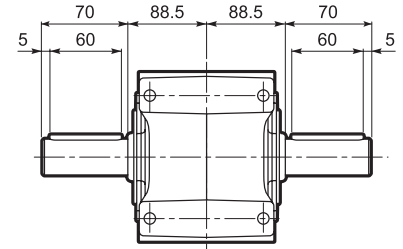
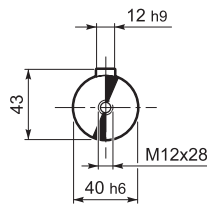


# A 35

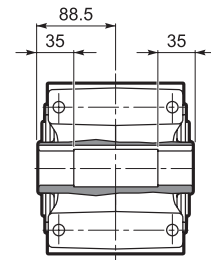
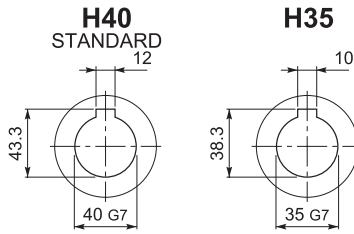
## A 35...UR



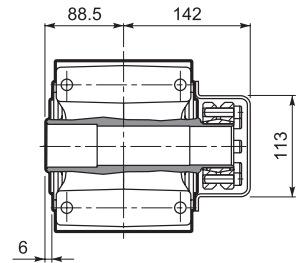
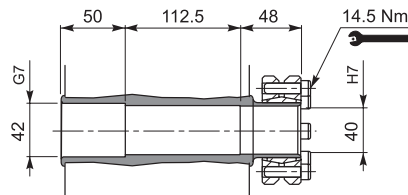
## A 35...UD



## A 35...UH



## A 35...US

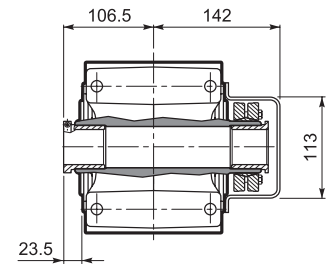
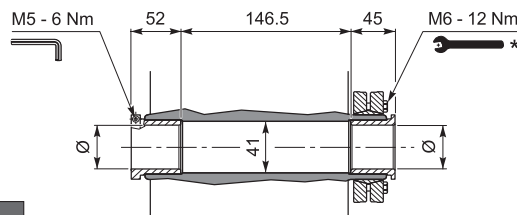


## A 35...QF

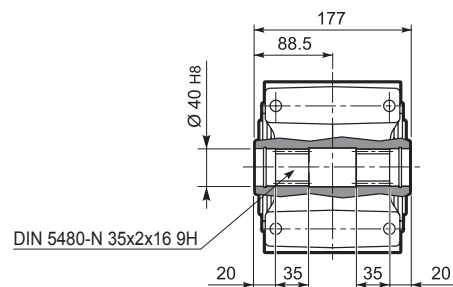
	Ø
QF35	35
QF40	40



	M <sub>n2</sub> max [Nm]
A 35 QF35	550

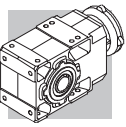


## A 35...UV

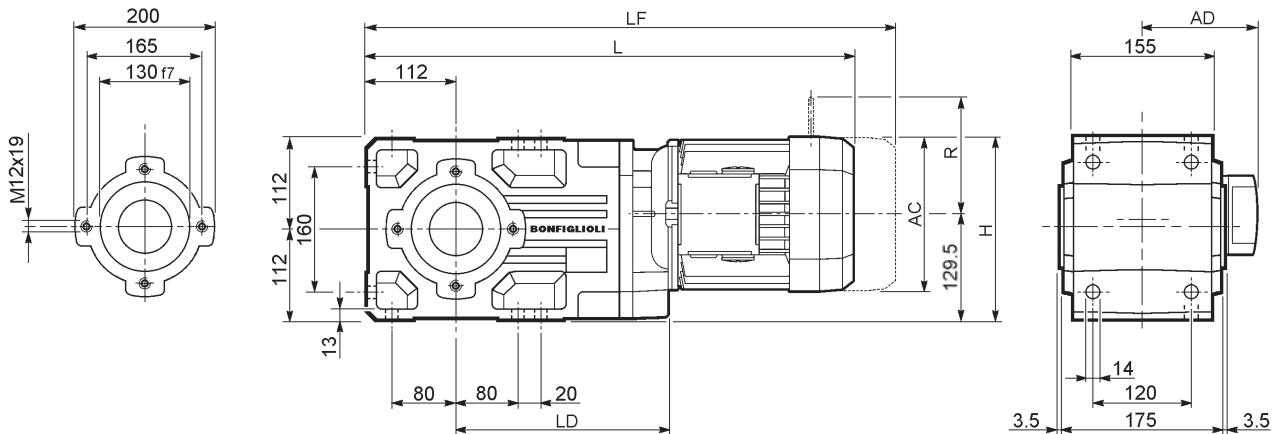


\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.





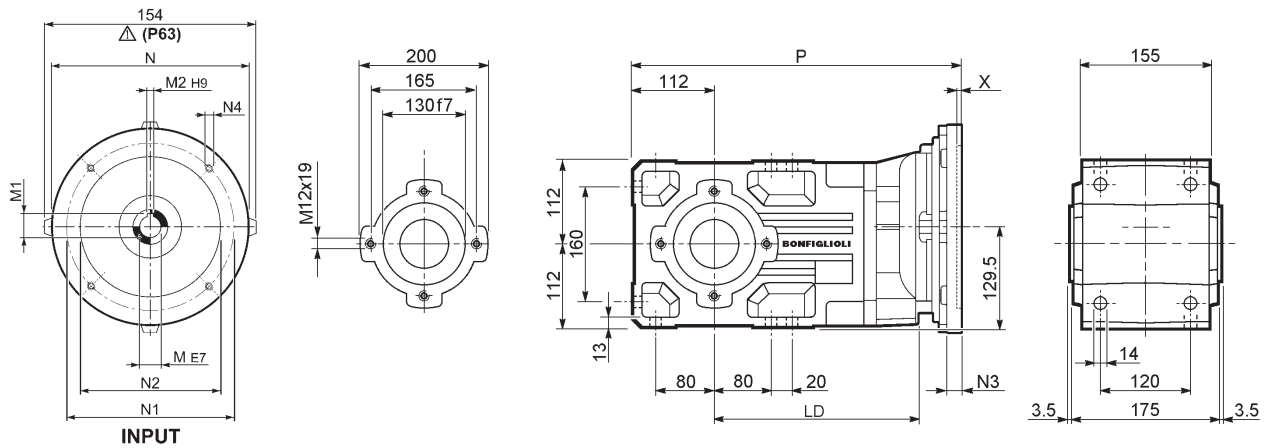
## A 41...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD		LF		R	AD	R	AD			
			A 41 2	S1	M1	138	198.5	530	216.5	108	41	591	44	103	135	124	108
			A 41 2	S2	M2S	156	207.5	559	232	119	45	629	49	129	146	134	119
			A 41 2	S3	M3S	195	227	602	248	142	50	698	58	160	158	160	142
			A 41 2	S3	M3L	195	227	634	248	142	58	725	65	160	158	160	142
			A 41 2	S4	M4	258	258.5	742	—	193	92	851	110	226	210	217	193
			A 41 2	S4	M4LC	258	258.5	777	—	193	100	876	118	226	210	217	193
			A 41 3	S05	M05	121	245	562.5	—	95	44	628.5	46	96	122	116	95
			A 41 3	S1	M1	138	198.5	591.5	—	108	46	652.5	49	103	135	124	108
			A 41 3	S2	M2S	156	207.5	620.5	—	119	50	690.5	58	129	146	134	119
			A 41 3	S3	M3S	195	227	663.5	—	142	55	759.5	62	160	158	160	142
			A 41 3	S3	M3L	195	227	695.5	—	142	61	786.5	68	160	158	160	142

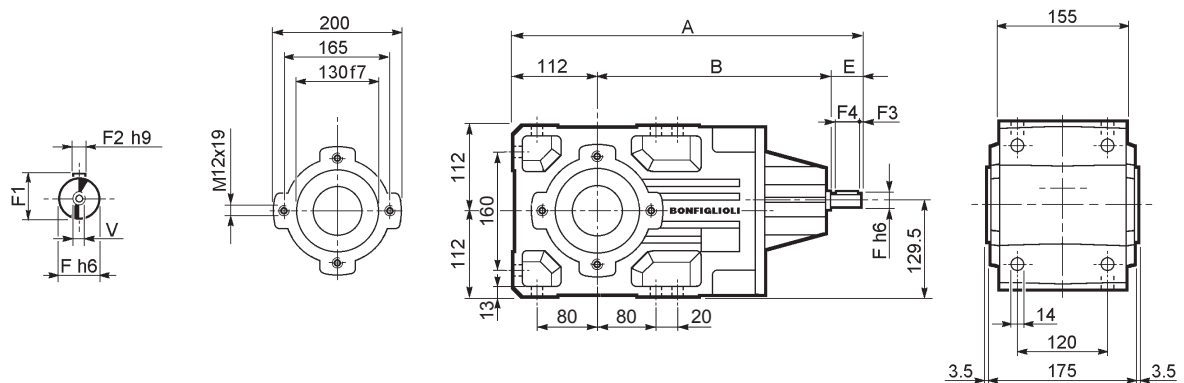


## A 41...P(IEC)

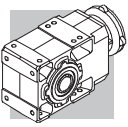


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
		232	11	12.8	4	140	115	95	—	M8x19	4	375	37
		232	14	16.3	5	160	130	110	—	M8x16	4.5	375	38
		248	19	21.8	6	200	165	130	—	M10x14.5	4	394.5	39
		248	24	27.3	8	200	165	130	—	M10x14.5	4	394.5	39
		—	28	31.3	8	250	215	180	—	M12x16	4.5	404.5	43
		—	28	31.3	8	250	215	180	—	M12x16	4.5	404.5	43
		—	38	41.3	10	300	265	230	16	14	5	441	46
		—	11	12.8	4	140	115	95	—	M8x19	4	436.5	39
		—	14	16.3	5	160	130	110	—	M8x16	4.5	436.5	39
		—	19	21.8	6	200	165	130	—	M10x14.5	4	456	40
		—	24	27.3	8	200	165	130	—	M10x14.5	4	456	40
		—	28	31.3	8	250	215	180	—	M12x16	4.5	466	44
		—	28	31.3	8	250	215	180	—	M12x16	4.5	466	44

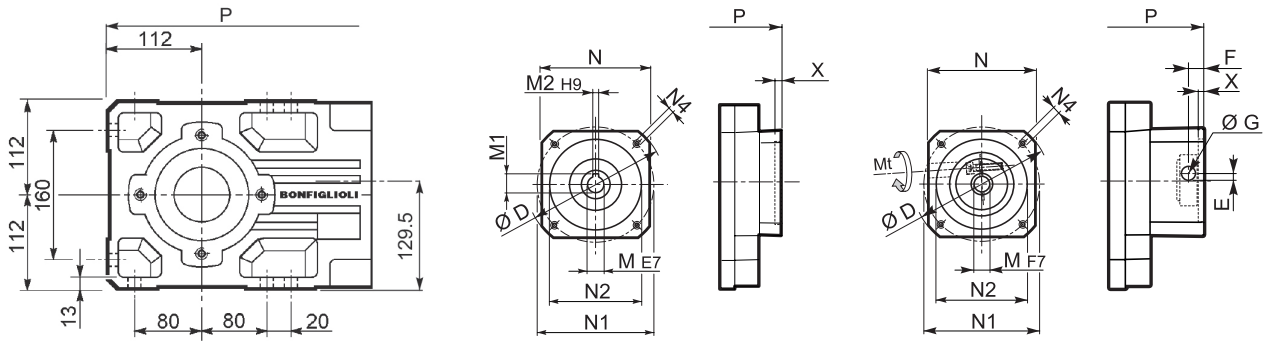
## A 41...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
		464	302.5	50	24	27	8	2.5	45	M8x19	40.7
		486.5	334.5	40	19	21.5	6	2.5	35	M6x16	39.5



## A 41...SK / SC



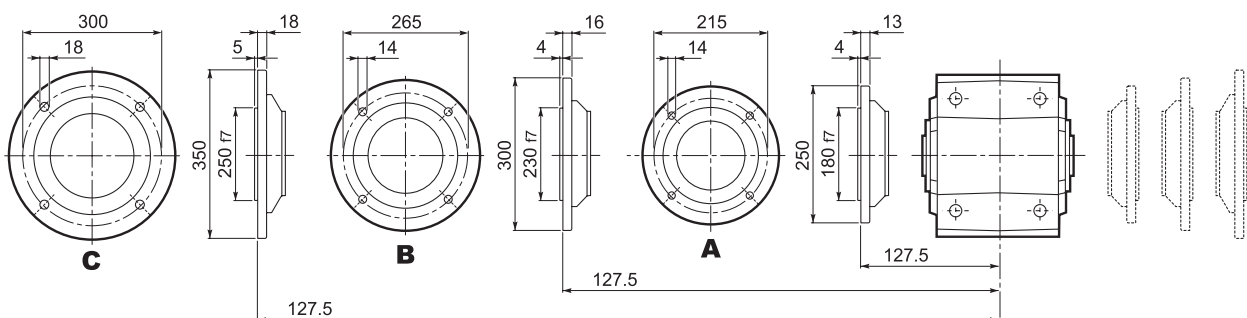
SK...

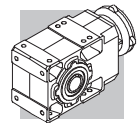
SC...

		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2x	3x	
A41 3	SK60A	102	11	12.8	4	82	75	60	M5x10	3.5	—	408	40
A41 3	SK60B	102	14	16.3	5	82	75	60	M5x10	4	—	415	40
A41 3	SK80A	115	14	16.3	5	90	100	80	M6x12	4	—	415	40
A41 2	SK80B	120	14	16.3	5	96	100	80	M6x12	4	394.5	—	39
A41 2/3	SK80C	120	19	21.8	6	96	100	80	M6x12	4	394.5	456	39/40
A41 2/3	SK95A	130	14	16.3	5	102	115	95	M8x12	4	394.5	456	39/40
A41 2/3	SK95B	130	19	21.8	6	102	115	95	M8x12	4	394.5	456	39/41
A41 2/3	SK95C	130	24	27.3	8	102	115	95	M8x12	4	394.5	456	39/44
A41 2/3	SK110A	150	19	21.8	6	120	130	110	M8x12	5	394.5	456	39/44
A41 2/3	SK110B	150	24	27.3	8	120	130	110	M8x12	5	394.5	456	39/44
A41 2	SK130A	188	24	27.3	8	142	165	130	M10x20	5	394.5	—	41
A41 2	SK130B	189	32	35.3	10	160	165	130	M10x20	5	441	—	43
A41 2	SK180A	240	32	35.3	10	192	215	180	M12x19	5	441	—	43
A41 2	SK180B	240	38	41.3	10	192	215	180	M12x19	5	441	—	43

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2x	3x	
A41 3	SC60A	M6 15	102	7	12.5	12.5	11	82	75	60	M5x10	4	—	435	41
A41 3	SC60B	M6 15	102	7	12.5	12.5	14	82	75	60	M5x10	4	—	435	41
A41 3	SC80A	M6 15	115	6	12.5	12.5	14	90	100	80	M6x12	4	—	435	41
A41 2	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	418	—	40
A41 2/3	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	418	479.5	40/41
A41 2/3	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	418	479.5	40/42
A41 2/3	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	418	479.5	40/42
A41 2/3	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	418	479.5	40/43
A41 2/3	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	418	479.5	41/47
A41 2/3	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	418	479.5	41/47
A41 2	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	418	—	42
A41 2	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	464	—	46
A41 2	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	468	—	46
A41 2	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	468	—	46

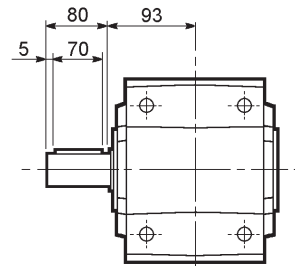
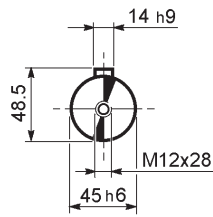
## A 41...F...



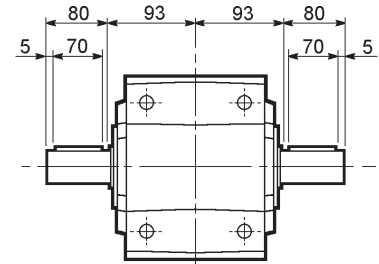
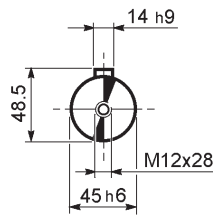


# A 41

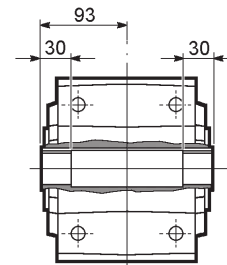
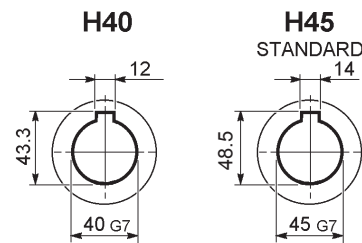
## A 41...UR



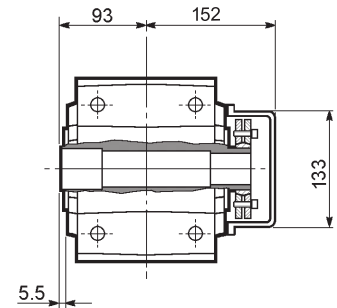
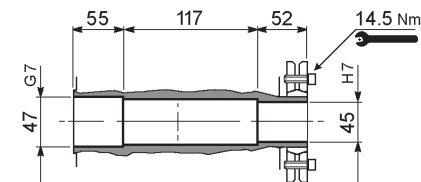
## A 41...UD



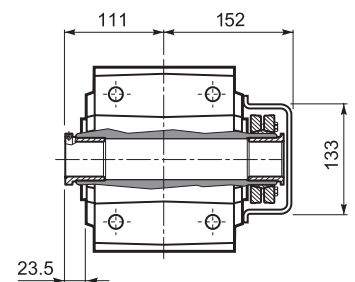
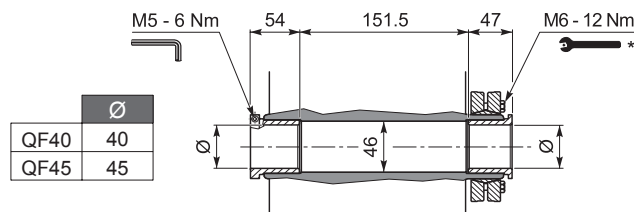
## A 41...UH



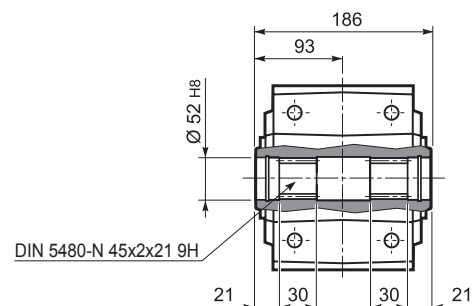
## A 41...US



## A 41...QF



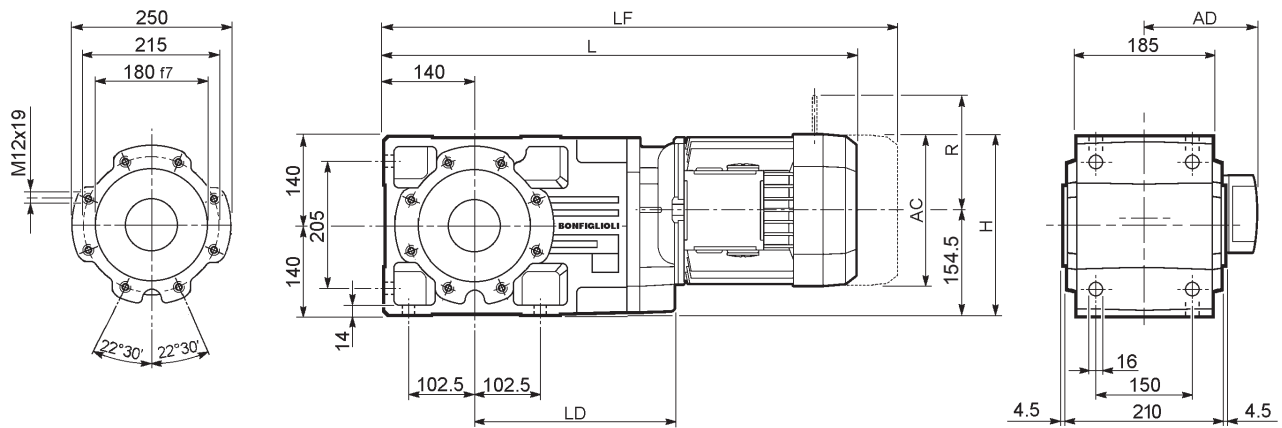
## A 41...UV



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



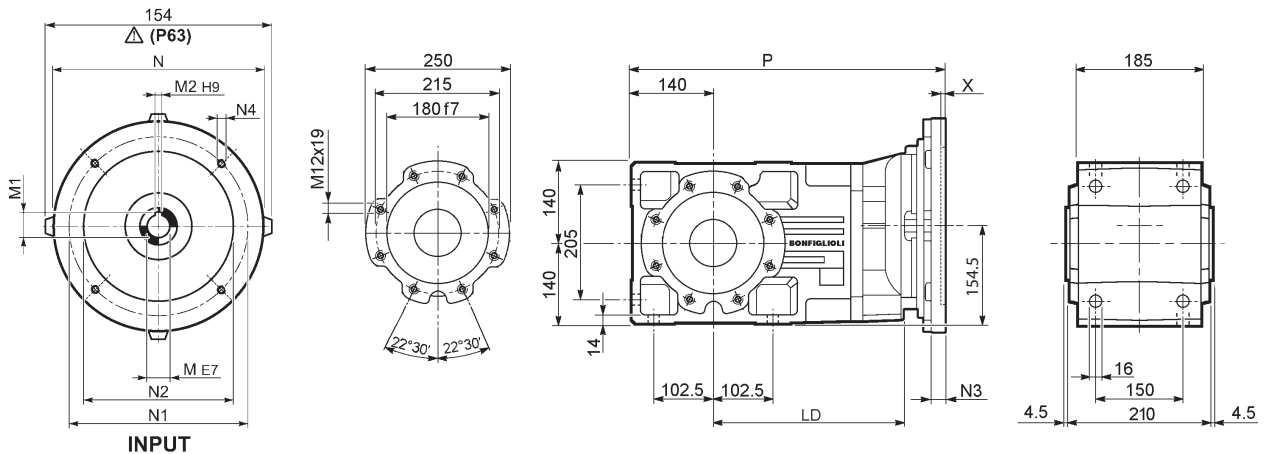
## A 50...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD		LF		R	AD	R	AD			
			A 50 2/3	S1	M1	138	223	609.5	—	108	66	670.5	69	103	135	124	108
			A 50 2/3	S2	M2S	156	232	638.5	284.5	119	68	708.5	72	129	146	134	119
			A 50 2/3	S3	M3S	195	251.5	681.5	299.5	142	73	777.5	81	160	158	160	142
			A 50 2/3	S3	M3L	195	251.5	713.5	299.5	142	81	804.5	88	160	158	160	142
			A 50 2/3	S4	M4	258	283	821.5	284.5	193	115	930.5	133	226	210	217	193
			A 50 2/3	S4	M4LC	258	283	856.5	284.5	193	123	955.5	141	226	210	217	193
			A 50 2/3	S5	M5S	310	309	908	—	245	143	1048	173	266	245	247	245
			A 50 2/3	S5	M5L	310	309	952	—	245	159	1092	189	266	245	247	245
			A 50 4	S1	M1	138	223	681	—	108	67	742	70	103	135	124	108
			A 50 4	S2	M2S	156	232	710	—	119	71	780	75	129	146	134	119
			A 50 4	S3	M3S	195	251.5	753	—	142	76	849	76	160	158	160	142
			A 50 4	S3	M3L	195	251.5	785	—	142	83	876	78	160	158	160	142

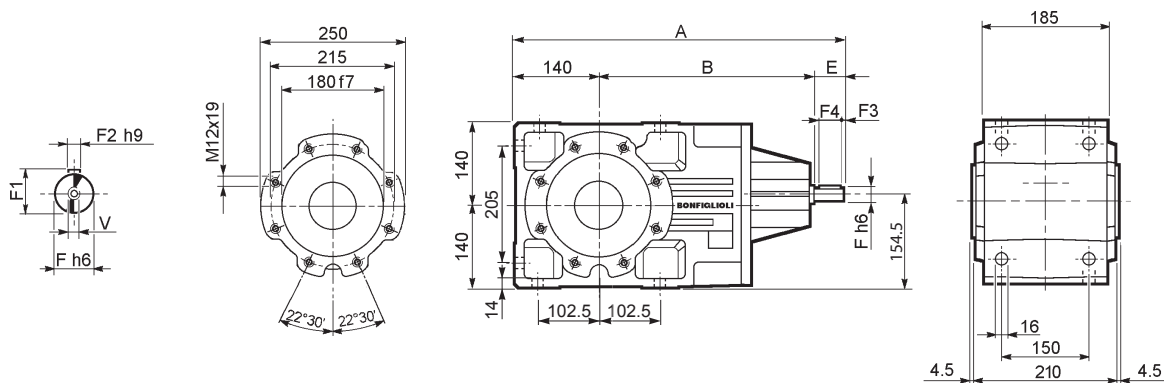


## A 50...P(IEC)

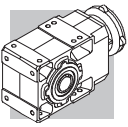


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 50 2/3	P63	284.5	11	12.8	4	140	115	95	—	M8x19	4	454.5	60
A 50 2/3	P71	284.5	14	16.3	5	160	130	110	—	M8x16	4.5	454.5	60
A 50 2/3	P80	299.5	19	21.8	6	200	165	130	—	M10x14.5	4	474	61
A 50 2/3	P90	299.5	24	27.3	8	200	165	130	—	M10x14.5	4	474	61
A 50 2/3	P100	284.5	28	31.3	8	250	215	180	—	M12x16	4.5	484	65
A 50 2/3	P112	284.5	28	31.3	8	250	215	180	—	M12x16	4.5	484	65
A 50 2/3	P132	284.5	38	41.3	10	300	265	230	16	14	5	520.5	68
A 50 2/3	P160	—	42	45.3	12	350	300	250	23	18	5.5	571	72
A 50 2/3	P180	—	48	51.8	14	350	300	250	23	18	5.5	571	72
A 50 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	526	62
A 50 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	526	62
A 50 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	545.5	63
A 50 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	545.5	63
A 50 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	555.5	67
A 50 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	555.5	67

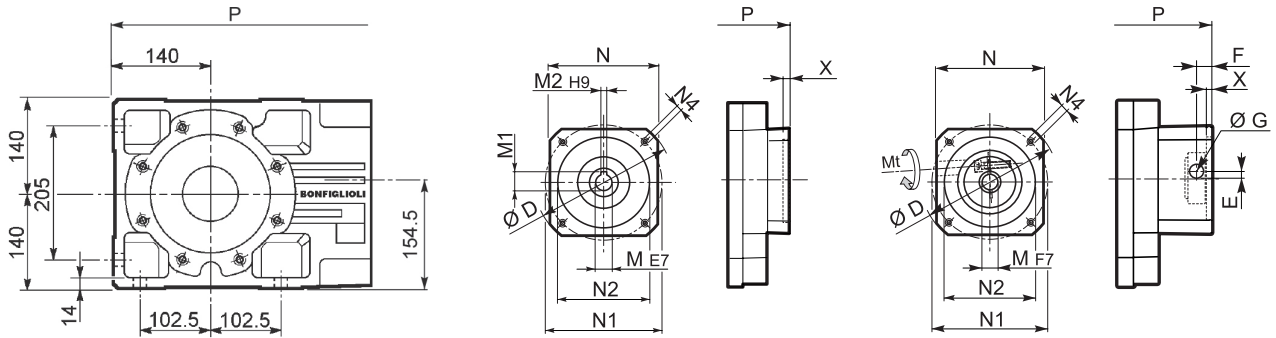
## A 50...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
A 50 2	HS	543.5	353.5	50	24	27	8	2.5	45	M8x19	72
A 50 3		543.5	353.5	50	24	27	8	2.5	45	M8x19	76
A 50 4		576	396	40	19	21.5	6	2.5	35	M6x16	77



## A 50...SK / SC



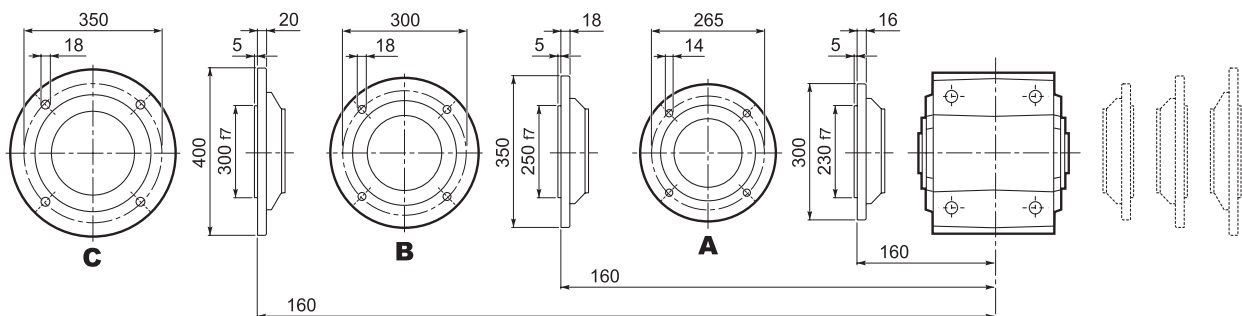
SK...

SC...

		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
A 50 2/3	SK80B	120	14	16.3	5	96	100	80	M6x12	4	474	—	61/61
A 50 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	474	545.5	61/61/63
A 50 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	474	545.5	61/61/63
A 50 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	474	545.5	61/61/63
A 50 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	474	545.5	61/61/63
A 50 2/3/4	SK110A	150	19	21.8	6	120	130	110	M8x12	5	474	545.5	61/61/65
A 50 2/3/4	SK110B	150	24	27.3	8	120	130	110	M8x12	5	474	575	61/61/65
A 50 2/3/4	SK130A	188	24	27.3	8	142	165	130	M10x20	5	474	575	63/63/66
A 50 2/3	SK130B	189	32	35.3	10	160	165	130	M10x20	5	520.5	—	69/69
A 50 2/3	SK180A	240	32	35.3	10	192	215	180	M12x19	5	520.5	—	69/69
A 50 2/3	SK180B	240	38	41.3	10	192	215	180	M12x19	5	520.5	—	69/69

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	3x	
A 50 2/3	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	497.5	—	62/62
A 50 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	497.5	569	62/62/64
A 50 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	497.5	569	62/62/64
A 50 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	497.5	569	62/62/64
A 50 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	497.5	569	62/62/64
A 50 2/3/4	SC110A	M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	497.5	569	63/63/66
A 50 2/3/4	SC110B	M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	497.5	569	63/63/66
A 50 2/3/4	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	497.5	569	64/64/67
A 50 2/3	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	543.5	—	68/68
A 50 2/3	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	547.5	—	68/68
A 50 2/3	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	547.5	—	68/68

## A 50...F...

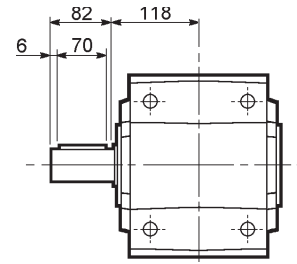
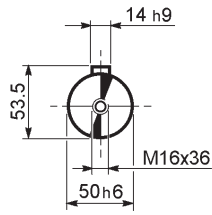




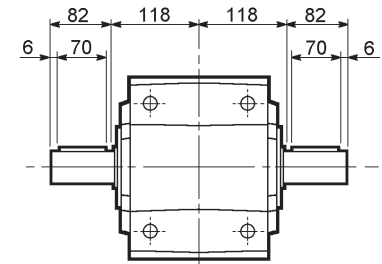
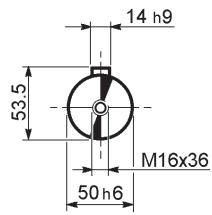


# A 50

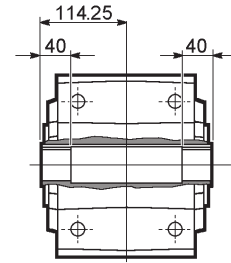
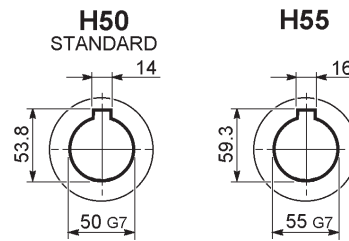
## A 50...UR



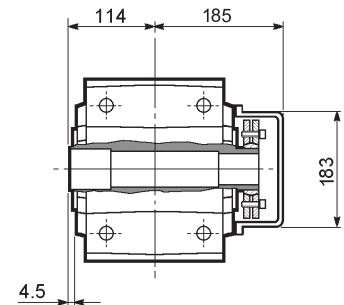
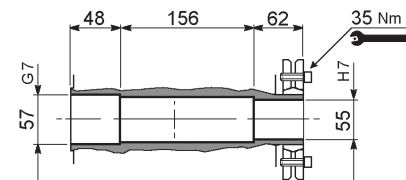
## A 50...UD



## A 50...UH

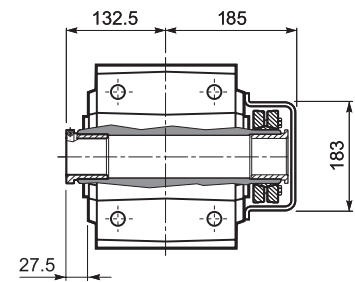
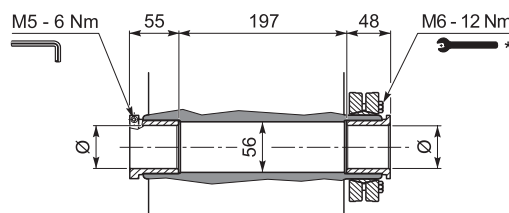


## A 50...US

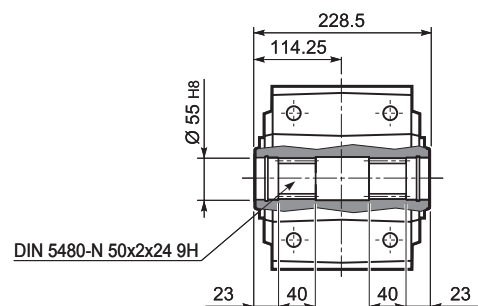


## A 50...QF

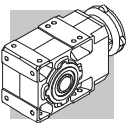
	Ø
QF50	50
QF55	55



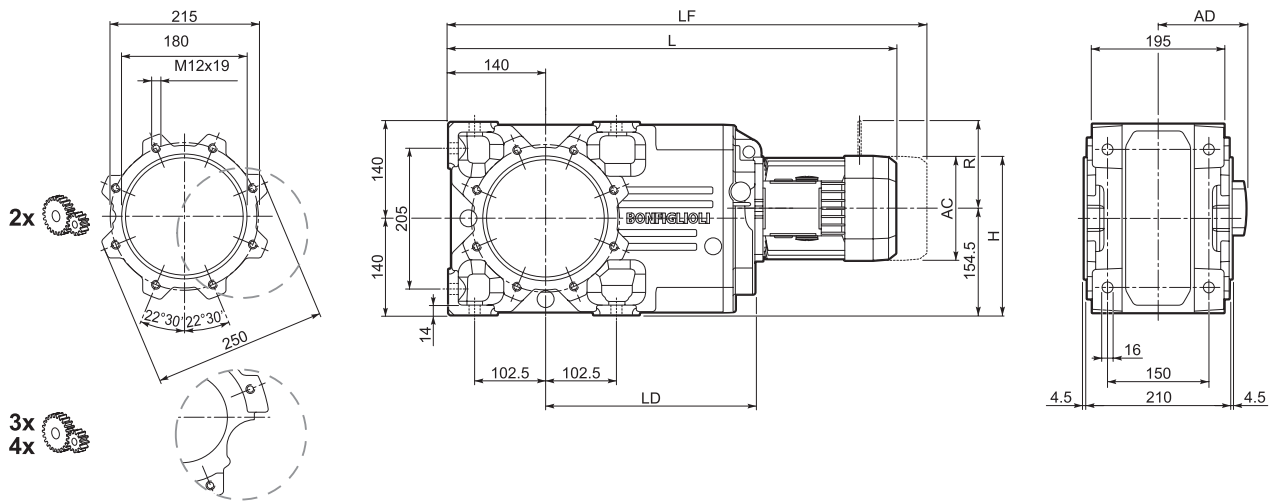
## A 50...UV



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



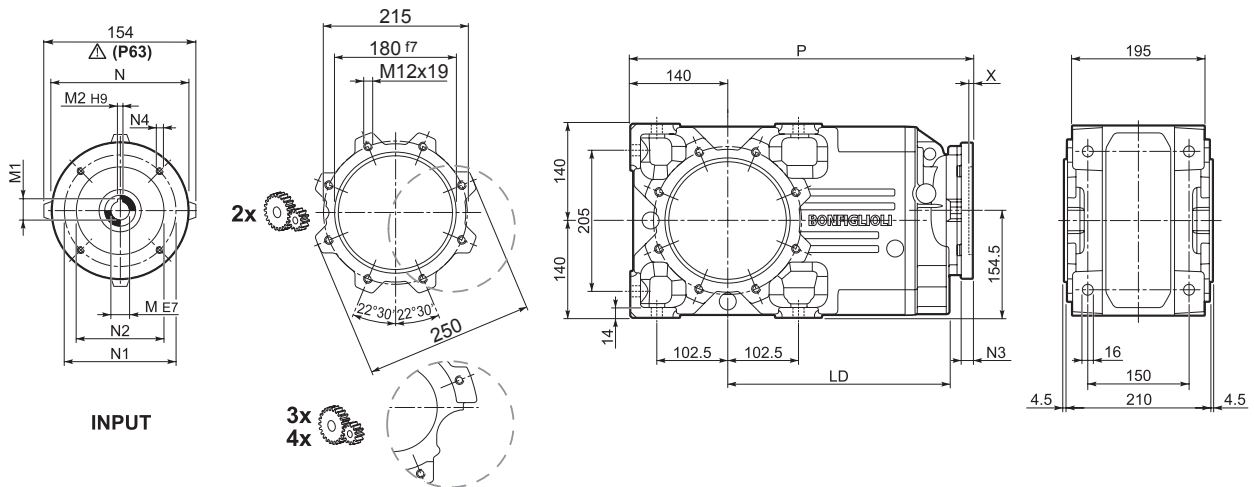
## A 55...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD	Kg	LF	Kg	R	AD	R	AD			
			A 55 3	S1	M1	138	198.5	627.5	—	108	81	688.5	84	103	135	124	108
			A 55 2/3	S2	M2S	156	232	656.5	302.5	119	88	726.5	92	129	146	134	119
			A 55 2/3	S3	M3S	195	251	699.5	317.5	142	93	795.5	99	160	158	160	142
			A 55 2/3	S3	M3L	195	251	731.5	317.5	142	101	822.5	108	160	158	160	142
			A 55 2/3	S4	M4	258	283	839.5	302.5	193	135	948.5	153	226	210	217	193
			A 55 2/3	S4	M4LC	258	283	874.5	302.5	193	143	973.5	161	226	210	217	193
			A 55 2/3	S5	M5S	310	309.5	926	—	245	163	1066	193	266	245	247	245
			A 55 2/3	S5	M5L	310	309.5	970	—	245	179	1110	209	266	245	247	245
			A 55 4	S1	M1	138	223	699	—	108	82	760	85	103	135	124	108
			A 55 4	S2	M2S	156	232	728	—	119	86	798	90	129	146	134	119
			A 55 4	S3	M3S	195	251.5	771	—	142	91	867	98	160	158	160	142
			A 55 4	S3	M3L	195	251.5	803	—	142	98	894	105	160	158	160	142

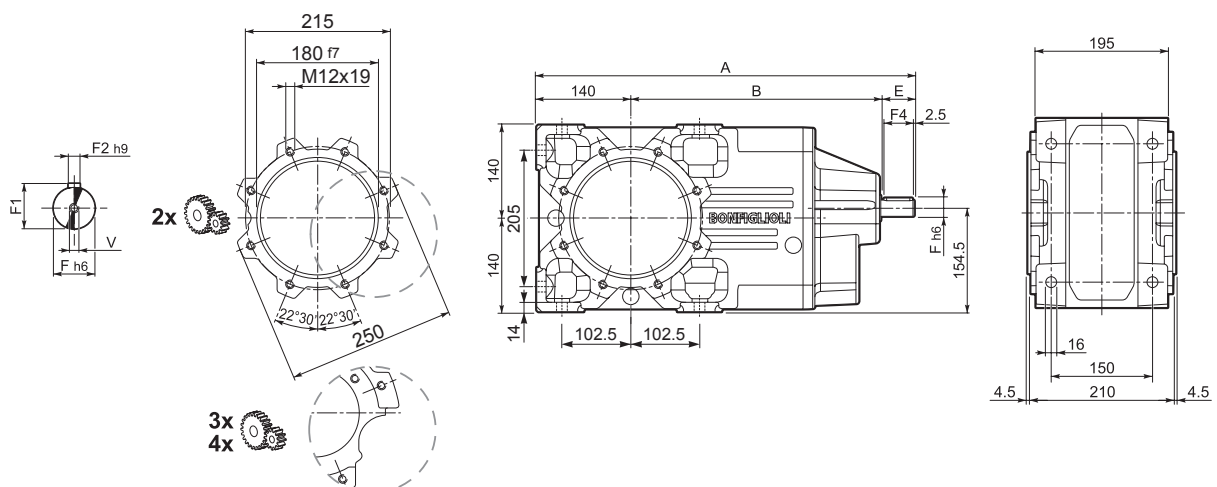


## A 55...P(IEC)



		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 55 3	P63	302.5	11	12.8	4	140	115	95	—	M8x19	4	472.5	75
A 55 3	P71	302.5	14	16.3	5	160	130	110	—	M8x16	4.5	472.5	75
A 55 2/3	P80	317.5	19	21.8	6	200	165	130	—	M10x14.5	4	492	81
A 55 2/3	P90	317.5	24	27.3	8	200	165	130	—	M10x14.5	4	492	81
A 55 2/3	P100	302.5	28	31.3	8	250	215	180	—	M12x16	4.5	502	85
A 55 2/3	P112	302.5	28	31.3	8	250	215	180	—	M12x16	4.5	502	85
A 55 2/3	P132	302.5	38	41.3	10	300	265	230	16	14	5	538.5	93
A 55 2/3	P160	—	42	45.3	12	350	300	250	23	18	5.5	589	110
A 55 2/3	P180	—	48	51.8	14	350	300	250	23	18	5.5	589	110
A 55 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	544	77
A 55 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	544	77
A 55 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	563.5	78
A 55 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	563.5	78
A 55 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	573.5	82
A 55 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	573.5	82

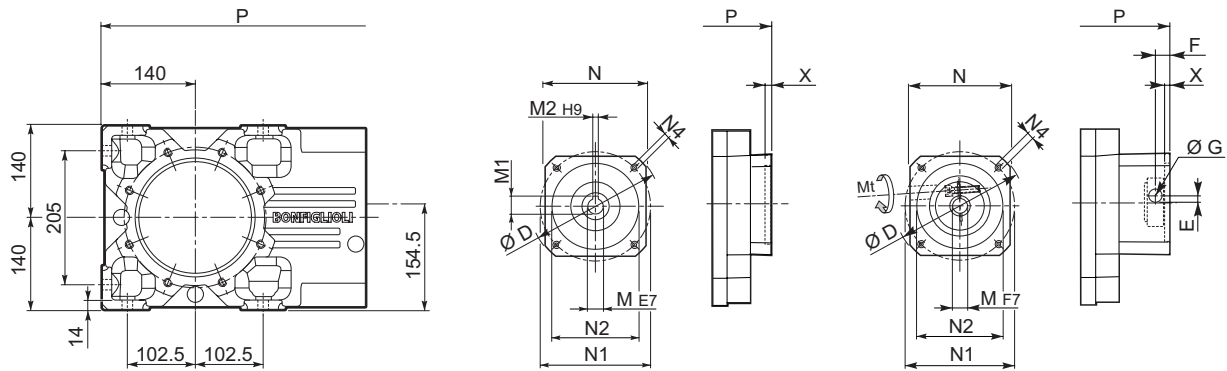
## A 55...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
A 55 2	HS	561.5	371.5	50	24	27	8	2.5	45	M8x19	96
A 55 3		561.5	371.5	50	24	27	8	2.5	45	M8x19	91
A 55 4		594	414	40	19	21.5	6	2.5	35	M6x16	92



## A 55...SK / SC



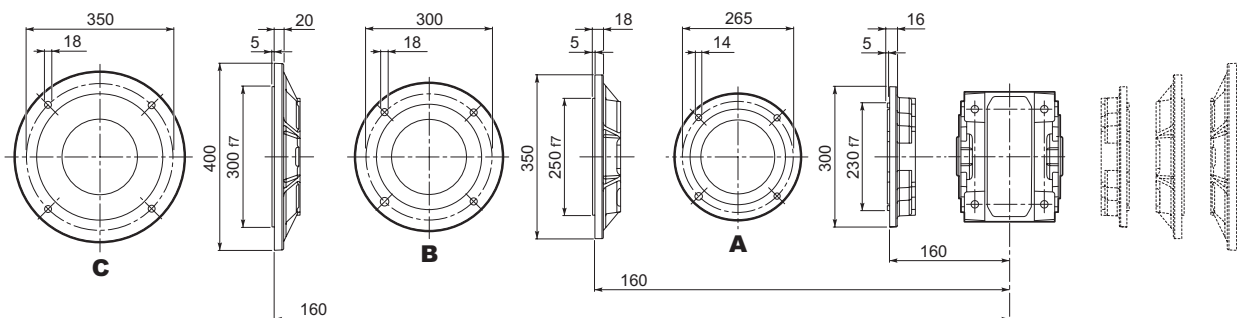
SK...

SC...

Image	Image	D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
		120	14	16.3	5	96	100	80	M6x12	4	492	—	81
		120	19	21.8	6	96	100	80	M6x12	4	492	563.5	81/81/77
		130	14	16.3	5	102	115	95	M8x12	4	492	563.5	81/81/77
		130	19	21.8	6	102	115	95	M8x12	4	492	563.5	81/81/77
		130	24	27.3	8	102	115	95	M8x12	4	492	563.5	81/81/77
		150	19	21.8	6	120	130	110	M8x12	5	492	593	81/81/78
		150	24	27.3	8	120	130	110	M8x12	5	492	593	81/81/78
		188	24	27.3	8	142	165	130	M10x20	5	492	593	83/83/79
		189	32	35.3	10	160	165	130	M10x20	5	538.5	—	90/90
		240	32	35.3	10	192	215	180	M12x19	5	538.5	—	90/90
		240	38	41.3	10	192	215	180	M12x19	5	538.5	—	90/90

Image	Image	Image	Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
														2/3x	3x	
			M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	515.5	—	82
			M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	515.5	587	82/82/78
			M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	515.5	587	82/82/78
			M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	515.5	587	82/82/78
			M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	515.5	587	82/82/78
			M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	515.5	587	83/83/79
			M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	515.5	587	83/83/79
			M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	515.5	587	84/84/80
			M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	561.5	—	93/93
			M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	565.5	—	93/93
			M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	565.5	—	93/93

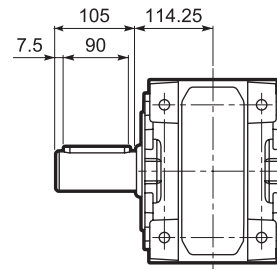
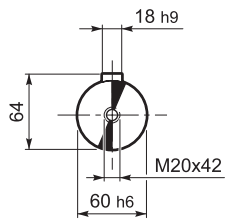
## A 55...F...



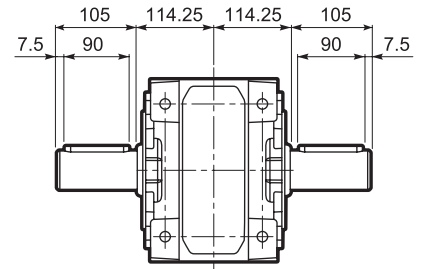
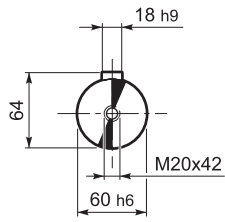


# A 55

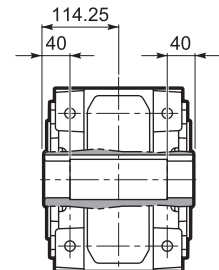
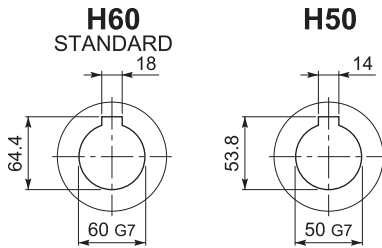
## A 55...UR



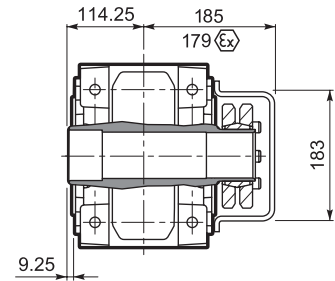
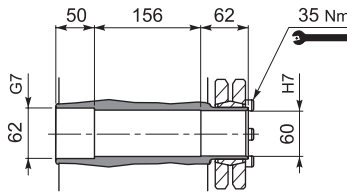
## A 55...UD



## A 55...UH



## A 55...US

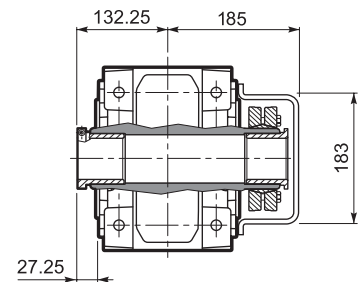
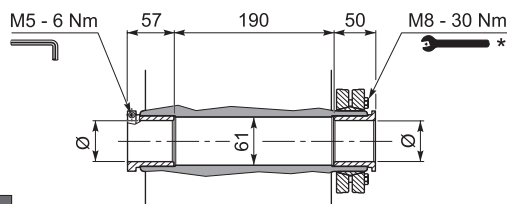


## A 55...QF

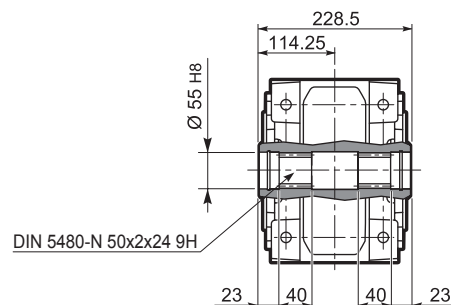
	Ø
QF55	55
QF60	60



	M <sub>n2</sub> max [Nm]
A 55 QF55	1900



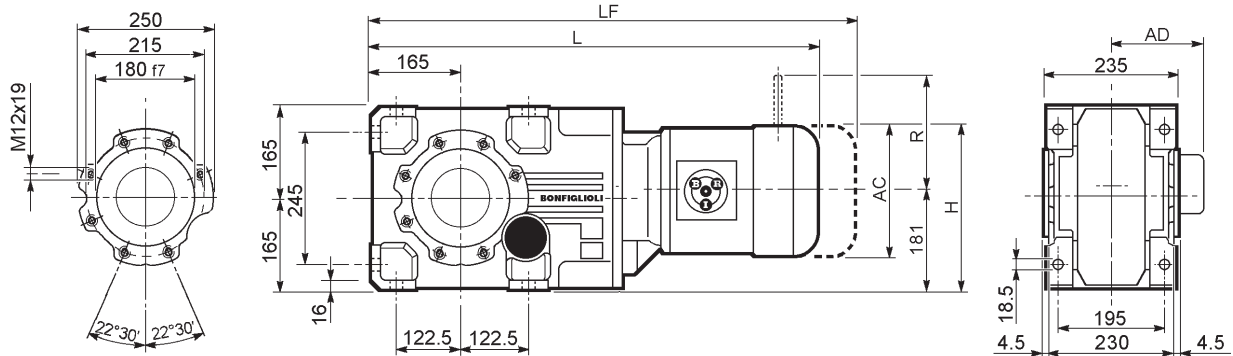
## A 55...UV



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



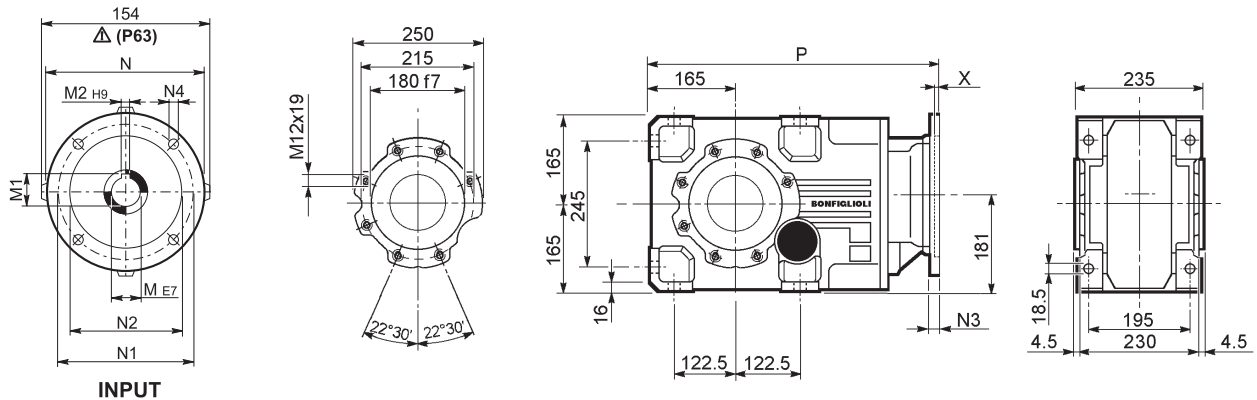
## A 60...M



									M...FD M...FA		M...FD		M...FA			
			AC	H	L	AD		LF		R	AD	R	AD			
			A 60 2/3	S2	M2S	156	256.5	700.5	119	98	770.5	102	129	146	134	119
			A 60 2/3	S3	M3S	195	276	743.5	142	103	839.5	111	160	158	160	142
			A 60 2/3	S3	M3L	195	276	775.5	142	111	866.5	118	160	158	160	142
			A 60 2/3	S4	M4	258	307.5	883.5	193	145	992.5	163	226	210	217	193
			A 60 2/3	S4	M4LC	258	307.5	918.5	193	153	1017.5	171	226	210	217	193
			A 60 2/3	S5	M5S	310	333.5	970	245	173	1110	203	266	245	247	245
			A 60 2/3	S5	M5L	310	333.5	1014	245	189	1154	219	266	245	247	245
			A 60 4	S1	M1	138	247.5	742	108	100	803	103	103	135	124	108
			A 60 4	S2	M2S	156	256.5	771	119	104	841	108	129	146	134	119
			A 60 4	S3	M3S	195	276	814	142	109	910	117	160	158	160	142
			A 60 4	S3	M3L	195	276	846	142	117	937	124	160	158	160	142

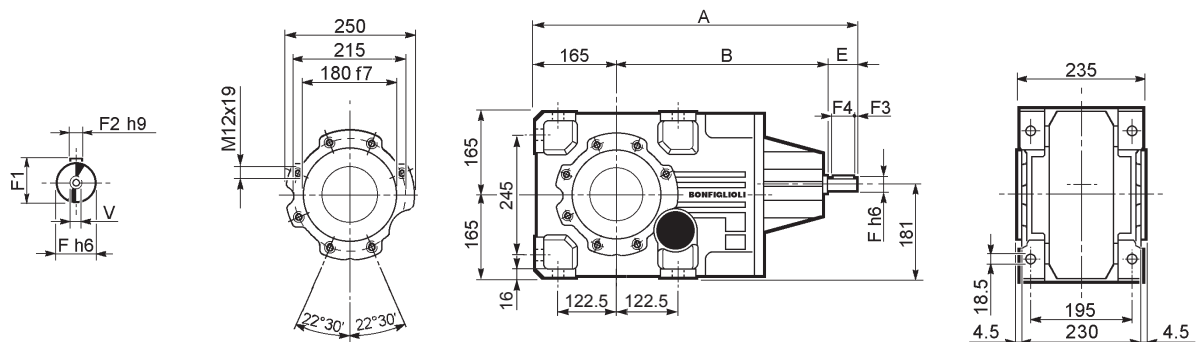


## A 60...P(IEC)



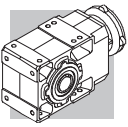
		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 60 3	P63	11	12.8	4	140	115	95	—	M8x19	4	516.5	90
A 60 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	516.5	90
A 60 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	536	91
A 60 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	536	91
A 60 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	546	95
A 60 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	546	95
A 60 2/3	P132	38	41.3	10	300	265	230	16	14	5	582.5	104
A 60 2/3	P160	42	45.3	12	350	300	250	23	18	5.5	633	121
A 60 2/3	P180	48	51.8	14	350	300	250	23	18	5.5	633	121
A 60 4	P63	11	12.8	4	140	115	95	—	M8x19	4	587	88
A 60 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	587	88
A 60 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	606.5	90
A 60 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	606.5	90
A 60 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	616.5	94
A 60 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	616.5	94

## A 60...HS

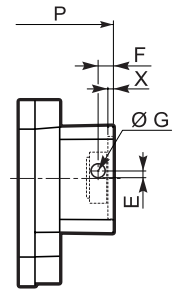
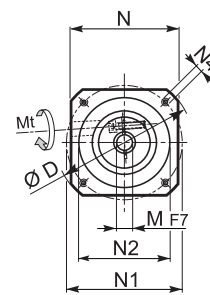
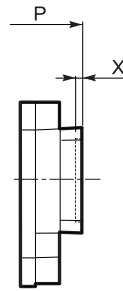
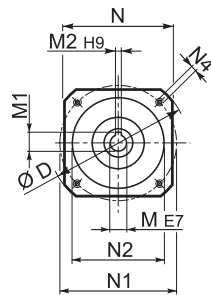
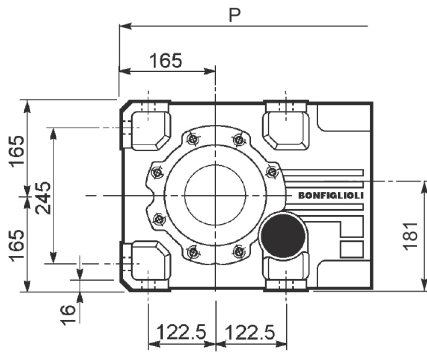


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 60 2	HS	633	408	60	28	31	8	5.0	50	M10x22	106
A 60 3		633	408	60	28	31	8	5.0	50	M10x22	106
A 60 4		676	461	50	24	27	8	2.5	45	M8x19	112





## A 60...SK / SC



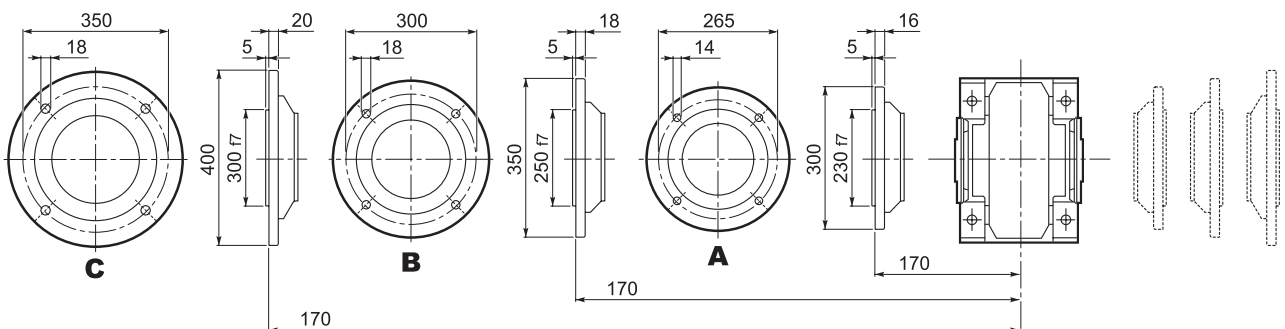
SK...

SC...

Image	Image	D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
		120	14	16.3	5	96	100	80	M6x12	4	—	606.5	89
		120	19	21.8	6	96	100	80	M6x12	4	536	606.5	93/93/92
		130	14	16.3	5	102	115	95	M8x12	4	536	606.5	93/93/92
		130	19	21.8	6	102	115	95	M8x12	4	536	606.5	93/93/92
		130	24	27.3	8	102	115	95	M8x12	4	536	606.5	93/93/92
		140	19	21.8	6	120	130	110	M8x12	5	536	606.5	93/93/92
		140	24	27.3	8	120	130	110	M8x12	5	536	606.5	93/93/92
		188	24	27.3	8	142	165	130	M10x20	5	536	606.5	97/97/103
		189	32	35.3	10	160	165	130	M10x20	5	582.5	—	102/102
		240	32	35.3	10	192	215	180	M12x19	5	582.5	—	102/102
		240	38	41.3	10	192	215	180	M12x19	5	582.5	—	102/102

Image	Image	Image	Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
														2/3x	3x	
			M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	—	630	90
			M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	559.5	630	94/94/93
			M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	559.5	630	94/94/93
			M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	559.5	630	94/94/93
			M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	559.5	630	94/94/93
			M6 15	140	16.5	16	17.75	19	120	130	110	M8x16	5	559.5	630	95/95/93
			M6 15	140	16.5	16	17.75	24	120	130	110	M8x16	5	559.5	630	95/95/93
			M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	559.5	630	96/96/104
			M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	605.5	—	105/105
			M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	609.5	—	105/105
			M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	609.5	—	105/105

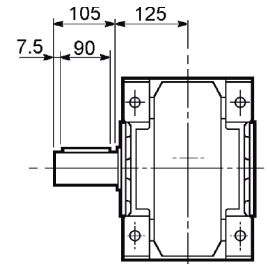
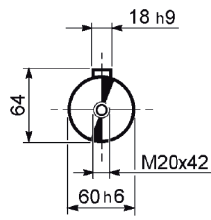
## A 60...F...



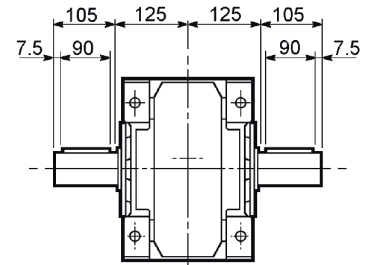
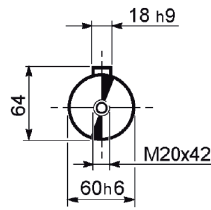


# A 60

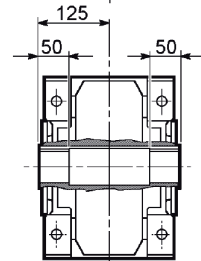
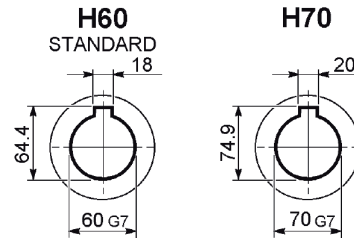
## A 60...UR



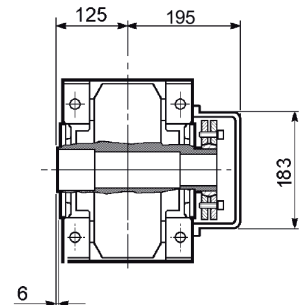
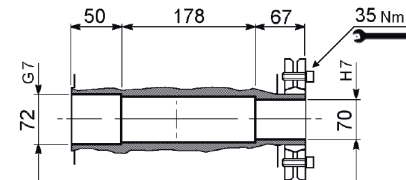
## A 60...UD



## A 60...UH

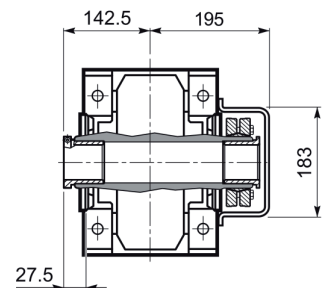
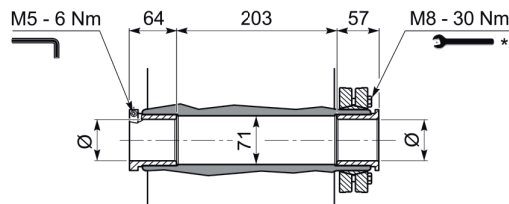


## A 60...US

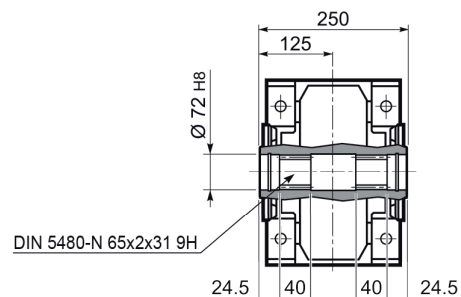


## A 60...QF

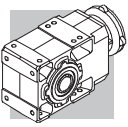
	Ø
QF60	60
QF65	65
QF70	70



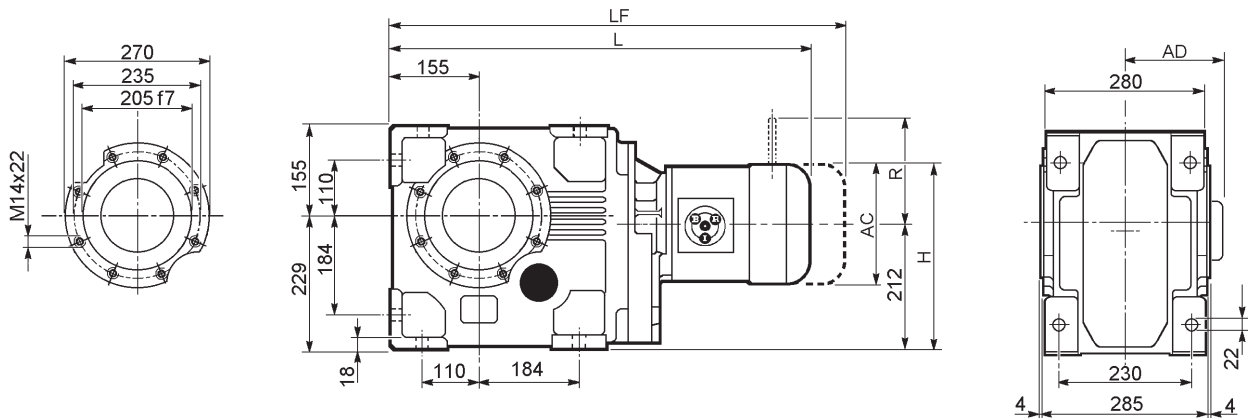
## A 60...UV



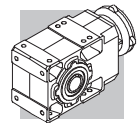
\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



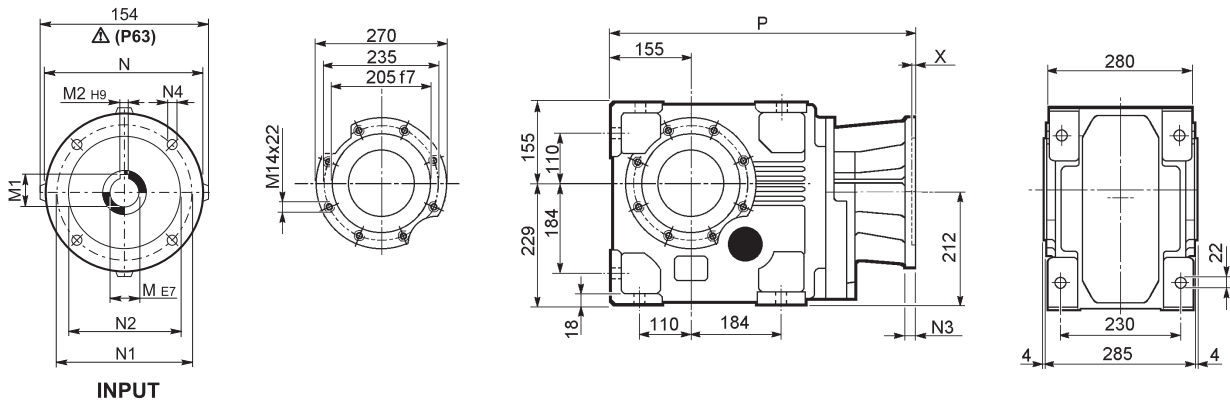
## A 70...M



									M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD	
<b>A 70 3</b>	<b>S2</b>	<b>M2S</b>	156	290	688.5	119	152	758.5	156	129	146	134	119	
<b>A 70 3</b>	<b>S3</b>	<b>M3S</b>	195	309.5	731.5	142	157	827.5	164	160	158	160	142	
<b>A 70 3</b>	<b>S3</b>	<b>M3L</b>	195	309.5	763.5	142	164	854.5	171	160	158	160	142	
<b>A 70 3</b>	<b>S4</b>	<b>M4</b>	258	341	872.5	193	198	981.5	216	226	210	217	193	
<b>A 70 3</b>	<b>S4</b>	<b>M4LC</b>	258	341	907.5	193	206	1006.5	224	226	210	217	193	
<b>A 70 3</b>	<b>S5</b>	<b>M5S</b>	310	367	958	245	226	1098	256	266	245	247	245	
<b>A 70 3</b>	<b>S5</b>	<b>M5L</b>	310	367	1002	245	242	1142	272	266	245	247	245	
<b>A 70 4</b>	<b>S1</b>	<b>M1</b>	138	281	710.5	108	152	771.5	155	103	135	124	108	
<b>A 70 4</b>	<b>S2</b>	<b>M2S</b>	156	290	739.5	119	156	809.5	160	129	146	134	119	
<b>A 70 4</b>	<b>S3</b>	<b>M3S</b>	195	309.5	782.5	142	161	878.5	168	160	158	160	142	
<b>A 70 4</b>	<b>S3</b>	<b>M3L</b>	195	309.5	814.5	142	168	905.5	175	160	158	160	142	
<b>A 70 4</b>	<b>S4</b>	<b>M4</b>	258	341	922.5	193	202	1031.5	220	226	210	217	193	
<b>A 70 4</b>	<b>S4</b>	<b>M4LC</b>	258	341	957.5	193	210	1056.5	228	226	210	217	193	

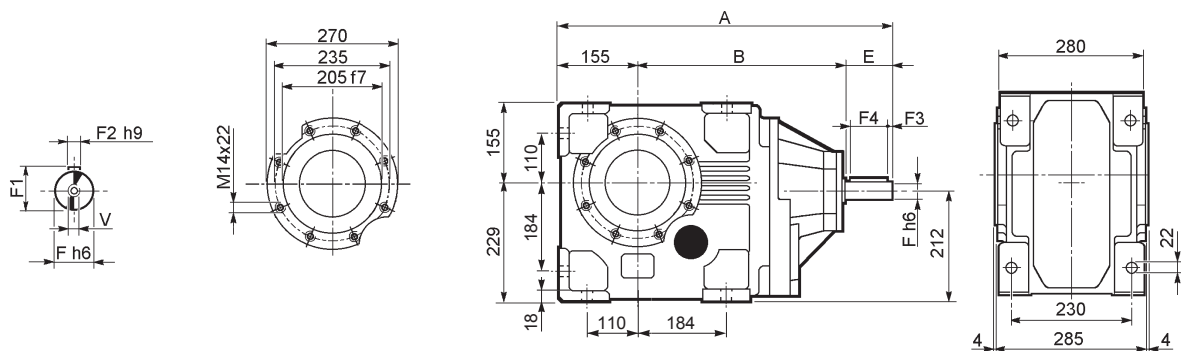


## A 70...P (IEC)

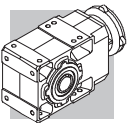


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 70 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	524	144
A 70 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	524	144
A 70 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	534	146
A 70 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	534	146
A 70 3	P132	38	41.3	10	300	265	230	16	14	5	570.5	154
A 70 3	P160	42	45.3	12	350	300	250	23	18	6	626	169
A 70 3	P180	48	51.8	14	350	300	250	23	18	6	626	169
A 70 3	P200	55	59.3	16	400	350	300	—	M16x25	7	651	179
A 70 4	P63	11	12.8	4	140	115	95	—	M8x19	4	555.5	146
A 70 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	555.5	146
A 70 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	575	147
A 70 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	575	147
A 70 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	585	148
A 70 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	585	148
A 70 4	P132	38	41.3	10	300	265	230	16	14	5	618.5	157

## A 70...HS

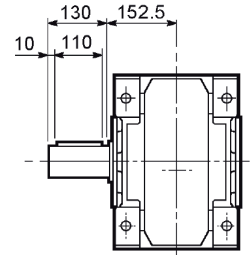
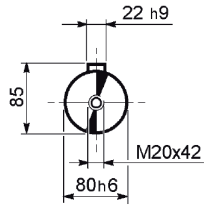


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 70 3	HS	708.5	443.5	110	42	45	12	10	90	M12x28	165
A 70 4	HS	644.5	439.5	50	24	27	8	2.5	45	M8x19	149

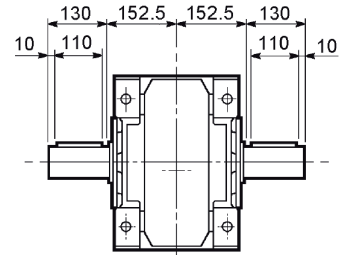
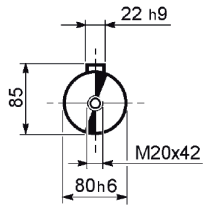


# A 70

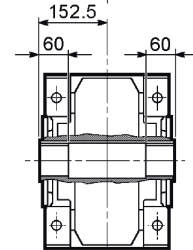
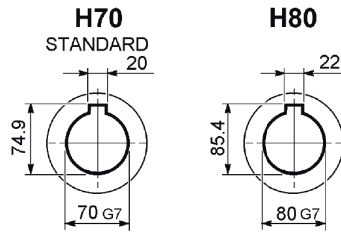
**A 70...UR**



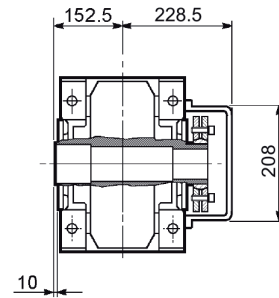
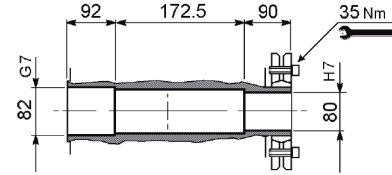
**A 70...UD**



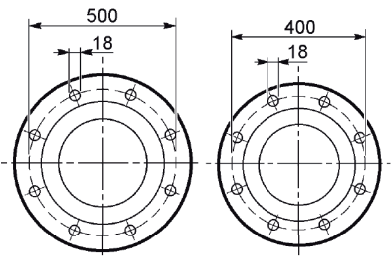
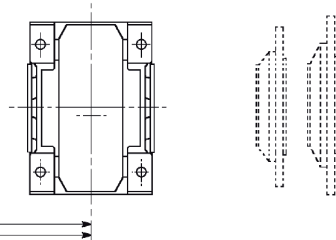
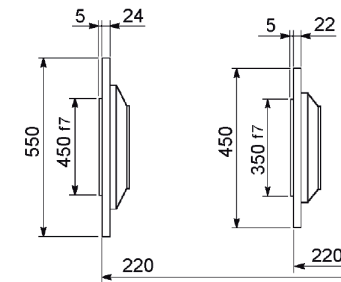
**A 70...UH**



**A 70...US**



**A 70...F...**

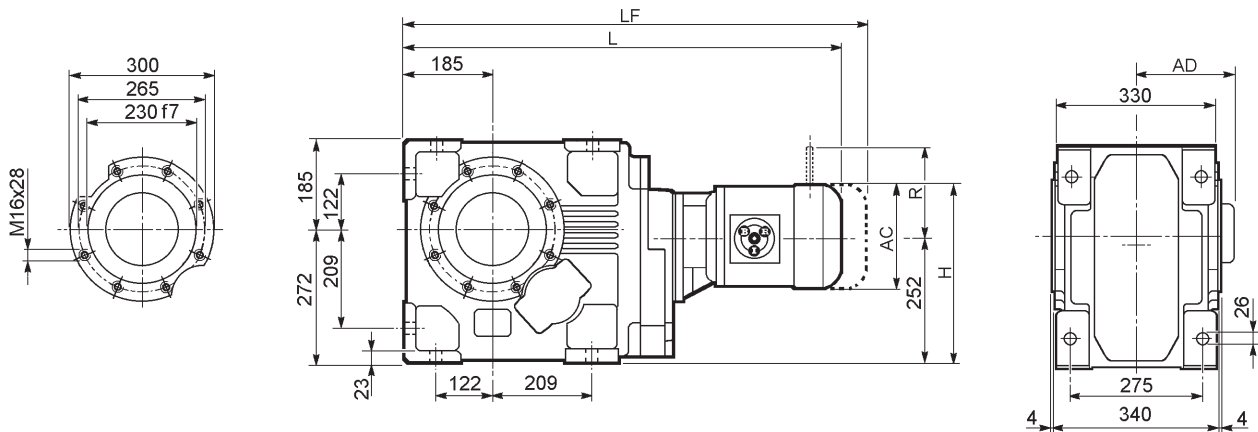


**B**

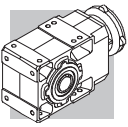
**A**



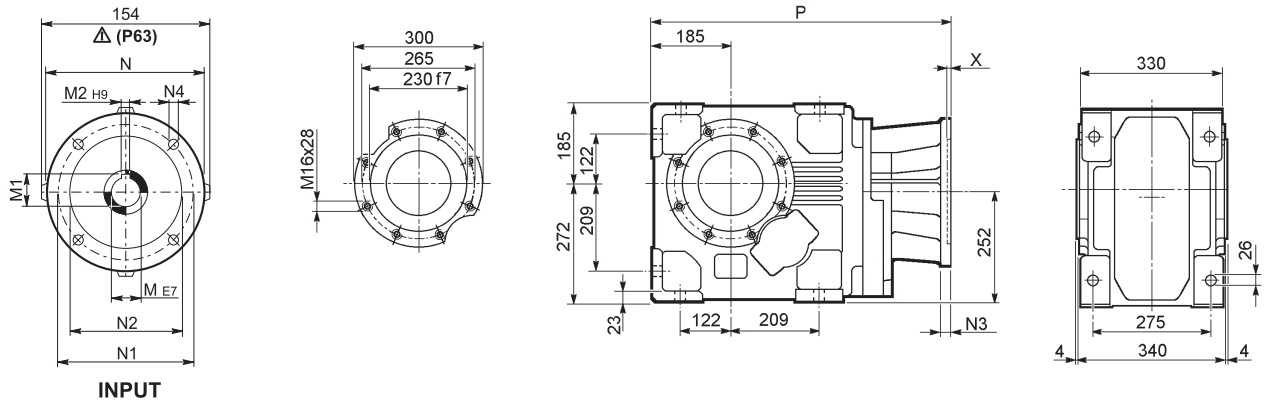
## A 80...M



									M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD	
A 80 3	S3	M3S	195	349.5	809.5	142	256	905.5	264	160	158	160	142	
A 80 3	S3	M3L	195	349.5	841.5	142	264	932.5	271	160	158	160	142	
A 80 3	S4	M4	258	381	949.5	193	298	1058.5	316	226	210	217	193	
A 80 3	S4	M4LC	258	381	984.5	193	306	1083.5	324	226	210	217	193	
A 80 3	S5	M5S	310	407	1036	245	326	1176	356	266	245	247	245	
A 80 3	S5	M5L	310	407	1080	245	342	1220	372	266	245	247	245	
A 80 4	S1	M1	138	321	800.5	108	246	861.5	249	103	135	124	108	
A 80 4	S2	M2S	156	330	829.5	119	250	899.5	254	129	146	134	119	
A 80 4	S3	M3S	195	349.5	872.5	142	255	968.5	262	160	158	160	142	
A 80 4	S3	M3L	195	349.5	904.5	142	262	995.5	269	160	158	160	142	
A 80 4	S4	M4	258	381	1012.5	193	296	1121.5	314	226	210	217	193	
A 80 4	S4	M4LC	258	381	1047.5	193	304	1146.5	322	226	210	217	193	

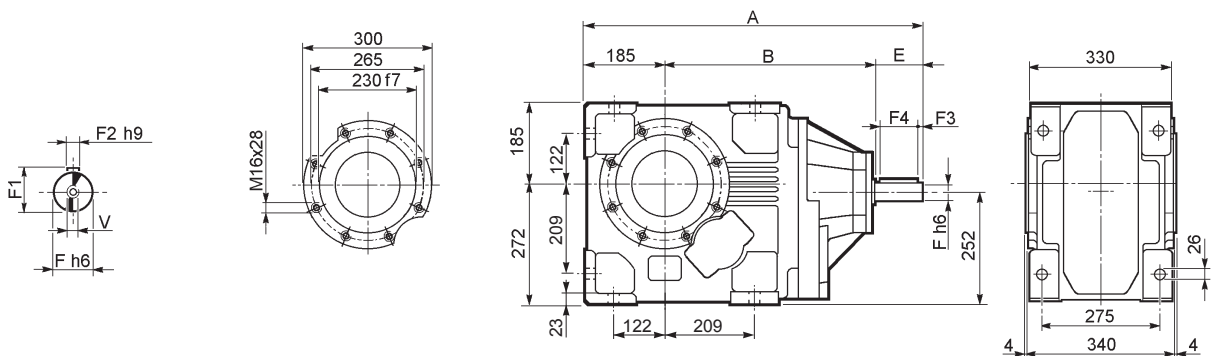


## A 80...P(IEC)



		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 80 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	602	243
A 80 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	602	243
A 80 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	612	245
A 80 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	612	245
A 80 3	P132	38	41.3	10	300	265	230	16	14	5	648.5	253
A 80 3	P160	42	45.3	12	350	300	250	23	18	6	704	268
A 80 3	P180	48	51.8	14	350	300	250	23	18	6	704	268
A 80 3	P200	55	59.3	16	400	350	300	—	M16x25	7	729	279
A 80 3	P225	60	64.4	18	450	400	350	25	18	6	774.5	298
A 80 4	P63	11	12.8	4	140	115	95	—	M8x19	4	645.5	248
A 80 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	645.5	248
A 80 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	665	249
A 80 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	665	249
A 80 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	675	250
A 80 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	675	250
A 80 4	P132	38	41.3	10	300	265	230	16	M12x16	5	711.5	259

## A 80...HS



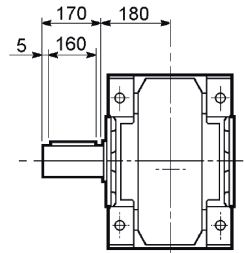
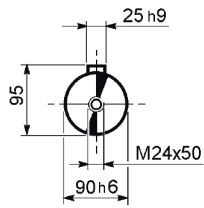
		A	B	E	F	F1	F2	F3	F4	V	Kg
A 80 3	HS	786.5	491.5	110	42	45	12	10	90	M12x28	265
A 80 4		735	500	50	24	27	8	2.5	45	M8x19	250



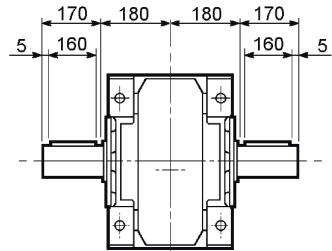
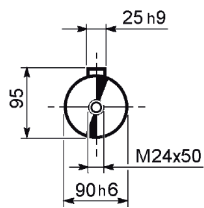


# A 80

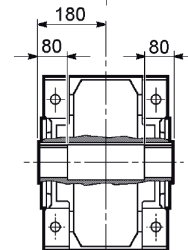
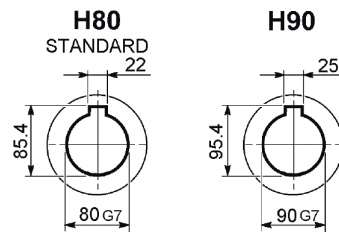
**A 80...UR**



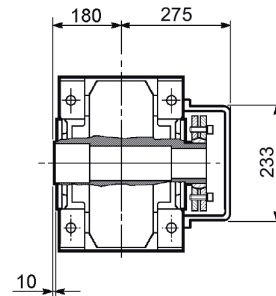
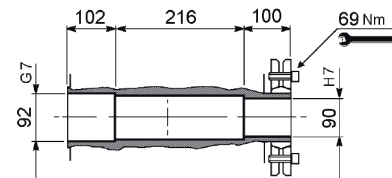
**A 80...UD**



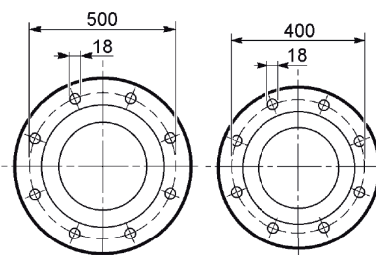
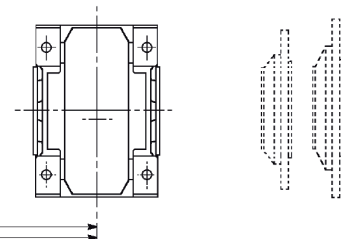
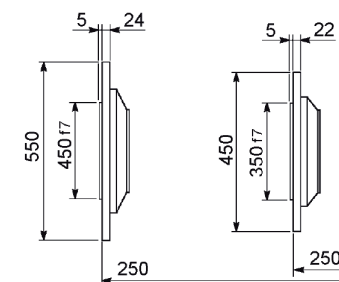
**A 80...UH**



**A 80...US**

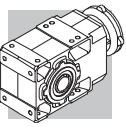


**A 80...F...**

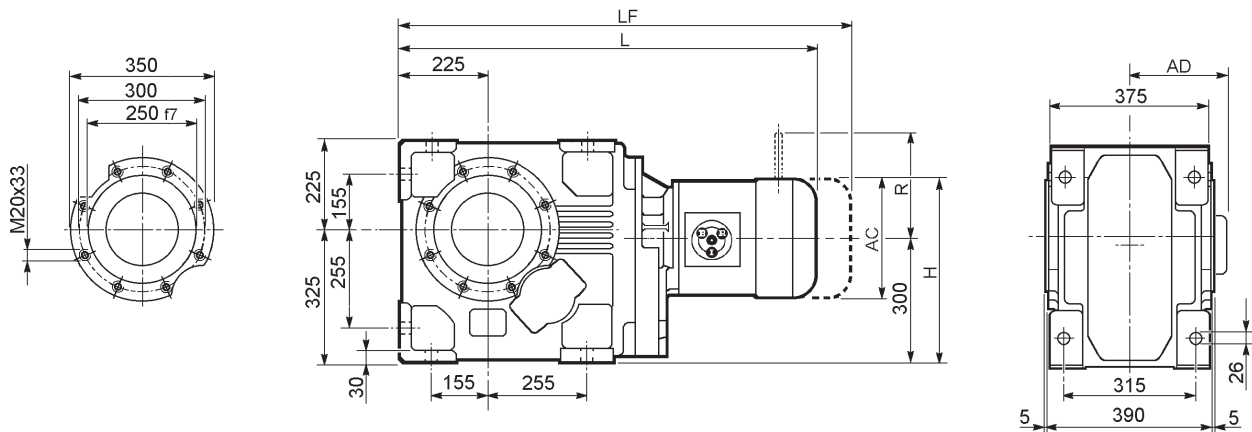


**B**

**A**



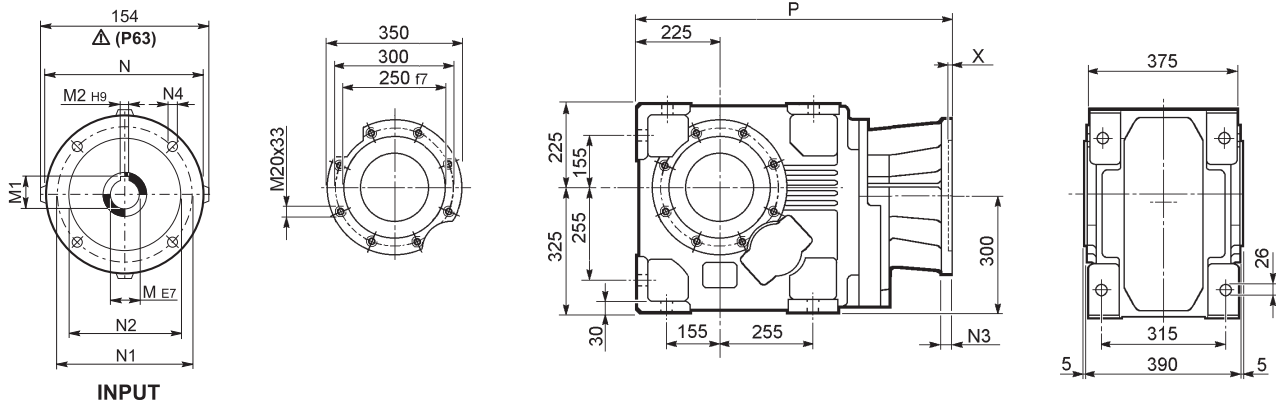
## A 90...M



									M...FD M...FA		M...FD		M...FA			
			AC	H	L	AD		LF		R	AD	R	AD			
			A 90 3	S3	M3S	195	397.5	930.5	142	413	1026.5	420	160	158	160	142
			A 90 3	S3	M3L	195	397.5	962.5	142	420	1053.5	427	160	158	160	142
			A 90 3	S4	M4	258	429	1070.5	193	454	1179.5	472	226	210	217	193
			A 90 3	S4	M4LC	258	429	1105.5	193	462	1204.5	480	226	210	217	193
			A 90 3	S5	M5S	310	455	1157	245	482	1297	512	266	245	247	245
			A 90 3	S5	M5L	310	455	1201	245	498	1341	528	266	245	247	245
			A 90 4	S1	M1	138	369	941.5	108	412	1002.5	249	103	135	124	108
			A 90 4	S2	M2S	156	378	970.5	119	422	1040.5	426	129	146	134	119
			A 90 4	S3	M3S	195	397.5	1013.5	142	427	1109.5	434	160	158	160	142
			A 90 4	S3	M3L	195	397.5	1045.5	142	434	1136.5	441	160	158	160	142
			A 90 4	S4	M4	258	429	1153.5	193	468	1262.5	486	226	210	217	193
			A 90 4	S4	M4LC	258	429	1188.5	193	476	1287.5	494	226	210	217	193



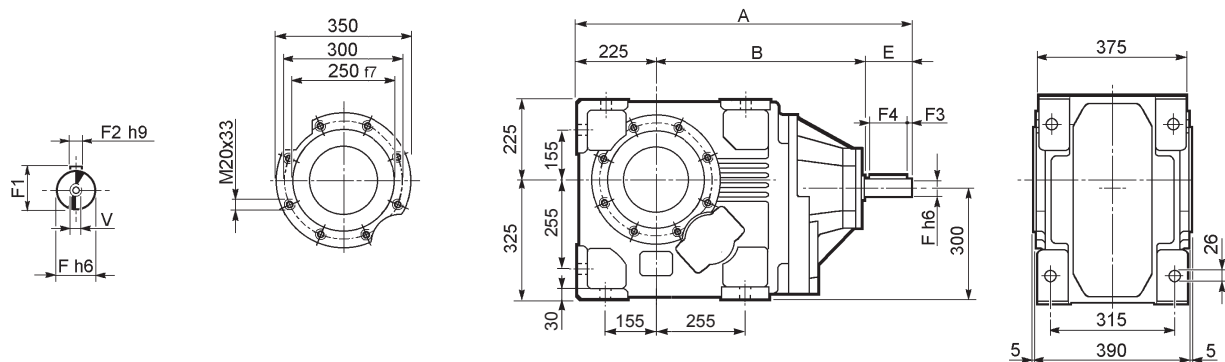
## A 90...P (IEC)



INPUT

		M	M1	M2	N	N1	N2	N3	N4	X	P	kg
A 90 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	723	400
A 90 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	723	400
A 90 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	733	401
A 90 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	733	401
A 90 3	P132	38	41.3	10	300	265	230	16	14	5	769.5	409
A 90 3	P160	42	45.3	12	350	300	250	23	18	6	825	428
A 90 3	P180	48	51.8	14	350	300	250	23	18	6	825	429
A 90 3	P200	55	59.3	16	400	350	300	—	M16x25	7	850	436
A 90 3	P225	60	64.4	18	450	400	350	30	18	6	895.5	472
A 90 3	P250	65	69.4	18	550	500	450	30	18	6	925.5	475
A 90 4	P63	11	12.8	4	140	115	95	—	M8x19	4	786.5	411
A 90 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	786.5	412
A 90 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	806	413
A 90 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	806	413
A 90 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	816	415
A 90 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	816	415
A 90 4	P132	38	41.3	10	300	265	230	16	14	5	852.5	423
A 90 4	P160	42	45.3	12	350	300	250	23	18	5.5	903	434
A 90 4	P180	48	51.8	14	350	300	250	23	18	5.5	903	434

## A 90...HS

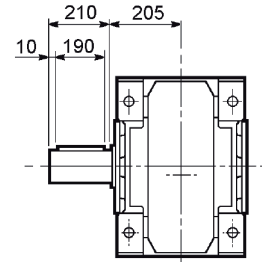
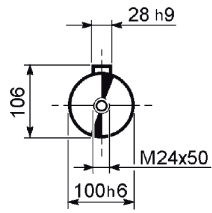


		A	B	E	F	F1	F2	F3	F4	V	kg
A 90 3	HS	1009	644	140	60	64	18	10	120	M16x36	465
A 90 4		875.5	600.5	50	24	27	8	2.5	45	M8x19	415

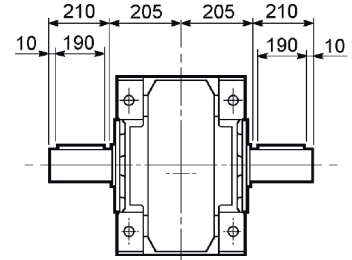
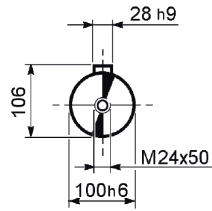


# A 90

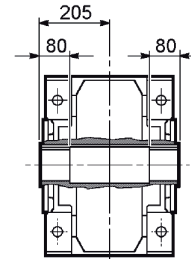
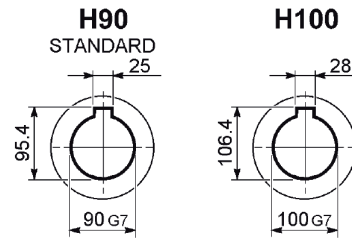
## A 90...UR



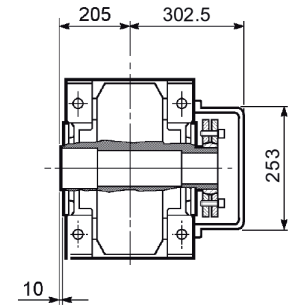
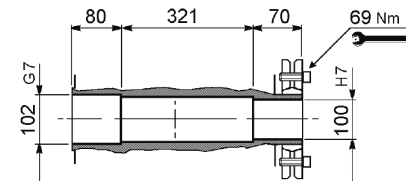
## A 90...UD



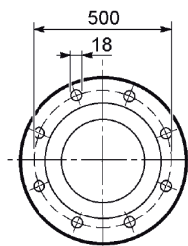
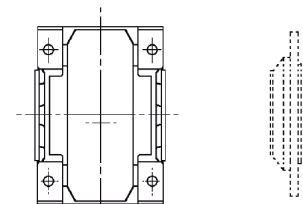
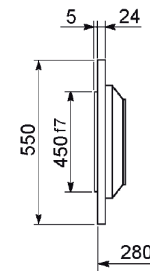
## A 90...UH



## A 90...US



## A 90...F...

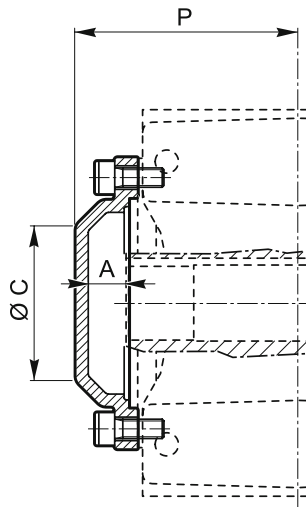


**A**



## 44 ACCESSORIES

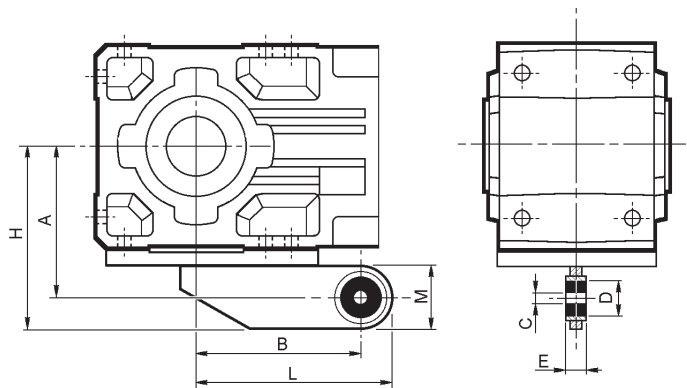
### 44.1 Safety cover



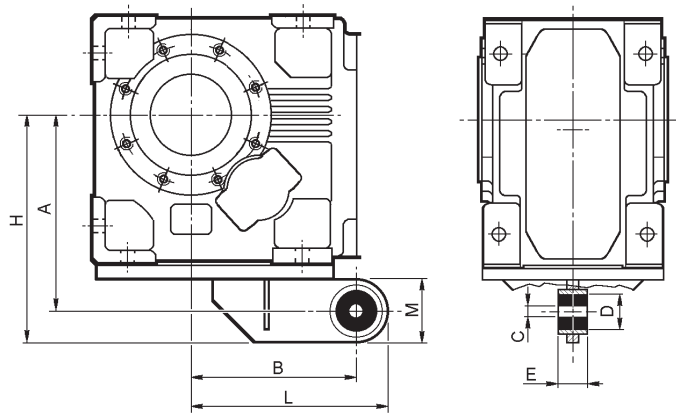
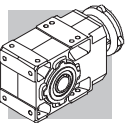
	A	ØC	P
<b>A 05</b>	17.5	36	73.5
<b>A 10</b>	20.5	60	84.5
<b>A 20</b>	20	75	94
<b>A 30</b>	20	75	104
<b>A 35</b>	19.5	80	114
<b>A 41</b>	21	110	120
<b>A 50</b>	26	100	148.5
<b>A 55</b>	27	100	149
<b>A 60</b>	25	100	158
<b>A 70</b>	33.5	120	193.5
<b>A 80</b>	38	140	228
<b>A 90</b>	43	152	258

### 44.2 Torque arm

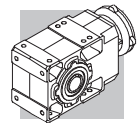
Torque arm comes complete with fastening bolts.



	A	B	C	D	E	H	L	M
<b>A 05</b>	90.5	80	10	30	20	115.5	105	50
<b>A 10</b>	108	118	10	30	20	138	148	60
<b>A 20</b>	118	137	10	30	20	148	167	60
<b>A 30</b>	135	150	20	40	25	170	185	70
<b>A 35</b>	145	165	20	40	25	180	200	70
<b>A 41</b>	157	200	20	40	25	192	235	70
<b>A 50</b>	200	250	32	56	40	245	295	90
<b>A 55</b>	200	250	32	56	40	245	295	90
<b>A 60</b>	225	300	32	56	40	270	345	90



	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>H</b>	<b>L</b>	<b>M</b>
<b>A 70</b>	289	250	32	56	40	334	295	90
<b>A 80</b>	357	300	42	78	60	422	365	130
<b>A 90</b>	410	350	42	78	60	475	415	130

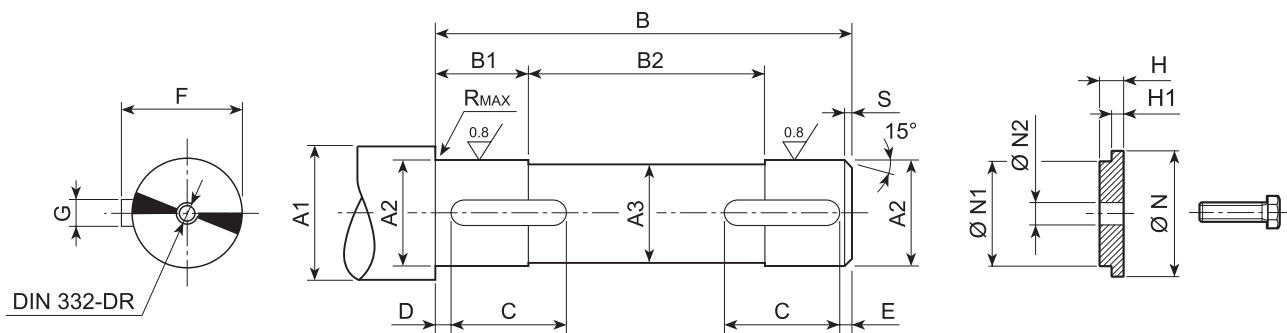




## 45 CUSTOMER' SHAFT

Make the driven shaft to be coupled to the gear unit's output shaft from a good quality steel, respecting the dimensions given in the table.

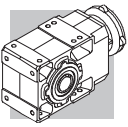
A device such as that illustrated below should also be installed to secure the shaft axially. Take care to verify and dimension the various components to suit the needs of the application.

**UH\_**

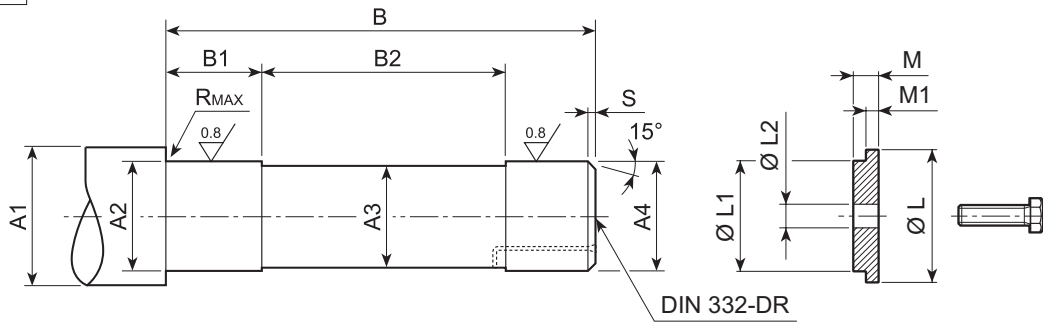



	A1	A2	A3	B	B1	B2	C	D	E	F	G	R	S		N	N1	N2	H	H1	
														UNI 6604						UNI 5739
<b>A05 UH25</b>	≥ 30	25 h7	24	102	21	62	20	2	2	28	8 h9	0.5	1.5	8x7x20 A	35	25 d9	9	7	5.5	M8x25
<b>A10 UH30</b>	≥ 35	30 h7	29	118	16	87	20	2	2	33	8 h9	0.5	1.5	8x7x20 A	35	30 d9	11	8.5	7	M10x30
<b>A10 UH25</b>	≥ 30	25 h7	24	118	16	87	20	2	2	28	8 h9	0.5	1.5	8x7x20 A	30+35	25 d9	9	7	5.5	M8x25
<b>A20 UH35</b>	≥ 42	35 h7	34	138	20	98	20	2	2	38	10 h9	0.5	1.5	10x8x20 A	42	35 d9	11	8.5	7	M10x30
<b>A20 UH30</b>	≥ 35	30 h7	29	138	20	98	25	2	2	33	8 h9	0.5	1.5	8x7x25 A	35+42	30 d9	11	8.5	7	M10x30
<b>A30 UH40</b>	≥ 47	40 h7	39	158	23	112	30	2	2	43	12 h9	0.5	1.5	12x8x30 A	47	40 d9	14	8.5	7	M12x35
<b>A30 UH35</b>	≥ 42	35 h7	34	158	23	112	30	2	2	38	10 h9	0.5	1.5	10x8x30 A	42+47	35 d9	11	8.5	7	M10x30
<b>A35 UH40</b>	≥ 47	40 h7	39	175	33	109	40	2	2	43	12 h9	1	1.5	12x8x40 A	47	40 d9	14	8.5	7	M12x35
<b>A35 UH35</b>	≥ 42	35 h7	34	175	33	109	40	2	2	38	10 h9	1	1.5	10x8x40 A	42+47	35 d9	11	8.5	7	M10x30
<b>A41 UH45</b>	≥ 52	45 h7	44	184	28	128	45	2.5	2.5	48.5	14 h9	1	2	14x9x45 A	52	45 d9	14	8.5	7	M12x35
<b>A41 UH40</b>	≥ 47	40 h7	39	184	28	128	50	2.5	2.5	43	12 h9	1	2	12x8x50 A	47+52	40 d9	14	8.5	7	M12x35
<b>A50 UH55</b>	≥ 63	55 h7	54	226	37.5	151	55	2.5	2.5	59	16 h9	1	2	16x10x55 A	63	55 d9	22	10	8	M20x50
<b>A50 UH50</b>	≥ 57	50 h7	49	226	37.5	151	65	2.5	2.5	53.5	14 h9	1	2	14x9x65 A	57+63	50 d9	18	10	8	M16x45
<b>A55 UH60</b>	≥ 70	60 h7	59	226	37.5	151	65	2.5	2.5	64	18 h9	2	2	18x11x65 A	70	60 d9	22	10	8	M20x50
<b>A55 UH50</b>	≥ 60	50 h7	49	226	37.5	151	75	2.5	2.5	53.5	14 h9	2	2	14x9x75 A	60+70	50 d9	18	10	8	M16x45
<b>A60 UH70</b>	≥ 78	70 h7	69	248	48	152	70	2.5	2.5	74.5	20 h9	2.5	2	20x12x70 A	78	70 d9	22	10	8.5	M20x50
<b>A60 UH60</b>	≥ 68	60 h7	59	248	48	152	80	2.5	2.5	64	18 h9	2.5	2	18x11x80 A	68+78	60 d9	22	10	8.5	M20x50
<b>A70 UH80</b>	≥ 89	80 h7	79	303	58	187	90	3	3	85	22 h9	2.5	2.5	22x14x90 A	89	80 d9	22	10	8.5	M20x50
<b>A70 UH70</b>	≥ 78	70 h7	69	303	58	187	110	3	3	74.5	20 h9	2.5	2.5	20x12x110 A	78+89	70 d9	22	10	8.5	M20x50
<b>A80 UH90</b>	≥ 99	90 h7	89	358	78	202	120	3	3	95	25 h9	2.5	2.5	25x14x120 A	99	90 d9	26	22	20.5	M24x70
<b>A80 UH80</b>	≥ 89	80 h7	79	358	78	202	130	3	3	85	22 h9	2.5	2.5	22x14x130 A	89+99	80 d9	22	10	8.5	M20x50
<b>A90 UH100</b>	≥ 111	100 h7	99	408	78	252	160	3	3	106	28 h9	2.5	2.5	28x16x160 A	111	100 d9	26	22	20.5	M24x70
<b>A90 UH90</b>	≥ 99	90 h7	89	408	78	252	190	3	3	95	25 h9	2.5	2.5	25x14x190 A	99+111	90 d9	26	22	20.5	M24x70



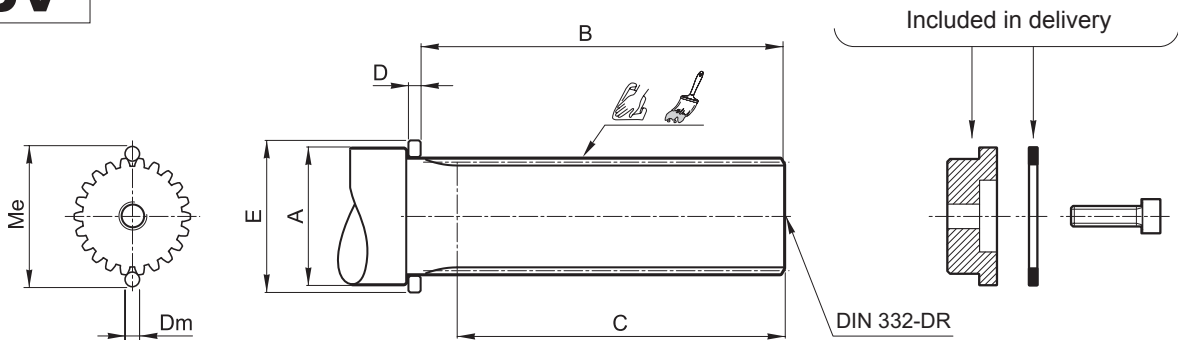




# US

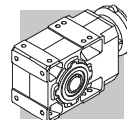


	A1	A2	A3	A4	B	B1	B2	R	S	L	L1	L2	M	M1	 UNI 5739
<b>A 05</b>	≥ 35	27 h7	24	25 h6	129.5	32	63.5	0.5	1.5	29.5	25 d9	11	8.5	7	M10x30
<b>A 10</b>	≥ 42	32 h7	29	30 h6	147.5	34	77.5	0.5	1.5	35.5	30 d9	11	8.5	7	M10x30
<b>A 20</b>	≥ 48	37 h7	34	35 h6	170	40	89	0.5	1.5	43	35 d9	14	8.5	7	M12x35
<b>A 30</b>	≥ 54	42 h7	39	40 h6	191.5	48	95.5	0.5	1.5	49	40 d9	18	10	8.5	M16x45
<b>A 35</b>	≥ 54	42 h7	39	40 h6	208.5	48	112.5	0.5	1.5	49	40 d9	18	10	8.5	M16x45
<b>A 41</b>	≥ 60	47 h7	44	45 h6	222	53	117	1	2	54	45 d9	18	10	8.5	M16x45
<b>A 50</b>	≥ 72	57 h7	54	55 g6	264	46	156	1	2	72	55 d9	22	10	8.5	M20x50
<b>A 55</b>	≥ 72	62 h7	59	60 g6	266	46	158	2.5	2	72	60 d9	22	10	8.5	M20x50
<b>A 60</b>	≥ 90	72 h7	69	70 g6	293	48	178	2.5	2.5	85	70 d9	22	10	8.5	M20x50
<b>A 70</b>	≥ 104	82 h7	79	80 g6	352.5	90	172.5	2.5	2.5	95	80 d9	22	10	8.5	M20x50
<b>A 80</b>	≥ 114	92 h7	89	90 g6	416	100	216	2.5	2.5	105	90 d9	26	22	20.5	M24x70
<b>A 90</b>	≥ 126	102 h7	99	100 g6	469	78	321	2.5	2.5	120	100 d9	26	22	20.5	M24x70

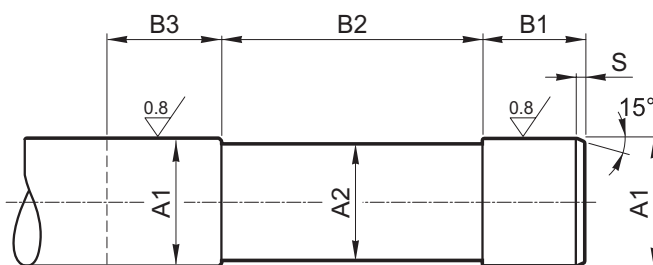
# UV



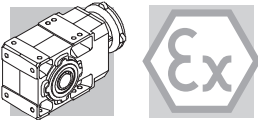
	 DIN 5480	Me	Dm	A	B	C	D	E	 ISO 4762
<b>A 20</b>	30x1.25x22	33.04 +0/-0.04	2.75	≥ 40	111.5	≥ 95	7	45	M10x35
<b>A 30</b>	35x2x16	38.93 +0/-0.04	4	≥ 45	130.5	≥ 112	7	50	M12x40
<b>A 35</b>	35x2x16	38.93 +0/-0.04	4	≥ 45	147.5	≥ 129	7	50	M12x40
<b>A 41</b>	45x2x21	48.86 +0/-0.04	4	≥ 55	155.5	≥ 136	7	60	M16x45
<b>A 50</b>	50x2x24	54.14 +0/-0.05	4	≥ 60	196	≥ 175	7	65	M16x45
<b>A 55</b>	50x2x24	54.14 +0/-0.05	4	≥ 60	196	≥ 175	7	65	M16x45
<b>A 60</b>	65x2x31	68.97 +0 /-0.05	4	≥ 75	213.5	≥ 191	7	80	M20x55



**QF**



		A1	A2	B1	B2	B3	S
A 10	QF25	25 h6	24	41	95	≥ 50	1.5
	QF30	30 h6	29				
A 20	QF25	25 h6	24	41	115	≥ 50	1.5
	QF30	30 h6	29				
A 30	QF35	35 h6	34	45	130	≥ 54	1.5
	QF40	40 h6	39				
A 35	QF35	35 h6	34	45	146.5	≥ 54	1.5
	QF40	40 h6	39				
A 41	QF40	40 h6	39	47	151.5	≥ 56	2
	QF45	45 h6	44				
A 50	QF50	50 h6	49	48	197	≥ 57	2
	QF55	55 h6	54				
A 55	QF55	55 h6	54	50	190	≥ 59	2
	QF60	60 h6	59				
A 60	QF60	60 h6	59	57	203	≥ 66	2.5
	QF65	65 h6	64				
	QF70	70 h6	69				



## HELICAL BEVEL GEAR UNITS SERIES A ATEX CONFIGURATION

### 46 INTRODUCTION TO THE ATEX DIRECTIVES

#### 46.1 Explosive atmosphere

An **explosive atmosphere** for the purposes of Directive 2014/34/EU is defined as a mixture:

- a. of **flammable substances**, in the form of gases, vapours, mists or dusts;
- b. with **air**;
- c. under atmospheric conditions;
- d. in which, after ignition, the combustion spreads to the entire unburned mixture (it has to be noted that sometimes, mainly with dust, not always the whole quantity of the combustible material is consumed by the combustion).

An atmosphere, which could become explosive due to local and/or operational conditions is called a **potentially explosive atmosphere**.

It is only in this kind of potentially explosive atmosphere which products falling under the Directive 2014/34/EU are designed for.

#### 46.2 European harmonised atex standards

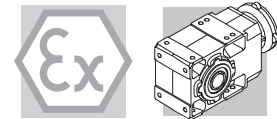
Directive 2014/34/EU stipulates the minimum safety requirements for products intended for use in explosion risk areas within the member countries of the European Union. The directive also assigns such equipment to **categories**, which are defined by the directive itself.

The following table describes the **zones** into which the user of a plant, in which an explosive atmosphere may occur, is required to divide the equipment application areas.

(C 1)

Zones		Formation frequency of a potentially explosive atmosphere	Type of danger
Gaseous atmosphere G	Dusty atmosphere D		
0	20	Present continuously or for long periods	Permanent
1	21	Likely to occur in normal operation occasionally	Potential
2	22	Not likely to occur in normal operation but if it does occur will persist for short period only	Minimal

**BONFIGLIOLI RIDUTTORI gear units selected from this catalog are marked for installation in zones 1, 21, highlighted in light gray in the above diagram and are also suitable for installation in areas with a lower level of protection (zones 2 and 22).**



As from 20 April 2016 the ATEX directive 2014/34/EU come into force throughout the entire European Union, and replace existing conflicting national and European laws on explosive atmospheres and the previous directive 94/9/EC.

It should be emphasised that, for the first time, the directives also govern mechanical, hydraulic and pneumatic equipment, and not only electrical equipment as has been the case so far.

With regard to the Machinery Directive 2006/42/EC it should be noted that directive 2014/34/EU is a set of extremely specific requirements dedicated to the dangers deriving from potentially explosive atmospheres, whereas the Machinery Directive contains only very general explosion safety requirements (Annex I).

Consequently, as regards protection against explosion in potentially explosive atmospheres, Directive 2014/34/EU takes precedence over the Machinery Directive.

The requirements of the Machinery Directive apply to all other risks regarding machinery.

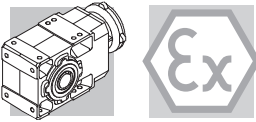
### 46.3 Levels of protection for the various categories of equipment

The various categories of equipment must be able to operate in conformity with the Manufacturer's operational specifications, at certain defined levels of protection.

The availability of BONFIGLIOLI RIDUTTORI products is highlighted in grey.

(C 2)

Protection level	Category		Type of protection	Operating conditions
	Group I	Group II		
Very high	M1		Two independent means of protection or safety capable of operating even when two independent faults occur.	The equipment remains powered and operational even in the presence of an explosive atmosphere.
Very high		1	Two independent means of protection or safety capable of operating even when two independent faults occur.	The equipment remains powered and operational in zones 0, 1, 2 (G) and/or zones 20, 21, 22 (D).
High	M2		Protection suitable for normal operation and heavy duty conditions.	Power to the equipment is shut off in the presence of a potentially explosive atmosphere.
High		2	Protection suitable for normal operation and frequent faults or equipment in which malfunction is normal.	The equipment remains powered and operational in zones 1, 2 (G) and/or zones 21, 22 (D).
Normal		3	Protection suitable for normal operation.	The equipment remains powered and operational in zones 2 (G) and/or zones 22 (D).



#### 46.4 Definition of groups

**Group I** Applies to equipment intended for use underground in parts of mines and those parts of surface installations of such mines, liable to be endangered by fire damp and/or combustible dust.

**Group II** Applies to equipment intended for use in other places liable to be endangered by explosive atmospheres.

BONFIGLIOLI RIDOTTORI products may not therefore be installed in mines, classified in **Group I** and in **Group II**, category 1.

To summarise, the classification of equipment in to groups, categories and zones is illustrated in the table below, where by the availability of BONFIGLIOLI RIDOTTORI products is highlighted in grey.

(C 3)

Group	I		II					
	Mines, firedamp		Other potentially explosive areas (gas, dust)					
Category	M1	M2	1		2		3	
Atmosphere <sup>(1)</sup>			G	D	G	D	G	D
Zone			0	20	1	21	2	22
Type of protection gear unit					Ex h Gb	Ex h Db	Ex h Gc	Ex h Dc

<sup>(1)</sup> G = gas      D = dust

The products described here in conform to the minimum safety requirements of European Directive 2014/34/EU, which is part of the directives known as ATEX (ATMosphères EXplosibles).

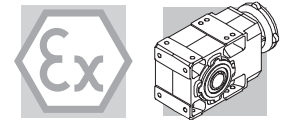
#### 46.5 Declaration of conformity

The Declaration of Conformity, is the document which attests to the conformity of the product to Directive 2014/34/EU.

The validity of the Declaration is bound to observance of the instructions given in the User, Installation and Service Manual for safe use of the product throughout its service life.

This can be downloaded from [www.bonfiglioli.com](http://www.bonfiglioli.com) where the manual is available in PDF format in a number of languages.


The instructions regarding ambient conditions are of particular importance inasmuch as failure to observe them during operation of the product renders the certificate null and void. In case of doubt regarding the validity of the certificate of conformity, contact the BONFIGLIOLI RIDOTTORI technical department.

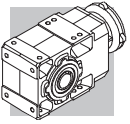


**47 SELECTION**

Some fundamental data are necessary to assist the correct selection of a gearbox or gear unit with IEC motor interface. The table below briefly sums up this information. To simplify selection, a copy of this form, duly filled in, can be forwarded to our Technical Service which will select the most suitable drive unit for your application.

(C 4)

 <b>Bonfiglioli</b> <small>power, control and green solutions</small>		<b>TECHNICAL DATA REQUIRED FOR THE SELECTION OF GEARBOXS A SERIES</b>				Nr:	
						Date:	
		Rev_		Date:			
		<b>A ) GENERAL DATA</b>					
#	1	Company / Customer					
#	2	Contact					
#	3	Branch / Distributor					
#	4	Order quantity					
	5	Delivery time					
		<b>B ) ELECTRIC MOTOR</b>					
	6	Motor Type					
#	7	$P_{n1}$	Rated motor Power	[kW]			
#	8	$P_{r1}$	Motor power demand	[kW]			
	9	$n_1$	Input speed	[min <sup>-1</sup> ]			
	10	No. of Poles					
		<b>C ) GEARBOX</b>					
#	11	Gearbox configuration					
#	12	$i$	Gear ratio				
#	13	$n_1$	Input speed	[min <sup>-1</sup> ]			
#	14	$M_2$	Output torque demand	[Nm]			
#	15	$f_s$	Service factor demand				
	16	Rotation of the output shaft [frontal view]:		<b>CW</b>	<b>CCW</b>		
#	17	$L_{10H}$	Bearings lifetime	[h]			
	18	Gears lifetime		[h]			
	19	$SF_{min}$	Safety for tooth root stress	standard reference (ISO preferred)			
	20	$SH_{min}$	Safety for flank pressure	standard reference (ISO preferred)			
		<b>D ) ADDITIONAL LOADS</b>					
	21	$R_{c2}$	Radial load on output shaft	[N]	Orientation [°]		
	22	$x_2$	Load application distance from shaft shoulder	[mm]			
	23	$R_{c1}$	Radial load on input shaft	[N]	Orientation [°]		
	24	$x_1$	Load application distance from shaft shoulder	[mm]			
	25	$A_{n2}$	Thrust load on output shaft (+ / -)	[N]	+ = push		
	26	$A_{n1}$	Thrust load on input shaft (+ / -)	[N]	- = pull		
		<b>E ) APPLICATION</b>					
#	27	Type of application					
	28	Duty cycle	Time phase	Gearbox output torque	Gearbox output speed		
			%	[Nm]	[min <sup>-1</sup> ]		
			****	****			
			****	****			
	29	Notes about Duty Cycle:					
	30	Rating according FEM class	T-	L-	M-		
	31	Degree of intermittence	[%]				
	32	$t_a$	Ambient temperature range	[°C]			
#	33	Altitude a.s.l.		[m]			
	34	Type of ambient	small indoor space	large indoor space	outdoor		
		<b>F ) NOTES</b>					
	35	Notes and additional Customer requirements:					
# Mandatory for the selection							



## 48 INSTALLATION, USE AND MAINTENANCE



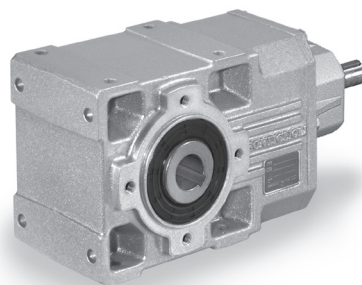
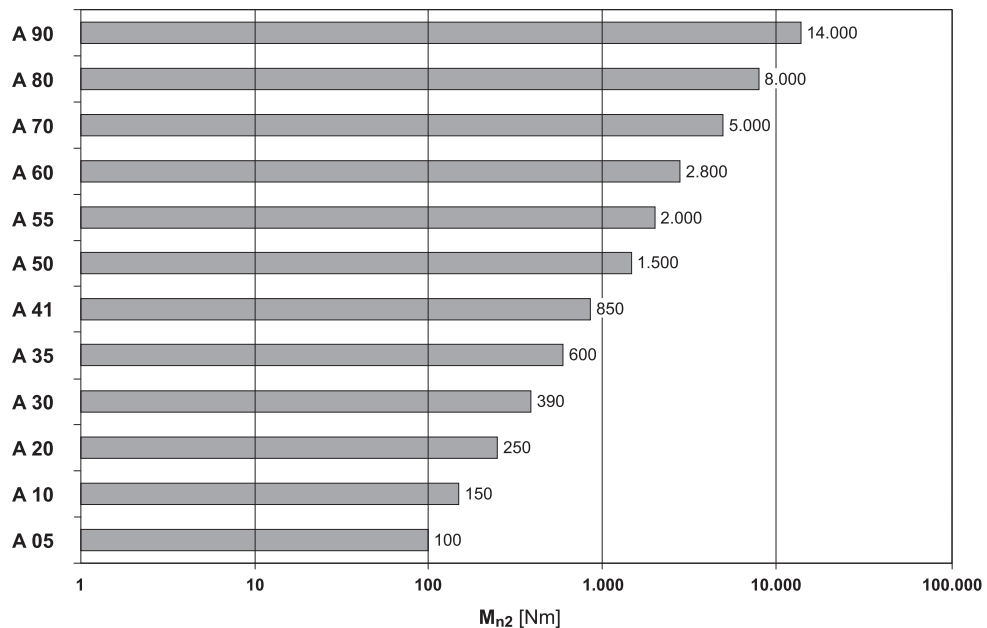
All the instructions for installation, use and maintenance of the product are given in the unit's Manual. This can be downloaded from [www.bonfiglioli.com](http://www.bonfiglioli.com) where the manual is available in PDF format in a number of languages.

This document must be kept in a suitable place, in the vicinity of the installed gear unit, as a reference for all persons authorised to work with or on the product throughout its service life.

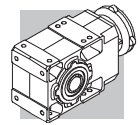
## 49 CONSTRUCTION OF ATEX-SPECIFIED EQUIPMENT

- Equipped with service plugs for periodic lubricant level checks.
- Equipped with vent caps with anti-intrusion valve.
- Factory-charged with lubricant (synthetic oil), depending on the mounting position specified in the order.
- Fluoro elastomer seal rings as standard.
- No plastic component parts..
- Nameplate indication of the product category and type of protection.
- Components operable at above the operating temperature.
- Temperature indicator supplied along with each unit.

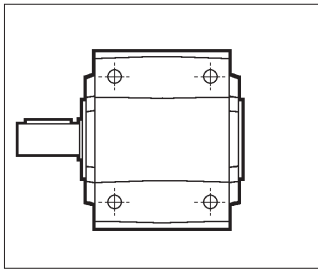
(C 5)





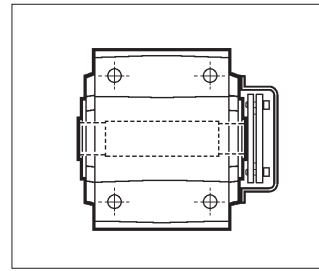


50 VERSIONS



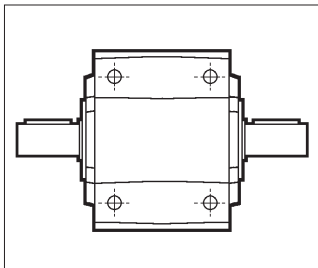
**UR**  
Single extension  
output shaft

A 10 ... A 90



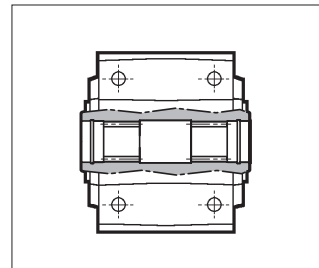
**US**  
Hollow output shaft  
and shrink disc

A 05 ... A 90



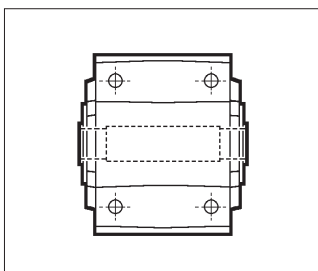
**UD**  
Double extended  
output shaft

A 10 ... A 90



**UV**  
Splined hollow  
shaft DIN 5480

A 20 ... A 60



**UH**  
Hollow output shaft  
and keyway

A 05 ... A 90

Basic versions with bolted flange

The sketches show the applicable flanges to the basic versions and their positions, designated with either ① or ② .

**UR F1...**

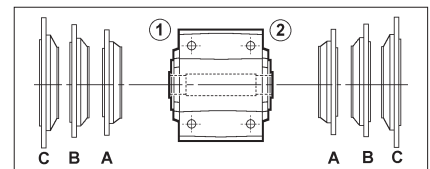
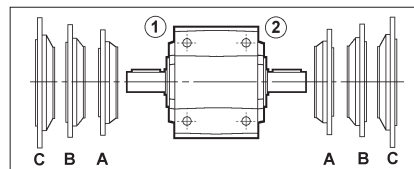
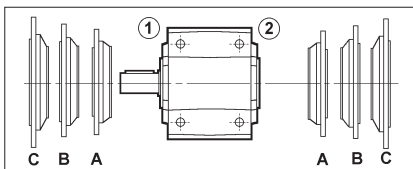
**UR F2...**

**UD F1...**

**UD F2...**

**UH... F1...**

**UH... F2...**

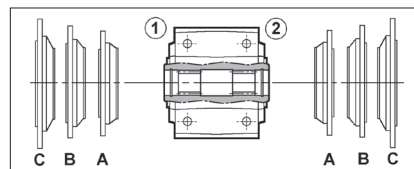
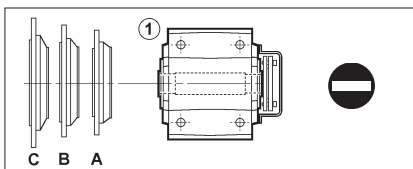


**US F1...**

**US F2...**

**UV F1...**

**UV F2...**





**51 DESIGNATION**

GEAR UNIT

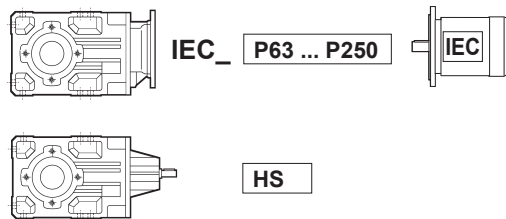
**A 50 3 UH50 F1A 99.5 P90 B3 EX**

OPTIONS

MOUNTING POSITION

**B3** (Standard), **B6, B7, B8, VA, VB**

INPUT CONFIGURATION



GEAR RATIO

OUTPUT FLANGE SIZE AND POSITION

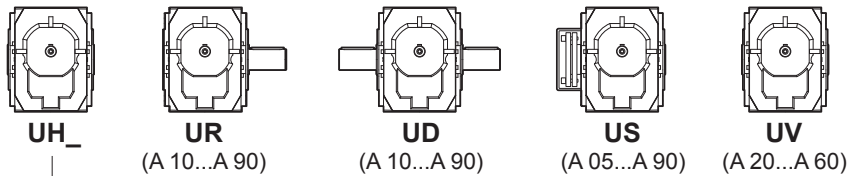
(specify only if requested)

**F** = Flanged version

**1, 2** = Flange position

**A, B, C** = Flange size

VERSION



A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 55	A 60	A 70	A 80	A 90
UH25	UH25	UH30	UH35	UH40	UH45	UH50	UH60	UH60	UH70	UH80	UH90
—	UH30	UH35	UH40	UH35	UH40	UH55	UH50	UH70	UH80	UH90	UH100

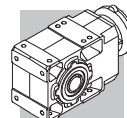
REDUCTIONS

**2** (A 05...A 60), **3** (A 20...A 90), **4** (A 50...A 90)

GEAR FRAME SIZE

**05, 10, 20, 30, 35, 41, 50, 55, 60, 70, 80, 90**

TYPE: **A** = Helical bevel gear units



## Gearbox options

### **EX**

The gear unit can be installed in zones 1 and 21 (categories 2G and 2D).  
The temperature class is T4 (max. 135 °C).

## CERTIFICATES

### **AC - Certificate of compliance**

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

### **CC - Inspection certificate**

The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

## 52 OTHERS INFORMATION ABOUT GEARBOX AND GEARMOTOR

Mounting positions, technical data, motor availability, moments of inertia and dimensions of **A-EX (Atex)** series don't change among equivalent **A** product series. All of these information can be obtained in the related chapters of this catalogue.



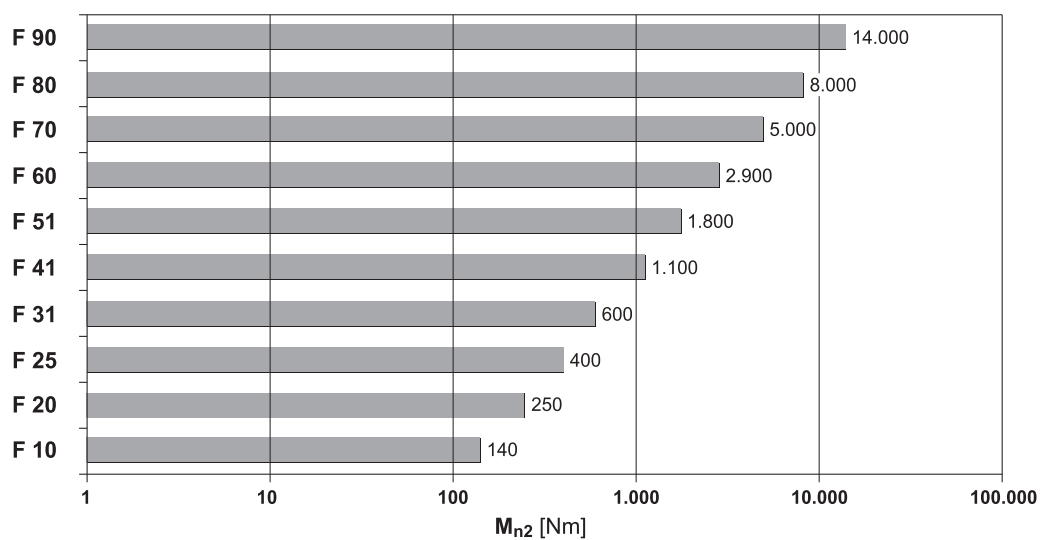
## SHAFT MOUNTED GEAR UNITS SERIES F

### 53 DESIGN FEATURES

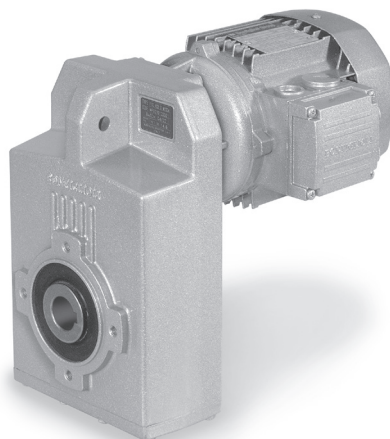
The main design characteristics are:

- modularity
- space effectiveness
- universal mounting
- high efficiency
- quiet operation
- gears in hardened and case-hardened steel
- bare aluminium housing for sizes 10, 20 and 25,  
high strength painted cast-iron housings for larger frame sizes.

(D 44)

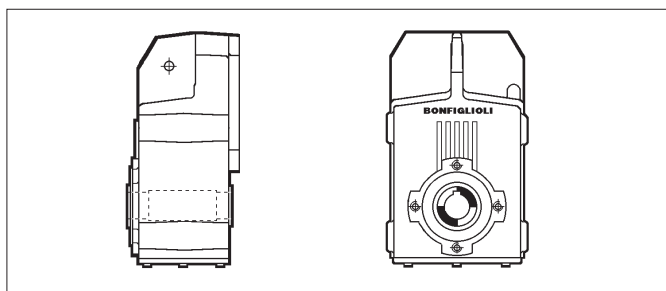


\* For any limitations regarding construction type QF see the "VERSIONS" chapter.





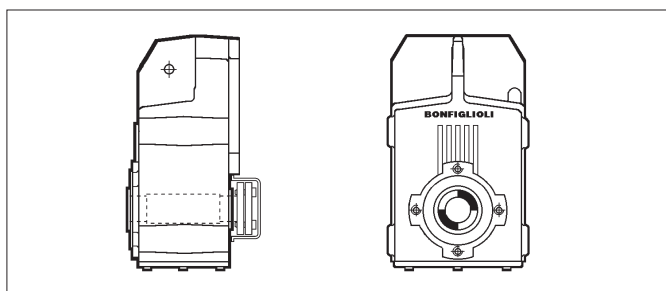
54 VERSIONS



**H**

Hollow output shaft and keyway

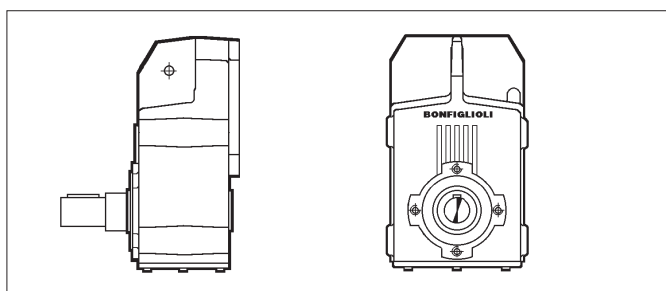
F 10 ... F 90



**S**

Hollow output shaft and shrink disc

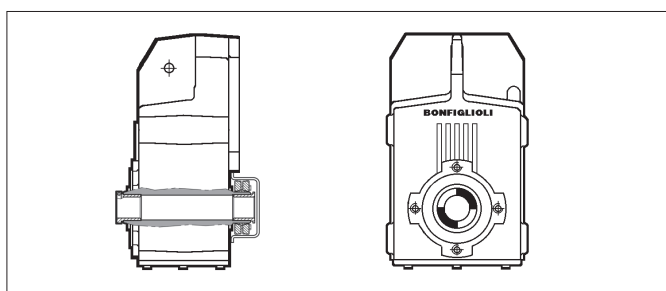
F 10 ... F 90



**R**

Solid output shaft

F 10 ... F 90



**QF (Quick-fit)**

Hollow shaft with adapter bushings and shrink disc

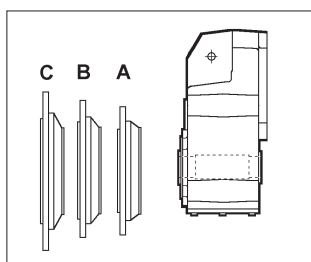
F 10 ... F 60

M <sub>n2 max</sub> [Nm]	
F 25 QF30	350
F 41 QF42	850
F 41 QF45	1000
F 51 QF50	1750

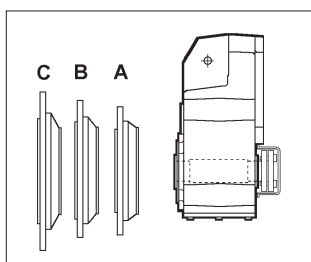
**Basic versions with bolted flange**

The sketches show the applicable flanges to the basic versions.

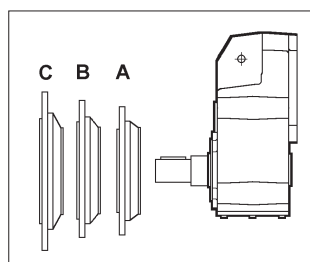
**H... F...**



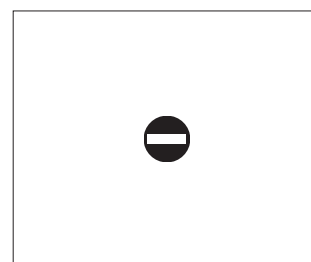
**S F...**

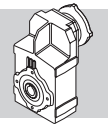


**R F...**



**QF...**





**55 DESIGNATION**

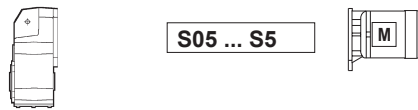
GEAR UNIT

**F 10 2 H30 FA 48.7 S1 H5 .....**

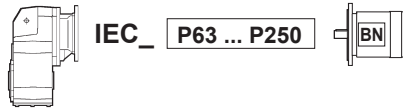
OPTIONS

MOUNTING POSITION  
H1 (Default), H2, H3, H4, H5, H6

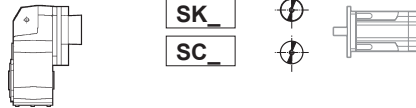
INPUT CONFIGURATION



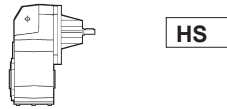
S05 ... S5



IEC\_ P63 ... P250



SK\_  
SC\_



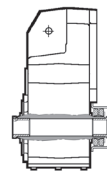
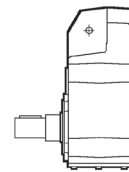
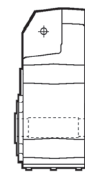
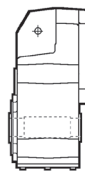
HS

GEAR RATIO

OUTPUT FLANGE SIZE AND POSITION (specify only if requested)

**F** = Flanged version  
**A, B, C** = Flange size

VERSION



**S**

**R**

**QF**

(F 10...F 90)

(F 10...F 90)

(F 10...F 60)

	<b>H</b>										
	F 10	F 20	F 25	F 31	F 41	F 51	F 60	F 70	F 80	F 90	
Standard	<b>H25</b>	<b>H30</b>	<b>H35</b>	<b>H35</b>	<b>H40</b>	<b>H50</b>	<b>H60</b>	<b>H80</b>	<b>H90</b>	<b>H100</b>	
Alternative	H30	H35	H40	H40	H45	H55	H70	H70	H80	H90	← Alternative diameters available on request

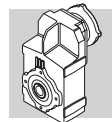
REDUCTIONS

**2** (F 10...F 51), **3** (F 20...F 90), **4** (F 31...F 90)

GEAR FRAME SIZE

**10, 20, 25, 31, 41, 51, 60, 70, 80, 90**

TYPE **F** = helical shaft-mounted gear unit



MOTOR

BRAKE

**M 1LA 4 230/400-50 IP54 CLF ..... W FD 7.5 R SB 220 SA .....**

OPTIONS

BRAKE  
SUPPLY

RECTIFIER TYPE  
AC/DC  
**NB, SB, NBR, SBR**

BRAKE HAND RELEASE  
**R, RM**

BRAKE TORQUE

BRAKE TYPE  
**FD** (d.c. brake)  
**FA** (a.c. brake)

TERMINAL BOX POSITION  
**W** (default), **N, E, S**

MOTOR MOUNTING  
— (compact motor)  
**B5** (IEC - motor)

INSULATION CLASS  
**CL F** standard  
**CL H** option

DEGREE OF PROTECTION  
**IP55** standard (IP54 - brake motor)

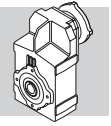
VOLTAGE - FREQUENCY

POLE NUMBER  
**2, 4, 6, 2/4, 2/6, 2/8, 2/12, 4/6, 4/8**

MOTOR SIZE  
**0B ... 5LA** (compact motor)  
**63A ... 250MA** (IEC motor)

MOTOR TYPE  
**M** = compact 3-phase  
**BN** = IEC 3-phase





## 55.1 Gearbox options

### AL, AR

On request the gear unit can be provided complete with a backstop device allowing the output shaft to rotate only in the direction specified at the time of ordering.

The following table shows the gearboxes in which the anti-run back device can be installed.

(D 45)

F 31 2*	F 41 2 ● (6.7; 10.8)					
F 31 3*	F 41 3	F 51 3	F 60 3	F 70 3	F 80 3	F 90 3
		F 51 4	F 60 4	F 70 4	F 80 4	F 90 4

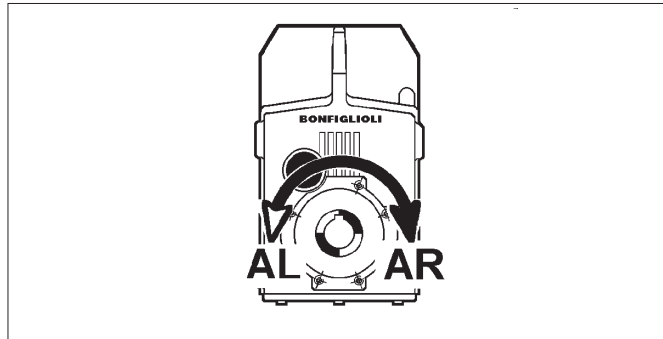
\* The supply of the backstop will ban the configuration of servomotor adapters type S\_60A, S\_60B, S\_80A.

When ordering the gear unit, the direction of free rotation must be specified through either the AR or the AL option (Table D46).



N.B. When the anti-run back device operates very frequently make sure that the torque backdriving the gearbox does not exceed 70% of the rated torque  $M_{n2}$  for the captioned gear unit.

(D 46)



### SO

Gear units F 10 through F 41 usually factory filled with oil, to be supplied unlubricated.

### LO

Gearboxes F 51 through F 90, usually supplied without oil, to be supplied with synthetic oil currently used by BONFIGLIOLI RIDUTTORI and filled according to the mounting position specified.

### DV

Dual oil seals on input shaft. (Only available for integral gearmotors).

### VV

Oil seal in Fluoro elastomer compound on input shaft.



## PV

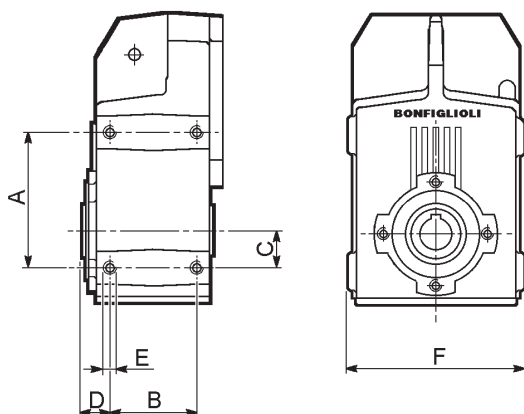
Both input and output shafts feature oil seal in Fluoro elastomer compound.

## FL

Gear units F 10...F 41 can be side machined and tapped by specifying the FL option.

Mounting dimensions relevant to the FL option are given in the following chart. Gear units type F 51 through F 90 are side machined and tapped as standard.

(D 47)



	A	B	C	D	E	F
<b>F 10</b>	115	60	35	21.25	M8x16	163
<b>F 20</b>	130	70	40	26.5	M10x20	181
<b>F 25</b>	130	70	40	27.5	M10x20	181
<b>F 31</b>	147	80	45	30	M12x20	203
<b>F 41</b>	190	95	60	32.5	M12x22	235

## SURFACE PROTECTION

When no specific protection class is requested, the painted (ferrous) surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, gearboxes can be delivered with **C3** and **C4** surface protection, obtained by painting the complete gearbox.

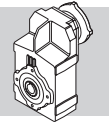
(D 48)

<b>SURFACE PROTECTION</b>	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
<b>C3</b>	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
<b>C4</b>	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C	C4

Gearboxes with optional protection to class **C3** or **C4** are available in a choice of colours.

If no specific colour is requested (see the "PAINTING" option) gearboxes are finished in RAL 7042.

Gearboxes can also be supplied with surface protection for corrosivity class **C5** according to UNI EN ISO 12944-2. Contact our Technical Service for further details.



## PAINTING

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

(D 49)

PAINTING	Colour	RAL number
<b>RAL7042*</b>	Traffic Grey A	7042
<b>RAL5010</b>	Gentian Blue	5010
<b>RAL9005</b>	Jet Black	9005
<b>RAL9006</b>	White Aluminium	9006
<b>RAL9010</b>	Pure White	9010

\* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.

## CERTIFICATES

### AC - Certificate of compliance

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

### CC - Inspection certificate

The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

## 55.2 Accessories

See chapter 65 of this catalogue.

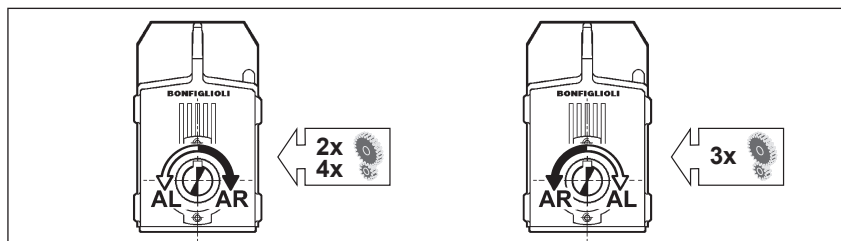


### 55.3 Motor options

#### AL, AR

A backstop device on the motor itself, as described in the electric motors section of this catalogue, is available for gearmotors with integral M Series motors. The following table shows the direction of free rotation of the gearbox, on the basis of which the correct option must be selected.

(D 50)



For further information on options, consult the electric motors section.

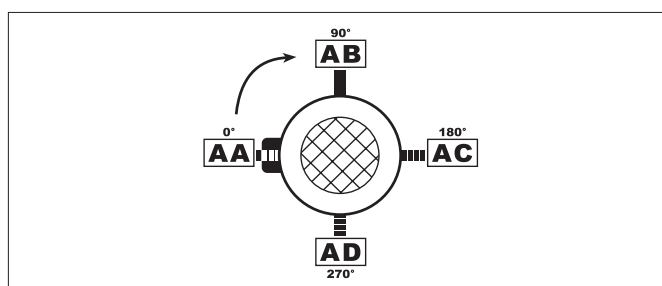
### 56 MOUNTING POSITION AND TERMINAL BOX ANGULAR LOCATION

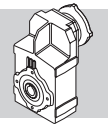
Location of motor terminal box can be specified by viewing the motor from the fan side; standard location is shown in black (W).

#### Angular location of the brake release lever.

Unless otherwise specified, brake motors have the manual device side located, 90° apart from terminal box. Different angles can be specified through the relevant options available.

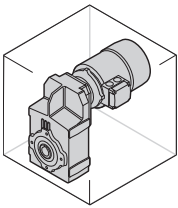
(D 51)



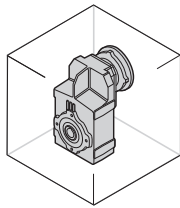


# F ...

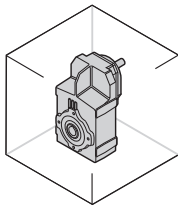
## H1



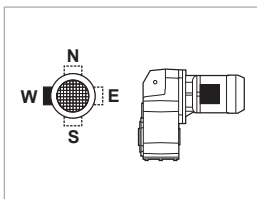
\_S



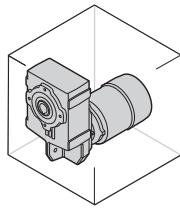
\_P(IEC) \_SK / \_SC



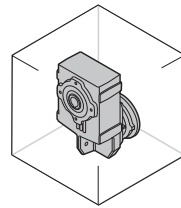
\_HS



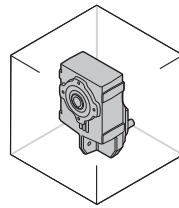
## H2



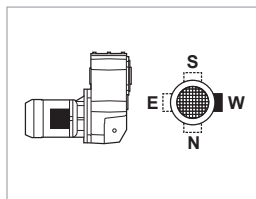
\_S



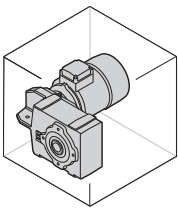
\_P(IEC) \_SK / \_SC



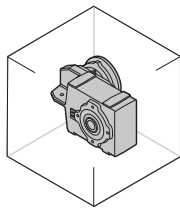
\_HS



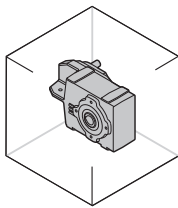
## H3



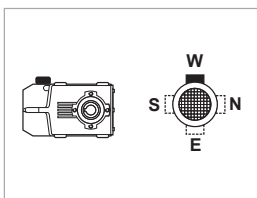
\_S



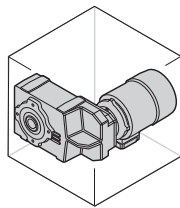
\_P(IEC) \_SK / \_SC



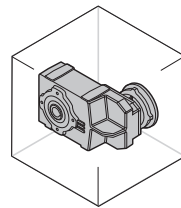
\_HS



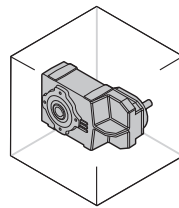
## H4



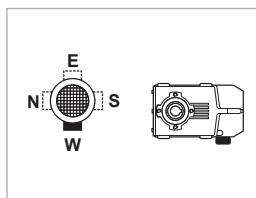
\_S



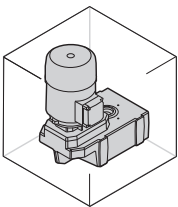
\_P(IEC) \_SK / \_SC



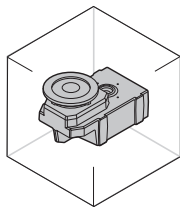
\_HS



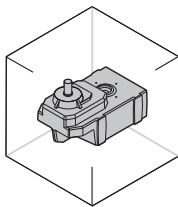
## H5



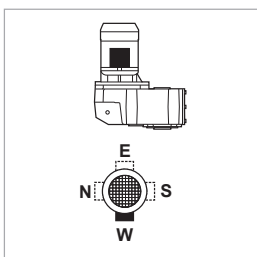
\_S



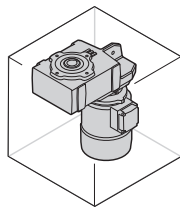
\_P(IEC) \_SK / \_SC



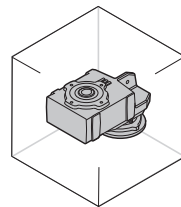
\_HS



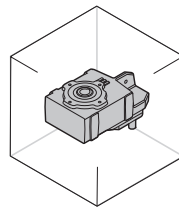
## H6



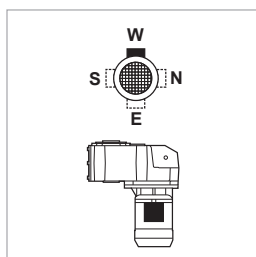
\_S



\_P(IEC) \_SK / \_SC



\_HS



W = Default



## 57 OVERHUNG LOADS

External transmissions keyed onto input and/or output shaft generate loads that act radially onto same shaft.

Resulting shaft loading must be compatible with both the bearing and the shaft capacity. Namely shaft loading ( $R_{c1}$  for input shaft,  $R_{c2}$  for output shaft), must be equal or lower than admissible overhung load capacity for shaft under study ( $R_{n1}$  for input shaft,  $R_{n2}$  for output shaft). OHL capability listed in the rating chart section.

In the formulas given below, index (1) applies to parameters relating to input shaft, whereas index (2) refers to output shaft.

The load generated by an external transmission can be calculated with close approximation by the following equations:

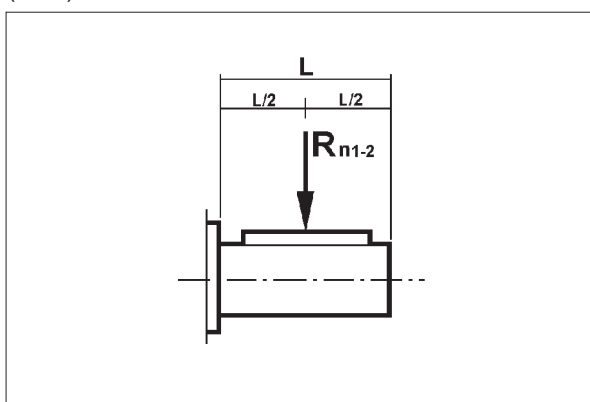
$$R_{c1} [N] = \frac{2000 \cdot M_1 [Nm] \cdot K_r}{d [mm]} \quad ; \quad R_{c2} [N] = \frac{2000 \cdot M_2 [Nm] \cdot K_r}{d [mm]} \quad (35)$$

(D 52)

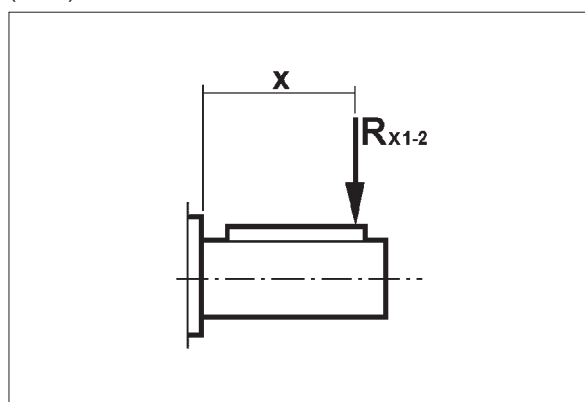
$M_1$ [Nm]	Torque applied to input shaft	$K_r = 1,25$	Gear transmission
$M_2$ [Nm]	Torque drawn at output shaft	$K_r = 1,5$	V-belt transmission
$d$ [mm]	Pitch diameter of element keyed onto shaft	$K_r = 2,0$	Flat belt transmission
$K_r = 1$	Chain transmission		

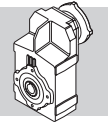
Verification of OHL capability varies depending on whether load applies at midpoint of shaft or it is shifted further out:

(D 53)



(D 54)





**a) Load applied at midpoint of shaft, tab. (D53)**

A comparison of shaft loading with catalogue OHL ratings should verify the following condition:

$$R_{c1} \leq R_{n1} \quad [\text{input shaft}]$$

or

$$R_{c2} \leq R_{n2} \quad [\text{output shaft}]$$

**b) Load off the midpoint tab. (D54)**

When load is shifted at an “x” distance from shaft shoulder, permissible load must be calculated for that distance.

Revised permissible overhung loads  $R_{x1}$  (input) and  $R_{x2}$  (output) are calculated respectively from original rated values  $R_{n1}$  and  $R_{n2}$  through factor:

$$\frac{a}{b+x} \quad (36)$$

(D 55)

	Load location factors					
	Output shaft			Input shaft		
	a	b	c	a	b	c
<b>F 10 2</b>	123	100.5	450	21	1	300
<b>F 20 2</b>	145	115	600	40	20	350
<b>F 20 3</b>	145	115	600	21	1	300
<b>F 25 2 - F 25 3</b>	157.5	127.5	800	40	20	350
<b>F 25 4</b>	157.5	127.5	800	21	1	300
<b>F 31 2 - F 31 3</b>	165	135	850	38.5	18.5	350
<b>F 31 4</b>	165	135	850	21	1	300
<b>F 41 2 - F 41 3</b>	191.5	151.5	1000	49.5	24.5	450
<b>F 41 4</b>	191.5	151.5	1000	40	20	350
<b>F 51 2 - F 51 3</b>	233.5	183.5	1300	49.5	24.5	450
<b>F 51 4</b>	233.5	183.5	1300	38.5	18.5	350
<b>F 60 3</b>	258.5	198.5	1100	55.5	25.5	600
<b>F 60 4</b>	258.5	198.5	1100	49.5	24.5	450
<b>F 70 3</b>	342	277	1600	86	31	1000
<b>F 70 4</b>	342	277	1600	49.5	24.5	450
<b>F 80 3</b>	386.5	301.5	1800	86	31	1000
<b>F 80 4</b>	386.5	301.5	1800	49.5	24.5	450
<b>F 90 3</b>	458.5	353.5	2400	116	46	1400
<b>F 90 4</b>	458.5	353.5	2400	49.5	24.5	450





Verification procedure is described here after.

### INPUT SHAFT

1. Calculate:

$$R_{x1} = R_{n1} \cdot \frac{a}{b+x} \quad (37)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (38)$$

Finally, the following condition must be verified:

$$R_{c1} \leq R_{x1} \quad (39)$$

### OUTPUT SHAFT

1. Calculate:

$$R_{x2} = R_{n2} \cdot \frac{a}{b+x} \quad (40)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (41)$$

Finally, the following condition must be verified:

$$R_{c2} \leq R_{x2} \quad (42)$$



## 58 THRUST LOADS, $A_{n1}$ , $A_{n2}$

Permissible thrust loads on input [ $A_{n1}$ ] and output [ $A_{n2}$ ] shafts are obtained from the radial loading for the shaft under consideration [ $R_{n1}$ ] and [ $R_{n2}$ ] through the following equation:

$$\begin{aligned} A_{n1} &= R_{n1} \cdot 0.2 \\ A_{n2} &= R_{n2} \cdot 0.2 \end{aligned} \quad (43)$$



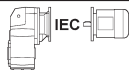

The thrust loads calculated through these formulas apply to thrust forces occurring at the same time as rated radial loads.

In the only case that no overhung load acts on the shaft the value of the admissible thrust load [ $A_n$ ] amounts to 50% of rated OHL [ $R_n$ ] on same shaft.

Where thrust loads exceed permissible value or largely prevail over radial loads, contact Bonfiglioli Riduttori for an in-depth analysis of the application.



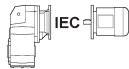



**0.09 kW**



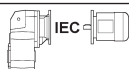

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
0.40	1945	2.6	2188	35000			F704_2188 P63 BN63A6	453
0.50	1526	3.4	1717	35000			F704_1717 P63 BN63A6	453
0.62	1254	0.9	1411	8500	F414_1411 S05 M05A6	440	F414_1411 P63 BN63A6	441
0.73	1079	1.0	1213	8500	F414_1213 S05 M05A6	440	F414_1213 P63 BN63A6	441
0.81	971	1.1	1092	8500	F414_1092 S05 M05A6	440	F414_1092 P63 BN63A6	441
0.90	874	1.3	982.4	8500	F414_982.4 S05 M05A6	440	F414_982.4 P63 BN63A6	441
0.98	801	1.4	900.5	8500	F414_900.5 S05 M05A6	440	F414_900.5 P63 BN63A6	441
1.1	724	1.5	813.8	8500	F414_813.8 S05 M05A6	440	F414_813.8 P63 BN63A6	441
1.2	678	0.9	762.3	6500	F314_762.3 S05 M05A6	436	F314_762.3 P63 BN63A6	437
1.2	658	1.7	739.4	8500	F414_739.4 S05 M05A6	440	F414_739.4 P63 BN63A6	441
1.3	610	1.0	685.6	6500	F314_685.6 S05 M05A6	436	F314_685.6 P63 BN63A6	437
1.3	614	1.8	690.1	8500	F414_690.1 S05 M05A6	440	F414_690.1 P63 BN63A6	441
1.4	551	1.1	619.9	6500	F314_619.9 S05 M05A6	436	F314_619.9 P63 BN63A6	437
1.5	515	1.2	578.6	6500	F314_578.6 S05 M05A6	436	F314_578.6 P63 BN63A6	437
1.6	489	2.2	549.8	8500	F414_549.8 S05 M05A6	440	F414_549.8 P63 BN63A6	441
1.7	469	0.9	527.3	6500	F254_527.3 S05 M05A6	432	F254_527.3 P63 BN63A6	433
1.7	469	1.3	527.8	6500	F314_527.8 S05 M05A6	436	F314_527.8 P63 BN63A6	437
1.9	414	1.0	466.0	6500	F254_466.0 S05 M05A6	432	F254_466.0 P63 BN63A6	433
1.9	411	1.5	462.6	6500	F314_462.6 S05 M05A6	436	F314_462.6 P63 BN63A6	437
2.0	387	1.0	434.9	6500	F254_434.9 S05 M05A6	432	F254_434.9 P63 BN63A6	433
2.0	386	2.9	433.7	8500	F414_433.7 S05 M05A6	440	F414_433.7 P63 BN63A6	441
2.1	372	1.6	418.9	6500	F314_418.9 S05 M05A6	436	F314_418.9 P63 BN63A6	437
2.2	350	1.1	393.9	6500	F254_393.9 S05 M05A6	432	F254_393.9 P63 BN63A6	433
2.4	340	1.8	374.4	6500			F313_374.4 P63 BN63A6	437
2.6	302	2.0	332.8	6500			F313_332.8 P63 BN63A6	437
2.6	313	3.5	344.8	8500			F413_344.8 P63 BN63A6	441
2.8	288	0.9	316.9	4000	F203_316.9 S05 M05A6	428	F203_316.9 P63 BN63A6	429
3.0	267	2.2	293.8	6500			F313_293.8 P63 BN63A6	437
3.1	259	1.0	285.2	4000	F203_285.2 S05 M05A6	428	F203_285.2 P63 BN63A6	429
3.4	232	1.1	255.3	4000	F203_255.3 S05 M05A6	428	F203_255.3 P63 BN63A6	429
3.5	230	2.6	253.6	6500			F313_253.6 P63 BN63A6	437
3.9	207	2.9	228.2	6500			F313_228.2 P63 BN63A6	437
4.2	190	1.3	209.3	4000	F203_209.3 S05 M05A6	428	F203_209.3 P63 BN63A6	429
4.4	184	3.3	202.3	6500			F313_202.3 P63 BN63A6	437
4.8	168	1.5	184.9	4000	F203_184.9 S05 M05A6	428	F203_184.9 P63 BN63A6	429
5.1	157	1.6	172.6	4000	F203_172.6 S05 M05A6	428	F203_172.6 P63 BN63A6	429
5.6	142	1.8	156.3	4000	F203_156.3 S05 M05A6	428	F203_156.3 P63 BN63A6	429
6.7	123	2.0	132.2	4000	F202_132.2 S05 M05A6	428	F202_132.2 P63 BN63A6	429
6.9	118	1.2	127.1	2800	F102_127.1 S05 M05A6	424	F102_127.1 P63 BN63A6	425
7.7	106	2.4	114.3	4000	F202_114.3 S05 M05A6	428	F202_114.3 P63 BN63A6	429
8.3	98	1.4	106.0	2800	F102_106.0 S05 M05A6	424	F102_106.0 P63 BN63A6	425
8.7	94	2.6	101.6	4000	F202_101.6 S05 M05A6	428	F202_101.6 P63 BN63A6	429
9.6	85	1.6	91.5	2800	F102_91.5 S05 M05A6	424	F102_91.5 P63 BN63A6	425
9.7	84	3.0	90.4	4000	F202_90.4 S05 M05A6	428	F202_90.4 P63 BN63A6	429
10.8	75	1.9	81.3	2800	F102_81.3 S05 M05A6	424	F102_81.3 P63 BN63A6	425
11.5	71	3.5	76.8	4000	F202_76.8 S05 M05A6	428	F202_76.8 P63 BN63A6	429
12.4	66	2.1	71.1	2800	F102_71.1 S05 M05A6	424	F102_71.1 P63 BN63A6	425
14.0	58	2.4	63.0	2800	F102_63.0 S05 M05A6	424	F102_63.0 P63 BN63A6	425



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

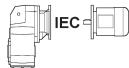

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
15.5	53	2.7	56.7	2800	F102_56.7 S05 M05A6	424	F102_56.7 P63 BN63A6	425
18.1	45	3.1	48.7	2800	F102_48.7 S05 M05A6	424	F102_48.7 P63 BN63A6	425
19.7	41	3.4	44.7	2800	F102_44.7 S05 M05A6	424	F102_44.7 P63 BN63A6	425
22.2	37	3.8	39.6	2800	F102_39.6 S05 M05A6	424	F102_39.6 P63 BN63A6	425
24.9	33	4.3	35.3	2800	F102_35.3 S05 M05A6	424	F102_35.3 P63 BN63A6	425
26.7	31	4.6	33.0	2800	F102_33.0 S05 M05A6	424	F102_33.0 P63 BN63A6	425
29.7	28	5.1	29.6	2800	F102_29.6 S05 M05A6	424	F102_29.6 P63 BN63A6	425
34	24	5.9	25.8	2800	F102_25.8 S05 M05A6	424	F102_25.8 P63 BN63A6	425
39	21	6.6	22.8	2800	F102_22.8 S05 M05A6	424	F102_22.8 P63 BN63A6	425
46	18	7.8	19.3	2800	F102_19.3 S05 M05A6	424	F102_19.3 P63 BN63A6	425
52	16	8.9	17.0	2800	F102_17.0 S05 M05A6	424	F102_17.0 P63 BN63A6	425
60	14	10.1	14.6	2700	F102_14.6 S05 M05A6	424	F102_14.6 P63 BN63A6	425
68	12	10.3	13.0	2600	F102_13.0 S05 M05A6	424	F102_13.0 P63 BN63A6	425
76	11	10.3	11.5	2500	F102_11.5 S05 M05A6	424	F102_11.5 P63 BN63A6	425
90	9	11.8	9.8	2370	F102_9.8 S05 M05A6	424	F102_9.8 P63 BN63A6	425
103	8	11.8	8.6	2270	F102_8.6 S05 M05A6	424	F102_8.6 P63 BN63A6	425
119	7	13.2	7.4	2160	F102_7.4 S05 M05A6	424	F102_7.4 P63 BN63A6	425

## 0.12 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
0.40	2623	1.9	2188	35000			F704_2188 P63 BN63B6	453
0.51	2058	2.5	1717	35000			F704_1717 P63 BN63B6	453
0.60	1742	2.9	2188	35000			F704_2188 P63 BN63A4	453
0.65	1607	3.1	2019	35000			F704_2019 P63 BN63A4	453
0.76	1368	2.1	1141	20000			F604_1141 P63 BN63B6	449
0.89	1178	0.9	982.4	8500	F414_982.4 S05 M05B6	440	F414_982.4 P63 BN63B6	441
0.96	1090	1.0	1411	8500	F414_1411 S05 M05A4	440	F414_1411 P63 BN63A4	441
1.1	938	1.2	1213	8500	F414_1213 S05 M05A4	440	F414_1213 P63 BN63A4	441
1.2	844	1.3	1092	8500	F414_1092 S05 M05A4	440	F414_1092 P63 BN63A4	441
1.4	759	1.4	982.4	8500	F414_982.4 S05 M05A4	440	F414_982.4 P63 BN63A4	441
1.5	696	1.6	900.5	8500	F414_900.5 S05 M05A4	440	F414_900.5 P63 BN63A4	441
1.6	643	0.9	831.6	6500	F314_831.6 S05 M05A4	436	F314_831.6 P63 BN63A4	437
1.7	629	1.7	813.8	8500	F414_813.8 S05 M05A4	440	F414_813.8 P63 BN63A4	441
1.8	589	1.0	762.3	6500	F314_762.3 S05 M05A4	436	F314_762.3 P63 BN63A4	437
1.8	571	1.9	739.4	8500	F414_739.4 S05 M05A4	440	F414_739.4 P63 BN63A4	441
2.0	530	1.1	685.6	6500	F314_685.6 S05 M05A4	436	F314_685.6 P63 BN63A4	437
2.0	533	2.1	690.1	8500	F414_690.1 S05 M05A4	440	F414_690.1 P63 BN63A4	441
2.2	479	1.3	619.9	6500	F314_619.9 S05 M05A4	436	F314_619.9 P63 BN63A4	437
2.3	456	0.9	589.7	6500	F254_589.7 S05 M05A4	432	F254_589.7 P63 BN63A4	433
2.3	447	1.3	578.6	6500	F314_578.6 S05 M05A4	436	F314_578.6 P63 BN63A4	437
2.5	425	2.6	549.8	8500	F414_549.8 S05 M05A4	440	F414_549.8 P63 BN63A4	441
2.6	408	1.0	527.3	6500	F254_527.3 S05 M05A4	432	F254_527.3 P63 BN63A4	433
2.6	408	1.5	527.8	6500	F314_527.8 S05 M05A4	436	F314_527.8 P63 BN63A4	437
2.9	360	1.1	466.0	6500	F254_466.0 S05 M05A4	432	F254_466.0 P63 BN63A4	433
2.9	358	1.7	462.6	6500	F314_462.6 S05 M05A4	436	F314_462.6 P63 BN63A4	437
3.1	336	1.2	434.9	6500	F254_434.9 S05 M05A4	432	F254_434.9 P63 BN63A4	433
3.1	335	3.3	433.7	8500	F414_433.7 S05 M05A4	440	F414_433.7 P63 BN63A4	441



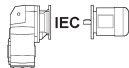



## 0.12 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
3.2	324	1.9	418.9	6500	F314_418.9 S05 M05A4	436	F314_418.9 P63 BN63A4	437
3.4	304	1.3	393.9	6500	F254_393.9 S05 M05A4	432	F254_393.9 P63 BN63A4	433
3.6	296	2.0	374.4	6500			F313_374.4 P63 BN63A4	437
4.1	263	1.5	333.1	6500	F253_333.1 S05 M05A4	432	F253_333.1 P63 BN63A4	433
4.1	263	2.3	332.8	6500			F313_332.8 P63 BN63A4	437
4.3	250	1.0	316.9	4000	F203_316.9 S05 M05A4	428	F203_316.9 P63 BN63A4	429
4.6	232	2.6	293.8	6500			F313_293.8 P63 BN63A4	437
4.7	225	1.1	285.2	4000	F203_285.2 S05 M05A4	428	F203_285.2 P63 BN63A4	429
4.7	228	1.8	288.1	6500	F253_288.1 S05 M05A4	432	F253_288.1 P63 BN63A4	433
5.3	202	1.2	255.3	4000	F203_255.3 S05 M05A4	428	F203_255.3 P63 BN63A4	429
5.3	202	2.0	256.1	6500	F253_256.1 S05 M05A4	432	F253_256.1 P63 BN63A4	433
5.3	200	3.0	253.6	6500			F313_253.6 P63 BN63A4	437
5.9	180	2.2	227.8	6500	F253_227.8 S05 M05A4	432	F253_227.8 P63 BN63A4	433
5.9	180	3.3	228.2	6500			F313_228.2 P63 BN63A4	437
6.5	165	1.5	209.3	4000	F203_209.3 S05 M05A4	428	F203_209.3 P63 BN63A4	429
7.0	153	2.6	193.6	6500	F253_193.6 S05 M05A4	432	F253_193.6 P63 BN63A4	433
7.3	146	1.7	184.9	4000	F203_184.9 S05 M05A4	428	F203_184.9 P63 BN63A4	429
7.7	138	2.9	174.2	6500	F253_174.2 S05 M05A4	432	F253_174.2 P63 BN63A4	433
7.8	136	1.8	172.6	4000	F203_172.6 S05 M05A4	428	F203_172.6 P63 BN63A4	429
8.6	123	2.0	156.3	4000	F203_156.3 S05 M05A4	428	F203_156.3 P63 BN63A4	429
8.7	123	3.2	155.9	6500	F253_155.9 S05 M05A4	432	F253_155.9 P63 BN63A4	433
9.4	113	3.5	143.0	6500	F253_143.0 S05 M05A4	432	F253_143.0 P63 BN63A4	433
10.2	107	2.3	132.2	4000	F202_132.2 S05 M05A4	428	F202_132.2 P63 BN63A4	429
10.6	103	1.4	127.1	2800	F102_127.1 S05 M05A4	424	F102_127.1 P63 BN63A4	425
11.8	92	2.7	114.3	4000	F202_114.3 S05 M05A4	428	F202_114.3 P63 BN63A4	429
12.7	86	1.6	106.0	2800	F102_106.0 S05 M05A4	424	F102_106.0 P63 BN63A4	425
13.3	82	3.0	101.6	4000	F202_101.6 S05 M05A4	428	F202_101.6 P63 BN63A4	429
14.8	74	1.9	91.5	2800	F102_91.5 S05 M05A4	424	F102_91.5 P63 BN63A4	425
14.9	73	3.4	90.4	4000	F202_90.4 S05 M05A4	428	F202_90.4 P63 BN63A4	429
16.6	66	2.1	81.3	2800	F102_81.3 S05 M05A4	424	F102_81.3 P63 BN63A4	425
19.0	57	2.4	71.1	2800	F102_71.1 S05 M05A4	424	F102_71.1 P63 BN63A4	425
21.4	51	2.8	63.0	2800	F102_63.0 S05 M05A4	424	F102_63.0 P63 BN63A4	425
23.8	46	3.1	56.7	2800	F102_56.7 S05 M05A4	424	F102_56.7 P63 BN63A4	425
27.7	39	3.6	48.7	2800	F102_48.7 S05 M05A4	424	F102_48.7 P63 BN63A4	425
30	36	3.9	44.7	2800	F102_44.7 S05 M05A4	424	F102_44.7 P63 BN63A4	425
34	32	4.4	39.6	2800	F102_39.6 S05 M05A4	424	F102_39.6 P63 BN63A4	425
38	29	4.9	35.3	2800	F102_35.3 S05 M05A4	424	F102_35.3 P63 BN63A4	425
41	27	5.3	33	2800	F102_33.0 S05 M05A4	424	F102_33.0 P63 BN63A4	425
46	24	5.9	29.6	2800	F102_29.6 S05 M05A4	424	F102_29.6 P63 BN63A4	425
52	21	6.7	25.8	2800	F102_25.8 S05 M05A4	424	F102_25.8 P63 BN63A4	425
59	18	7.6	22.8	2700	F102_22.8 S05 M05A4	424	F102_22.8 P63 BN63A4	425
70	16	8.7	19.3	2560	F102_19.3 S05 M05A4	424	F102_19.3 P63 BN63A4	425
80	14	9.3	17.0	2450	F102_17.0 S05 M05A4	424	F102_17.0 P63 BN63A4	425
92	12	10.1	14.6	2340	F102_14.6 S05 M05A4	424	F102_14.6 P63 BN63A4	425
104	11	9.9	13.0	2250	F102_13.0 S05 M05A4	424	F102_13.0 P63 BN63A4	425
117	9	10.3	11.5	2160	F102_11.5 S05 M05A4	424	F102_11.5 P63 BN63A4	425
138	8	11.3	9.8	2050	F102_9.8 S05 M05A4	424	F102_9.8 P63 BN63A4	425
157	7	11.8	8.6	1970	F102_8.6 S05 M05A4	424	F102_8.6 P63 BN63A4	425
182	6	12.7	7.4	1870	F102_7.4 S05 M05A4	424	F102_7.4 P63 BN63A4	425





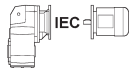

## 0.18 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
0.41	3804	1.3	2188	35000	F704_2188 S1 M1SC6	452	F704_2188 P71 BN71A6	453
0.45	3511	1.4	2019	35000	F704_2019 S1 M1SC6	452	F704_2019 P71 BN71A6	453
0.45	3455	2.3	1987	45000	F804_1987 S1 M1SC6	455	F804_1987 P71 BN71A6	456
0.49	3189	2.5	1834	45000	F804_1834 S1 M1SC6	455	F804_1834 P71 BN71A6	456
0.52	2985	1.7	1717	35000	F704_1717 S1 M1SC6	452	F704_1717 P71 BN71A6	453
0.53	2972	2.7	1709	45000	F804_1709 S1 M1SC6	455	F804_1709 P71 BN71A6	456
0.57	2756	1.8	1585	35000	F704_1585 S1 M1SC6	452	F704_1585 P71 BN71A6	453
0.57	2744	2.9	1578	45000	F804_1578 S1 M1SC6	455	F804_1578 P71 BN71A6	456
0.61	2576	1.9	1481	35000	F704_1481 S1 M1SC6	452	F704_1481 P71 BN71A6	453
0.65	2406	3.3	1384	45000	F804_1384 S1 M1SC6	455	F804_1384 P71 BN71A6	456
0.66	2378	2.1	1368	35000	F704_1368 S1 M1SC6	452	F704_1368 P71 BN71A6	453
0.76	2055	2.4	1182	35000	F704_1182 S1 M1SC6	452	F704_1182 P71 BN71A6	453
0.77	2030	0.9	1168	12000	F514_1168 S1 M1SC6	444	F514_1168 P71 BN71A6	445
0.79	1985	1.5	1141	20000	F604_1141 S1 M1SC6	448	F604_1141 P71 BN71A6	449
0.83	1897	2.6	1091	35000	F704_1091 S1 M1SC6	452	F704_1091 P71 BN71A6	453
0.84	1861	1.0	1070	12000	F514_1070 S1 M1SC6	444	F514_1070 P71 BN71A6	445
0.85	1832	1.6	1054	20000	F604_1054 S1 M1SC6	448	F604_1054 P71 BN71A6	449
0.92	1703	1.1	979.4	12000	F514_979.4 S1 M1SC6	444	F514_979.4 P71 BN71A6	445
0.92	1694	3.0	974.4	35000	F704_974.4 S1 M1SC6	452	F704_974.4 P71 BN71A6	453
0.94	1667	1.7	958.9	20000	F604_958.9 S1 M1SC6	448	F604_958.9 P71 BN71A6	449
1.0	1540	1.2	885.5	12000	F514_885.5 S1 M1SC6	444	F514_885.5 P71 BN71A6	445
1.0	1539	1.9	885.1	20000	F604_885.1 S1 M1SC6	448	F604_885.1 P71 BN71A6	449
1.0	1564	3.2	899.4	35000	F704_899.4 S1 M1SC6	452	F704_899.4 P71 BN71A6	453
1.1	1437	1.3	826.4	12000	F514_826.4 S1 M1SC6	444	F514_826.4 P71 BN71A6	445
1.1	1430	3.5	822.2	35000	F704_822.2 S1 M1SC6	452	F704_822.2 P71 BN71A6	453
1.2	1286	0.9	739.4	8500	F414_739.4 S1 M1SC6	440	F414_739.4 P71 BN71A6	441
1.2	1286	0.9	739.4	8500	F414_739.4 S1 M1SC6	440	F414_739.4 P71 BN71A6	441
1.3	1200	0.9	690.1	8500	F414_690.1 S1 M1SC6	440	F414_690.1 P71 BN71A6	441
1.3	1200	0.9	690.1	8500	F414_690.1 S1 M1SC6	440	F414_690.1 P71 BN71A6	441
1.3	1165	0.9	982.4	8500	F414_982.4 S05 M05B4	440	F414_982.4 P63 BN63B4	441
1.5	1068	1.0	900.5	8500	F414_900.5 S05 M05B4	440	F414_900.5 P63 BN63B4	441
1.6	965	1.1	813.8	8500	F414_813.8 S05 M05B4	440	F414_813.8 P63 BN63B4	441
1.8	877	1.3	739.4	8500	F414_739.4 S05 M05B4	440	F414_739.4 P63 BN63B4	441
1.9	818	1.3	690.1	8500	F414_690.1 S05 M05B4	440	F414_690.1 P63 BN63B4	441
2.3	686	0.9	578.6	6500	F314_578.6 S05 M05B4	436	F314_578.6 P63 BN63B4	437
2.4	652	1.7	549.8	8500	F414_549.8 S05 M05B4	440	F414_549.8 P63 BN63B4	441
2.5	626	1.0	527.8	6500	F314_527.8 S05 M05B4	436	F314_527.8 P63 BN63B4	437
2.9	549	1.1	462.6	6500	F314_462.6 S05 M05B4	436	F314_462.6 P63 BN63B4	437
3.0	514	2.1	433.7	8500	F414_433.7 S05 M05B4	440	F414_433.7 P63 BN63B4	441
3.2	497	1.2	418.9	6500	F314_418.9 S05 M05B4	436	F314_418.9 P63 BN63B4	437
3.4	467	0.9	393.9	6500	F254_393.9 S05 M05B4	432	F254_393.9 P63 BN63B4	433
3.5	454	1.3	374.4	6500			F313_374.4 P63 BN63B4	437
3.8	418	2.6	344.8	8500			F413_344.8 P63 BN63B4	441
4.0	404	1.0	333.1	6500	F253_333.1 S05 M05B4	432	F253_333.1 P63 BN63B4	433
4.0	403	1.5	332.8	6500			F313_332.8 P63 BN63B4	437
4.5	356	1.7	293.8	6500			F313_293.8 P63 BN63B4	437
4.5	359	3.1	296.6	8500			F413_296.6 P63 BN63B4	441
4.6	349	1.1	288.1	6500	F253_288.1 S05 M05B4	432	F253_288.1 P63 BN63B4	433
4.9	323	3.4	266.9	8500			F413_266.9 P63 BN63B4	441
5.2	310	1.3	256.1	6500	F253_256.1 S05 M05B4	432	F253_256.1 P63 BN63B4	433
5.2	307	2.0	253.6	6500			F313_253.6 P63 BN63B4	437









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n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
5.8	276	1.4	227.8	6500	F253_227.8 S05 M05B4	432	F253_227.8 P63 BN63B4	433
5.8	277	2.2	228.2	6500			F313_228.2 P63 BN63B4	437
6.3	254	1.0	209.3	4000	F203_209.3 S05 M05B4	428	F203_209.3 P63 BN63B4	429
6.5	245	2.4	202.3	6500			F313_202.3 P63 BN63B4	437
6.8	235	1.7	193.6	6500	F253_193.6 S05 M05B4	432	F253_193.6 P63 BN63B4	433
7.1	224	1.1	184.9	4000	F203_184.9 S05 M05B4	428	F203_184.9 P63 BN63B4	429
7.1	225	2.7	185.4	6500			F313_185.4 P63 BN63B4	437
7.6	209	1.2	172.6	4000	F203_172.6 S05 M05B4	428	F203_172.6 P63 BN63B4	429
7.6	211	1.9	174.2	6500	F253_174.2 S05 M05B4	432	F253_174.2 P63 BN63B4	433
7.9	202	3.0	166.8	6500			F313_166.8 P63 BN63B4	437
8.4	189	1.3	156.3	4000	F203_156.3 S05 M05B4	428	F203_156.3 P63 BN63B4	429
8.5	189	2.1	155.9	6500	F253_155.9 S05 M05B4	432	F253_155.9 P63 BN63B4	433
8.8	183	3.3	150.8	6500			F313_150.8 P63 BN63B4	437
9.2	173	2.3	143.0	6500	F253_143.0 S05 M05B4	432	F253_143.0 P63 BN63B4	433
9.4	171	3.5	140.7	6500			F313_140.7 P63 BN63B4	437
10.0	164	1.5	132.2	4000	F202_132.2 S05 M05B4	428	F202_132.2 P63 BN63B4	429
10.3	155	2.6	127.8	6500	F253_127.8 S05 M05B4	432	F253_127.8 P63 BN63B4	433
10.4	157	0.9	127.1	2800	F102_127.1 S05 M05B4	424	F102_127.1 P63 BN63B4	425
11.5	142	1.8	114.3	4000	F202_114.3 S05 M05B4	428	F202_114.3 P63 BN63B4	429
11.7	137	2.9	113.0	6500	F253_113.0 S05 M05B4	432	F253_113.0 P63 BN63B4	433
12.5	131	1.1	106.0	2800	F102_106.0 S05 M05B4	424	F102_106.0 P63 BN63B4	425
12.5	128	3.1	105.4	6500	F253_105.4 S05 M05B4	432	F253_105.4 P63 BN63B4	433
13.0	126	2.0	101.6	4000	F202_101.6 S05 M05B4	428	F202_101.6 P63 BN63B4	429
13.8	116	3.5	95.5	6500	F253_95.5 S05 M05B4	432	F253_95.5 P63 BN63B4	433
14.4	113	1.2	91.5	2800	F102_91.5 S05 M05B4	424	F102_91.5 P63 BN63B4	425
14.6	112	2.2	90.4	4000	F202_90.4 S05 M05B4	428	F202_90.4 P63 BN63B4	429
16.2	101	1.4	81.3	2800	F102_81.3 S05 M05B4	424	F102_81.3 P63 BN63B4	425
17.2	95	2.6	76.8	4000	F202_76.8 S05 M05B4	428	F202_76.8 P63 BN63B4	429
18.6	88	1.6	71.1	2800	F102_71.1 S05 M05B4	424	F102_71.1 P63 BN63B4	425
19.1	86	2.9	69.1	4000	F202_69.1 S05 M05B4	428	F202_69.1 P63 BN63B4	429
21.0	78	1.8	63.0	2800	F102_63.0 S05 M05B4	424	F102_63.0 P63 BN63B4	425
21.3	77	3.3	61.9	4000	F202_61.9 S05 M05B4	428	F202_61.9 P63 BN63B4	429
23.3	70	2.0	56.7	2800	F102_56.7 S05 M05B4	424	F102_56.7 P63 BN63B4	425
27.1	60	2.3	48.7	2800	F102_48.7 S05 M05B4	424	F102_48.7 P63 BN63B4	425
29.6	55	2.5	44.7	2800	F102_44.7 S05 M05B4	424	F102_44.7 P63 BN63B4	425
33	49	2.9	39.6	2800	F102_39.6 S05 M05B4	424	F102_39.6 P63 BN63B4	425
37	44	3.2	35.3	2800	F102_35.3 S05 M05B4	424	F102_35.3 P63 BN63B4	425
40	41	3.4	33.0	2800	F102_33.0 S05 M05B4	424	F102_33.0 P63 BN63B4	425
45	37	3.8	29.6	2800	F102_29.6 S05 M05B4	424	F102_29.6 P63 BN63B4	425
51	32	4.4	25.8	2780	F102_25.8 S05 M05B4	424	F102_25.8 P63 BN63B4	425
58	28	5.0	22.8	2680	F102_22.8 S05 M05B4	424	F102_22.8 P63 BN63B4	425
68	24	5.7	19.3	2540	F102_19.3 S05 M05B4	424	F102_19.3 P63 BN63B4	425
78	21	6.1	17.0	2440	F102_17.0 S05 M05B4	424	F102_17.0 P63 BN63B4	425
90	18	6.6	14.6	2330	F102_14.6 S05 M05B4	424	F102_14.6 P63 BN63B4	425
101	16	6.4	13.0	2240	F102_13.0 S05 M05B4	424	F102_13.0 P63 BN63B4	425
114	14	6.7	11.5	2150	F102_11.5 S05 M05B4	424	F102_11.5 P63 BN63B4	425
135	12	7.4	9.8	2040	F102_9.8 S05 M05B4	424	F102_9.8 P63 BN63B4	425
154	11	7.7	8.6	1960	F102_8.6 S05 M05B4	424	F102_8.6 P63 BN63B4	425
178	9	8.3	7.4	1870	F102_7.4 S05 M05B4	424	F102_7.4 P63 BN63B4	425
186	9	10.7	14.6	1860	F102_14.6 S05 M05A2	424	F102_14.6 P63 BN63A2	425
210	8	10.9	13.0	1790	F102_13.0 S05 M05A2	424	F102_13.0 P63 BN63A2	425









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

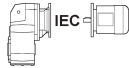

<b>n<sub>2</sub></b> min-1	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>237</b>	7	11.3	11.5	1720	<b>F102_11.5 S05 M05A2</b>	424	<b>F102_11.5 P63 BN63A2</b>	425
<b>279</b>	6	12.5	9.8	1630	<b>F102_9.8 S05 M05A2</b>	424	<b>F102_9.8 P63 BN63A2</b>	425
<b>318</b>	5	13.0	8.6	1560	<b>F102_8.6 S05 M05A2</b>	424	<b>F102_8.6 P63 BN63A2</b>	425
<b>369</b>	4	14.2	7.4	1490	<b>F102_7.4 S05 M05A2</b>	424	<b>F102_7.4 P63 BN63A2</b>	425

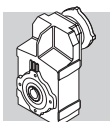
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<b>n<sub>2</sub></b> min-1	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>0.41</b>	5283	0.9	2188	35000	<b>F704_2188 S1 M1SD6</b>	452	<b>F704_2188 P71 BN71B6</b>	453
<b>0.45</b>	4877	1.0	2019	35000	<b>F704_2019 S1 M1SD6</b>	452	<b>F704_2019 P71 BN71B6</b>	453
<b>0.45</b>	4799	1.7	1987	45000	<b>F804_1987 S1 M1SD6</b>	455	<b>F804_1987 P71 BN71B6</b>	456
<b>0.49</b>	4430	1.8	1834	45000	<b>F804_1834 S1 M1SD6</b>	455	<b>F804_1834 P71 BN71B6</b>	456
<b>0.52</b>	4146	1.2	1717	35000	<b>F704_1717 S1 M1SD6</b>	452	<b>F704_1717 P71 BN71B6</b>	453
<b>0.53</b>	4128	1.9	1709	45000	<b>F804_1709 S1 M1SD6</b>	455	<b>F804_1709 P71 BN71B6</b>	456
<b>0.57</b>	3827	1.3	1585	35000	<b>F704_1585 S1 M1SD6</b>	452	<b>F704_1585 P71 BN71B6</b>	453
<b>0.57</b>	3810	2.1	1578	45000	<b>F804_1578 S1 M1SD6</b>	455	<b>F804_1578 P71 BN71B6</b>	456
<b>0.61</b>	3578	1.4	1481	35000	<b>F704_1481 S1 M1SD6</b>	452	<b>F704_1481 P71 BN71B6</b>	453
<b>0.65</b>	3342	2.4	1384	45000	<b>F804_1384 S1 M1SD6</b>	455	<b>F804_1384 P71 BN71B6</b>	456
<b>0.66</b>	3303	1.5	1368	35000	<b>F704_1368 S1 M1SD6</b>	452	<b>F704_1368 P71 BN71B6</b>	453
<b>0.70</b>	3085	2.6	1277	45000	<b>F804_1277 S1 M1SD6</b>	455	<b>F804_1277 P71 BN71B6</b>	456
<b>0.76</b>	2854	1.8	1182	35000	<b>F704_1182 S1 M1SD6</b>	452	<b>F704_1182 P71 BN71B6</b>	453
<b>0.79</b>	2757	1.1	1141	20000	<b>F604_1141 S1 M1SD6</b>	448	<b>F604_1141 P71 BN71B6</b>	449
<b>0.79</b>	2769	2.9	1146	45000	<b>F804_1146 S1 M1SD6</b>	455	<b>F804_1146 P71 BN71B6</b>	456
<b>0.83</b>	2635	1.9	1091	35000	<b>F704_1091 S1 M1SD6</b>	452	<b>F704_1091 P71 BN71B6</b>	453
<b>0.85</b>	2545	1.1	1054	20000	<b>F604_1054 S1 M1SD6</b>	448	<b>F604_1054 P71 BN71B6</b>	449
<b>0.85</b>	2556	3.1	1058	45000	<b>F804_1058 S1 M1SD6</b>	455	<b>F804_1058 P71 BN71B6</b>	456
<b>0.92</b>	2353	2.1	974.4	35000	<b>F704_974.4 S1 M1SD6</b>	452	<b>F704_974.4 P71 BN71B6</b>	453
<b>0.94</b>	2316	1.3	958.9	20000	<b>F604_958.9 S1 M1SD6</b>	448	<b>F604_958.9 P71 BN71B6</b>	449
<b>1.0</b>	2138	1.4	885.1	20000	<b>F604_885.1 S1 M1SD6</b>	448	<b>F604_885.1 P71 BN71B6</b>	449
<b>1.0</b>	2172	2.3	899.4	35000	<b>F704_899.4 S1 M1SD6</b>	452	<b>F704_899.4 P71 BN71B6</b>	453
<b>1.1</b>	1996	0.9	826.4	12000	<b>F514_826.4 S1 M1SD6</b>	444	<b>F514_826.4 P71 BN71B6</b>	445
<b>1.1</b>	1986	2.5	822.2	35000	<b>F704_822.2 S1 M1SD6</b>	452	<b>F704_822.2 P71 BN71B6</b>	453
<b>1.3</b>	1633	1.1	676.3	12000	<b>F514_676.3 S1 M1SD6</b>	444	<b>F514_676.3 P71 BN71B6</b>	445
<b>1.4</b>	1600	1.8	662.4	20000	<b>F604_662.4 S1 M1SD6</b>	448	<b>F604_662.4 P71 BN71B6</b>	449
<b>1.4</b>	1588	3.1	657.4	35000	<b>F704_657.4 S1 M1SD6</b>	452	<b>F704_657.4 P71 BN71B6</b>	453
<b>1.5</b>	1477	2.0	611.4	20000	<b>F604_611.4 S1 M1SD6</b>	448	<b>F604_611.4 P71 BN71B6</b>	449
<b>1.5</b>	1466	3.4	606.8	35000	<b>F704_606.8 S1 M1SD6</b>	452	<b>F704_606.8 P71 BN71B6</b>	453
<b>1.7</b>	1282	0.9	813.8	8500	<b>F414_813.8 S05 M05C4</b>	440	<b>F414_813.8 P71 BN71A4</b>	441
<b>1.8</b>	1199	0.9	739.4	8500	<b>F414_739.4 S05 M05C4</b>	440	<b>F414_739.4 P71 BN71A4</b>	441
<b>1.9</b>	1119	1.0	690.1	8500	<b>F414_690.1 S05 M05C4</b>	440	<b>F414_690.1 P71 BN71A4</b>	441
<b>2.4</b>	892	1.2	549.8	8500	<b>F414_549.8 S05 M05C4</b>	440	<b>F414_549.8 P71 BN71A4</b>	441
<b>2.8</b>	783	2.3	317.3	12000	<b>F513_317.3 S1 M1SD6</b>	444	<b>F513_317.3 P71 BN71B6</b>	445
<b>3.1</b>	704	1.6	433.7	8500	<b>F414_433.7 S05 M05C4</b>	440	<b>F414_433.7 P71 BN71A4</b>	441
<b>3.2</b>	679	0.9	418.9	6500	<b>F314_418.9 S05 M05C4</b>	436	<b>F314_418.9 P71 BN71A4</b>	437
<b>3.7</b>	603	1.0	374.4	6500			<b>F313_374.4 P71 BN71A4</b>	437
<b>4.0</b>	555	2.0	344.8	8500			<b>F413_344.8 P71 BN71A4</b>	441
<b>4.1</b>	536	1.1	332.8	6500			<b>F313_332.8 P71 BN71A4</b>	437
<b>4.7</b>	473	1.3	293.8	6500			<b>F313_293.8 P71 BN71A4</b>	437



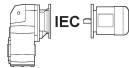



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

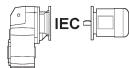

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
4.7	477	2.3	296.6	8500			F413_296.6 P71 BN71A4	441
5.2	425	0.9	256.1	6500	F253_256.1 S05 M05C4	432	F253_256.1 P71 BN71A4	433
5.2	430	2.6	266.9	8500			F413_266.9 P71 BN71A4	441
5.4	408	1.5	253.6	6500			F313_253.6 P71 BN71A4	437
5.7	387	2.8	240.1	8500			F413_240.1 P71 BN71A4	441
5.9	378	1.1	227.8	6500			F253_227.8 S05 M05C4	432
6.0	367	1.6	228.2	6500			F313_228.2 P71 BN71A4	437
6.3	354	3.1	220.1	8500			F413_220.1 P71 BN71A4	441
6.8	326	1.8	202.3	6500			F313_202.3 P71 BN71A4	437
6.9	321	1.2	193.6	6500	F253_193.6 S05 M05C4	432	F253_193.6 P71 BN71A4	433
6.9	320	3.4	198.9	8500			F413_198.9 P71 BN71A4	441
7.4	299	2.0	185.4	6500			F313_185.4 P71 BN71A4	437
7.7	289	1.4	174.2	6500	F253_174.2 S05 M05C4	432	F253_174.2 P71 BN71A4	433
8.0	278	0.9	172.6	4000	F203_172.6 S05 M05C4	428	F203_172.6 P71 BN71A4	429
8.3	268	2.2	166.8	6500			F313_166.8 P71 BN71A4	437
8.6	259	1.0	156.3	4000	F203_156.3 S05 M05C4	428	F203_156.3 P71 BN71A4	429
8.6	259	1.5	155.9	6500	F253_155.9 S05 M05C4	432	F253_155.9 P71 BN71A4	433
9.2	243	2.5	150.8	6500			F313_150.8 P71 BN71A4	437
9.7	230	1.7	143.0	6500	F253_143.0 S05 M05C4	432	F253_143.0 P71 BN71A4	433
9.8	227	2.6	140.7	6500			F313_140.7 P71 BN71A4	437
10.1	224	1.1	132.2	4000	F202_132.2 S05 M05C4	428	F202_132.2 P71 BN71A4	429
10.5	212	1.9	127.8	6500	F253_127.8 S05 M05C4	432	F253_127.8 P71 BN71A4	433
10.7	207	2.9	128.4	6500			F313_128.4 P71 BN71A4	437
11.7	194	1.3	114.3	4000	F202_114.3 S05 M05C4	428	F202_114.3 P71 BN71A4	429
12.2	182	2.2	113.0	6500	F253_113.0 S05 M05C4	432	F253_113.0 P71 BN71A4	433
12.3	181	3.3	112.5	6500			F313_112.5 P71 BN71A4	437
12.7	175	2.3	105.4	6500	F253_105.4 S05 M05C4	432	F253_105.4 P71 BN71A4	433
13.2	172	1.5	101.6	4000	F202_101.6 S05 M05C4	428	F202_101.6 P71 BN71A4	429
14.0	158	2.5	95.5	6500	F253_95.5 S05 M05C4	432	F253_95.5 P71 BN71A4	433
14.6	155	0.9	91.5	2800	F102_91.5 S05 M05C4	424	F102_91.5 P71 BN71A4	425
14.8	153	1.6	90.4	4000	F202_90.4 S05 M05C4	428	F202_90.4 P71 BN71A4	429
16.1	138	2.9	83.4	6500	F253_83.4 S05 M05C4	432	F253_83.4 P71 BN71A4	433
16.5	138	1.0	81.3	2800	F102_81.3 S05 M05C4	424	F102_81.3 P71 BN71A4	425
17.4	130	1.9	76.8	4000	F202_76.8 S05 M05C4	428	F202_76.8 P71 BN71A4	429
17.5	127	3.2	76.6	6420	F253_76.6 S05 M05C4	432	F253_76.6 P71 BN71A4	433
18.8	120	1.2	71.1	2800	F102_71.1 S05 M05C4	424	F102_71.1 P71 BN71A4	425
19.4	117	2.1	69.1	4000	F202_69.1 S05 M05C4	428	F202_69.1 P71 BN71A4	429
21.3	107	1.3	63.0	2800	F102_63.0 S05 M05C4	424	F102_63.0 P71 BN71A4	425
21.7	105	2.4	61.9	4000	F202_61.9 S05 M05C4	428	F202_61.9 P71 BN71A4	429
23.6	96	1.5	56.7	2800	F102_56.7 S05 M05C4	424	F102_56.7 P71 BN71A4	425
23.6	96	2.6	56.7	4000	F202_56.7 S05 M05C4	428	F202_56.7 P71 BN71A4	429
26.4	86	2.9	50.7	4000	F202_50.7 S05 M05C4	428	F202_50.7 P71 BN71A4	429
27.5	83	1.7	48.7	2800	F102_48.7 S05 M05C4	424	F102_48.7 P71 BN71A4	425
29.9	76	3.3	44.8	3870	F202_44.8 S05 M05C4	428	F202_44.8 P71 BN71A4	429
30.0	76	1.9	44.7	2800	F102_44.7 S05 M05C4	424	F102_44.7 P71 BN71A4	425
34	67	2.1	39.6	2800	F102_39.6 S05 M05C4	424	F102_39.6 P71 BN71A4	425
38	60	2.3	35.3	2800	F102_35.3 S05 M05C4	424	F102_35.3 P71 BN71A4	425
41	56	2.5	33.0	2800	F102_33.0 S05 M05C4	424	F102_33.0 P71 BN71A4	425
45	50	2.8	29.6	2800	F102_29.6 S05 M05C4	424	F102_29.6 P71 BN71A4	425
52	44	3.2	25.8	2750	F102_25.8 S05 M05C4	424	F102_25.8 P71 BN71A4	425
59	39	3.6	22.8	2650	F102_22.8 S05 M05C4	424	F102_22.8 P71 BN71A4	425

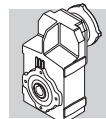


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

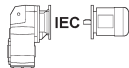

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
69	33	4.2	19.3	2520	F102_19.3 S05 M05C4	424	F102_19.3 P71 BN71A4	425
81	28	4.6	17.0	2420	F102_17.0 S05 M05C4	424	F102_17.0 P71 BN71A4	425
91	25	4.8	14.6	2310	F102_14.6 S05 M05C4	424	F102_14.6 P71 BN71A4	425
103	22	4.7	13.0	2230	F102_13.0 S05 M05C4	424	F102_13.0 P71 BN71A4	425
120	19	5.1	11.5	2140	F102_11.5 S05 M05C4	424	F102_11.5 P71 BN71A4	425
137	17	5.4	9.8	2030	F102_9.8 S05 M05C4	424	F102_9.8 P71 BN71A4	425
161	14	5.8	8.6	1950	F102_8.6 S05 M05C4	424	F102_8.6 P71 BN71A4	425
181	13	6.1	7.4	1860	F102_7.4 S05 M05C4	424	F102_7.4 P71 BN71A4	425
187	12	7.7	14.6	1850	F102_14.6 S05 M05B2	424	F102_14.6 P63 BN63B2	425
210	11	7.9	13.0	1780	F102_13.0 S05 M05B2	424	F102_13.0 P63 BN63B2	425
237	10	8.2	11.5	1710	F102_11.5 S05 M05B2	424	F102_11.5 P63 BN63B2	425
280	8	9.0	9.8	1620	F102_9.8 S05 M05B2	424	F102_9.8 P63 BN63B2	425
319	7	9.4	8.6	1550	F102_8.6 S05 M05B2	424	F102_8.6 P63 BN63B2	425
370	6	10.3	7.4	1480	F102_7.4 S05 M05B2	424	F102_7.4 P63 BN63B2	425

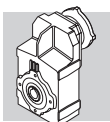
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<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
0.46	7024	1.1	1987	45000	F804_1987 S1 M1LA6	455	F804_1987 P80 BN80A6	456
0.50	6484	1.2	1834	45000	F804_1834 S1 M1LA6	455	F804_1834 P80 BN80A6	456
0.53	6042	1.3	1709	45000	F804_1709 S1 M1LA6	455	F804_1709 P80 BN80A6	456
0.57	5602	0.9	1585	35000	F704_1585 S1 M1LA6	452	F704_1585 P80 BN80A6	453
0.58	5577	1.4	1578	45000	F804_1578 S1 M1LA6	455	F804_1578 P80 BN80A6	456
0.61	5238	1.0	1481	35000	F704_1481 S1 M1LA6	452	F704_1481 P80 BN80A6	453
0.63	5137	1.0	2188	35000	F704_2188 S1 M1SD4	452	F704_2188 P71 BN71B4	453
0.68	4742	1.1	2019	35000	F704_2019 S1 M1SD4	452	F704_2019 P71 BN71B4	453
0.69	4666	1.7	1987	45000	F804_1987 S1 M1SD4	455	F804_1987 P71 BN71B4	456
0.75	4307	1.9	1834	45000	F804_1834 S1 M1SD4	455	F804_1834 P71 BN71B4	456
0.80	4031	1.2	1717	35000	F704_1717 S1 M1SD4	452	F704_1717 P71 BN71B4	453
0.80	4013	2.0	1709	45000	F804_1709 S1 M1SD4	455	F804_1709 P71 BN71B4	456
0.86	3721	1.3	1585	35000	F704_1585 S1 M1SD4	452	F704_1585 P71 BN71B4	453
0.87	3705	2.2	1578	45000	F804_1578 S1 M1SD4	455	F804_1578 P71 BN71B4	456
0.92	3479	1.4	1481	35000	F704_1481 S1 M1SD4	452	F704_1481 P71 BN71B4	453
0.99	3250	2.5	1384	45000	F804_1384 S1 M1SD4	455	F804_1384 P71 BN71B4	456
1.0	3211	1.6	1368	35000	F704_1368 S1 M1SD4	452	F704_1368 P71 BN71B4	453
1.1	3000	2.7	1277	45000	F804_1277 S1 M1SD4	455	F804_1277 P71 BN71B4	456
1.2	2680	1.1	1141	20000	F604_1141 S1 M1SD4	448	F604_1141 P71 BN71B4	449
1.2	2775	1.8	1182	35000	F704_1182 S1 M1SD4	452	F704_1182 P71 BN71B4	453
1.2	2692	3.0	1146	45000	F804_1146 S1 M1SD4	455	F804_1146 P71 BN71B4	456
1.3	2474	1.2	1054	20000	F604_1054 S1 M1SD4	448	F604_1054 P71 BN71B4	449
1.3	2562	2.0	1091	35000	F704_1091 S1 M1SD4	452	F704_1091 P71 BN71B4	453
1.3	2485	3.2	1058	45000	F804_1058 S1 M1SD4	455	F804_1058 P71 BN71B4	456
1.4	2252	1.3	958.9	20000	F604_958.9 S1 M1SD4	448	F604_958.9 P71 BN71B4	449
1.4	2288	2.2	974.4	35000	F704_974.4 S1 M1SD4	452	F704_974.4 P71 BN71B4	453
1.5	2079	0.9	885.5	12000	F514_885.5 S1 M1SD4	444	F514_885.5 P71 BN71B4	445
1.5	2078	1.4	885.1	20000	F604_885.1 S1 M1SD4	448	F604_885.1 P71 BN71B4	449
1.5	2112	2.4	899.4	35000	F704_899.4 S1 M1SD4	452	F704_899.4 P71 BN71B4	453
1.7	1941	0.9	826.4	12000	F514_826.4 S1 M1SD4	444	F514_826.4 P71 BN71B4	445







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

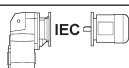

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
1.7	1931	2.6	822.2	35000	F704_822.2 S1 M1SD4	452	F704_822.2 P71 BN71B4	453
2.0	1588	1.1	676.3	12000	F514_676.3 S1 M1SD4	444	F514_676.3 P71 BN71B4	445
2.1	1556	1.9	662.4	20000	F604_662.4 S1 M1SD4	448	F604_662.4 P71 BN71B4	449
2.1	1544	3.2	657.4	35000	F704_657.4 S1 M1SD4	452	F704_657.4 P71 BN71B4	453
2.2	1436	2.0	611.4	20000	F604_611.4 S1 M1SD4	448	F604_611.4 P71 BN71B4	449
2.3	1425	3.5	606.8	35000	F704_606.8 S1 M1SD4	452	F704_606.8 P71 BN71B4	453
2.5	1291	0.9	549.8	8500	F414_549.8 S1 M1SD4	440	F414_549.8 P71 BN71B4	441
2.6	1246	1.4	530.5	12000	F514_530.5 S1 M1SD4	444	F514_530.5 P71 BN71B4	445
2.6	1246	2.3	530.7	20000	F604_530.7 S1 M1SD4	448	F604_530.7 P71 BN71B4	449
2.8	1150	2.5	489.8	20000	F604_489.8 S1 M1SD4	448	F604_489.8 P71 BN71B4	449
3.2	1018	1.1	433.7	8500	F414_433.7 S1 M1SD4	440	F414_433.7 P71 BN71B4	441
3.2	1008	1.8	429.1	12000	F514_429.1 S1 M1SD4	444	F514_429.1 P71 BN71B4	445
3.2	1016	2.9	432.6	20000	F604_432.6 S1 M1SD4	448	F604_432.6 P71 BN71B4	449
3.4	938	3.1	399.3	20000	F604_399.3 S1 M1SD4	448	F604_399.3 P71 BN71B4	449
3.9	846	2.1	352.5	12000	F513_352.5 S1 M1SD4	444	F513_352.5 P71 BN71B4	445
4.0	827	1.3	344.8	8500	F413_344.8 S1 M1SD4	440	F413_344.8 P71 BN71B4	441
4.3	761	2.4	317.3	12000	F513_317.3 S1 M1SD4	444	F513_317.3 P71 BN71B4	445
4.6	712	1.5	296.6	8500	F413_296.6 S1 M1SD4	440	F413_296.6 P71 BN71B4	441
4.8	686	2.6	285.9	12000	F513_285.9 S1 M1SD4	444	F513_285.9 P71 BN71B4	445
5.1	641	1.7	266.9	8500	F413_266.9 S1 M1SD4	440	F413_266.9 P71 BN71B4	441
5.2	629	2.9	262.1	12000	F513_262.1 S1 M1SD4	444	F513_262.1 P71 BN71B4	445
5.4	609	1.0	253.6	6500	F313_253.6 S1 M1SD4	436	F313_253.6 P71 BN71B4	437
5.7	576	1.9	240.1	8500	F413_240.1 S1 M1SD4	440	F413_240.1 P71 BN71B4	441
5.7	576	3.1	239.8	12000	F513_239.8 S1 M1SD4	444	F513_239.8 P71 BN71B4	445
6.0	548	1.1	228.2	6500	F313_228.2 S1 M1SD4	436	F313_228.2 P71 BN71B4	437
6.2	528	2.1	220.1	8500	F413_220.1 S1 M1SD4	440	F413_220.1 P71 BN71B4	441
6.3	520	3.5	216.9	12000	F513_216.9 S1 M1SD4	444	F513_216.9 P71 BN71B4	445
6.8	485	1.2	202.3	6500	F313_202.3 S1 M1SD4	436	F313_202.3 P71 BN71B4	437
6.9	477	2.3	198.9	8500	F413_198.9 S1 M1SD4	440	F413_198.9 P71 BN71B4	441
7.4	445	1.3	185.4	6500	F313_185.4 S1 M1SD4	436	F313_185.4 P71 BN71B4	437
7.6	434	2.5	180.7	8500	F413_180.7 S1 M1SD4	440	F413_180.7 P71 BN71B4	441
7.9	418	1.0	174.2	6500	F253_174.2 S1 M1SD4	432	F253_174.2 P71 BN71B4	433
8.1	405	2.7	168.7	8500	F413_168.7 S1 M1SD4	440	F413_168.7 P71 BN71B4	441
8.2	400	1.5	166.8	6500	F313_166.8 S1 M1SD4	436	F313_166.8 P71 BN71B4	437
8.8	374	1.1	155.9	6500	F253_155.9 S1 M1SD4	432	F253_155.9 P71 BN71B4	433
9.1	362	1.7	150.8	6500	F313_150.8 S1 M1SD4	436	F313_150.8 P71 BN71B4	437
9.6	343	1.2	143.0	6500	F253_143.0 S1 M1SD4	432	F253_143.0 P71 BN71B4	433
9.7	338	1.8	140.7	6500	F313_140.7 S1 M1SD4	436	F313_140.7 P71 BN71B4	437
10.2	323	3.4	134.4	8500	F413_134.4 S1 M1SD4	440	F413_134.4 P71 BN71B4	441
10.7	307	1.3	127.8	6500	F253_127.8 S1 M1SD4	432	F253_127.8 P71 BN71B4	433
10.7	308	1.9	128.4	6500	F313_128.4 S1 M1SD4	436	F313_128.4 P71 BN71B4	437
12.1	271	1.5	113.0	6500	F253_113.0 S1 M1SD4	432	F253_113.0 P71 BN71B4	433
12.2	270	2.2	112.5	6500	F313_112.5 S1 M1SD4	436	F313_112.5 P71 BN71B4	437
13.0	253	1.6	105.4	6500	F253_105.4 S1 M1SD4	432	F253_105.4 P71 BN71B4	433
13.4	245	2.5	101.9	6500	F313_101.9 S1 M1SD4	436	F313_101.9 P71 BN71B4	437
13.5	249	1.0	101.6	4000			F202_101.6 P71 BN71B4	429
14.3	229	1.7	95.5	6490	F253_95.5 S1 M1SD4	432	F253_95.5 P71 BN71B4	433
15.2	222	1.1	90.4	4000	F202_90.4 S1 M1SD4	428	F202_90.4 P71 BN71B4	429
15.7	210	2.9	87.4	6500	F313_87.4 S1 M1SD4	436	F313_87.4 P71 BN71B4	437
16.4	200	2.0	83.4	6280	F253_83.4 S1 M1SD4	432	F253_83.4 P71 BN71B4	433
17.4	189	3.2	78.9	6500	F313_78.9 S1 M1SD4	436	F313_78.9 P71 BN71B4	437



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n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
17.8	188	1.3	76.8	4000	F202_76.8 S1 M1SD4	428	F202_76.8 P71 BN71B4	429
17.9	184	2.2	76.6	6160	F253_76.6 S1 M1SD4	432	F253_76.6 P71 BN71B4	433
19.8	169	1.5	69.1	4000	F202_69.1 S1 M1SD4	428	F202_69.1 P71 BN71B4	429
21.0	157	2.6	65.3	5920	F253_65.3 S1 M1SD4	432	F253_65.3 P71 BN71B4	433
21.7	154	0.9	63.0	2800	F102_63.0 S1 M1SD4	424	F102_63.0 P71 BN71B4	425
22.1	152	1.6	61.9	4000	F202_61.9 S1 M1SD4	428	F202_61.9 P71 BN71B4	429
23.5	140	2.9	58.3	5750	F253_58.3 S1 M1SD4	432	F253_58.3 P71 BN71B4	433
24.2	139	1.0	56.7	2800	F102_56.7 S1 M1SD4	424	F102_56.7 P71 BN71B4	425
24.2	139	1.8	56.7	4000	F202_56.7 S1 M1SD4	428	F202_56.7 P71 BN71B4	429
27.0	124	2.0	50.7	3900	F202_50.7 S1 M1SD4	428	F202_50.7 P71 BN71B4	429
27.0	122	3.3	50.8	5540	F253_50.8 S1 M1SD4	432	F253_50.8 P71 BN71B4	433
28.1	119	1.2	48.7	2800	F102_48.7 S1 M1SD4	424	F102_48.7 P71 BN71B4	425
31	110	1.3	44.7	2800	F102_44.7 S1 M1SD4	424	F102_44.7 P71 BN71B4	425
31	110	2.3	44.8	3770	F202_44.8 S1 M1SD4	428	F202_44.8 P71 BN71B4	429
31	109	3.5	44.4	5370	F252_44.4 S1 M1SD4	432	F252_44.4 P71 BN71B4	433
33	103	2.4	41.8	3700	F202_41.8 S1 M1SD4	428	F202_41.8 P71 BN71B4	429
35	97	1.4	39.6	2800	F102_39.6 S1 M1SD4	424	F102_39.6 P71 BN71B4	425
36	93	2.7	37.9	3600	F202_37.9 S1 M1SD4	428	F202_37.9 P71 BN71B4	429
39	87	1.6	35.3	2800	F102_35.3 S1 M1SD4	424	F102_35.3 P71 BN71B4	425
41	81	3.1	33.1	3460	F202_33.1 S1 M1SD4	428	F202_33.1 P71 BN71B4	429
42	81	1.7	33.0	2800	F102_33.0 S1 M1SD4	424	F102_33.0 P71 BN71B4	425
45	75	3.4	30.4	3380	F202_30.4 S1 M1SD4	428	F202_30.4 P71 BN71B4	429
46	73	1.9	29.6	2800	F102_29.6 S1 M1SD4	424	F102_29.6 P71 BN71B4	425
53	63	2.2	25.8	2690	F102_25.8 S1 M1SD4	424	F102_25.8 P71 BN71B4	425
60	56	2.5	22.8	2600	F102_22.8 S1 M1SD4	424	F102_22.8 P71 BN71B4	425
71	47	2.9	19.3	2470	F102_19.3 S1 M1SD4	424	F102_19.3 P71 BN71B4	425
81	42	3.1	17.0	2380	F102_17.0 S1 M1SD4	424	F102_17.0 P71 BN71B4	425
94	36	3.3	14.6	2280	F102_14.6 S1 M1SD4	424	F102_14.6 P71 BN71B4	425
105	32	3.3	13.0	2200	F102_13.0 S1 M1SD4	424	F102_13.0 P71 BN71B4	425
119	28	3.4	11.5	2120	F102_11.5 S1 M1SD4	424	F102_11.5 P71 BN71B4	425
140	24	3.7	9.8	2010	F102_9.8 S1 M1SD4	424	F102_9.8 P71 BN71B4	425
160	21	3.9	8.6	1930	F102_8.6 S1 M1SD4	424	F102_8.6 P71 BN71B4	425
185	18	4.2	7.4	1850	F102_7.4 S1 M1SD4	424	F102_7.4 P71 BN71B4	425
193	17	5.4	14.6	1830	F102_14.6 S05 M05C2	424	F102_14.6 P71 BN71A2	425
216	16	5.5	13.0	1760	F102_13.0 S05 M05C2	424	F102_13.0 P71 BN71A2	425
244	14	5.7	11.5	1690	F102_11.5 S05 M05C2	424	F102_11.5 P71 BN71A2	425
289	12	6.3	9.8	1610	F102_9.8 S05 M05C2	424	F102_9.8 P71 BN71A2	425
329	10	6.6	8.6	1540	F102_8.6 S05 M05C2	424	F102_8.6 P71 BN71A2	425
381	9	7.1	7.4	1470	F102_7.4 S05 M05C2	424	F102_7.4 P71 BN71A2	425




## 0.55 kW

n <sub>2</sub>	M <sub>2</sub>	S	i	R <sub>n2</sub>				
0.44	10909	1.3	2099	55000	F904_2099 S2 M2SA6	458	F904_2099 P80 BN80B6	459
0.47	10070	1.4	1937	55000	F904_1937 S2 M2SA6	458	F904_1937 P80 BN80B6	459
0.54	8884	0.9	1709	45000	F804_1709 S2 M2SA6	455	F804_1709 P80 BN80B6	456
0.54	8849	1.6	1702	55000	F904_1702 S2 M2SA6	458	F904_1702 P80 BN80B6	459
0.58	8201	1.0	1578	45000	F804_1578 S2 M2SA6	455	F804_1578 P80 BN80B6	456





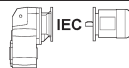


## 0.55 kW

n <sub>2</sub>	M <sub>2</sub>	S	i	R <sub>n2</sub>				
0.59	8168	1.7	1571	55000	F904_1571 S2 M2SA6	458	F904_1571 P80 BN80B6	459
0.64	7422	1.9	1428	55000	F904_1428 S2 M2SA6	458	F904_1428 P80 BN80B6	459
0.66	7193	1.1	1384	45000	F804_1384 S2 M2SA6	455	F804_1384 P80 BN80B6	456
0.69	6885	1.2	1987	45000	F804_1987 S1 M1LA4	455	F804_1987 P80 BN80A4	456
0.75	6356	1.3	1834	45000	F804_1834 S1 M1LA4	455	F804_1834 P80 BN80A4	456
0.81	5923	1.4	1709	45000	F804_1709 S1 M1LA4	455	F804_1709 P80 BN80A4	456
0.87	5491	0.9	1585	35000	F704_1585 S1 M1LA4	452	F704_1585 P80 BN80A4	453
0.87	5467	1.5	1578	45000	F804_1578 S1 M1LA4	455	F804_1578 P80 BN80A4	456
0.93	5134	1.0	1481	35000	F704_1481 S1 M1LA4	452	F704_1481 P80 BN80A4	453
1.0	4739	1.1	1368	35000	F704_1368 S1 M1LA4	452	F704_1368 P80 BN80A4	453
1.0	4795	1.7	1384	45000	F804_1384 S1 M1LA4	455	F804_1384 P80 BN80A4	456
1.1	4427	1.8	1277	45000	F804_1277 S1 M1LA4	455	F804_1277 P80 BN80A4	456
1.2	4095	1.2	1182	35000	F704_1182 S1 M1LA4	452	F704_1182 P80 BN80A4	453
1.2	3972	2.0	1146	45000	F804_1146 S1 M1LA4	455	F804_1146 P80 BN80A4	456
1.3	3780	1.3	1091	35000	F704_1091 S1 M1LA4	452	F704_1091 P80 BN80A4	453
1.3	3667	2.2	1058	45000	F804_1058 S1 M1LA4	455	F804_1058 P80 BN80A4	456
1.4	3323	0.9	958.9	20000	F604_958.9 S1 M1LA4	448	F604_958.9 P80 BN80A4	449
1.4	3377	1.5	974.4	35000	F704_974.4 S1 M1LA4	452	F704_974.4 P80 BN80A4	453
1.5	3117	1.6	899.4	35000	F704_899.4 S1 M1LA4	452	F704_899.4 P80 BN80A4	453
1.5	3109	2.6	897.3	45000	F804_897.3 S1 M1LA4	455	F804_897.3 P80 BN80A4	456
1.6	3067	0.9	885.1	20000	F604_885.1 S1 M1LA4	448	F604_885.1 P80 BN80A4	449
1.7	2849	1.8	822.2	35000	F704_822.2 S1 M1LA4	452	F704_822.2 P80 BN80A4	453
1.8	2684	3.0	774.4	45000	F804_774.4 S1 M1LA4	455	F804_774.4 P80 BN80A4	456
1.9	2477	3.2	714.9	45000	F804_714.9 S1 M1LA4	455	F804_714.9 P80 BN80A4	456
2.1	2295	1.3	662.4	20000	F604_662.4 S1 M1LA4	448	F604_662.4 P80 BN80A4	449
2.1	2278	2.2	657.4	35000	F704_657.4 S1 M1LA4	452	F704_657.4 P80 BN80A4	453
2.3	2119	1.4	611.4	20000	F604_611.4 S1 M1LA4	448	F604_611.4 P80 BN80A4	449
2.3	2103	2.4	606.8	35000	F704_606.8 S1 M1LA4	452	F704_606.8 P80 BN80A4	453
2.6	1838	1.0	530.5	12000	F514_530.5 S1 M1LA4	444	F514_530.5 P80 BN80A4	445
2.6	1839	1.6	530.7	20000	F604_530.7 S1 M1LA4	448	F604_530.7 P80 BN80A4	449
2.7	1769	2.8	510.4	35000	F704_510.4 S1 M1LA4	452	F704_510.4 P80 BN80A4	453
2.8	1698	1.7	489.8	20000	F604_489.8 S1 M1LA4	448	F604_489.8 P80 BN80A4	449
2.9	1633	3.1	471.2	35000	F704_471.2 S1 M1LA4	452	F704_471.2 P80 BN80A4	453
3.2	1487	1.2	429.1	12000	F514_429.1 S1 M1LA4	444	F514_429.1 P80 BN80A4	445
3.2	1499	1.9	432.6	20000	F604_432.6 S1 M1LA4	448	F604_432.6 P80 BN80A4	449
3.5	1384	2.1	399.3	20000	F604_399.3 S1 M1LA4	448	F604_399.3 P80 BN80A4	449
3.9	1248	1.4	352.5	12000	F513_352.5 S1 M1LA4	444	F513_352.5 P80 BN80A4	445
4.0	1221	0.9	344.8	8500	F413_344.8 S1 M1LA4	440	F413_344.8 P80 BN80A4	441
4.0	1184	2.4	341.7	20000	F604_341.7 S1 M1LA4	448	F604_341.7 P80 BN80A4	449
4.3	1124	1.6	317.3	12000	F513_317.3 S1 M1LA4	444	F513_317.3 P80 BN80A4	445
4.4	1093	2.7	315.4	20000	F604_315.4 S1 M1LA4	448	F604_315.4 P80 BN80A4	449
4.7	1050	1.0	296.6	8500	F413_296.6 S1 M1LA4	440	F413_296.6 P80 BN80A4	441
4.8	1013	1.8	285.9	12000	F513_285.9 S1 M1LA4	444	F513_285.9 P80 BN80A4	445
5.2	945	1.2	266.9	8500	F413_266.9 S1 M1LA4	440	F413_266.9 P80 BN80A4	441
5.3	928	1.9	262.1	12000	F513_262.1 S1 M1LA4	444	F513_262.1 P80 BN80A4	445
5.7	850	1.3	240.1	8500	F413_240.1 S1 M1LA4	440	F413_240.1 P80 BN80A4	441
5.8	849	2.1	239.8	12000	F513_239.8 S1 M1LA4	444	F513_239.8 P80 BN80A4	445
6.3	780	1.4	220.1	8500	F413_220.1 S1 M1LA4	440	F413_220.1 P80 BN80A4	441
6.4	768	2.3	216.9	12000	F513_216.9 S1 M1LA4	444	F513_216.9 P80 BN80A4	445
6.8	717	2.5	202.4	12000	F513_202.4 S1 M1LA4	444	F513_202.4 P80 BN80A4	445
6.9	704	1.6	198.9	8500	F413_198.9 S1 M1LA4	440	F413_198.9 P80 BN80A4	441






## 0.55 kW

n <sub>2</sub>	M <sub>2</sub>	S	i	R <sub>n2</sub>				
7.4	657	0.9	185.4	6500	F313_185.4 S1 M1LA4	436	F313_185.4 P80 BN80A4	437
7.6	640	1.7	180.7	8500	F413_180.7 S1 M1LA4	440	F413_180.7 P80 BN80A4	441
8.2	597	1.8	168.7	8500	F413_168.7 S1 M1LA4	440	F413_168.7 P80 BN80A4	441
8.3	591	1.0	166.8	6500	F313_166.8 S1 M1LA4	436	F313_166.8 P80 BN80A4	437
8.3	587	3.1	165.6	12000	F513_165.6 S1 M1LA4	444	F513_165.6 P80 BN80A4	445
9.2	534	1.1	150.8	6500	F313_150.8 S1 M1LA4	436	F313_150.8 P80 BN80A4	437
9.8	498	1.2	140.7	6500	F313_140.7 S1 M1LA4	436	F313_140.7 P80 BN80A4	437
10.3	476	2.3	134.4	8500	F413_134.4 S1 M1LA4	440	F413_134.4 P80 BN80A4	441
10.7	455	1.3	128.4	6500	F313_128.4 S1 M1LA4	436	F313_128.4 P80 BN80A4	437
12.2	400	1.0	113.0	6130	F253_113.0 S1 M1LA4	432	F253_113.0 P80 BN80A4	433
12.3	399	1.5	112.5	6500	F313_112.5 S1 M1LA4	436	F313_112.5 P80 BN80A4	437
13.0	375	2.9	106.0	8500	F413_106.0 S1 M1LA4	440	F413_106.0 P80 BN80A4	441
13.1	373	1.1	105.4	6070	F253_105.4 S1 M1LA4	432	F253_105.4 P80 BN80A4	433
13.5	361	1.7	101.9	6500	F313_101.9 S1 M1LA4	436	F313_101.9 P80 BN80A4	437
14.5	338	1.2	95.5	5980	F253_95.5 S1 M1LA4	432	F253_95.5 P80 BN80A4	433
15.8	309	1.9	87.4	6500	F313_87.4 S1 M1LA4	436	F313_87.4 P80 BN80A4	437
16.5	295	1.4	83.4	5840	F253_83.4 S1 M1LA4	432	F253_83.4 P80 BN80A4	433
17.5	279	2.1	78.9	6500	F313_78.9 S1 M1LA4	436	F313_78.9 P80 BN80A4	437
18.0	278	0.9	76.8	4000	F202_76.8 S1 M1LA4	428	F202_76.8 P80 BN80A4	429
18.0	271	1.5	76.6	5750	F253_76.6 S1 M1LA4	432	F253_76.6 P80 BN80A4	433
20.0	250	1.0	69.1	3980	F202_69.1 S1 M1LA4	428	F202_69.1 P80 BN80A4	429
20.0	245	2.5	69.1	6500	F313_69.1 S1 M1LA4	436	F313_69.1 P80 BN80A4	437
21.1	231	1.7	65.3	5570	F253_65.3 S1 M1LA4	432	F253_65.3 P80 BN80A4	433
22.1	221	2.7	62.8	6500			F313_62.8 P80 BN80A4	437
22.3	224	1.1	61.9	3890	F202_61.9 S1 M1LA4	428	F202_61.9 P80 BN80A4	429
23.7	207	1.9	58.3	5430	F253_58.3 S1 M1LA4	432	F253_58.3 P80 BN80A4	433
24.3	205	1.2	56.7	3810	F202_56.7 S1 M1LA4	428	F202_56.7 P80 BN80A4	429
26.7	183	3.3	52.1	6500			F313_52.1 P80 BN80A4	437
27.2	184	1.4	50.7	3720	F202_50.7 S1 M1LA4	428	F202_50.7 P80 BN80A4	429
27.2	180	2.2	50.8	5270	F253_50.8 S1 M1LA4	432	F253_50.8 P80 BN80A4	433
29.2	167	3.5	47.5	6500			F313_47.5 P80 BN80A4	437
31	162	1.5	44.8	3610	F202_44.8 S1 M1LA4	428	F202_44.8 P80 BN80A4	429
31	161	2.4	44.4	5140	F252_44.4 S1 M1LA4	432	F252_44.4 P80 BN80A4	433
31	160	2.5	45.6	5130			F253_45.6 P80 BN80A4	433
33	151	1.7	41.8	3550	F202_41.8 S1 M1LA4	428	F202_41.8 P80 BN80A4	429
34	147	2.5	40.7	5030	F252_40.7 S1 M1LA4	432	F252_40.7 P80 BN80A4	433
35	143	1.0	39.6	2800	F102_39.6 S1 M1LA4	424	F102_39.6 P80 BN80A4	425
36	137	1.8	37.9	3460	F202_37.9 S1 M1LA4	428	F202_37.9 P80 BN80A4	429
38	132	3.0	36.4	4890	F252_36.4 S1 M1LA4	432	F252_36.4 P80 BN80A4	433
39	128	1.1	35.3	2800	F102_35.3 S1 M1LA4	424	F102_35.3 P80 BN80A4	425
42	119	1.2	33.0	2750	F102_33.0 S1 M1LA4	424	F102_33.0 P80 BN80A4	425
42	120	2.1	33.1	3340	F202_33.1 S1 M1LA4	428	F202_33.1 P80 BN80A4	429
43	116	3.4	32.2	4730	F252_32.2 S1 M1LA4	432	F252_32.2 P80 BN80A4	433
45	110	2.3	30.4	3260	F202_30.4 S1 M1LA4	428	F202_30.4 P80 BN80A4	429
47	107	1.3	29.6	2680	F102_29.6 S1 M1LA4	424	F102_29.6 P80 BN80A4	425
53	94	2.6	25.9	3130	F202_25.9 S1 M1LA4	428	F202_25.9 P80 BN80A4	429
54	93	1.5	25.8	2590	F102_25.8 S1 M1LA4	424	F102_25.8 P80 BN80A4	425
60	83	1.7	22.8	2510	F102_22.8 S1 M1LA4	424	F102_22.8 P80 BN80A4	425
60	84	2.8	23.1	3030	F202_23.1 S1 M1LA4	428	F202_23.1 P80 BN80A4	429
68	73	3.1	20.2	2910	F202_20.2 S1 M1LA4	428	F202_20.2 P80 BN80A4	429
71	70	1.9	19.3	2400	F102_19.3 S1 M1LA4	424	F102_19.3 P80 BN80A4	425



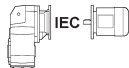





## 0.55 kW



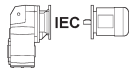

n <sub>2</sub>	M <sub>2</sub>	S	i	R <sub>n2</sub>				
77	65	3.3	18.1	2820	F202_18.1 S1 M1LA4	428	F202_18.1 P80 BN80A4	429
81	61	2.1	17.0	2310	F102_17.0 S1 M1LA4	424	F102_17.0 P80 BN80A4	425
94	53	2.2	14.6	2220	F102_14.6 S1 M1LA4	424	F102_14.6 P80 BN80A4	425
106	47	2.2	13.0	2140	F102_13.0 S1 M1LA4	424	F102_13.0 P80 BN80A4	425
120	42	2.3	11.5	2070	F102_11.5 S1 M1LA4	424	F102_11.5 P80 BN80A4	425
141	35	2.5	9.8	1970	F102_9.8 S1 M1LA4	424	F102_9.8 P80 BN80A4	425
161	31	2.6	8.6	1890	F102_8.6 S1 M1LA4	424	F102_8.6 P80 BN80A4	425
186	27	2.8	7.4	1810	F102_7.4 S1 M1LA4	424	F102_7.4 P80 BN80A4	425
193	26	3.6	14.6	1800	F102_14.6 S1 M1SD2	424	F102_14.6 P71 BN71B2	425
216	23	3.7	13.0	1730	F102_13.0 S1 M1SD2	424	F102_13.0 P71 BN71B2	425
244	20	3.8	11.5	1670	F102_11.5 S1 M1SD2	424	F102_11.5 P71 BN71B2	425
289	17	4.2	9.8	1590	F102_9.8 S1 M1SD2	424	F102_9.8 P71 BN71B2	425
329	15	4.4	8.6	1530	F102_8.6 S1 M1SD2	424	F102_8.6 P71 BN71B2	425
381	13	4.8	7.4	1460	F102_7.4 S1 M1SD2	424	F102_7.4 P71 BN71B2	425

## 0.75 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
0.44	14876	0.9	2099	55000	F904_2099 S2 M2SB6	458	F904_2099 P90 BN90S6	459
0.47	13732	1.0	1937	55000	F904_1937 S2 M2SB6	458	F904_1937 P90 BN90S6	459
0.54	12067	1.2	1702	55000	F904_1702 S2 M2SB6	458	F904_1702 P90 BN90S6	459
0.59	11138	1.3	1571	55000	F904_1571 S2 M2SB6	458	F904_1571 P90 BN90S6	459
0.64	10121	1.4	1428	55000	F904_1428 S2 M2SB6	458	F904_1428 P90 BN90S6	459
0.67	9776	1.4	2099	55000	F904_2099 S2 M2SA4	458	F904_2099 P80 BN80B4	459
0.70	9255	0.9	1987	45000	F804_1987 S2 M2SA4	455	F804_1987 P80 BN80B4	456
0.72	9024	1.6	1937	55000	F904_1937 S2 M2SA4	458	F904_1937 P80 BN80B4	459
0.76	8543	0.9	1834	45000	F804_1834 S2 M2SA4	455	F804_1834 P80 BN80B4	456
0.82	7961	1.0	1709	45000	F804_1709 S2 M2SA4	455	F804_1709 P80 BN80B4	456
0.82	7930	1.8	1702	55000	F904_1702 S2 M2SA4	458	F904_1702 P80 BN80B4	459
0.89	7349	1.1	1578	45000	F804_1578 S2 M2SA4	455	F804_1578 P80 BN80B4	456
0.89	7320	1.9	1571	55000	F904_1571 S2 M2SA4	458	F904_1571 P80 BN80B4	459
0.98	6651	2.1	1428	55000	F904_1428 S2 M2SA4	458	F904_1428 P80 BN80B4	459
1.0	6446	1.2	1384	45000	F804_1384 S2 M2SA4	455	F804_1384 P80 BN80B4	456
1.1	5950	1.3	1277	45000	F804_1277 S2 M2SA4	455	F804_1277 P80 BN80B4	456
1.1	6140	2.3	1318	55000	F904_1318 S2 M2SA4	458	F904_1318 P80 BN80B4	459
1.2	5505	0.9	1182	35000	F704_1182 S2 M2SA4	452	F704_1182 P80 BN80B4	453
1.2	5339	1.5	1146	45000	F804_1146 S2 M2SA4	455	F804_1146 P80 BN80B4	456
1.2	5613	2.5	1205	55000	F904_1205 S2 M2SA4	458	F904_1205 P80 BN80B4	459
1.3	5082	1.0	1091	35000	F704_1091 S2 M2SA4	452	F704_1091 P80 BN80B4	453
1.3	4929	1.6	1058	45000	F804_1058 S2 M2SA4	455	F804_1058 P80 BN80B4	456
1.3	5181	2.7	1112	55000	F904_1112 S2 M2SA4	458	F904_1112 P80 BN80B4	459
1.4	4539	1.1	974.4	35000	F704_974.4 S2 M2SA4	452	F704_974.4 P80 BN80B4	453
1.5	4240	3.3	910.2	55000	F904_910.2 S2 M2SA4	458	F904_910.2 P80 BN80B4	459
1.6	4190	1.2	899.4	35000	F704_899.4 S2 M2SA4	452	F704_899.4 P80 BN80B4	453
1.6	4180	1.9	897.3	45000	F804_897.3 S2 M2SA4	455	F804_897.3 P80 BN80B4	456
1.7	3830	1.3	822.2	35000	F704_822.2 S2 M2SA4	452	F704_822.2 P80 BN80B4	453
1.8	3607	2.2	774.4	45000	F804_774.4 S2 M2SA4	455	F804_774.4 P80 BN80B4	456
2.0	3330	2.4	714.9	45000	F804_714.9 S2 M2SA4	455	F804_714.9 P80 BN80B4	456



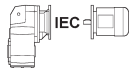



## 0.75 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
2.1	3085	0.9	662.4	20000	F604_662.4 S2 M2SA4	448	F604_662.4 P80 BN80B4	449
2.1	3062	1.6	657.4	35000	F704_657.4 S2 M2SA4	452	F704_657.4 P80 BN80B4	453
2.3	2848	1.0	611.4	20000	F604_611.4 S2 M2SA4	448	F604_611.4 P80 BN80B4	449
2.3	2827	1.8	606.8	35000	F704_606.8 S2 M2SA4	452	F704_606.8 P80 BN80B4	453
2.3	2845	2.8	610.9	45000	F804_610.9 S2 M2SA4	455	F804_610.9 P80 BN80B4	456
2.5	2627	3.0	563.9	45000	F804_563.9 S2 M2SA4	455	F804_563.9 P80 BN80B4	456
2.6	2472	1.2	530.7	20000	F604_530.7 S2 M2SA4	448	F604_530.7 P80 BN80B4	449
2.7	2378	2.1	510.4	35000	F704_510.4 S2 M2SA4	452	F704_510.4 P80 BN80B4	453
2.9	2282	1.3	489.8	20000	F604_489.8 S2 M2SA4	448	F604_489.8 P80 BN80B4	449
2.9	2278	3.5	489.1	45000	F804_489.1 S2 M2SA4	455	F804_489.1 P80 BN80B4	456
3.0	2195	2.3	471.2	35000	F704_471.2 S2 M2SA4	452	F704_471.2 P80 BN80B4	453
3.2	2015	1.4	432.6	20000	F604_432.6 S2 M2SA4	448	F604_432.6 P80 BN80B4	449
3.3	1999	0.9	429.1	12000	F514_429.1 S2 M2SA4	444	F514_429.1 P80 BN80B4	445
3.5	1860	1.6	399.3	20000	F604_399.3 S2 M2SA4	448	F604_399.3 P80 BN80B4	449
3.5	1880	2.7	403.5	35000	F704_403.5 S2 M2SA4	452	F704_403.5 P80 BN80B4	453
3.8	1735	2.9	372.5	35000	F704_372.5 S2 M2SA4	452	F704_372.5 P80 BN80B4	453
4.0	1678	1.1	352.5	12000	F513_352.5 S2 M2SA4	444	F513_352.5 P80 BN80B4	445
4.1	1592	1.8	341.7	20000	F604_341.7 S2 M2SA4	448	F604_341.7 P80 BN80B4	449
4.4	1510	1.2	317.3	12000	F513_317.3 S2 M2SA4	444	F513_317.3 P80 BN80B4	445
4.4	1469	2.0	315.4	20000	F604_315.4 S2 M2SA4	448	F604_315.4 P80 BN80B4	449
4.6	1418	3.5	304.3	35000	F704_304.3 S2 M2SA4	452	F704_304.3 P80 BN80B4	453
4.9	1361	1.3	285.9	12000	F513_285.9 S2 M2SA4	444	F513_285.9 P80 BN80B4	445
5.0	1335	2.2	280.7	20000	F603_280.7 S2 M2SA4	448	F603_280.7 P80 BN80B4	449
5.3	1248	1.4	262.1	12000	F513_262.1 S2 M2SA4	444	F513_262.1 P80 BN80B4	445
5.4	1233	2.4	259.1	20000	F603_259.1 S2 M2SA4	448	F603_259.1 P80 BN80B4	449
5.8	1143	1.0	240.1	8500	F413_240.1 S2 M2SA4	440	F413_240.1 P80 BN80B4	441
5.8	1142	1.6	239.8	12000	F513_239.8 S2 M2SA4	444	F513_239.8 P80 BN80B4	445
5.9	1122	2.6	235.8	20000	F603_235.8 S2 M2SA4	448	F603_235.8 P80 BN80B4	449
6.4	1048	1.0	220.1	8500	F413_220.1 S2 M2SA4	440	F413_220.1 P80 BN80B4	441
6.4	1036	2.8	217.6	20000	F603_217.6 S2 M2SA4	448	F603_217.6 P80 BN80B4	449
6.5	1032	1.7	216.9	12000	F513_216.9 S2 M2SA4	444	F513_216.9 P80 BN80B4	445
6.9	963	1.9	202.4	12000	F513_202.4 S2 M2SA4	444	F513_202.4 P80 BN80B4	445
7.0	958	3.0	201.4	20000	F603_201.4 S2 M2SA4	448	F603_201.4 P80 BN80B4	449
7.0	947	1.2	198.9	8500	F413_198.9 S2 M2SA4	440	F413_198.9 P80 BN80B4	441
7.5	885	3.3	185.9	20000	F603_185.9 S2 M2SA4	448	F603_185.9 P80 BN80B4	449
7.7	860	1.3	180.7	8500	F413_180.7 S2 M2SA4	440	F413_180.7 P80 BN80B4	441
8.3	803	1.4	168.7	8500	F413_168.7 S2 M2SA4	440	F413_168.7 P80 BN80B4	441
8.5	788	2.3	165.6	12000	F513_165.6 S2 M2SA4	444	F513_165.6 P80 BN80B4	445
8.6	775	3.7	162.9	20000	F603_162.9 S2 M2SA4	448	F603_162.9 P80 BN80B4	449
10.4	640	1.7	134.4	8500	F413_134.4 S2 M2SA4	440	F413_134.4 P80 BN80B4	441
10.8	618	2.9	129.9	12000	F513_129.9 S2 M2SA4	444	F513_129.9 P80 BN80B4	445
10.9	611	1.0	128.4	6500	F313_128.4 S2 M2SA4	436	F313_128.4 P80 BN80B4	437
12.4	536	1.1	112.5	6500	F313_112.5 S2 M2SA4	436	F313_112.5 P80 BN80B4	437
13.2	505	2.2	106.0	8500	F413_106.0 S2 M2SA4	440	F413_106.0 P80 BN80B4	441
13.7	485	1.2	101.9	6500	F313_101.9 S2 M2SA4	436	F313_101.9 P80 BN80B4	437
16.0	416	1.4	87.4	6500	F313_87.4 S2 M2SA4	436	F313_87.4 P80 BN80B4	437
16.5	404	2.7	84.9	8500	F413_84.9 S2 M2SA4	440	F413_84.9 P80 BN80B4	441
16.8	397	1.0	83.4	5350	F253_83.4 S2 M2SA4	432	F253_83.4 P80 BN80B4	433
17.8	375	1.6	78.9	6500	F313_78.9 S2 M2SA4	436	F313_78.9 P80 BN80B4	437
18.3	365	1.1	76.6	5300	F253_76.6 S2 M2SA4	432	F253_76.6 P80 BN80B4	433
20.3	329	1.8	69.1	6500	F313_69.1 S2 M2SA4	436	F313_69.1 P80 BN80B4	437



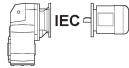



## 0.75 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
21.1	317	3.5	66.5	8500	F413_66.5 S2 M2SA4	440	F413_66.5 P80 BN80B4	441
21.4	311	1.3	65.3	5180	F253_65.3 S2 M2SA4	432	F253_65.3 P80 BN80B4	433
22.3	299	2.0	62.8	6500	F313_62.8 S2 M2SA4	436	F313_62.8 P80 BN80B4	437
24.0	278	1.4	58.3	5080	F253_58.3 S2 M2SA4	432	F253_58.3 P80 BN80B4	433
24.7	276	0.9	56.7	3590	F202_56.7 S2 M2SA4	428	F202_56.7 P80 BN80B4	429
26.9	248	2.4	52.1	6500	F313_52.1 S2 M2SA4	436	F313_52.1 P80 BN80B4	437
27.6	247	1.0	50.7	3510	F202_50.7 S2 M2SA4	428	F202_50.7 P80 BN80B4	429
27.6	242	1.7	50.8	4960	F253_50.8 S2 M2SA4	432	F253_50.8 P80 BN80B4	433
29.4	226	2.6	47.5	6500	F313_47.5 S2 M2SA4	436	F313_47.5 P80 BN80B4	437
31	218	1.1	44.8	3420	F202_44.8 S2 M2SA4	428	F202_44.8 P80 BN80B4	429
31	217	1.8	45.6	4860	F253_45.6 S2 M2SA4	432	F253_45.6 P80 BN80B4	433
31	217	2.8	44.6	6500	F312_44.6 S2 M2SA4	436	F312_44.6 P80 BN80B4	437
32	216	1.8	44.4	4890	F252_44.4 S2 M2SA4	432	F252_44.4 P80 BN80B4	433
33	203	1.2	41.8	3370	F202_41.8 S2 M2SA4	428	F202_41.8 P80 BN80B4	429
34	198	1.9	40.7	4790	F252_40.7 S2 M2SA4	432	F252_40.7 P80 BN80B4	433
35	196	3.1	40.4	6500	F312_40.4 S2 M2SA4	436	F312_40.4 P80 BN80B4	437
37	184	1.4	37.9	3300	F202_37.9 S2 M2SA4	428	F202_37.9 P80 BN80B4	429
37	183	3.3	37.7	6500	F312_37.7 S2 M2SA4	436	F312_37.7 P80 BN80B4	437
38	177	2.3	36.4	4680	F252_36.4 S2 M2SA4	432	F252_36.4 P80 BN80B4	433
42	161	1.6	33.1	3200	F202_33.1 S2 M2SA4	428	F202_33.1 P80 BN80B4	429
44	156	2.6	32.2	4540	F252_32.2 S2 M2SA4	432	F252_32.2 P80 BN80B4	433
46	148	1.7	30.4	3140	F202_30.4 S2 M2SA4	428	F202_30.4 P80 BN80B4	429
47	144	1.0	29.6	2550	F102_29.6 S2 M2SA4	424	F102_29.6 P80 BN80B4	425
47	146	2.7	30.0	4470	F252_30.0 S2 M2SA4	432	F252_30.0 P80 BN80B4	433
51	132	3	27.2	4360	F252_27.2 S2 M2SA4	432	F252_27.2 P80 BN80B4	433
54	125	1.1	25.8	2470	F102_25.8 S2 M2SA4	424	F102_25.8 P80 BN80B4	425
54	126	1.9	25.9	3020	F202_25.9 S2 M2SA4	428	F202_25.9 P80 BN80B4	429
59	116	3.5	23.8	4210	F252_23.8 S2 M2SA4	432	F252_23.8 P80 BN80B4	433
60	113	2.1	23.1	2930	F202_23.1 S2 M2SA4	428	F202_23.1 P80 BN80B4	429
61	111	1.3	22.8	2400	F102_22.8 S2 M2SA4	424	F102_22.8 P80 BN80B4	425
69	98	2.3	20.2	2830	F202_20.2 S2 M2SA4	428	F202_20.2 P80 BN80B4	429
72	94	1.4	19.3	2310	F102_19.3 S2 M2SA4	424	F102_19.3 P80 BN80B4	425
77	88	2.4	18.1	2740	F202_18.1 S2 M2SA4	428	F202_18.1 P80 BN80B4	429
82	83	1.6	17.0	2230	F102_17.0 S2 M2SA4	424	F102_17.0 P80 BN80B4	425
95	72	2.8	14.8	2600	F202_14.8 S2 M2SA4	428	F202_14.8 P80 BN80B4	429
96	71	1.7	14.6	2150	F102_14.6 S2 M2SA4	424	F102_14.6 P80 BN80B4	425
107	63	1.6	13.0	2070	F102_13.0 S2 M2SA4	424	F102_13.0 P80 BN80B4	425
121	56	1.7	11.5	2010	F102_11.5 S2 M2SA4	424	F102_11.5 P80 BN80B4	425
125	55	3.2	11.2	2390	F202_11.2 S2 M2SA4	428	F202_11.2 P80 BN80B4	429
143	48	1.9	9.8	1920	F102_9.8 S2 M2SA4	424	F102_9.8 P80 BN80B4	425
163	42	2.0	8.6	1850	F102_8.6 S2 M2SA4	424	F102_8.6 P80 BN80B4	425
189	36	2.1	7.4	1770	F102_7.4 S2 M2SA4	424	F102_7.4 P80 BN80B4	425
192	35	2.6	14.6	1770	F102_14.6 S1 M1LA2	424	F102_14.6 P80 BN80A2	425
216	32	2.7	13.0	1710	F102_13.0 S1 M1LA2	424	F102_13.0 P80 BN80A2	425
244	28	2.8	11.5	1650	F102_11.5 S1 M1LA2	424	F102_11.5 P80 BN80A2	425
288	24	3.1	9.8	1570	F102_9.8 S1 M1LA2	424	F102_9.8 P80 BN80A2	425
327	21	3.2	8.6	1510	F102_8.6 S1 M1LA2	424	F102_8.6 P80 BN80A2	425
380	18	3.5	7.4	1440	F102_7.4 S1 M1LA2	424	F102_7.4 P80 BN80A2	425





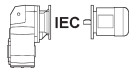

## 1.1 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
0.59	16336	0.9	1571	55000	F904_1571 S3 M3SA6	458	F904_1571 P90 BN90L6	459
0.64	14845	0.9	1428	55000	F904_1428 S3 M3SA6	458	F904_1428 P90 BN90L6	459
0.67	14338	1.0	2099	55000	F904_2099 S2 M2SB4	458	F904_2099 P90 BN90S4	459
0.72	13235	1.1	1937	55000	F904_1937 S2 M2SB4	458	F904_1937 P90 BN90S4	459
0.82	11630	1.2	1702	55000	F904_1702 S2 M2SB4	458	F904_1702 P90 BN90S4	459
0.89	10735	1.3	1571	55000	F904_1571 S2 M2SB4	458	F904_1571 P90 BN90S4	459
0.98	9755	1.4	1428	55000	F904_1428 S2 M2SB4	458	F904_1428 P90 BN90S4	459
1.1	8727	0.9	1277	45000	F804_1277 S2 M2SB4	455	F804_1277 P90 BN90S4	456
1.1	9005	1.6	1318	55000	F904_1318 S2 M2SB4	458	F904_1318 P90 BN90S4	459
1.2	7831	1.0	1146	45000	F804_1146 S2 M2SB4	455	F804_1146 P90 BN90S4	456
1.2	8232	1.7	1205	55000	F904_1205 S2 M2SB4	458	F904_1205 P90 BN90S4	459
1.3	7229	1.1	1058	45000	F804_1058 S2 M2SB4	455	F804_1058 P90 BN90S4	456
1.3	7599	1.8	1112	55000	F904_1112 S2 M2SB4	458	F904_1112 P90 BN90S4	459
1.5	6218	2.3	910.2	55000	F904_910.2 S2 M2SB4	458	F904_910.2 P90 BN90S4	459
1.6	6130	1.3	897.3	45000	F804_897.3 S2 M2SB4	455	F804_897.3 P90 BN90S4	456
1.7	5617	0.9	822.2	35000	F704_822.2 S2 M2SB4	452	F704_822.2 P90 BN90S4	453
1.8	5291	1.5	774.4	45000	F804_774.4 S2 M2SB4	455	F804_774.4 P90 BN90S4	456
1.8	5284	2.6	773.4	55000	F904_773.4 S2 M2SB4	458	F904_773.4 P90 BN90S4	459
1.9	5085	1.6	489.1	45000	F804_489.1 S3 M3SA6	455	F804_489.1 P90 BN90L6	456
1.9	5152	2.7	495.6	55000	F904_495.6 S3 M3SA6	458	F904_495.6 P90 BN90L6	459
2.0	4898	1.0	471.2	35000	F704_471.2 S3 M3SA6	452	F704_471.2 P90 BN90L6	453
2.0	4694	1.7	451.5	45000	F804_451.5 S3 M3SA6	455	F804_451.5 P90 BN90L6	456
2.0	4884	1.6	714.9	45000	F804_714.9 S2 M2SB4	455	F804_714.9 P90 BN90S4	456
2.1	4491	1.1	657.4	35000	F704_657.4 S2 M2SB4	452	F704_657.4 P90 BN90S4	453
2.2	4274	3.3	625.6	55000	F904_625.6 S2 M2SB4	458	F904_625.6 P90 BN90S4	459
2.3	4146	1.2	606.8	35000	F704_606.8 S2 M2SB4	452	F704_606.8 P90 BN90S4	453
2.3	4173	1.9	610.9	45000	F804_610.9 S2 M2SB4	455	F804_610.9 P90 BN90S4	456
2.4	3945	3.5	577.5	55000	F904_577.5 S2 M2SB4	458	F904_577.5 P90 BN90S4	459
2.5	3852	2.1	563.9	45000	F804_563.9 S2 M2SB4	455	F804_563.9 P90 BN90S4	456
2.7	3487	1.4	510.4	35000	F704_510.4 S2 M2SB4	452	F704_510.4 P90 BN90S4	453
2.9	3347	0.9	489.8	20000	F604_489.8 S2 M2SB4	448	F604_489.8 P90 BN90S4	449
2.9	3342	2.4	489.1	45000	F804_489.1 S2 M2SB4	455	F804_489.1 P90 BN90S4	456
3.0	3219	1.6	471.2	35000	F704_471.2 S2 M2SB4	452	F704_471.2 P90 BN90S4	453
3.1	3085	2.6	451.5	45000	F804_451.5 S2 M2SB4	455	F804_451.5 P90 BN90S4	456
3.2	2956	1.0	432.6	20000	F604_432.6 S2 M2SB4	448	F604_432.6 P90 BN90S4	449
3.5	2728	1.1	399.3	20000	F604_399.3 S2 M2SB4	448	F604_399.3 P90 BN90S4	449
3.5	2757	1.8	403.5	35000	F704_403.5 S2 M2SB4	452	F704_403.5 P90 BN90S4	453
3.7	2618	3.1	383.2	45000	F804_383.2 S2 M2SB4	455	F804_383.2 P90 BN90S4	456
3.8	2545	2.0	372.5	35000	F704_372.5 S2 M2SB4	452	F704_372.5 P90 BN90S4	453
4.0	2416	3.3	353.7	45000	F804_353.7 S2 M2SB4	455	F804_353.7 P90 BN90S4	456
4.1	2334	1.2	341.7	20000	F604_341.7 S2 M2SB4	448	F604_341.7 P90 BN90S4	449
4.4	2155	1.3	315.4	20000	F604_315.4 S2 M2SB4	448	F604_315.4 P90 BN90S4	449
4.6	2079	2.4	304.3	35000	F704_304.3 S2 M2SB4	452	F704_304.3 P90 BN90S4	453
4.9	1996	0.9	285.9	12000	F513_285.9 S2 M2SB4	444	F513_285.9 P90 BN90S4	445
5.0	1960	1.5	280.7	20000	F603_280.7 S2 M2SB4	448	F603_280.7 P90 BN90S4	449
5.0	1919	2.6	280.9	35000	F704_280.9 S2 M2SB4	452	F704_280.9 P90 BN90S4	453
5.3	1830	1.0	262.1	12000	F513_262.1 S2 M2SB4	444	F513_262.1 P90 BN90S4	445
5.8	1675	1.1	239.8	12000	F513_239.8 S2 M2SB4	444	F513_239.8 P90 BN90S4	445
6.0	1603	3.1	234.6	35000	F704_234.6 S2 M2SB4	452	F704_234.6 P90 BN90S4	453
6.5	1514	1.2	216.9	12000	F513_216.9 S2 M2SB4	444	F513_216.9 P90 BN90S4	445
6.5	1479	3.4	216.5	35000	F704_216.5 S2 M2SB4	452	F704_216.5 P90 BN90S4	453





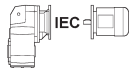



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

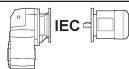

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
6.9	1413	1.3	202.4	12000	F513_202.4 S2 M2SB4	444	F513_202.4 P90 BN90S4	445
8.3	1178	0.9	168.7	8500	F413_168.7 S2 M2SB4	440	F413_168.7 P90 BN90S4	441
8.5	1156	1.6	165.6	12000	F513_165.6 S2 M2SB4	444	F513_165.6 P90 BN90S4	445
10.4	938	1.2	134.4	8500	F413_134.4 S2 M2SB4	440	F413_134.4 P90 BN90S4	441
10.8	907	2.0	129.9	12000	F513_129.9 S2 M2SB4	444	F513_129.9 P90 BN90S4	445
13.2	740	1.5	106.0	8500	F413_106.0 S2 M2SB4	440	F413_106.0 P90 BN90S4	441
13.3	734	2.5	105.1	12000	F513_105.1 S2 M2SB4	444	F513_105.1 P90 BN90S4	445
16.0	610	1.0	87.4	6500	F313_87.4 S2 M2SB4	436	F313_87.4 P90 BN90S4	437
16.5	593	1.9	84.9	8500	F413_84.9 S2 M2SB4	440	F413_84.9 P90 BN90S4	441
16.8	581	3.1	83.2	12000	F513_83.2 S2 M2SB4	444	F513_83.2 P90 BN90S4	445
17.8	551	1.1	78.9	6500	F313_78.9 S2 M2SB4	436	F313_78.9 P90 BN90S4	437
20.3	482	1.2	69.1	6500	F313_69.1 S2 M2SB4	436	F313_69.1 P90 BN90S4	437
21.1	464	2.4	66.5	8500	F413_66.5 S2 M2SB4	440	F413_66.5 P90 BN90S4	441
22.3	438	1.4	62.8	6500	F313_62.8 S2 M2SB4	436	F313_62.8 P90 BN90S4	437
23.2	421	2.6	60.2	8500	F413_60.2 S2 M2SB4	440	F413_60.2 P90 BN90S4	441
24.0	407	1.0	58.3	4500	F253_58.3 S2 M2SB4	432	F253_58.3 P90 BN90S4	433
26.9	364	1.6	52.1	6500	F313_52.1 S2 M2SB4	436	F313_52.1 P90 BN90S4	437
27.2	360	3.0	51.5	8500	F413_51.5 S2 M2SB4	440	F413_51.5 P90 BN90S4	441
27.6	355	1.1	50.8	4450	F253_50.8 S2 M2SB4	432	F253_50.8 P90 BN90S4	433
29.2	342	3.1	47.9	8500	F412_47.9 S2 M2SB4	440	F412_47.9 P90 BN90S4	441
29.4	332	1.7	47.5	6500	F313_47.5 S2 M2SB4	436	F313_47.5 P90 BN90S4	437
31	318	1.3	45.6	4400	F253_45.6 S2 M2SB4	432	F253_45.6 P90 BN90S4	433
31	318	1.9	44.6	6500	F312_44.6 S2 M2SB4	436	F312_44.6 P90 BN90S4	437
32	317	1.2	44.4	4470	F252_44.4 S2 M2SB4	432	F252_44.4 P90 BN90S4	433
34	290	1.3	40.7	4410	F252_40.7 S2 M2SB4	432	F252_40.7 P90 BN90S4	433
35	288	2.1	40.4	6500	F312_40.4 S2 M2SB4	436	F312_40.4 P90 BN90S4	437
37	270	0.9	37.9	3050	F202_37.9 S2 M2SB4	428	F202_37.9 P90 BN90S4	429
37	269	2.2	37.7	6500	F312_37.7 S2 M2SB4	436	F312_37.7 P90 BN90S4	437
38	260	1.5	36.4	4330	F252_36.4 S2 M2SB4	432	F252_36.4 P90 BN90S4	433
41	245	2.4	34.4	6500	F312_34.4 S2 M2SB4	436	F312_34.4 P90 BN90S4	437
42	236	1.1	33.1	2980	F202_33.1 S2 M2SB4	428	F202_33.1 P90 BN90S4	429
44	230	1.7	32.2	4240	F252_32.2 S2 M2SB4	432	F252_32.2 P90 BN90S4	433
46	217	1.2	30.4	2930	F202_30.4 S2 M2SB4	428	F202_30.4 P90 BN90S4	429
46	215	2.8	30.1	6500	F312_30.1 S2 M2SB4	436	F312_30.1 P90 BN90S4	437
47	214	1.9	30.0	4190	F252_30.0 S2 M2SB4	432	F252_30.0 P90 BN90S4	433
51	194	2.1	27.2	4100	F252_27.2 S2 M2SB4	432	F252_27.2 P90 BN90S4	433
51	195	3.1	27.3	6500	F312_27.3 S2 M2SB4	436	F312_27.3 P90 BN90S4	437
54	185	1.3	25.9	2840	F202_25.9 S2 M2SB4	428	F202_25.9 P90 BN90S4	429
59	169	2.4	23.8	3990	F252_23.8 S2 M2SB4	432	F252_23.8 P90 BN90S4	433
60	165	1.4	23.1	2780	F202_23.1 S2 M2SB4	428	F202_23.1 P90 BN90S4	429
64	156	2.6	21.8	3920	F252_21.8 S2 M2SB4	432	F252_21.8 P90 BN90S4	433
69	144	1.6	20.2	2690	F202_20.2 S2 M2SB4	428	F202_20.2 P90 BN90S4	429
72	138	1.0	19.3	2170	F102_19.3 S2 M2SB4	424	F102_19.3 P90 BN90S4	425
75	133	3.0	18.6	3780	F252_18.6 S2 M2SB4	432	F252_18.6 P90 BN90S4	433
77	129	1.7	18.1	2620	F202_18.1 S2 M2SB4	428	F202_18.1 P90 BN90S4	429
82	121	1.1	17.0	2110	F102_17.0 S2 M2SB4	424	F102_17.0 P90 BN90S4	425
84	119	3.4	16.6	3670	F252_16.6 S2 M2SB4	432	F252_16.6 P90 BN90S4	433
95	106	1.9	14.8	2500	F202_14.8 S2 M2SB4	428	F202_14.8 P90 BN90S4	429
96	104	1.1	14.6	2050	F102_14.6 S2 M2SB4	424	F102_14.6 P90 BN90S4	425
107	93	1.1	13.0	1980	F102_13.0 S2 M2SB4	424	F102_13.0 P90 BN90S4	425
121	82	1.2	11.5	1920	F102_11.5 S2 M2SB4	424	F102_11.5 P90 BN90S4	425



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

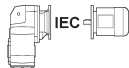

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
125	80	2.2	11.2	2310	F202_11.2 S2 M2SB4	428	F202_11.2 P90 BN90S4	429
143	70	1.3	9.8	1840	F102_9.8 S2 M2SB4	424	F102_9.8 P90 BN90S4	425
160	62	2.5	8.7	2160	F202_8.7 S2 M2SB4	428	F202_8.7 P90 BN90S4	429
163	61	1.3	8.6	1780	F102_8.6 S2 M2SB4	424	F102_8.6 P90 BN90S4	425
179	56	2.6	7.8	2100	F202_7.8 S2 M2SB4	428	F202_7.8 P90 BN90S4	429
189	53	1.4	7.4	1720	F102_7.4 S2 M2SB4	424	F102_7.4 P90 BN90S4	425
218	46	2.8	6.4	1980	F202_6.4 S2 M2SB4	428	F202_6.4 P90 BN90S4	429
243	41	1.9	11.5	1600	F102_11.5 S2 M2SA2	424	F102_11.5 P80 BN80B2	425
249	40	3.5	11.2	1910	F202_11.2 S2 M2SA2	428	F202_11.2 P80 BN80B2	429
287	35	2.1	9.8	1530	F102_9.8 S2 M2SA2	424	F102_9.8 P80 BN80B2	425
326	31	2.2	8.6	1480	F102_8.6 S2 M2SA2	424	F102_8.6 P80 BN80B2	425
378	26	2.4	7.4	1410	F102_7.4 S2 M2SA2	424	F102_7.4 P80 BN80B2	425

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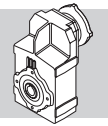
$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
0.83	15747	0.9	1702	55000	F904_1702 S3 M3SA4	458	F904_1702 P90 BN90LA4	459
0.90	14535	1.0	1571	55000	F904_1571 S3 M3SA4	458	F904_1571 P90 BN90LA4	459
0.99	13208	1.1	1428	55000	F904_1428 S3 M3SA4	458	F904_1428 P90 BN90LA4	459
1.1	12192	1.1	1318	55000	F904_1318 S3 M3SA4	458	F904_1318 P90 BN90LA4	459
1.2	11146	1.3	1205	55000	F904_1205 S3 M3SA4	458	F904_1205 P90 BN90LA4	459
1.3	10288	1.4	1112	55000	F904_1112 S3 M3SA4	458	F904_1112 P90 BN90LA4	459
1.5	8419	1.7	910.2	55000	F904_910.2 S3 M3SA4	458	F904_910.2 P90 BN90LA4	459
1.6	8300	1.0	897.3	45000	F804_897.3 S3 M3SA4	455	F804_897.3 P90 BN90LA4	456
1.8	7164	1.1	774.4	45000	F804_774.4 S3 M3SA4	455	F804_774.4 P90 BN90LA4	456
1.8	7154	2.0	773.4	55000	F904_773.4 S3 M3SA4	458	F904_773.4 P90 BN90LA4	459
2.0	6612	1.2	714.9	45000	F804_714.9 S3 M3SA4	455	F804_714.9 P90 BN90LA4	456
2.3	5613	0.9	606.8	35000	F704_606.8 S3 M3SA4	452	F704_606.8 P90 BN90LA4	453
2.3	5651	1.4	610.9	45000	F804_610.9 S3 M3SA4	455	F804_610.9 P90 BN90LA4	456
2.3	5787	2.4	625.6	55000	F904_625.6 S3 M3SA4	458	F904_625.6 P90 BN90LA4	459
2.4	5342	2.6	577.5	55000	F904_577.5 S3 M3SA4	458	F904_577.5 P90 BN90LA4	459
2.5	5216	1.5	563.9	45000	F804_563.9 S3 M3SA4	455	F804_563.9 P90 BN90LA4	456
2.8	4721	1.1	510.4	35000	F704_510.4 S3 M3SA4	452	F704_510.4 P90 BN90LA4	453
2.8	4584	3.1	495.6	55000	F904_495.6 S3 M3SA4	458	F904_495.6 P90 BN90LA4	459
2.9	4524	1.8	489.1	45000	F804_489.1 S3 M3SA4	455	F804_489.1 P90 BN90LA4	456
3.0	4358	1.1	471.2	35000	F704_471.2 S3 M3SA4	452	F704_471.2 P90 BN90LA4	453
3.1	4176	1.9	451.5	45000	F804_451.5 S3 M3SA4	455	F804_451.5 P90 BN90LA4	456
3.1	4231	3.3	457.5	55000	F904_457.5 S3 M3SA4	458	F904_457.5 P90 BN90LA4	459
3.5	3732	1.3	403.5	35000	F704_403.5 S3 M3SA4	452	F704_403.5 P90 BN90LA4	453
3.7	3544	2.3	383.2	45000	F804_383.2 S3 M3SA4	455	F804_383.2 P90 BN90LA4	456
3.8	3445	1.5	372.5	35000	F704_372.5 S3 M3SA4	452	F704_372.5 P90 BN90LA4	453
4.0	3272	2.4	353.7	45000	F804_353.7 S3 M3SA4	455	F804_353.7 P90 BN90LA4	456
4.1	3160	0.9	341.7	20000	F604_341.7 S3 M3SA4	448	F604_341.7 P90 BN90LA4	449
4.5	2917	1.0	315.4	20000	F604_315.4 S3 M3SA4	448	F604_315.4 P90 BN90LA4	449
4.6	2815	1.8	304.3	35000	F704_304.3 S3 M3SA4	452	F704_304.3 P90 BN90LA4	453
4.8	2745	2.9	296.7	45000	F804_296.7 S3 M3SA4	455	F804_296.7 P90 BN90LA4	456
5.0	2653	1.1	280.7	20000	F603_280.7 S3 M3SA4	448	F603_280.7 P90 BN90LA4	449
5.0	2599	1.9	280.9	35000	F704_280.9 S3 M3SA4	452	F704_280.9 P90 BN90LA4	453





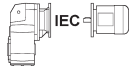

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<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
5.1	2534	3.2	273.9	45000	F804_273.9 S3 M3SA4	455	F804_273.9 P90 BN90LA4	456
5.4	2449	1.2	259.1	20000	F603_259.1 S3 M3SA4	448	F603_259.1 P90 BN90LA4	449
6.0	2229	1.3	235.8	20000	F603_235.8 S3 M3SA4	448	F603_235.8 P90 BN90LA4	449
6.0	2170	2.3	234.6	35000	F704_234.6 S3 M3SA4	452	F704_234.6 P90 BN90LA4	453
6.5	2057	1.4	217.6	20000	F603_217.6 S3 M3SA4	448	F603_217.6 P90 BN90LA4	449
6.5	2003	2.5	216.5	35000	F704_216.5 S3 M3SA4	452	F704_216.5 P90 BN90LA4	453
7.0	1913	0.9	202.4	12000	F513_202.4 S3 M3SA4	444	F513_202.4 P90 BN90LA4	445
7.0	1904	1.5	201.4	20000	F603_201.4 S3 M3SA4	448	F603_201.4 P90 BN90LA4	449
7.2	1853	2.7	196.0	35000	F703_196.0 S3 M3SA4	452	F703_196.0 P90 BN90LA4	453
7.6	1757	1.7	185.9	20000	F603_185.9 S3 M3SA4	448	F603_185.9 P90 BN90LA4	449
7.8	1711	2.9	180.9	35000	F703_180.9 S3 M3SA4	452	F703_180.9 P90 BN90LA4	453
8.5	1566	1.1	165.6	12000	F513_165.6 S3 M3SA4	444	F513_165.6 P90 BN90LA4	445
8.5	1576	3.2	166.7	35000	F703_166.7 S3 M3SA4	452	F703_166.7 P90 BN90LA4	453
8.7	1540	1.9	162.9	20000	F603_162.9 S3 M3SA4	448	F603_162.9 P90 BN90LA4	449
9.2	1454	3.4	153.8	35000	F703_153.8 S3 M3SA4	452	F703_153.8 P90 BN90LA4	453
9.4	1421	2.0	150.4	20000	F603_150.4 S3 M3SA4	448	F603_150.4 P90 BN90LA4	449
10.8	1234	2.4	130.5	20000	F603_130.5 S3 M3SA4	448	F603_130.5 P90 BN90LA4	449
10.9	1228	1.5	129.9	12000	F513_129.9 S3 M3SA4	444	F513_129.9 P90 BN90LA4	445
11.7	1139	2.5	120.5	20000	F603_120.5 S3 M3SA4	448	F603_120.5 P90 BN90LA4	449
13.3	1002	1.1	106.0	8500	F413_106.0 S3 M3SA4	440	F413_106.0 P90 BN90LA4	441
13.3	1006	2.9	106.4	20000	F603_106.4 S3 M3SA4	448	F603_106.4 P90 BN90LA4	449
13.4	993	1.8	105.1	12000	F513_105.1 S3 M3SA4	444	F513_105.1 P90 BN90LA4	445
14.4	928	3.1	98.2	20000	F603_98.2 S3 M3SA4	448	F603_98.2 P90 BN90LA4	449
16.6	802	1.4	84.9	8500	F413_84.9 S3 M3SA4	440	F413_84.9 P90 BN90LA4	441
16.9	787	2.3	83.2	12000	F513_83.2 S3 M3SA4	444	F513_83.2 P90 BN90LA4	445
20.4	653	0.9	69.1	6500	F313_69.1 S3 M3SA4	436	F313_69.1 P90 BN90LA4	437
21.2	629	1.7	66.5	8500	F413_66.5 S3 M3SA4	440	F413_66.5 P90 BN90LA4	441
21.4	622	2.9	65.8	12000	F513_65.8 S3 M3SA4	444	F513_65.8 P90 BN90LA4	445
22.5	593	1.0	62.8	6500	F313_62.8 S3 M3SA4	436	F313_62.8 P90 BN90LA4	437
23.4	570	1.9	60.2	8500	F413_60.2 S3 M3SA4	440	F413_60.2 P90 BN90LA4	441
27.1	492	1.2	52.1	6500	F313_52.1 S3 M3SA4	436	F313_52.1 P90 BN90LA4	437
27.4	487	2.2	51.5	8500	F413_51.5 S3 M3SA4	440	F413_51.5 P90 BN90LA4	441
29.4	463	2.3	47.9	8500	F412_47.9 S3 M3SA4	440	F412_47.9 P90 BN90LA4	441
29.7	449	1.3	47.5	6500	F313_47.5 S3 M3SA4	436	F313_47.5 P90 BN90LA4	437
31	431	0.9	45.6	3880	F253_45.6 S3 M3SA4	432	F253_45.6 P90 BN90LA4	433
32	431	1.4	44.6	6500	F312_44.6 S3 M3SA4	436	F312_44.6 P90 BN90LA4	437
35	393	1.0	40.7	3970	F252_40.7 S3 M3SA4	432	F252_40.7 P90 BN90LA4	433
35	390	1.5	40.4	6500	F312_40.4 S3 M3SA4	436	F312_40.4 P90 BN90LA4	437
37	364	1.6	37.7	6500	F312_37.7 S3 M3SA4	436	F312_37.7 P90 BN90LA4	437
37	369	3.0	38.2	8500	F412_38.2 S3 M3SA4	440	F412_38.2 P90 BN90LA4	441
39	352	1.1	36.4	3940	F252_36.4 S3 M3SA4	432	F252_36.4 P90 BN90LA4	433
41	332	1.8	34.4	6500	F312_34.4 S3 M3SA4	436	F312_34.4 P90 BN90LA4	437
44	311	1.3	32.2	3890	F252_32.2 S3 M3SA4	432	F252_32.2 P90 BN90LA4	433
47	290	1.4	30.0	3860	F252_30.0 S3 M3SA4	432	F252_30.0 P90 BN90LA4	433
47	291	2.1	30.1	6500	F312_30.1 S3 M3SA4	436	F312_30.1 P90 BN90LA4	437
52	263	1.5	27.2	3810	F252_27.2 S3 M3SA4	432	F252_27.2 P90 BN90LA4	433
52	263	2.3	27.3	6500	F312_27.3 S3 M3SA4	436	F312_27.3 P90 BN90LA4	437
54	250	1.0	25.9	2640	F202_25.9 S3 M3SA4	428	F202_25.9 P90 BN90LA4	429
59	229	1.7	23.8	3730	F252_23.8 S3 M3SA4	432	F252_23.8 P90 BN90LA4	433
60	226	2.7	23.4	6480	F312_23.4 S3 M3SA4	436	F312_23.4 P90 BN90LA4	437
61	224	1.1	23.1	2600	F202_23.1 S3 M3SA4	428	F202_23.1 P90 BN90LA4	429



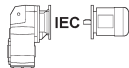





## 1.5 kW





$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
65	211	1.9	21.8	3680	F252_21.8 S3 M3SA4	432	F252_21.8 P90 BN90LA4	433
67	204	2.9	21.1	6320	F312_21.1 S3 M3SA4	436	F312_21.1 P90 BN90LA4	437
70	195	1.1	20.2	2530	F202_20.2 S3 M3SA4	428	F202_20.2 P90 BN90LA4	429
76	180	2.2	18.6	3570	F252_18.6 S3 M3SA4	432	F252_18.6 P90 BN90LA4	433
76	179	3.4	18.5	6110	F312_18.5 S3 M3SA4	436	F312_18.5 P90 BN90LA4	437
78	175	1.2	18.1	2480	F202_18.1 S3 M3SA4	428	F202_18.1 P90 BN90LA4	429
85	161	2.5	16.6	3490	F252_16.6 S3 M3SA4	432	F252_16.6 P90 BN90LA4	433
95	143	1.4	14.8	2380	F202_14.8 S3 M3SA4	428	F202_14.8 P90 BN90LA4	429
97	140	2.9	14.5	3390	F252_14.5 S3 M3SA4	432	F252_14.5 P90 BN90LA4	433
109	125	3.2	13	3310	F252_13.0 S3 M3SA4	432	F252_13.0 P90 BN90LA4	433
126	108	1.6	11.2	2220	F202_11.2 S3 M3SA4	428	F202_11.2 P90 BN90LA4	429
144	94	0.9	9.8	1760	F102_9.8 S3 M3SA4	424	F102_9.8 P90 BN90LA4	425
151	90	2.9	9.4	3070	F252_9.4 S3 M3SA4	432	F252_9.4 P90 BN90LA4	433
161	84	1.8	8.7	2090	F202_8.7 S3 M3SA4	428	F202_8.7 P90 BN90LA4	429
164	83	1.0	8.6	1710	F102_8.6 S3 M3SA4	424	F102_8.6 P90 BN90LA4	425
168	81	3.2	8.4	2980	F252_8.4 S3 M3SA4	432	F252_8.4 P90 BN90LA4	433
180	76	1.9	7.8	2030	F202_7.8 S3 M3SA4	428	F202_7.8 P90 BN90LA4	429
190	72	1.1	7.4	1650	F102_7.4 S3 M3SA4	424	F102_7.4 P90 BN90LA4	425
220	62	2.1	6.4	1930	F202_6.4 S3 M3SA4	428	F202_6.4 P90 BN90LA4	429
243	56	1.4	11.5	1560	F102_11.5 S2 M2SB2	424	F102_11.5 P90 BN90SA2	425
249	55	2.6	11.2	1860	F202_11.2 S2 M2SB2	428	F202_11.2 P90 BN90SA2	429
287	48	1.5	9.8	1490	F102_9.8 S2 M2SB2	424	F102_9.8 P90 BN90SA2	425
321	42	2.9	8.7	1740	F202_8.7 S2 M2SB2	428	F202_8.7 P90 BN90SA2	429
326	42	1.6	8.6	1440	F102_8.6 S2 M2SB2	424	F102_8.6 P90 BN90SA2	425
357	38	3.0	7.8	1680	F202_7.8 S2 M2SB2	428	F202_7.8 P90 BN90SA2	429
378	36	1.7	7.4	1380	F102_7.4 S2 M2SB2	424	F102_7.4 P90 BN90SA2	425
437	31	3.3	6.4	1590	F202_6.4 S2 M2SB2	428	F202_6.4 P90 BN90SA2	429

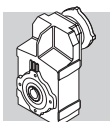
## 2.2 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
1.2	16347	0.9	1205	55000	F904_1205 S3 M3LA4	458	F904_1205 P100 BN100LA4	459
1.3	15090	0.9	1112	55000	F904_1112 S3 M3LA4	458	F904_1112 P100 BN100LA4	459
1.5	12348	1.1	910.2	55000	F904_910.2 S3 M3LA4	458	F904_910.2 P100 BN100LA4	459
1.8	10493	1.3	773.4	55000	F904_773.4 S3 M3LA4	458	F904_773.4 P100 BN100LA4	459
2.3	8287	1.0	610.9	45000	F804_610.9 S3 M3LA4	455	F804_610.9 P100 BN100LA4	456
2.3	8488	1.6	625.6	55000	F904_625.6 S3 M3LA4	458	F904_625.6 P100 BN100LA4	459
2.4	7835	1.8	577.5	55000	F904_577.5 S3 M3LA4	458	F904_577.5 P100 BN100LA4	459
2.5	7650	1.0	563.9	45000	F804_563.9 S3 M3LA4	455	F804_563.9 P100 BN100LA4	456
2.8	6723	2.1	495.6	55000	F904_495.6 S3 M3LA4	458	F904_495.6 P100 BN100LA4	459
2.9	6636	1.2	489.1	45000	F804_489.1 S3 M3LA4	455	F804_489.1 P100 BN100LA4	456
3.1	6125	1.3	451.5	45000	F804_451.5 S3 M3LA4	455	F804_451.5 P100 BN100LA4	456
3.1	6206	2.3	457.5	55000	F904_457.5 S3 M3LA4	458	F904_457.5 P100 BN100LA4	459
3.5	5474	0.9	403.5	35000	F704_403.5 S3 M3LA4	452	F704_403.5 P100 BN100LA4	453
3.7	5198	1.5	383.2	45000	F804_383.2 S3 M3LA4	455	F804_383.2 P100 BN100LA4	456
3.8	5053	1.0	372.5	35000	F704_372.5 S3 M3LA4	452	F704_372.5 P100 BN100LA4	453
3.9	4909	2.9	361.8	55000	F904_361.8 S3 M3LA4	458	F904_361.8 P100 BN100LA4	459
4.0	4798	1.7	353.7	45000	F804_353.7 S3 M3LA4	455	F804_353.7 P100 BN100LA4	456



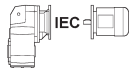



## 2.2 kW



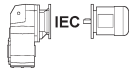

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
4.6	4129	1.2	304.3	35000	F704_304.3 S3 M3LA4	452	F704_304.3 P100 BN100LA4	453
4.8	4025	2.0	296.7	45000	F804_296.7 S3 M3LA4	455	F804_296.7 P100 BN100LA4	456
4.8	3950	3.5	291.1	55000	F904_291.1 S3 M3LA4	458	F904_291.1 P100 BN100LA4	459
5.0	3811	1.3	280.9	35000	F704_280.9 S3 M3LA4	452	F704_280.9 P100 BN100LA4	453
5.1	3716	2.2	273.9	45000	F804_273.9 S3 M3LA4	455	F804_273.9 P100 BN100LA4	456
6.0	3182	1.6	234.6	35000	F704_234.6 S3 M3LA4	452	F704_234.6 P100 BN100LA4	453
6.5	3018	1.0	217.6	20000	F603_217.6 S3 M3LA4	448	F603_217.6 P100 BN100LA4	449
6.5	2938	1.7	216.5	35000	F704_216.5 S3 M3LA4	452	F704_216.5 P100 BN100LA4	453
6.5	2964	2.7	218.5	45000	F804_218.5 S3 M3LA4	455	F804_218.5 P100 BN100LA4	456
7.0	2792	1.0	201.4	20000	F603_201.4 S3 M3LA4	448	F603_201.4 P100 BN100LA4	449
7.2	2718	1.8	196.0	35000	F703_196.0 S3 M3LA4	452	F703_196.0 P100 BN100LA4	453
7.6	2577	1.1	185.9	20000	F603_185.9 S3 M3LA4	448	F603_185.9 P100 BN100LA4	449
7.6	2560	3.1	184.6	45000	F803_184.6 S3 M3LA4	455	F803_184.6 P100 BN100LA4	456
7.8	2509	2.0	180.9	35000	F703_180.9 S3 M3LA4	452	F703_180.9 P100 BN100LA4	453
8.5	2311	2.2	166.7	35000	F703_166.7 S3 M3LA4	452	F703_166.7 P100 BN100LA4	453
8.7	2258	1.3	162.9	20000	F603_162.9 S3 M3LA4	448	F603_162.9 P100 BN100LA4	449
9.2	2133	2.3	153.8	35000	F703_153.8 S3 M3LA4	452	F703_153.8 P100 BN100LA4	453
9.4	2085	1.4	150.4	20000	F603_150.4 S3 M3LA4	448	F603_150.4 P100 BN100LA4	449
10.6	1843	2.7	133.0	35000	F703_133.0 S3 M3LA4	452	F703_133.0 P100 BN100LA4	453
10.8	1809	1.6	130.5	20000	F603_130.5 S3 M3LA4	448	F603_130.5 P100 BN100LA4	449
10.9	1801	1.0	129.9	12000	F513_129.9 S3 M3LA4	444	F513_129.9 P100 BN100LA4	445
11.5	1702	2.9	122.7	35000	F703_122.7 S3 M3LA4	452	F703_122.7 P100 BN100LA4	453
11.7	1670	1.7	120.5	20000	F603_120.5 S3 M3LA4	448	F603_120.5 P100 BN100LA4	449
12.9	1520	3.3	109.6	35000	F703_109.6 S3 M3LA4	452	F703_109.6 P100 BN100LA4	453
13.3	1475	2.0	106.4	20000	F603_106.4 S3 M3LA4	448	F603_106.4 P100 BN100LA4	449
13.4	1457	1.2	105.1	12000	F513_105.1 S3 M3LA4	444	F513_105.1 P100 BN100LA4	445
14.4	1362	2.1	98.2	20000	F603_98.2 S3 M3LA4	448	F603_98.2 P100 BN100LA4	449
16.6	1177	0.9	84.9	8500	F413_84.9 S3 M3LA4	440	F413_84.9 P100 BN100LA4	441
16.8	1165	2.5	84.0	20000	F603_84.0 S3 M3LA4	448	F603_84.0 P100 BN100LA4	449
16.9	1154	1.6	83.2	12000	F513_83.2 S3 M3LA4	444	F513_83.2 P100 BN100LA4	445
18.2	1075	2.7	77.6	20000	F603_77.6 S3 M3LA4	448	F603_77.6 P100 BN100LA4	449
20.7	947	3.1	68.3	20000	F603_68.3 S3 M3LA4	448	F603_68.3 P100 BN100LA4	449
21.2	922	1.2	66.5	8500	F413_66.5 S3 M3LA4	440	F413_66.5 P100 BN100LA4	441
21.4	913	2.0	65.8	12000	F513_65.8 S3 M3LA4	444	F513_65.8 P100 BN100LA4	445
22.4	874	3.3	63.0	20000	F603_63.0 S3 M3LA4	448	F603_63.0 P100 BN100LA4	449
23.4	835	1.3	60.2	8500	F413_60.2 S3 M3LA4	440	F413_60.2 P100 BN100LA4	441
27.4	714	1.5	51.5	8500	F413_51.5 S3 M3LA4	440	F413_51.5 P100 BN100LA4	441
28.8	678	2.7	48.9	12000	F513_48.9 S3 M3LA4	444	F513_48.9 P100 BN100LA4	445
29.4	679	1.6	47.9	8500	F412_47.9 S3 M3LA4	440	F412_47.9 P100 BN100LA4	441
32	632	0.9	44.6	6500	F312_44.6 S3 M3LA4	436	F312_44.6 P100 BN100LA4	437
35	572	1.0	40.4	6500	F312_40.4 S3 M3LA4	436	F312_40.4 P100 BN100LA4	437
37	534	1.1	37.7	6500	F312_37.7 S3 M3LA4	436	F312_37.7 P100 BN100LA4	437
37	541	2.0	38.2	8500	F412_38.2 S3 M3LA4	440	F412_38.2 P100 BN100LA4	441
38	526	3.2	37.1	12000	F512_37.1 S3 M3LA4	444	F512_37.1 P100 BN100LA4	445
41	487	1.2	34.4	6490	F312_34.4 S3 M3LA4	436	F312_34.4 P100 BN100LA4	437
47	425	0.9	30.0	3300	F252_30.0 S3 M3LA4	432	F252_30.0 P100 BN100LA4	433
47	427	1.4	30.1	6360	F312_30.1 S3 M3LA4	436	F312_30.1 P100 BN100LA4	437
47	427	2.6	30.1	8500	F412_30.1 S3 M3LA4	440	F412_30.1 P100 BN100LA4	441
52	385	1.0	27.2	3300	F252_27.2 S3 M3LA4	432	F252_27.2 P100 BN100LA4	433
52	386	1.6	27.3	6250	F312_27.3 S3 M3LA4	436	F312_27.3 P100 BN100LA4	437
58	342	3.2	24.1	8400	F412_24.1 S3 M3LA4	440	F412_24.1 P100 BN100LA4	441

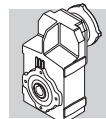


## 2.2 kW



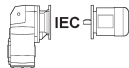

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
59	336	1.2	23.8	3290	F252_23.8 S3 M3LA4	432	F252_23.8 P100 BN100LA4	433
60	331	1.8	23.4	6080	F312_23.4 S3 M3LA4	436	F312_23.4 P100 BN100LA4	437
65	309	1.3	21.8	3270	F252_21.8 S3 M3LA4	432	F252_21.8 P100 BN100LA4	433
67	299	2.0	21.1	5960	F312_21.1 S3 M3LA4	436	F312_21.1 P100 BN100LA4	437
76	264	1.5	18.6	3220	F252_18.6 S3 M3LA4	432	F252_18.6 P100 BN100LA4	433
76	262	2.3	18.5	5790	F312_18.5 S3 M3LA4	436	F312_18.5 P100 BN100LA4	437
84	238	2.5	16.8	5670	F312_16.8 S3 M3LA4	436	F312_16.8 P100 BN100LA4	437
85	235	1.7	16.6	3180	F252_16.6 S3 M3LA4	432	F252_16.6 P100 BN100LA4	433
95	210	1.0	14.8	2190	F202_14.8 S3 M3LA4	428	F202_14.8 P100 BN100LA4	429
97	205	2.0	14.5	3120	F252_14.5 S3 M3LA4	432	F252_14.5 P100 BN100LA4	433
101	198	3.0	13.9	5430	F312_13.9 S3 M3LA4	436	F312_13.9 P100 BN100LA4	437
109	184	2.2	13.0	3070	F252_13.0 S3 M3LA4	432	F252_13.0 P100 BN100LA4	433
111	180	3.3	12.7	5310	F312_12.7 S3 M3LA4	436	F312_12.7 P100 BN100LA4	437
126	159	1.1	11.2	2060	F202_11.2 S3 M3LA4	428	F202_11.2 P100 BN100LA4	429
133	150	2.6	10.6	2960	F252_10.6 S3 M3LA4	432	F252_10.6 P100 BN100LA4	433
151	133	2.0	9.4	2900	F252_9.4 S3 M3LA4	432	F252_9.4 P100 BN100LA4	433
156	128	3.1	9.0	4830	F312_9.0 S3 M3LA4	436	F312_9.0 P100 BN100LA4	437
161	124	1.3	8.7	1960	F202_8.7 S3 M3LA4	428	F202_8.7 P100 BN100LA4	429
168	119	2.2	8.4	2830	F252_8.4 S3 M3LA4	432	F252_8.4 P100 BN100LA4	433
171	117	3.3	8.2	4720	F312_8.2 S3 M3LA4	436	F312_8.2 P100 BN100LA4	437
180	111	1.3	7.8	1920	F202_7.8 S3 M3LA4	428	F202_7.8 P100 BN100LA4	429
205	97	2.6	6.9	2710	F252_6.9 S3 M3LA4	432	F252_6.9 P100 BN100LA4	433
220	91	1.4	6.4	1840	F202_6.4 S3 M3LA4	428	F202_6.4 P100 BN100LA4	429
247	81	1.0	11.5	1470	F102_11.5 S3 M3SA2	424	F102_11.5 P90 BN90L2	425
254	79	1.8	11.2	1780	F202_11.2 S3 M3SA2	428	F202_11.2 P90 BN90L2	429
292	68	1.1	9.8	1410	F102_9.8 S3 M3SA2	424	F102_9.8 P90 BN90L2	425
326	61	2.0	8.7	1670	F202_8.7 S3 M3SA2	428	F202_8.7 P90 BN90L2	429
332	60	1.1	8.6	1370	F102_8.6 S3 M3SA2	424	F102_8.6 P90 BN90L2	425
364	55	2.1	7.8	1630	F202_7.8 S3 M3SA2	428	F202_7.8 P90 BN90L2	429
385	52	1.2	7.4	1330	F102_7.4 S3 M3SA2	424	F102_7.4 P90 BN90L2	425
444	45	2.3	6.4	1540	F202_6.4 S3 M3SA2	428	F202_6.4 P90 BN90L2	429

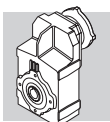
## 3.0 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
1.8	14309	1.0	773.4	55000	F904_773.4 S3 M3LB4	458	F904_773.4 P100 BN100LB4	459
2.3	11574	1.2	625.6	55000	F904_625.6 S3 M3LB4	458	F904_625.6 P100 BN100LB4	459
2.4	10684	1.3	577.5	55000	F904_577.5 S3 M3LB4	458	F904_577.5 P100 BN100LB4	459
2.8	9168	1.5	495.6	55000	F904_495.6 S3 M3LB4	458	F904_495.6 P100 BN100LB4	459
2.9	9049	0.9	489.1	45000	F804_489.1 S3 M3LB4	455	F804_489.1 P100 BN100LB4	456
3.1	8353	1.0	451.5	45000	F804_451.5 S3 M3LB4	455	F804_451.5 P100 BN100LB4	456
3.1	8463	1.7	457.5	55000	F904_457.5 S3 M3LB4	458	F904_457.5 P100 BN100LB4	459
3.7	7088	1.1	383.2	45000	F804_383.2 S3 M3LB4	455	F804_383.2 P100 BN100LB4	456
3.9	6694	2.1	361.8	55000	F904_361.8 S3 M3LB4	458	F904_361.8 P100 BN100LB4	459
4.0	6543	1.2	353.7	45000	F804_353.7 S3 M3LB4	455	F804_353.7 P100 BN100LB4	456
4.6	5630	0.9	304.3	35000	F704_304.3 S3 M3LB4	452	F704_304.3 P100 BN100LB4	453
4.8	5489	1.5	296.7	45000	F804_296.7 S3 M3LB4	455	F804_296.7 P100 BN100LB4	456
4.8	5386	2.6	291.1	55000	F904_291.1 S3 M3LB4	458	F904_291.1 P100 BN100LB4	459



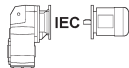



## 3.0 kW



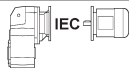

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
5.0	5197	1.0	280.9	35000	F704_280.9 S3 M3LB4	452	F704_280.9 P100 BN100LB4	453
5.1	5067	1.6	273.9	45000	F804_273.9 S3 M3LB4	455	F804_273.9 P100 BN100LB4	456
5.2	4971	2.8	268.7	55000	F904_268.7 S3 M3LB4	458	F904_268.7 P100 BN100LB4	459
6.0	4340	1.2	234.6	35000	F704_234.6 S3 M3LB4	452	F704_234.6 P100 BN100LB4	453
6.1	4281	3.3	231.4	55000	F904_231.4 S3 M3LB4	458	F904_231.4 P100 BN100LB4	459
6.5	4006	1.2	216.5	35000	F704_216.5 S3 M3LB4	452	F704_216.5 P100 BN100LB4	453
6.5	4042	2.0	218.5	45000	F804_218.5 S3 M3LB4	455	F804_218.5 P100 BN100LB4	456
6.6	3951	3.5	213.6	55000	F904_213.6 S3 M3LB4	458	F904_213.6 P100 BN100LB4	459
7.2	3706	1.3	196.0	35000	F703_196.0 S3 M3LB4	452	F703_196.0 P100 BN100LB4	453
7.6	3490	2.3	184.6	45000	F803_184.6 S3 M3LB4	455	F803_184.6 P100 BN100LB4	456
7.8	3421	1.5	180.9	35000	F703_180.9 S3 M3LB4	452	F703_180.9 P100 BN100LB4	453
8.5	3151	1.6	166.7	35000	F703_166.7 S3 M3LB4	452	F703_166.7 P100 BN100LB4	453
8.7	3080	0.9	162.9	20000	F603_162.9 S3 M3LB4	448	F603_162.9 P100 BN100LB4	449
8.8	3029	2.6	160.2	45000	F803_160.2 S3 M3LB4	455	F803_160.2 P100 BN100LB4	456
9.2	2909	1.7	153.8	35000	F703_153.8 S3 M3LB4	452	F703_153.8 P100 BN100LB4	453
9.4	2843	1.0	150.4	20000	F603_150.4 S3 M3LB4	448	F603_150.4 P100 BN100LB4	449
9.5	2796	2.9	147.9	45000	F803_147.9 S3 M3LB4	455	F803_147.9 P100 BN100LB4	456
10.6	2514	2.0	133.0	35000	F703_133.0 S3 M3LB4	452	F703_133.0 P100 BN100LB4	453
10.6	2509	3.2	132.7	45000	F803_132.7 S3 M3LB4	455	F803_132.7 P100 BN100LB4	456
10.8	2467	1.2	130.5	20000	F603_130.5 S3 M3LB4	448	F603_130.5 P100 BN100LB4	449
11.5	2320	2.2	122.7	35000	F703_122.7 S3 M3LB4	452	F703_122.7 P100 BN100LB4	453
11.5	2316	3.5	122.5	45000	F803_122.5 S3 M3LB4	455	F803_122.5 P100 BN100LB4	456
11.7	2277	1.3	120.5	20000	F603_120.5 S3 M3LB4	448	F603_120.5 P100 BN100LB4	449
12.9	2072	2.4	109.6	35000	F703_109.6 S3 M3LB4	452	F703_109.6 P100 BN100LB4	453
13.3	2011	1.4	106.4	20000	F603_106.4 S3 M3LB4	448	F603_106.4 P100 BN100LB4	449
13.4	1987	0.9	105.1	12000	F513_105.1 S3 M3LB4	444	F513_105.1 P100 BN100LB4	445
13.9	1913	2.6	101.2	35000	F703_101.2 S3 M3LB4	452	F703_101.2 P100 BN100LB4	453
14.4	1857	1.6	98.2	20000	F603_98.2 S3 M3LB4	448	F603_98.2 P100 BN100LB4	449
15.2	1749	2.9	92.5	35000	F703_92.5 S3 M3LB4	452	F703_92.5 P100 BN100LB4	453
16.5	1614	3.1	85.4	35000	F703_85.4 S3 M3LB4	452	F703_85.4 P100 BN100LB4	453
16.8	1588	1.8	84.0	20000	F603_84.0 S3 M3LB4	448	F603_84.0 P100 BN100LB4	449
16.9	1574	1.1	83.2	12000	F513_83.2 S3 M3LB4	444	F513_83.2 P100 BN100LB4	445
18.2	1466	2.0	77.6	20000	F603_77.6 S3 M3LB4	448	F603_77.6 P100 BN100LB4	449
20.7	1291	2.2	68.3	20000	F603_68.3 S3 M3LB4	448	F603_68.3 P100 BN100LB4	449
21.4	1245	1.4	65.8	12000	F513_65.8 S3 M3LB4	444	F513_65.8 P100 BN100LB4	445
22.4	1192	2.4	63.0	20000	F603_63.0 S3 M3LB4	448	F603_63.0 P100 BN100LB4	449
23.4	1139	1.0	60.2	8500	F413_60.2 S3 M3LB4	440	F413_60.2 P100 BN100LB4	441
27.2	980	3.0	51.8	20000	F603_51.8 S3 M3LB4	448	F603_51.8 P100 BN100LB4	449
27.4	974	1.1	51.5	8500	F413_51.5 S3 M3LB4	440	F413_51.5 P100 BN100LB4	441
28.8	925	1.9	48.9	12000	F513_48.9 S3 M3LB4	444	F513_48.9 P100 BN100LB4	445
29.4	926	1.2	47.9	8500	F412_47.9 S3 M3LB4	440	F412_47.9 P100 BN100LB4	441
29.5	905	3.2	47.8	20000	F603_47.8 S3 M3LB4	448	F603_47.8 P100 BN100LB4	449
37	737	1.5	38.2	8500	F412_38.2 S3 M3LB4	440	F412_38.2 P100 BN100LB4	441
38	717	2.4	37.1	11800	F512_37.1 S3 M3LB4	444	F512_37.1 P100 BN100LB4	445
41	664	0.9	34.4	5810	F312_34.4 S3 M3LB4	436	F312_34.4 P100 BN100LB4	437
47	582	1.0	30.1	5770	F312_30.1 S3 M3LB4	436	F312_30.1 P100 BN100LB4	437
47	582	1.9	30.1	8290	F412_30.1 S3 M3LB4	440	F412_30.1 P100 BN100LB4	441
47	580	2.9	30.0	11200	F512_30.0 S3 M3LB4	444	F512_30.0 P100 BN100LB4	445
52	527	1.1	27.3	5720	F312_27.3 S3 M3LB4	436	F312_27.3 P100 BN100LB4	437
58	466	2.4	24.1	7960	F412_24.1 S3 M3LB4	440	F412_24.1 P100 BN100LB4	441
60	452	1.3	23.4	5620	F312_23.4 S3 M3LB4	436	F312_23.4 P100 BN100LB4	437



## 3.0 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
65	421	0.9	21.8	2800	F252_21.8 S3 M3LB4	432	F252_21.8 P100 BN100LB4	433
67	408	1.5	21.1	5540	F312_21.1 S3 M3LB4	436	F312_21.1 P100 BN100LB4	437
75	365	3.0	18.9	7560	F412_18.9 S3 M3LB4	440	F412_18.9 P100 BN100LB4	441
76	359	1.1	18.6	2830	F252_18.6 S3 M3LB4	432	F252_18.6 P100 BN100LB4	433
76	357	1.7	18.5	5430	F312_18.5 S3 M3LB4	436	F312_18.5 P100 BN100LB4	437
82	331	3.2	17.1	7400	F412_17.1 S3 M3LB4	440	F412_17.1 P100 BN100LB4	441
84	324	1.8	16.8	5340	F312_16.8 S3 M3LB4	436	F312_16.8 P100 BN100LB4	437
85	321	1.2	16.6	2830	F252_16.6 S3 M3LB4	432	F252_16.6 P100 BN100LB4	433
97	279	1.4	14.5	2810	F252_14.5 S3 M3LB4	432	F252_14.5 P100 BN100LB4	433
101	269	2.2	13.9	5150	F312_13.9 S3 M3LB4	436	F312_13.9 P100 BN100LB4	437
109	251	1.6	13	2790	F252_13.0 S3 M3LB4	432	F252_13.0 P100 BN100LB4	433
111	246	2.4	12.7	5060	F312_12.7 S3 M3LB4	436	F312_12.7 P100 BN100LB4	437
131	208	2.9	10.7	4880	F312_10.7 S3 M3LB4	436	F312_10.7 P100 BN100LB4	437
133	205	1.9	10.6	2730	F252_10.6 S3 M3LB4	432	F252_10.6 P100 BN100LB4	433
151	181	1.5	9.4	2710	F252_9.4 S3 M3LB4	432	F252_9.4 P100 BN100LB4	433
156	174	2.2	9.0	4650	F312_9.0 S3 M3LB4	436	F312_9.0 P100 BN100LB4	437
161	169	0.9	8.7	1820	F202_8.7 S3 M3LB4	428	F202_8.7 P100 BN100LB4	429
168	162	1.6	8.4	2660	F252_8.4 S3 M3LB4	432	F252_8.4 P100 BN100LB4	433
171	159	2.5	8.2	4550	F312_8.2 S3 M3LB4	436	F312_8.2 P100 BN100LB4	437
180	151	1.0	7.8	1790	F202_7.8 S3 M3LB4	428	F202_7.8 P100 BN100LB4	429
203	134	2.9	6.9	4360	F312_6.9 S3 M3LB4	436	F312_6.9 P100 BN100LB4	437
205	133	1.9	6.9	2560	F252_6.9 S3 M3LB4	432	F252_6.9 P100 BN100LB4	433
220	124	1.0	6.4	1730	F202_6.4 S3 M3LB4	428	F202_6.4 P100 BN100LB4	429
220	124	2.9	13.0	2510	F252_13.0 S3 M3LA2	432	F252_13.0 P100 BN100L2	433
255	107	1.3	11.2	1680	F202_11.2 S3 M3LA2	428	F202_11.2 P100 BN100L2	429
269	101	3.2	10.6	2410	F252_10.6 S3 M3LA2	432	F252_10.6 P100 BN100L2	433
306	89	3.0	9.4	2350	F252_9.4 S3 M3LA2	432	F252_9.4 P100 BN100L2	433
328	83	1.5	8.7	1600	F202_8.7 S3 M3LA2	428	F202_8.7 P100 BN100L2	429
341	80	3.3	8.4	2290	F252_8.4 S3 M3LA2	432	F252_8.4 P100 BN100L2	433
365	75	1.5	7.8	1560	F202_7.8 S3 M3LA2	428	F202_7.8 P100 BN100L2	429
446	61	1.7	6.4	1480	F202_6.4 S3 M3LA2	428	F202_6.4 P100 BN100L2	429



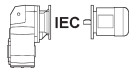

## 4.0 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
2.2	15542	0.9	625.6	55000	F904_625.6 S3 M3LC4	458	F904_625.6 P112 BN112M4	459
2.4	14347	1.0	577.5	55000	F904_577.5 S3 M3LC4	458	F904_577.5 P112 BN112M4	459
2.8	12311	1.1	495.6	55000	F904_495.6 S3 M3LC4	458	F904_495.6 P112 BN112M4	459
3.1	11364	1.2	457.5	55000	F904_457.5 S3 M3LC4	458	F904_457.5 P112 BN112M4	459
3.9	8989	1.6	361.8	55000	F904_361.8 S3 M3LC4	458	F904_361.8 P112 BN112M4	459
4.0	8786	0.9	353.7	45000	F804_353.7 S3 M3LC4	455	F804_353.7 P112 BN112M4	456
4.7	7371	1.1	296.7	45000	F804_296.7 S3 M3LC4	455	F804_296.7 P112 BN112M4	456
4.8	7232	1.9	291.1	55000	F904_291.1 S3 M3LC4	458	F904_291.1 P112 BN112M4	459
5.1	6804	1.2	273.9	45000	F804_273.9 S3 M3LC4	455	F804_273.9 P112 BN112M4	456
5.2	6676	2.1	268.7	55000	F904_268.7 S3 M3LC4	458	F904_268.7 P112 BN112M4	459
6.0	5827	0.9	234.6	35000	F704_234.6 S3 M3LC4	452	F704_234.6 P112 BN112M4	453
6.1	5748	2.4	231.4	55000	F904_231.4 S3 M3LC4	458	F904_231.4 P112 BN112M4	459
6.4	5428	1.5	218.5	45000	F804_218.5 S3 M3LC4	455	F804_218.5 P112 BN112M4	456





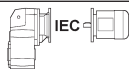



## 4.0 kW



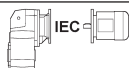

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
6.5	5379	0.9	216.5	35000	F704_216.5 S3 M3LC4	452	F704_216.5 P112 BN112M4	453
6.6	5306	2.6	213.6	55000	F904_213.6 S3 M3LC4	458	F904_213.6 P112 BN112M4	459
7.1	4977	1.0	196.0	35000	F703_196.0 S3 M3LC4	452	F703_196.0 P112 BN112M4	453
7.2	4929	2.8	194.2	55000	F903_194.2 S3 M3LC4	458	F903_194.2 P112 BN112M4	459
7.6	4687	1.7	184.6	45000	F803_184.6 S3 M3LC4	455	F803_184.6 P112 BN112M4	456
7.7	4594	1.1	180.9	35000	F703_180.9 S3 M3LC4	452	F703_180.9 P112 BN112M4	453
7.8	4550	3.1	179.2	55000	F903_179.2 S3 M3LC4	458	F903_179.2 P112 BN112M4	459
8.4	4232	1.2	166.7	35000	F703_166.7 S3 M3LC4	452	F703_166.7 P112 BN112M4	453
8.6	4134	3.4	162.8	55000	F903_162.8 S3 M3LC4	458	F903_162.8 P112 BN112M4	459
8.7	4068	2.0	160.2	45000	F803_160.2 S3 M3LC4	455	F803_160.2 P112 BN112M4	456
9.1	3906	1.3	153.8	35000	F703_153.8 S3 M3LC4	452	F703_153.8 P112 BN112M4	453
9.5	3755	2.1	147.9	45000	F803_147.9 S3 M3LC4	455	F803_147.9 P112 BN112M4	456
10.5	3376	1.5	133.0	35000	F703_133.0 S3 M3LC4	452	F703_133.0 P112 BN112M4	453
10.6	3369	2.4	132.7	45000	F803_132.7 S3 M3LC4	455	F803_132.7 P112 BN112M4	456
11.4	3116	1.6	122.7	35000	F703_122.7 S3 M3LC4	452	F703_122.7 P112 BN112M4	453
11.4	3110	2.6	122.5	45000	F803_122.5 S3 M3LC4	455	F803_122.5 P112 BN112M4	456
11.6	3058	0.9	120.5	20000	F603_120.5 S3 M3LC4	448	F603_120.5 P112 BN112M4	449
12.3	2888	2.8	113.8	45000	F803_113.8 S3 M3LC4	455	F803_113.8 P112 BN112M4	456
12.8	2783	1.8	109.6	35000	F703_109.6 S3 M3LC4	452	F703_109.6 P112 BN112M4	453
13.2	2701	1.1	106.4	20000	F603_106.4 S3 M3LC4	448	F603_106.4 P112 BN112M4	449
13.8	2569	1.9	101.2	35000	F703_101.2 S3 M3LC4	452	F703_101.2 P112 BN112M4	453
14.3	2493	1.2	98.2	20000	F603_98.2 S3 M3LC4	448	F603_98.2 P112 BN112M4	449
15.1	2348	2.1	92.5	35000	F703_92.5 S3 M3LC4	452	F703_92.5 P112 BN112M4	453
16.4	2168	2.3	85.4	35000	F703_85.4 S3 M3LC4	452	F703_85.4 P112 BN112M4	453
16.7	2133	1.4	84.0	20000	F603_84.0 S3 M3LC4	448	F603_84.0 P112 BN112M4	449
18.1	1969	1.5	77.6	20000	F603_77.6 S3 M3LC4	448	F603_77.6 P112 BN112M4	449
20.5	1734	1.7	68.3	20000	F603_68.3 S3 M3LC4	448	F603_68.3 P112 BN112M4	449
21.3	1672	1.1	65.8	12000	F513_65.8 S3 M3LC4	444	F513_65.8 P112 BN112M4	445
22.2	1600	1.8	63.0	20000	F603_63.0 S3 M3LC4	448	F603_63.0 P112 BN112M4	449
27.0	1316	2.2	51.8	20000	F603_51.8 S3 M3LC4	448	F603_51.8 P112 BN112M4	449
28.6	1242	1.4	48.9	11600	F513_48.9 S3 M3LC4	444	F513_48.9 P112 BN112M4	445
29.3	1215	2.4	47.8	20000	F603_47.8 S3 M3LC4	448	F603_47.8 P112 BN112M4	449
33	1069	2.7	42.1	20000	F603_42.1 S3 M3LC4	448	F603_42.1 P112 BN112M4	449
36	986	2.9	38.8	20000	F603_38.8 S3 M3LC4	448	F603_38.8 P112 BN112M4	449
37	990	1.1	38.2	7720	F412_38.2 S3 M3LC4	440	F412_38.2 P112 BN112M4	441
38	963	1.8	37.1	11200	F512_37.1 S3 M3LC4	444	F512_37.1 P112 BN112M4	445
46	781	1.4	30.1	7610	F412_30.1 S3 M3LC4	440	F412_30.1 P112 BN112M4	441
47	779	2.2	30.0	10700	F512_30.0 S3 M3LC4	444	F512_30.0 P112 BN112M4	445
55	645	2.9	25.4	20000	F603_25.4 S3 M3LC4	448	F603_25.4 P112 BN112M4	449
58	625	1.8	24.1	7420	F412_24.1 S3 M3LC4	440	F412_24.1 P112 BN112M4	441
59	617	2.7	23.8	10200	F512_23.8 S3 M3LC4	444	F512_23.8 P112 BN112M4	445
60	607	1.0	23.4	5040	F312_23.4 S3 M3LC4	436	F312_23.4 P112 BN112M4	437
60	596	3.2	23.5	20000	F603_23.5 S3 M3LC4	448	F603_23.5 P112 BN112M4	449
66	548	1.1	21.1	5020	F312_21.1 S3 M3LC4	436	F312_21.1 P112 BN112M4	437
74	490	2.2	18.9	7150	F412_18.9 S3 M3LC4	440	F412_18.9 P112 BN112M4	441
74	488	3.2	18.8	9640	F512_18.8 S3 M3LC4	444	F512_18.8 P112 BN112M4	445
76	479	1.3	18.5	4980	F312_18.5 S3 M3LC4	436	F312_18.5 P112 BN112M4	437
82	444	2.4	17.1	7030	F412_17.1 S3 M3LC4	440	F412_17.1 P112 BN112M4	441
83	436	1.4	16.8	4930	F312_16.8 S3 M3LC4	436	F312_16.8 P112 BN112M4	437
84	431	0.9	16.6	2380	F252_16.6 S3 M3LC4	432	F252_16.6 P112 BN112M4	433
96	379	2.7	14.6	6820	F412_14.6 S3 M3LC4	440	F412_14.6 P112 BN112M4	441



## 4.0 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
97	375	1.1	14.5	2420	F252_14.5 S3 M3LC4	432	F252_14.5 P112 BN112M4	433
100	362	1.7	13.9	4820	F312_13.9 S3 M3LC4	436	F312_13.9 P112 BN112M4	437
108	337	1.2	13.0	2440	F252_13.0 S3 M3LC4	432	F252_13.0 P112 BN112M4	433
110	330	1.8	12.7	4750	F312_12.7 S3 M3LC4	436	F312_12.7 P112 BN112M4	437
130	279	2.2	10.7	4620	F312_10.7 S3 M3LC4	436	F312_10.7 P112 BN112M4	437
130	279	3.2	10.8	6380	F412_10.8 S3 M3LC4	440	F412_10.8 P112 BN112M4	441
132	276	1.4	10.6	2450	F252_10.6 S3 M3LC4	432	F252_10.6 P112 BN112M4	433
150	243	1.1	9.4	2470	F252_9.4 S3 M3LC4	432	F252_9.4 P112 BN112M4	433
153	237	3.0	9.1	6160	F412_9.1 S3 M3LC4	440	F412_9.1 P112 BN112M4	441
155	234	1.7	9.0	4420	F312_9.0 S3 M3LC4	436	F312_9.0 P112 BN112M4	437
167	218	1.2	8.4	2450	F252_8.4 S3 M3LC4	432	F252_8.4 P112 BN112M4	433
170	213	1.8	8.2	4350	F312_8.2 S3 M3LC4	436	F312_8.2 P112 BN112M4	437
201	180	2.2	6.9	4200	F312_6.9 S3 M3LC4	436	F312_6.9 P112 BN112M4	437
204	178	1.4	6.9	2390	F252_6.9 S3 M3LC4	432	F252_6.9 P112 BN112M4	433
206	176	3.2	13.9	4200	F312_13.9 S3 M3LB2	436	F312_13.9 P100 BN100LB2	437
221	164	2.2	13.0	2340	F252_13.0 S3 M3LB2	432	F252_13.0 P112 BN112M2	433
226	161	3.4	12.7	4120	F312_12.7 S3 M3LB2	436	F312_12.7 P100 BN100LB2	437
255	142	1.0	11.2	1570	F202_11.2 S3 M3LB2	428	F202_11.2 P100 BN100LB2	429
270	134	2.4	10.6	2270	F252_10.6 S3 M3LB2	432	F252_10.6 P112 BN112M2	433
307	118	2.2	9.4	2230	F252_9.4 S3 M3LB2	432	F252_9.4 P112 BN112M2	433
318	114	3.4	9.0	3760	F312_9.0 S3 M3LB2	436	F312_9.0 P100 BN100LB2	437
329	110	1.1	8.7	1510	F202_8.7 S3 M3LB2	428	F202_8.7 P100 BN100LB2	429
342	106	2.4	8.4	2190	F252_8.4 S3 M3LB2	432	F252_8.4 P112 BN112M2	433
366	99	1.2	7.8	1480	F202_7.8 S3 M3LB2	428	F202_7.8 P100 BN100LB2	429
418	87	2.7	6.9	2090	F252_6.9 S3 M3LB2	432	F252_6.9 P112 BN112M2	433
448	81	1.3	6.4	1420	F202_6.4 S3 M3LB2	428	F202_6.4 P100 BN100LB2	429





## 5.5 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
2.9	16458	0.9	495.6	55000	F904_495.6 S4 M4SA4	458	F904_495.6 P132 BN132S4	459
3.1	15192	0.9	457.5	55000	F904_457.5 S4 M4SA4	458	F904_457.5 P132 BN132S4	459
4.0	12017	1.2	361.8	55000	F904_361.8 S4 M4SA4	458	F904_361.8 P132 BN132S4	459
4.9	9668	1.4	291.1	55000	F904_291.1 S4 M4SA4	458	F904_291.1 P132 BN132S4	459
5.3	9096	0.9	273.9	45000	F804_273.9 S4 M4SA4	455	F804_273.9 P132 BN132S4	456
5.4	8925	1.6	268.7	55000	F904_268.7 S4 M4SA4	458	F904_268.7 P132 BN132S4	459
6.2	7685	1.8	231.4	55000	F904_231.4 S4 M4SA4	458	F904_231.4 P132 BN132S4	459
6.6	7256	1.1	218.5	45000	F804_218.5 S4 M4SA4	455	F804_218.5 P132 BN132S4	456
6.7	7093	2	213.6	55000	F904_213.6 S4 M4SA4	458	F904_213.6 P132 BN132S4	459
7.4	6590	2.1	194.2	55000	F903_194.2 S4 M4SA4	458	F903_194.2 P132 BN132S4	459
7.8	6266	1.3	184.6	45000	F803_184.6 S4 M4SA4	455	F803_184.6 P132 BN132S4	456
8.0	6083	2.3	179.2	55000	F903_179.2 S4 M4SA4	458	F903_179.2 P132 BN132S4	459
8.8	5527	2.5	162.8	55000	F903_162.8 S4 M4SA4	458	F903_162.8 P132 BN132S4	459
9.0	5438	1.5	160.2	45000	F803_160.2 S4 M4SA4	455	F803_160.2 P132 BN132S4	456
9.4	5222	1.0	153.8	35000	F703_153.8 S4 M4SA4	452	F703_153.8 P132 BN132S4	453
9.6	5101	2.7	150.3	55000	F903_150.3 S4 M4SA4	458	F903_150.3 P132 BN132S4	459
9.7	5020	1.6	147.9	45000	F803_147.9 S4 M4SA4	455	F803_147.9 P132 BN132S4	456
10.5	4661	3.0	137.3	55000	F903_137.3 S4 M4SA4	458	F903_137.3 P132 BN132S4	459





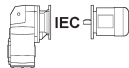



## 5.5 kW



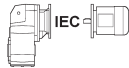

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
10.8	4513	1.1	133	35000	F703_133.0 S4 M4SA4	452	F703_133.0 P132 BN132S4	453
10.9	4504	1.8	132.7	45000	F803_132.7 S4 M4SA4	455	F803_132.7 P132 BN132S4	456
11.4	4303	3.3	126.8	55000	F903_126.8 S4 M4SA4	458	F903_126.8 P132 BN132S4	459
11.7	4165	1.2	122.7	35000	F703_122.7 S4 M4SA4	452	F703_122.7 P132 BN132S4	453
11.8	4157	1.9	122.5	45000	F803_122.5 S4 M4SA4	455	F803_122.5 P132 BN132S4	456
12.7	3861	2.1	113.8	45000	F803_113.8 S4 M4SA4	455	F803_113.8 P132 BN132S4	456
13.1	3720	1.3	109.6	35000	F703_109.6 S4 M4SA4	452	F703_109.6 P132 BN132S4	453
14.2	3434	1.5	101.2	35000	F703_101.2 S4 M4SA4	452	F703_101.2 P132 BN132S4	453
15.6	3139	1.6	92.5	35000	F703_92.5 S4 M4SA4	452	F703_92.5 P132 BN132S4	453
15.6	3133	2.6	92.3	45000	F803_92.3 S4 M4SA4	455	F803_92.3 P132 BN132S4	456
16.9	2898	1.7	85.4	35000	F703_85.4 S4 M4SA4	452	F703_85.4 P132 BN132S4	453
16.9	2892	2.8	85.2	45000	F803_85.2 S4 M4SA4	455	F803_85.2 P132 BN132S4	456
17.1	2852	1.0	84	20000	F603_84.0 S4 M4SA4	448	F603_84.0 P132 BN132S4	449
18.6	2632	1.1	77.6	20000	F603_77.6 S4 M4SA4	448	F603_77.6 P132 BN132S4	449
18.9	2588	3.1	76.3	45000	F803_76.3 S4 M4SA4	455	F803_76.3 P132 BN132S4	456
19.6	2497	2.0	73.6	35000	F703_73.6 S4 M4SA4	452	F703_73.6 P132 BN132S4	453
20.5	2389	3.3	70.4	45000	F803_70.4 S4 M4SA4	455	F803_70.4 P132 BN132S4	456
21.1	2317	1.3	68.3	20000	F603_68.3 S4 M4SA4	448	F603_68.3 P132 BN132S4	449
21.2	2305	2.2	67.9	35000	F703_67.9 S4 M4SA4	452	F703_67.9 P132 BN132S4	453
22.8	2139	1.4	63	20000	F603_63.0 S4 M4SA4	448	F603_63.0 P132 BN132S4	449
23.0	2121	2.4	62.5	35000	F703_62.5 S4 M4SA4	452	F703_62.5 P132 BN132S4	453
25.0	1958	2.6	57.7	35000	F703_57.7 S4 M4SA4	452	F703_57.7 P132 BN132S4	453
27.8	1759	1.6	51.8	20000	F603_51.8 S4 M4SA4	448	F603_51.8 P132 BN132S4	449
29.4	1660	1.1	48.9	10300	F513_48.9 S4 M4SA4	444	F513_48.9 P132 BN132S4	445
29.4	1662	3	49.0	35000	F703_49.0 S4 M4SA4	452	F703_49.0 P132 BN132S4	453
30.0	1624	1.8	47.8	20000	F603_47.8 S4 M4SA4	448	F603_47.8 P132 BN132S4	449
32	1534	3.3	45.2	34300	F703_45.2 S4 M4SA4	452	F703_45.2 P132 BN132S4	453
34	1428	2.0	42.1	20000	F603_42.1 S4 M4SA4	448	F603_42.1 P132 BN132S4	449
37	1319	2.2	38.8	20000	F603_38.8 S4 M4SA4	448	F603_38.8 P132 BN132S4	449
39	1288	1.3	37.1	10300	F512_37.1 S4 M4SA4	444	F512_37.1 P132 BN132S4	445
45	1089	2.7	32.1	20000	F603_32.1 S4 M4SA4	448	F603_32.1 P132 BN132S4	449
48	1044	1.1	30.1	6580	F412_30.1 S4 M4SA4	440	F412_30.1 P132 BN132S4	441
48	1041	1.6	30	9950	F512_30.0 S4 M4SA4	444	F512_30.0 P132 BN132S4	445
49	1005	2.9	29.6	20000	F603_29.6 S4 M4SA4	448	F603_29.6 P132 BN132S4	449
57	863	2.2	25.4	20000	F603_25.4 S4 M4SA4	448	F603_25.4 P132 BN132S4	449
60	836	1.3	24.1	6580	F412_24.1 S4 M4SA4	440	F412_24.1 P132 BN132S4	441
61	825	2.0	23.8	9560	F512_23.8 S4 M4SA4	444	F512_23.8 P132 BN132S4	445
61	796	2.4	23.5	20000	F603_23.5 S4 M4SA4	448	F603_23.5 P132 BN132S4	449
70	701	2.7	20.7	20000	F603_20.7 S4 M4SA4	448	F603_20.7 P132 BN132S4	449
76	655	1.7	18.9	6480	F412_18.9 S4 M4SA4	440	F412_18.9 P132 BN132S4	441
76	647	2.9	19.1	20000	F603_19.1 S4 M4SA4	448	F603_19.1 P132 BN132S4	449
77	653	2.4	18.8	9110	F512_18.8 S4 M4SA4	444	F512_18.8 P132 BN132S4	445
84	593	1.8	17.1	6410	F412_17.1 S4 M4SA4	440	F412_17.1 P132 BN132S4	441
98	507	2.0	14.6	6280	F412_14.6 S4 M4SA4	440	F412_14.6 P132 BN132S4	441
103	485	2.9	14.0	8520	F512_14.0 S4 M4SA4	444	F512_14.0 P132 BN132S4	445
130	385	3.5	11.1	8050	F512_11.1 S4 M4SA4	444	F512_11.1 P132 BN132S4	445
134	373	2.4	10.8	5970	F412_10.8 S4 M4SA4	440	F412_10.8 P132 BN132S4	441
158	317	2.2	9.1	5810	F412_9.1 S4 M4SA4	440	F412_9.1 P132 BN132S4	441
159	314	3.5	9.1	7590	F512_9.1 S4 M4SA4	444	F512_9.1 P132 BN132S4	445
198	253	3.3	14.6	5510	F412_14.6 S4 M4SA2	440	F412_14.6 P132 BN132SA2	441
214	233	2.7	6.7	5430	F412_6.7 S4 M4SA4	440	F412_6.7 P132 BN132S4	441



## 5.5 kW



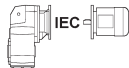

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
<b>268</b>	186	3.9	10.8	5120	<b>F412_10.8 S4 M4SA2</b>	440	<b>F412_10.8 P132 BN132SA2</b>	441
<b>316</b>	158	3.9	9.1	4930	<b>F412_9.1 S4 M4SA2</b>	440	<b>F412_9.1 P132 BN132SA2</b>	441

## 7.5 kW



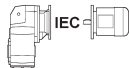

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
<b>4.0</b>	16387	0.9	361.8	55000	<b>F904_361.8 S4 M4LA4</b>	458	<b>F904_361.8 P132 BN132MA4</b>	459
<b>4.9</b>	13184	1.1	291.1	55000	<b>F904_291.1 S4 M4LA4</b>	458	<b>F904_291.1 P132 BN132MA4</b>	459
<b>5.4</b>	12170	1.2	268.7	55000	<b>F904_268.7 S4 M4LA4</b>	458	<b>F904_268.7 P132 BN132MA4</b>	459
<b>6.2</b>	10479	1.3	231.4	55000	<b>F904_231.4 S4 M4LA4</b>	458	<b>F904_231.4 P132 BN132MA4</b>	459
<b>6.7</b>	9673	1.4	213.6	55000	<b>F904_213.6 S4 M4LA4</b>	458	<b>F904_213.6 P132 BN132MA4</b>	459
<b>7.4</b>	8986	1.6	194.2	55000	<b>F903_194.2 S4 M4LA4</b>	458	<b>F903_194.2 P132 BN132MA4</b>	459
<b>7.8</b>	8544	0.9	184.6	45000	<b>F803_184.6 S4 M4LA4</b>	455	<b>F803_184.6 P132 BN132MA4</b>	456
<b>8.0</b>	8295	1.7	179.2	55000	<b>F903_179.2 S4 M4LA4</b>	458	<b>F903_179.2 P132 BN132MA4</b>	459
<b>8.8</b>	7536	1.9	162.8	55000	<b>F903_162.8 S4 M4LA4</b>	458	<b>F903_162.8 P132 BN132MA4</b>	459
<b>9.0</b>	7416	1.1	160.2	45000	<b>F803_160.2 S4 M4LA4</b>	455	<b>F803_160.2 P132 BN132MA4</b>	456
<b>9.6</b>	6956	2	150.3	55000	<b>F903_150.3 S4 M4LA4</b>	458	<b>F903_150.3 P132 BN132MA4</b>	459
<b>9.7</b>	6845	1.2	147.9	45000	<b>F803_147.9 S4 M4LA4</b>	455	<b>F803_147.9 P132 BN132MA4</b>	456
<b>10.5</b>	6356	2.2	137.3	55000	<b>F903_137.3 S4 M4LA4</b>	458	<b>F903_137.3 P132 BN132MA4</b>	459
<b>10.9</b>	6141	1.3	132.7	45000	<b>F803_132.7 S4 M4LA4</b>	455	<b>F803_132.7 P132 BN132MA4</b>	456
<b>11.4</b>	5867	2.4	126.8	55000	<b>F903_126.8 S4 M4LA4</b>	458	<b>F903_126.8 P132 BN132MA4</b>	459
<b>11.8</b>	5669	1.4	122.5	45000	<b>F803_122.5 S4 M4LA4</b>	455	<b>F803_122.5 P132 BN132MA4</b>	456
<b>12.7</b>	5265	1.5	113.8	45000	<b>F803_113.8 S4 M4LA4</b>	455	<b>F803_113.8 P132 BN132MA4</b>	456
<b>12.9</b>	5181	2.7	111.9	55000	<b>F903_111.9 S4 M4LA4</b>	458	<b>F903_111.9 P132 BN132MA4</b>	459
<b>13.1</b>	5073	1.0	109.6	35000	<b>F703_109.6 S4 M4LA4</b>	452	<b>F703_109.6 P132 BN132MA4</b>	453
<b>13.9</b>	4783	2.9	103.3	55000	<b>F903_103.3 S4 M4LA4</b>	458	<b>F903_103.3 P132 BN132MA4</b>	459
<b>14.2</b>	4683	1.1	101.2	35000	<b>F703_101.2 S4 M4LA4</b>	452	<b>F703_101.2 P132 BN132MA4</b>	453
<b>15.0</b>	4432	3.2	95.8	55000	<b>F903_95.8 S4 M4LA4</b>	458	<b>F903_95.8 P132 BN132MA4</b>	459
<b>15.6</b>	4281	1.2	92.5	35000	<b>F703_92.5 S4 M4LA4</b>	452	<b>F703_92.5 P132 BN132MA4</b>	453
<b>15.6</b>	4272	1.9	92.3	45000	<b>F803_92.3 S4 M4LA4</b>	455	<b>F803_92.3 P132 BN132MA4</b>	456
<b>16.3</b>	4091	3.4	88.4	55000	<b>F903_88.4 S4 M4LA4</b>	458	<b>F903_88.4 P132 BN132MA4</b>	459
<b>16.9</b>	3952	1.3	85.4	35000	<b>F703_85.4 S4 M4LA4</b>	452	<b>F703_85.4 P132 BN132MA4</b>	453
<b>16.9</b>	3944	2.0	85.2	45000	<b>F803_85.2 S4 M4LA4</b>	455	<b>F803_85.2 P132 BN132MA4</b>	456
<b>18.9</b>	3529	2.3	76.3	45000	<b>F803_76.3 S4 M4LA4</b>	455	<b>F803_76.3 P132 BN132MA4</b>	456
<b>19.6</b>	3404	1.5	73.6	35000	<b>F703_73.6 S4 M4LA4</b>	452	<b>F703_73.6 P132 BN132MA4</b>	453
<b>20.5</b>	3258	2.5	70.4	44700	<b>F803_70.4 S4 M4LA4</b>	455	<b>F803_70.4 P132 BN132MA4</b>	456
<b>21.1</b>	3160	0.9	68.3	20000	<b>F603_68.3 S4 M4LA4</b>	448	<b>F603_68.3 P132 BN132MA4</b>	449
<b>21.2</b>	3143	1.6	67.9	35000	<b>F703_67.9 S4 M4LA4</b>	452	<b>F703_67.9 P132 BN132MA4</b>	453
<b>22.8</b>	2917	1.0	63.0	20000	<b>F603_63.0 S4 M4LA4</b>	448	<b>F603_63.0 P132 BN132MA4</b>	449
<b>23.0</b>	2893	1.7	62.5	35000	<b>F703_62.5 S4 M4LA4</b>	452	<b>F703_62.5 P132 BN132MA4</b>	453
<b>23.4</b>	2844	2.8	61.5	43500	<b>F803_61.5 S4 M4LA4</b>	455	<b>F803_61.5 P132 BN132MA4</b>	456
<b>25.0</b>	2670	1.9	57.7	34900	<b>F703_57.7 S4 M4LA4</b>	452	<b>F703_57.7 P132 BN132MA4</b>	453
<b>25.4</b>	2626	3.0	56.7	42600	<b>F803_56.7 S4 M4LA4</b>	455	<b>F803_56.7 P132 BN132MA4</b>	456
<b>27.8</b>	2399	1.2	51.8	20000	<b>F603_51.8 S4 M4LA4</b>	448	<b>F603_51.8 P132 BN132MA4</b>	449
<b>29.4</b>	2266	2.2	49.0	33800	<b>F703_49.0 S4 M4LA4</b>	452	<b>F703_49.0 P132 BN132MA4</b>	453
<b>30.0</b>	2214	1.3	47.8	20000	<b>F603_47.8 S4 M4LA4</b>	448	<b>F603_47.8 P132 BN132MA4</b>	449
<b>32</b>	2092	2.4	45.2	33200	<b>F703_45.2 S4 M4LA4</b>	452	<b>F703_45.2 P132 BN132MA4</b>	453
<b>34</b>	1948	1.5	42.1	20000	<b>F603_42.1 S4 M4LA4</b>	448	<b>F603_42.1 P132 BN132MA4</b>	449



## 7.5 kW



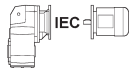

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
37	1798	1.6	38.8	20000	F603_38.8 S4 M4LA4	448	F603_38.8 P132 BN132MA4	449
39	1756	1.0	37.1	9090	F512_37.1 S4 M4LA4	444	F512_37.1 P132 BN132MA4	445
45	1485	2.0	32.1	20000	F603_32.1 S4 M4LA4	448	F603_32.1 P132 BN132MA4	449
48	1420	1.2	30.0	9010	F512_30.0 S4 M4LA4	444	F512_30.0 P132 BN132MA4	445
49	1371	2.1	29.6	20000	F603_29.6 S4 M4LA4	448	F603_29.6 P132 BN132MA4	449
57	1176	1.6	25.4	20000	F603_25.4 S4 M4LA4	448	F603_25.4 P132 BN132MA4	449
59	1137	3.5	24.6	28800	F703_24.6 S4 M4LA4	452	F703_24.6 P132 BN132MA4	453
60	1140	1.0	24.1	5500	F412_24.1 S4 M4LA4	440	F412_24.1 P132 BN132MA4	441
61	1125	1.5	23.8	8810	F512_23.8 S4 M4LA4	444	F512_23.8 P132 BN132MA4	445
61	1086	1.7	23.5	20000	F603_23.5 S4 M4LA4	448	F603_23.5 P132 BN132MA4	449
70	956	2.0	20.7	20000	F603_20.7 S4 M4LA4	448	F603_20.7 P132 BN132MA4	449
76	893	1.2	18.9	5630	F412_18.9 S4 M4LA4	440	F412_18.9 P132 BN132MA4	441
76	883	2.2	19.1	20000	F603_19.1 S4 M4LA4	448	F603_19.1 P132 BN132MA4	449
77	890	1.7	18.8	8520	F512_18.8 S4 M4LA4	444	F512_18.8 P132 BN132MA4	445
84	809	1.3	17.1	5650	F412_17.1 S4 M4LA4	440	F412_17.1 P132 BN132MA4	441
92	726	2.6	15.7	20000	F603_15.7 S4 M4LA4	448	F603_15.7 P132 BN132MA4	449
98	692	1.5	14.6	5630	F412_14.6 S4 M4LA4	440	F412_14.6 P132 BN132MA4	441
99	670	2.8	14.5	20000	F603_14.5 S4 M4LA4	448	F603_14.5 P132 BN132MA4	449
103	661	2.1	14.0	8080	F512_14.0 S4 M4LA4	444	F512_14.0 P132 BN132MA4	445
113	589	3.2	12.7	19900	F603_12.7 S4 M4LA4	448	F603_12.7 P132 BN132MA4	449
123	544	3.5	11.8	19500	F603_11.8 S4 M4LA4	448	F603_11.8 P132 BN132MA4	449
130	525	2.5	11.1	7700	F512_11.1 S4 M4LA4	444	F512_11.1 P132 BN132MA4	445
134	509	1.8	10.8	5490	F412_10.8 S4 M4LA4	440	F412_10.8 P132 BN132MA4	441
158	432	1.6	9.1	5410	F412_9.1 S4 M4LA4	440	F412_9.1 P132 BN132MA4	441
159	428	2.6	9.1	7290	F512_9.1 S4 M4LA4	444	F512_9.1 P132 BN132MA4	445
200	340	2.9	7.2	6900	F512_7.2 S4 M4LA4	444	F512_7.2 P132 BN132MA4	445
214	318	2.0	6.7	5140	F412_6.7 S4 M4LA4	440	F412_6.7 P132 BN132MA4	441
269	253	2.9	10.8	4880	F412_10.8 S4 M4SB2	440	F412_10.8 P132 BN132SB2	441
317	214	2.8	9.1	4730	F412_9.1 S4 M4SB2	440	F412_9.1 P132 BN132SB2	441
431	158	3.3	6.7	4390	F412_6.7 S4 M4SB2	440	F412_6.7 P132 BN132SB2	441

## 9.2 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
4.9	16172	0.9	291.1	55000	F904_291.1 S4 M4LB4	458	F904_291.1 P132 BN132MB4	459
5.4	14928	0.9	268.7	55000	F904_268.7 S4 M4LB4	458	F904_268.7 P132 BN132MB4	459
6.2	12854	1.1	231.4	55000	F904_231.4 S4 M4LB4	458	F904_231.4 P132 BN132MB4	459
6.7	11865	1.2	213.6	55000	F904_213.6 S4 M4LB4	458	F904_213.6 P132 BN132MB4	459
7.4	11023	1.3	194.2	55000	F903_194.2 S4 M4LB4	458	F903_194.2 P132 BN132MB4	459
8.0	10175	1.4	179.2	55000	F903_179.2 S4 M4LB4	458	F903_179.2 P132 BN132MB4	459
8.8	9244	1.5	162.8	55000	F903_162.8 S4 M4LB4	458	F903_162.8 P132 BN132MB4	459
9.6	8533	1.6	150.3	55000	F903_150.3 S4 M4LB4	458	F903_150.3 P132 BN132MB4	459
9.7	8397	1.0	147.9	45000	F803_147.9 S4 M4LB4	455	F803_147.9 P132 BN132MB4	456
10.5	7797	1.8	137.3	55000	F903_137.3 S4 M4LB4	458	F903_137.3 P132 BN132MB4	459
10.9	7533	1.1	132.7	45000	F803_132.7 S4 M4LB4	455	F803_132.7 P132 BN132MB4	456
11.4	7197	1.9	126.8	55000	F903_126.8 S4 M4LB4	458	F903_126.8 P132 BN132MB4	459
11.8	6954	1.2	122.5	45000	F803_122.5 S4 M4LB4	455	F803_122.5 P132 BN132MB4	456
12.7	6458	1.2	113.8	45000	F803_113.8 S4 M4LB4	455	F803_113.8 P132 BN132MB4	456





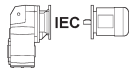

## 9.2 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
12.9	6355	2.2	111.9	55000	F903_111.9 S4 M4LB4	458	F903_111.9 P132 BN132MB4	459
13.9	5867	2.4	103.3	55000	F903_103.3 S4 M4LB4	458	F903_103.3 P132 BN132MB4	459
15.0	5437	2.6	95.8	55000	F903_95.8 S4 M4LB4	458	F903_95.8 P132 BN132MB4	459
15.6	5251	1.0	92.5	35000	F703_92.5 S4 M4LB4	452	F703_92.5 P132 BN132MB4	453
15.6	5241	1.5	92.3	45000	F803_92.3 S4 M4LB4	455	F803_92.3 P132 BN132MB4	456
16.3	5018	2.8	88.4	55000	F903_88.4 S4 M4LB4	458	F903_88.4 P132 BN132MB4	459
16.9	4848	1.0	85.4	35000	F703_85.4 S4 M4LB4	452	F703_85.4 P132 BN132MB4	453
16.9	4837	1.7	85.2	45000	F803_85.2 S4 M4LB4	455	F803_85.2 P132 BN132MB4	456
18.8	4352	3.2	76.7	55000	F903_76.7 S4 M4LB4	458	F903_76.7 P132 BN132MB4	459
18.9	4329	1.8	76.3	44100	F803_76.3 S4 M4LB4	455	F803_76.3 P132 BN132MB4	456
19.6	4176	1.2	73.6	35000	F703_73.6 S4 M4LB4	452	F703_73.6 P132 BN132MB4	453
20.4	4017	3.5	70.8	55000	F903_70.8 S4 M4LB4	458	F903_70.8 P132 BN132MB4	459
20.5	3996	2.0	70.4	43700	F803_70.4 S4 M4LB4	455	F803_70.4 P132 BN132MB4	456
21.2	3855	1.3	67.9	34600	F703_67.9 S4 M4LB4	452	F703_67.9 P132 BN132MB4	453
23.0	3548	1.4	62.5	34200	F703_62.5 S4 M4LB4	452	F703_62.5 P132 BN132MB4	453
23.4	3489	2.3	61.5	42200	F803_61.5 S4 M4LB4	455	F803_61.5 P132 BN132MB4	456
25.0	3275	1.5	57.7	33700	F703_57.7 S4 M4LB4	452	F703_57.7 P132 BN132MB4	453
25.4	3221	2.5	56.7	41400	F803_56.7 S4 M4LB4	455	F803_56.7 P132 BN132MB4	456
27.8	2942	1.0	51.8	20000	F603_51.8 S4 M4LB4	448	F603_51.8 P132 BN132MB4	449
29.4	2779	1.8	49.0	32800	F703_49.0 S4 M4LB4	452	F703_49.0 P132 BN132MB4	453
30.0	2716	1.1	47.8	20000	F603_47.8 S4 M4LB4	448	F603_47.8 P132 BN132MB4	449
32	2566	1.9	45.2	32300	F703_45.2 S4 M4LB4	452	F703_45.2 P132 BN132MB4	453
34	2389	1.2	42.1	20000	F603_42.1 S4 M4LB4	448	F603_42.1 P132 BN132MB4	449
37	2205	1.3	38.8	20000	F603_38.8 S4 M4LB4	448	F603_38.8 P132 BN132MB4	449
45	1821	1.6	32.1	20000	F603_32.1 S4 M4LB4	448	F603_32.1 P132 BN132MB4	449
48	1742	1.0	30.0	8210	F512_30.0 S4 M4LB4	444	F512_30.0 P132 BN132MB4	445
49	1681	1.7	29.6	20000	F603_29.6 S4 M4LB4	448	F603_29.6 P132 BN132MB4	449
57	1443	1.3	25.4	20000	F603_25.4 S4 M4LB4	448	F603_25.4 P132 BN132MB4	449
59	1394	2.9	24.6	28300	F703_24.6 S4 M4LB4	452	F703_24.6 P132 BN132MB4	453
61	1380	1.2	23.8	8170	F512_23.8 S4 M4LB4	444	F512_23.8 P132 BN132MB4	445
61	1332	1.4	23.5	20000	F603_23.5 S4 M4LB4	448	F603_23.5 P132 BN132MB4	449
64	1283	3.4	22.6	27800	F703_22.6 S4 M4LB4	452	F703_22.6 P132 BN132MB4	453
69	1185	3.4	20.9	27200	F703_20.9 S4 M4LB4	452	F703_20.9 P132 BN132MB4	453
70	1173	1.6	20.7	20000	F603_20.7 S4 M4LB4	448	F603_20.7 P132 BN132MB4	449
76	1096	1.0	18.9	4920	F412_18.9 S4 M4LB4	440	F412_18.9 P132 BN132MB4	441
76	1083	1.8	19.1	20000	F603_19.1 S4 M4LB4	448	F603_19.1 P132 BN132MB4	449
77	1092	1.4	18.8	8020	F512_18.8 S4 M4LB4	444	F512_18.8 P132 BN132MB4	445
84	993	1.1	17.1	5000	F412_17.1 S4 M4LB4	440	F412_17.1 P132 BN132MB4	441
92	890	2.1	15.7	20000	F603_15.7 S4 M4LB4	448	F603_15.7 P132 BN132MB4	449
98	848	1.2	14.6	5070	F412_14.6 S4 M4LB4	440	F412_14.6 P132 BN132MB4	441
99	822	2.3	14.5	20000	F603_14.5 S4 M4LB4	448	F603_14.5 P132 BN132MB4	449
103	811	1.8	14.0	7700	F512_14.0 S4 M4LB4	444	F512_14.0 P132 BN132MB4	445
113	723	2.6	12.7	19700	F603_12.7 S4 M4LB4	448	F603_12.7 P132 BN132MB4	449
123	667	2.8	11.8	19300	F603_11.8 S4 M4LB4	448	F603_11.8 P132 BN132MB4	449
130	644	2.1	11.1	7400	F512_11.1 S4 M4LB4	444	F512_11.1 P132 BN132MB4	445
134	625	1.4	10.8	5080	F412_10.8 S4 M4LB4	440	F412_10.8 P132 BN132MB4	441
148	551	3.4	9.7	18400	F603_9.7 S4 M4LB4	448	F603_9.7 P132 BN132MB4	449
158	530	1.3	9.1	5080	F412_9.1 S4 M4LB4	440	F412_9.1 P132 BN132MB4	441
159	525	2.1	9.1	7040	F512_9.1 S4 M4LB4	444	F512_9.1 P132 BN132MB4	445
200	417	2.3	7.2	6700	F512_7.2 S4 M4LB4	444	F512_7.2 P132 BN132MB4	445
214	390	1.6	6.7	4890	F412_6.7 S4 M4LB4	440	F412_6.7 P132 BN132MB4	441



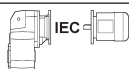





## 9.2 kW



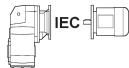

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>264</b>	317	3.4	11.1	6340	<b>F512_11.1 S4 M4LA2</b>	444	<b>F512_11.1 P132 BN132M2</b>	445
<b>272</b>	307	2.4	10.8	4680	<b>F412_10.8 S4 M4LA2</b>	440	<b>F412_10.8 P132 BN132M2</b>	441
<b>321</b>	260	2.3	9.1	4560	<b>F412_9.1 S4 M4LA2</b>	440	<b>F412_9.1 P132 BN132M2</b>	441
<b>324</b>	258	3.5	9.1	5980	<b>F512_9.1 S4 M4LA2</b>	444	<b>F512_9.1 P132 BN132M2</b>	445
<b>436</b>	192	2.7	6.7	4270	<b>F412_6.7 S4 M4LA2</b>	440	<b>F412_6.7 P132 BN132M2</b>	441

## 11 kW



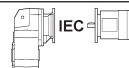

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>6.2</b>	15369	0.9	231.4	55000	<b>F904_231.4 S4 M4LC4</b>	458	<b>F904_231.4 P160 BN160MR4</b>	459
<b>6.7</b>	14187	1.0	213.6	55000	<b>F904_213.6 S4 M4LC4</b>	458	<b>F904_213.6 P160 BN160MR4</b>	459
<b>7.4</b>	13179	1.1	194.2	55000	<b>F903_194.2 S4 M4LC4</b>	458	<b>F903_194.2 P160 BN160MR4</b>	459
<b>8.0</b>	12165	1.2	179.2	55000	<b>F903_179.2 S4 M4LC4</b>	458	<b>F903_179.2 P160 BN160MR4</b>	459
<b>8.8</b>	11053	1.3	162.8	55000	<b>F903_162.8 S4 M4LC4</b>	458	<b>F903_162.8 P160 BN160MR4</b>	459
<b>9.6</b>	10203	1.4	150.3	55000	<b>F903_150.3 S4 M4LC4</b>	458	<b>F903_150.3 P160 BN160MR4</b>	459
<b>10.5</b>	9323	1.5	137.3	55000	<b>F903_137.3 S4 M4LC4</b>	458	<b>F903_137.3 P160 BN160MR4</b>	459
<b>11.4</b>	8606	1.6	126.8	55000	<b>F903_126.8 S4 M4LC4</b>	458	<b>F903_126.8 P160 BN160MR4</b>	459
<b>11.8</b>	8314	1.0	122.5	45000	<b>F803_122.5 S4 M4LC4</b>	455	<b>F803_122.5 P160 BN160MR4</b>	456
<b>12.7</b>	7721	1.0	113.8	45000	<b>F803_113.8 S4 M4LC4</b>	455	<b>F803_113.8 P160 BN160MR4</b>	456
<b>12.9</b>	7599	1.8	111.9	55000	<b>F903_111.9 S4 M4LC4</b>	458	<b>F903_111.9 P160 BN160MR4</b>	459
<b>13.9</b>	7014	2.0	103.3	55000	<b>F903_103.3 S4 M4LC4</b>	458	<b>F903_103.3 P160 BN160MR4</b>	459
<b>15.0</b>	6500	2.2	95.8	55000	<b>F903_95.8 S4 M4LC4</b>	458	<b>F903_95.8 P160 BN160MR4</b>	459
<b>15.6</b>	6266	1.3	92.3	44100	<b>F803_92.3 S4 M4LC4</b>	455	<b>F803_92.3 P160 BN160MR4</b>	456
<b>16.3</b>	6000	2.3	88.4	55000	<b>F903_88.4 S4 M4LC4</b>	458	<b>F903_88.4 P160 BN160MR4</b>	459
<b>16.9</b>	5784	1.4	85.2	44000	<b>F803_85.2 S4 M4LC4</b>	455	<b>F803_85.2 P160 BN160MR4</b>	456
<b>18.8</b>	5203	2.7	76.7	55000	<b>F903_76.7 S4 M4LC4</b>	458	<b>F903_76.7 P160 BN160MR4</b>	459
<b>18.9</b>	5176	1.5	76.3	42800	<b>F803_76.3 S4 M4LC4</b>	455	<b>F803_76.3 P160 BN160MR4</b>	456
<b>19.6</b>	4993	1.0	73.6	33500	<b>F703_73.6 S4 M4LC4</b>	452	<b>F703_73.6 P160 BN160MR4</b>	453
<b>20.4</b>	4803	2.9	70.8	55000	<b>F903_70.8 S4 M4LC4</b>	458	<b>F903_70.8 P160 BN160MR4</b>	459
<b>20.5</b>	4778	1.7	70.4	42500	<b>F803_70.4 S4 M4LC4</b>	455	<b>F803_70.4 P160 BN160MR4</b>	456
<b>21.2</b>	4609	1.1	67.9	33100	<b>F703_67.9 S4 M4LC4</b>	452	<b>F703_67.9 P160 BN160MR4</b>	453
<b>23.0</b>	4243	1.2	62.5	32900	<b>F703_62.5 S4 M4LC4</b>	452	<b>F703_62.5 P160 BN160MR4</b>	453
<b>23.2</b>	4215	3.3	62.1	55000			<b>F903_62.1 P160 BN160MR4</b>	459
<b>23.4</b>	4172	1.9	61.5	41100	<b>F803_61.5 S4 M4LC4</b>	455	<b>F803_61.5 P160 BN160MR4</b>	456
<b>25.0</b>	3916	1.3	57.7	32500	<b>F703_57.7 S4 M4LC4</b>	452	<b>F703_57.7 P160 BN160MR4</b>	453
<b>25.4</b>	3851	2.1	56.7	40800	<b>F803_56.7 S4 M4LC4</b>	455	<b>F803_56.7 P160 BN160MR4</b>	456
<b>29.3</b>	3333	2.4	49.1	39300			<b>F803_49.1 P160 BN160MR4</b>	456
<b>29.4</b>	3323	1.5	49.0	31800	<b>F703_49.0 S4 M4LC4</b>	452	<b>F703_49.0 P160 BN160MR4</b>	453
<b>32</b>	3068	1.6	45.2	31300	<b>F703_45.2 S4 M4LC4</b>	452	<b>F703_45.2 P160 BN160MR4</b>	453
<b>32</b>	3077	2.6	45.3	38900			<b>F803_45.3 P160 BN160MR4</b>	456
<b>34</b>	2857	1.0	42.1	20000	<b>F603_42.1 S4 M4LC4</b>	448	<b>F603_42.1 P160 BN160MR4</b>	449
<b>37</b>	2637	1.1	38.8	20000	<b>F603_38.8 S4 M4LC4</b>	448	<b>F603_38.8 P160 BN160MR4</b>	449
<b>38</b>	2606	1.9	38.4	30500			<b>F703_38.4 P160 BN160MR4</b>	453
<b>41</b>	2406	2.1	35.4	30000			<b>F703_35.4 P160 BN160MR4</b>	453
<b>45</b>	2178	1.3	32.1	20000	<b>F603_32.1 S4 M4LC4</b>	448	<b>F603_32.1 P160 BN160MR4</b>	449
<b>49</b>	2010	1.4	29.6	20000	<b>F603_29.6 S4 M4LC4</b>	448	<b>F603_29.6 P160 BN160MR4</b>	449
<b>52</b>	1880	2.5	27.7	28500			<b>F703_27.7 P160 BN160MR4</b>	453
<b>57</b>	1725	1.1	25.4	20000	<b>F603_25.4 S4 M4LC4</b>	448	<b>F603_25.4 P160 BN160MR4</b>	449



## 11 kW





$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
59	1667	2.4	24.6	27800	F703_24.6 S4 M4LC4	452	F703_24.6 P160 BN160MR4	453
61	1650	1.0	23.8	7500	F512_23.8 S4 M4LC4	444	F512_23.8 P160 BN160MR4	445
61	1593	1.2	23.5	20000	F603_23.5 S4 M4LC4	448	F603_23.5 P160 BN160MR4	449
64	1534	2.8	22.6	27300	F703_22.6 S4 M4LC4	452	F703_22.6 P160 BN160MR4	453
69	1416	2.8	20.9	26800	F703_20.9 S4 M4LC4	452	F703_20.9 P160 BN160MR4	453
70	1402	1.4	20.7	20000	F603_20.7 S4 M4LC4	448	F603_20.7 P160 BN160MR4	449
76	1294	1.5	19.1	20000	F603_19.1 S4 M4LC4	448	F603_19.1 P160 BN160MR4	449
77	1305	1.2	18.8	7490	F512_18.8 S4 M4LC4	444	F512_18.8 P160 BN160MR4	445
92	1064	1.8	15.7	20000	F603_15.7 S4 M4LC4	448	F603_15.7 P160 BN160MR4	449
98	1014	1.0	14.6	4490	F412_14.6 S4 M4LC4	440		
99	982	1.9	14.5	20000	F603_14.5 S4 M4LC4	448	F603_14.5 P160 BN160MR4	449
103	969	1.5	14.0	7310	F512_14.0 S4 M4LC4	444	F512_14.0 P160 BN160MR4	445
113	864	2.2	12.7	19400	F603_12.7 S4 M4LC4	448	F603_12.7 P160 BN160MR4	449
123	798	2.4	11.8	19000	F603_11.8 S4 M4LC4	448	F603_11.8 P160 BN160MR4	449
130	770	1.7	11.1	7090	F512_11.1 S4 M4LC4	444	F512_11.1 P160 BN160MR4	445
134	747	1.2	10.8	4650	F412_10.8 S4 M4LC4	440		
148	659	2.9	9.7	18200	F603_9.7 S4 M4LC4	448	F603_9.7 P160 BN160MR4	449
158	633	1.1	9.1	4720	F412_9.1 S4 M4LC4	440		
159	628	1.8	9.1	6770	F512_9.1 S4 M4LC4	444	F512_9.1 P160 BN160MR4	445
161	608	3.1	9.0	17800	F603_9.0 S4 M4LC4	448	F603_9.0 P160 BN160MR4	449
200	499	2.0	7.2	6490	F512_7.2 S4 M4LC4	444	F512_7.2 P160 BN160MR4	445
214	466	1.4	6.7	4630	F412_6.7 S4 M4LC4	440		
263	380	2.8	11.1	6170	F512_11.1 S4 M4LC2	444	F512_11.1 P160 BN160MR2	445
271	368	2.0	10.8	4460	F412_10.8 S4 M4LC2	440		
320	312	2.0	9.1	4380	F412_9.1 S4 M4LC2	440		
323	310	2.9	9.1	5840	F512_9.1 S4 M4LC2	444	F512_9.1 P160 BN160MR2	445
406	246	3.2	7.2	5510	F512_7.2 S4 M4LC2	444	F512_7.2 P160 BN160MR2	445
434	230	2.3	6.7	4130	F412_6.7 S4 M4LC2	440		

## 15 kW





$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
8.1	16362	0.9	179.2	55000	F903_179.2 S5 M5SB4	458	F903_179.2 P160 BN160L4	459
9.0	14866	0.9	162.8	55000	F903_162.8 S5 M5SB4	458	F903_162.8 P160 BN160L4	459
9.7	13722	1.0	150.3	55000	F903_150.3 S5 M5SB4	458	F903_150.3 P160 BN160L4	459
10.6	12539	1.1	137.3	55000	F903_137.3 S5 M5SB4	458	F903_137.3 P160 BN160L4	459
11.5	11574	1.2	126.8	55000	F903_126.8 S5 M5SB4	458	F903_126.8 P160 BN160L4	459
13.0	10220	1.4	111.9	55000	F903_111.9 S5 M5SB4	458	F903_111.9 P160 BN160L4	459
14.1	9434	1.5	103.3	55000	F903_103.3 S5 M5SB4	458	F903_103.3 P160 BN160L4	459
15.2	8743	1.6	95.8	55000	F903_95.8 S5 M5SB4	458	F903_95.8 P160 BN160L4	459
15.8	8427	0.9	92.3	41300	F803_92.3 S5 M5SB4	455	F803_92.3 P160 BN160L4	456
16.5	8070	1.7	88.4	55000	F903_88.4 S5 M5SB4	458	F903_88.4 P160 BN160L4	459
17.1	7779	1.0	85.2	40800	F803_85.2 S5 M5SB4	455	F803_85.2 P160 BN160L4	456
19.0	6998	2.0	76.7	55000	F903_76.7 S5 M5SB4	458	F903_76.7 P160 BN160L4	459
19.1	6961	1.1	76.3	40500	F803_76.3 S5 M5SB4	455	F803_76.3 P160 BN160L4	456
20.6	6460	2.2	70.8	55000	F903_70.8 S5 M5SB4	458	F903_70.8 P160 BN160L4	459
20.7	6426	1.2	70.4	39900	F803_70.4 S5 M5SB4	455	F803_70.4 P160 BN160L4	456
23.5	5669	2.5	62.1	55000			F903_62.1 P160 BN160L4	459



## 15 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
23.8	5611	1.4	61.5	38700	F803_61.5 S5 M5SB4	455	F803_61.5 P160 BN160L4	456
25.3	5267	0.9	57.7	29700	F703_57.7 S5 M5SB4	452	F703_57.7 P160 BN160L4	453
25.5	5233	2.7	57.3	55000			F903_57.3 P160 BN160L4	459
25.7	5179	1.5	56.7	38600	F803_56.7 S5 M5SB4	455	F803_56.7 P160 BN160L4	456
29.7	4483	1.8	49.1	37800			F803_49.1 P160 BN160L4	456
29.8	4470	1.1	49.0	29400	F703_49.0 S5 M5SB4	452	F703_49.0 P160 BN160L4	453
32	4126	1.2	45.2	29100	F703_45.2 S5 M5SB4	452	F703_45.2 P160 BN160L4	453
32	4138	1.9	45.3	37200			F803_45.3 P160 BN160L4	456
38	3505	1.4	38.4	28600			F703_38.4 P160 BN160L4	453
41	3235	1.5	35.4	28200			F703_35.4 P160 BN160L4	453
46	2929	1.0	32.1	20000	F603_32.1 S5 M5SB4	448	F603_32.1 P160 BN160L4	449
49	2704	1.1	29.6	20000	F603_29.6 S5 M5SB4	448	F603_29.6 P160 BN160L4	449
53	2528	1.8	27.7	27100			F703_27.7 P160 BN160L4	453
58	2303	2.7	25.2	32900	F803_25.2 S5 M5SB4	455	F803_25.2 P160 BN160L4	456
59	2242	1.8	24.6	26500	F703_24.6 S5 M5SB4	452	F703_24.6 P160 BN160L4	453
65	2064	2.1	22.6	26200	F703_22.6 S5 M5SB4	452	F703_22.6 P160 BN160L4	453
66	2011	3.4	22.0	31900	F803_22.0 S5 M5SB4	455	F803_22.0 P160 BN160L4	456
70	1905	2.1	20.9	25700	F703_20.9 S5 M5SB4	452	F703_20.9 P160 BN160L4	453
71	1886	1.0	20.7	20000	F603_20.7 S5 M5SB4	448	F603_20.7 P160 BN160L4	449
72	1856	3.4	20.3	31300	F803_20.3 S5 M5SB4	455	F803_20.3 P160 BN160L4	456
77	1741	1.1	19.1	20000	F603_19.1 S5 M5SB4	448	F603_19.1 P160 BN160L4	449
82	1617	2.7	17.7	24900	F703_17.7 S5 M5SB4	452	F703_17.7 P160 BN160L4	453
89	1492	2.7	16.3	24400	F703_16.3 S5 M5SB4	452	F703_16.3 P160 BN160L4	453
93	1432	1.3	15.7	19600	F603_15.7 S5 M5SB4	448	F603_15.7 P160 BN160L4	449
101	1321	1.4	14.5	19200	F603_14.5 S5 M5SB4	448	F603_14.5 P160 BN160L4	449
105	1268	3.1	13.9	23600	F703_13.9 S5 M5SB4	452	F703_13.9 P160 BN160L4	453
114	1170	3.1	12.8	23100	F703_12.8 S5 M5SB4	452	F703_12.8 P160 BN160L4	453
115	1162	1.6	12.7	18800	F603_12.7 S5 M5SB4	448	F603_12.7 P160 BN160L4	449
124	1073	1.8	11.8	18400	F603_11.8 S5 M5SB4	448	F603_11.8 P160 BN160L4	449
135	991	3.5	10.9	22300	F703_10.9 S5 M5SB4	452	F703_10.9 P160 BN160L4	453
146	914	3.5	10.0	21800	F703_10.0 S5 M5SB4	452	F703_10.0 P160 BN160L4	453
150	886	2.1	9.7	17700	F603_9.7 S5 M5SB4	448	F603_9.7 P160 BN160L4	449
163	818	2.3	9.0	17300	F603_9.0 S5 M5SB4	448	F603_9.0 P160 BN160L4	449



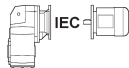

## 18.5 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
10.6	15456	0.9	137.3	55000	F903_137.3 S5 M5LA4	458	F903_137.3 P180 BN180M4	459
11.5	14267	1.0	126.8	55000	F903_126.8 S5 M5LA4	458	F903_126.8 P180 BN180M4	459
13.0	12598	1.1	111.9	55000	F903_111.9 S5 M5LA4	458	F903_111.9 P180 BN180M4	459
14.1	11629	1.2	103.3	55000	F903_103.3 S5 M5LA4	458	F903_103.3 P180 BN180M4	459
15.2	10777	1.3	95.8	55000	F903_95.8 S5 M5LA4	458	F903_95.8 P180 BN180M4	459
16.5	9948	1.4	88.4	55000	F903_88.4 S5 M5LA4	458	F903_88.4 P180 BN180M4	459
19.0	8626	1.6	76.7	55000	F903_76.7 S5 M5LA4	458	F903_76.7 P180 BN180M4	459
19.1	8581	0.9	76.3	38100	F803_76.3 S5 M5LA4	455	F803_76.3 P180 BN180M4	456
20.6	7963	1.8	70.8	55000	F903_70.8 S5 M5LA4	458	F903_70.8 P180 BN180M4	459
20.7	7921	1.0	70.4	37600	F803_70.4 S5 M5LA4	455	F803_70.4 P180 BN180M4	456
23.5	6989	2.0	62.1	55000			F903_62.1 P180 BN180M4	459









## 18.5 kW



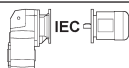

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
23.8	6916	1.1	61.5	37400	F803_61.5 S5 M5LA4	455	F803_61.5 P180 BN180M4	456
25.5	6451	2.2	57.3	55000			F903_57.3 P180 BN180M4	459
25.7	6384	1.3	56.7	36800	F803_56.7 S5 M5LA4	455	F803_56.7 P180 BN180M4	456
29.3	5615	2.5	49.9	55000			F903_49.9 P180 BN180M4	459
29.7	5526	1.4	49.1	35800	F703_49.0 S5 M5LA4	452	F803_49.1 P180 BN180M4	456
29.8	5510	0.9	49.0	27400			F703_49.0 P180 BN180M4	453
32	5183	2.7	46.1	55000			F903_46.1 P180 BN180M4	459
32	5101	1.6	45.3	35700			F803_45.3 P180 BN180M4	456
32	5086	1.0	45.2	27200			F703_45.2 P180 BN180M4	453
36	4558	3.1	40.5	53700			F903_40.5 P180 BN180M4	459
37	4389	1.8	39.0	35000			F803_39.0 P180 BN180M4	456
38	4321	1.2	38.4	27000			F703_38.4 P180 BN180M4	453
39	4207	3.2	37.4	52700			F903_37.4 P180 BN180M4	459
41	4051	2.0	36.0	34400			F803_36.0 P180 BN180M4	456
41	3988	1.3	35.4	26700			F703_35.4 P180 BN180M4	453
47	3517	2.3	31.3	33600			F803_31.3 P180 BN180M4	456
49	3376	1.5	30.0	26300			F703_30.0 P180 BN180M4	453
51	3246	2.5	28.8	33000			F803_28.8 P180 BN180M4	456
53	3116	1.5	27.7	26000			F703_27.7 P180 BN180M4	453
58	2839	2.2	25.2	32100	F803_25.2 S5 M5LA4	455	F803_25.2 P180 BN180M4	456
59	2764	1.4	24.6	25500	F703_24.6 S5 M5LA4	452	F703_24.6 P180 BN180M4	453
65	2544	1.7	22.6	25200	F703_22.6 S5 M5LA4	452	F703_22.6 P180 BN180M4	453
66	2479	2.7	22.0	31300	F803_22.0 S5 M5LA4	455	F803_22.0 P180 BN180M4	456
70	2348	1.7	20.9	24900	F703_20.9 S5 M5LA4	452	F703_20.9 P180 BN180M4	453
72	2288	2.7	20.3	30600	F803_20.3 S5 M5LA4	455	F803_20.3 P180 BN180M4	456
82	1993	2.2	17.7	24200	F703_17.7 S5 M5LA4	452	F703_17.7 P180 BN180M4	453
83	1981	3.4	17.6	29700	F803_17.6 S5 M5LA4	455	F803_17.6 P180 BN180M4	456
89	1839	2.2	16.3	23800	F703_16.3 S5 M5LA4	452	F703_16.3 P180 BN180M4	453
90	1828	3.4	16.2	29100	F803_16.2 S5 M5LA4	455	F803_16.2 P180 BN180M4	456
93	1765	1.1	15.7	18700	F603_15.7 S5 M5LA4	448	F603_15.7 P180 BN180M4	449
101	1629	1.2	14.5	18600	F603_14.5 S5 M5LA4	448	F603_14.5 P180 BN180M4	449
105	1563	2.5	13.9	23000	F703_13.9 S5 M5LA4	452	F703_13.9 P180 BN180M4	453
114	1442	2.5	12.8	22600	F703_12.8 S5 M5LA4	452	F703_12.8 P180 BN180M4	453
115	1433	1.3	12.7	18300	F603_12.7 S5 M5LA4	448	F603_12.7 P180 BN180M4	449
124	1323	1.4	11.8	17900	F603_11.8 S5 M5LA4	448	F603_11.8 P180 BN180M4	449
135	1221	2.8	10.9	21800	F703_10.9 S5 M5LA4	452	F703_10.9 P180 BN180M4	453
146	1127	2.8	10.0	21400	F703_10.0 S5 M5LA4	452	F703_10.0 P180 BN180M4	453
150	1092	1.7	9.7	17300	F603_9.7 S5 M5LA4	448	F603_9.7 P180 BN180M4	449
163	1008	1.9	9.0	16900	F603_9.0 S5 M5LA4	448	F603_9.0 P180 BN180M4	449

## 22 kW



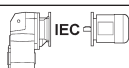

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
13.1	14880	0.9	111.9	55000			F903_111.9 P180 BN180L4	459
14.2	13735	1.0	103.3	55000			F903_103.3 P180 BN180L4	459
15.4	12728	1.1	95.8	55000			F903_95.8 P180 BN180L4	459
16.6	11749	1.2	88.4	55000			F903_88.4 P180 BN180L4	459
19.2	10188	1.4	76.7	55000			F903_76.7 P180 BN180L4	459

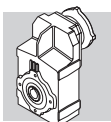


## 22 kW



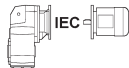

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
20.8	9405	1.5	70.8	55000			F903_70.8 P180 BN180L4	459
23.7	8254	1.7	62.1	55000			F903_62.1 P180 BN180L4	459
23.9	8169	1.0	61.5	35400			F803_61.5 P180 BN180L4	456
25.6	7619	1.8	57.3	55000			F903_57.3 P180 BN180L4	459
25.9	7541	1.1	56.7	35000			F803_56.7 P180 BN180L4	456
29.5	6632	2.1	49.9	54400			F903_49.9 P180 BN180L4	459
29.9	6527	1.2	49.1	34100			F803_49.1 P180 BN180L4	456
32	6122	2.3	46.1	53500			F903_46.1 P180 BN180L4	459
32	6025	1.3	45.3	34300			F803_45.3 P180 BN180L4	456
36	5383	2.6	40.5	52300			F903_40.5 P180 BN180L4	459
38	5184	1.5	39.0	33300			F803_39.0 P180 BN180L4	456
38	5103	1	38.4	25400			F703_38.4 P180 BN180L4	453
39	4969	2.7	37.4	51400			F903_37.4 P180 BN180L4	459
41	4785	1.7	36.0	33200			F803_36.0 P180 BN180L4	456
41	4711	1.1	35.4	25300			F703_35.4 P180 BN180L4	453
47	4154	1.9	31.3	32600			F803_31.3 P180 BN180L4	456
47	4120	3.2	31.0	49500			F903_31.0 P180 BN180L4	459
49	3988	1.3	30.0	25100			F703_30.0 P180 BN180L4	453
51	3834	2.1	28.8	32000			F803_28.8 P180 BN180L4	456
51	3803	3.2	28.6	48600			F903_28.6 P180 BN180L4	459
53	3681	1.3	27.7	24800			F703_27.7 P180 BN180L4	453
58	3353	1.9	25.2	31300			F803_25.2 P180 BN180L4	456
60	3264	1.2	24.6	24500			F703_24.6 P180 BN180L4	453
65	3005	1.4	22.6	24300			F703_22.6 P180 BN180L4	453
67	2928	2.3	22	30200			F803_22.0 P180 BN180L4	456
70	2773	1.4	20.9	24000			F703_20.9 P180 BN180L4	453
72	2703	2.3	20.3	29900			F803_20.3 P180 BN180L4	456
83	2354	1.8	17.7	23400			F703_17.7 P180 BN180L4	453
84	2339	2.9	17.6	29100			F803_17.6 P180 BN180L4	456
90	2173	1.8	16.3	23100			F703_16.3 P180 BN180L4	453
90	2159	2.9	16.2	28500			F803_16.2 P180 BN180L4	456
106	1846	2.1	13.9	22400			F703_13.9 P180 BN180L4	453
115	1704	2.1	12.8	22100			F703_12.8 P180 BN180L4	453
115	1692	1.1	12.7	17700			F603_12.7 P180 BN180L4	449
125	1562	1.2	11.8	17400			F603_11.8 P180 BN180L4	449
135	1442	2.4	10.9	21400			F703_10.9 P180 BN180L4	453
147	1331	2.4	10.0	21000			F703_10.0 P180 BN180L4	453
151	1290	1.5	9.7	16900			F603_9.7 P180 BN180L4	449
164	1191	1.6	9.0	16500			F603_9.0 P180 BN180L4	449

## 30 kW



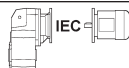

$n_2$ min <sup>-1</sup>	$M_2$ Nm	<b>S</b>	<b>i</b>	$R_{n2}$ N				
16.6	16022	0.9	88.4	52200			F903_88.4 P200 BN200L4	459
19.2	13893	1.0	76.7	52400			F903_76.7 P200 BN200L4	459
20.8	12825	1.1	70.8	52100			F903_70.8 P200 BN200L4	459
23.7	11256	1.2	62.1	51800			F903_62.1 P200 BN200L4	459



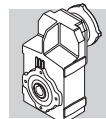
## 30 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
25.6	10390	1.3	57.3	51400			F903_57.3 P200 BN200L4	459
29.5	9044	1.5	49.9	50800			F903_49.9 P200 BN200L4	459
32	8348	1.7	46.1	50200			F903_46.1 P200 BN200L4	459
32	8216	1.0	45.3	30900			F803_45.3 P200 BN200L4	456
36	7341	1.9	40.5	49400			F903_40.5 P200 BN200L4	459
38	7069	1.1	39.0	31000			F803_39.0 P200 BN200L4	456
39	6776	2.0	37.4	48700			F903_37.4 P200 BN200L4	459
41	6525	1.2	36.0	30600			F803_36.0 P200 BN200L4	456
47	5664	1.4	31.3	29900			F803_31.3 P200 BN200L4	456
47	5618	2.3	31.0	47300			F903_31.0 P200 BN200L4	459
49	5438	0.9	30.0	22300			F703_30.0 P200 BN200L4	453
51	5229	1.5	28.8	29500			F803_28.8 P200 BN200L4	456
51	5186	2.3	28.6	46600			F903_28.6 P200 BN200L4	459
53	5019	0.9	27.7	22200			F703_27.7 P200 BN200L4	453
58	4601	2.6	25.4	45500			F903_25.4 P200 BN200L4	459
58	4572	1.2	25.2	29500			F803_25.2 P200 BN200L4	456
66	4039	3.0	22.3	44400			F903_22.3 P200 BN200L4	459
67	3992	1.7	22.0	29000			F803_22.0 P200 BN200L4	456
71	3728	3.0	20.6	43600			F903_20.6 P200 BN200L4	459
72	3685	1.7	20.3	28500			F803_20.3 P200 BN200L4	456
83	3209	1.4	17.7	21800			F703_17.7 P200 BN200L4	453
84	3190	2.1	17.6	27900			F803_17.6 P200 BN200L4	456
90	2963	1.4	16.3	21500			F703_16.3 P200 BN200L4	453
90	2945	2.1	16.2	27400			F803_16.2 P200 BN200L4	456
105	2534	2.7	14.0	26700			F803_14.0 P200 BN200L4	456
106	2517	1.5	13.9	21100			F703_13.9 P200 BN200L4	453
114	2339	2.7	12.9	26200			F803_12.9 P200 BN200L4	456
115	2323	1.5	12.8	20900			F703_12.8 P200 BN200L4	453
135	1967	1.8	10.9	20300			F703_10.9 P200 BN200L4	453
142	1874	3.0	10.3	24900			F803_10.3 P200 BN200L4	456
147	1815	1.8	10.0	20000			F703_10.0 P200 BN200L4	453



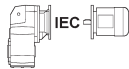

## 37 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
20.9	15710	0.9	70.8	47600			F903_70.8 P225 IEC225S4	459
25.8	12728	1.1	57.3	47700			F903_57.3 P225 IEC225S4	459
29.7	11079	1.3	49.9	47600			F903_49.9 P225 IEC225S4	459
32	10227	1.4	46.1	47200			F903_46.1 P225 IEC225S4	459
37	8993	1.6	40.5	46800			F903_40.5 P225 IEC225S4	459
38	8659	0.9	39.0	28500			F803_39.0 P225 IEC225S4	456
40	8301	1.6	37.4	46300			F903_37.4 P225 IEC225S4	459
41	7993	1.0	36.0	28300			F803_36.0 P225 IEC225S4	456
47	6939	1.2	31.3	28400			F803_31.3 P225 IEC225S4	456
48	6882	1.9	31.0	45300			F903_31.0 P225 IEC225S4	459
51	6405	1.2	28.8	28100			F803_28.8 P225 IEC225S4	456
52	6353	1.9	28.6	44700			F903_28.6 P225 IEC225S4	459
58	5637	2.1	25.4	43900			F903_25.4 P225 IEC225S4	459



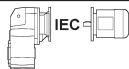

\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.



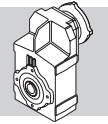
## 37 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
59	5601	1.1	25.2	27800			F803_25.2 P225 IEC225S4	456
66	4947	2.4	22.3	43000			F903_22.3 P225 IEC225S4	459
67	4891	1.1	22.0	27600			F803_22.0 P225 IEC225S4	456
72	4567	2.5	20.6	42300			F903_20.6 P225 IEC225S4	459
73	4515	1.1	20.3	27200			F803_20.3 P225 IEC225S4	456
83	3975	2.8	17.9	41200			F903_17.9 P225 IEC225S4	459
84	3908	1.7	17.6	26800			F803_17.6 P225 IEC225S4	456
90	3669	2.8	16.5	40500			F903_16.5 P225 IEC225S4	459
91	3607	1.7	16.2	26300			F803_16.2 P225 IEC225S4	456
102	3226	3.1	14.5	39500			F903_14.5 P225 IEC225S4	459
106	3104	2.2	14.0	25800			F803_14.0 P225 IEC225S4	456
110	2978	3.1	13.4	38700			F903_13.4 P225 IEC225S4	459
115	2865	2.2	12.9	25300			F803_12.9 P225 IEC225S4	456
132	2487	2.4	11.2	24500			F803_11.2 P225 IEC225S4	456
143	2296	2.4	10.3	24300			F803_10.3 P225 IEC225S4	456





## 45 kW

$n_2$ min <sup>-1</sup>	$M_2$ Nm	S	i	$R_{n2}$ N				
32	12438	1.1	46.1	43900			F903_46.1 P225 IEC225M4	459
37	10937	1.3	40.5	43900			F903_40.5 P225 IEC225M4	459
40	10096	1.3	37.4	43600			F903_37.4 P225 IEC225M4	459
47	8439	0.9	31.3	26100			F803_31.3 P225 IEC225M4	456
48	8370	1.6	31.0	43100			F903_31.0 P225 IEC225M4	459
51	7790	1.0	28.8	26000			F803_28.8 P225 IEC225M4	456
52	7726	1.6	28.6	42600			F903_28.6 P225 IEC225M4	459
58	6855	1.8	25.4	42000			F903_25.4 P225 IEC225M4	459
66	6017	2.0	22.3	41400			F903_22.3 P225 IEC225M4	459
67	5948	1.1	22.0	26000			F803_22.0 P225 IEC225M4	456
72	5554	2.0	20.6	40800			F903_20.6 P225 IEC225M4	459
73	5491	1.1	20.3	25700			F803_20.3 P225 IEC225M4	456
83	4834	2.3	17.9	39900			F903_17.9 P225 IEC225M4	459
84	4753	1.4	17.6	25500			F803_17.6 P225 IEC225M4	456
90	4463	2.3	16.5	39300			F903_16.5 P225 IEC225M4	459
91	4387	1.4	16.2	25200			F803_16.2 P225 IEC225M4	456
102	3924	2.5	14.5	38400			F903_14.5 P225 IEC225M4	459
106	3775	1.8	14.0	24800			F803_14.0 P225 IEC225M4	456
110	3622	2.6	13.4	37800			F903_13.4 P225 IEC225M4	459
115	3484	1.8	12.9	24100			F803_12.9 P225 IEC225M4	456
132	3025	1.5	11.2	24000			F803_11.2 P225 IEC225M4	456
133	3003	2.9	11.1	36400			F903_11.1 P225 IEC225M4	459
143	2792	2.0	10.3	23500			F803_10.3 P225 IEC225M4	456

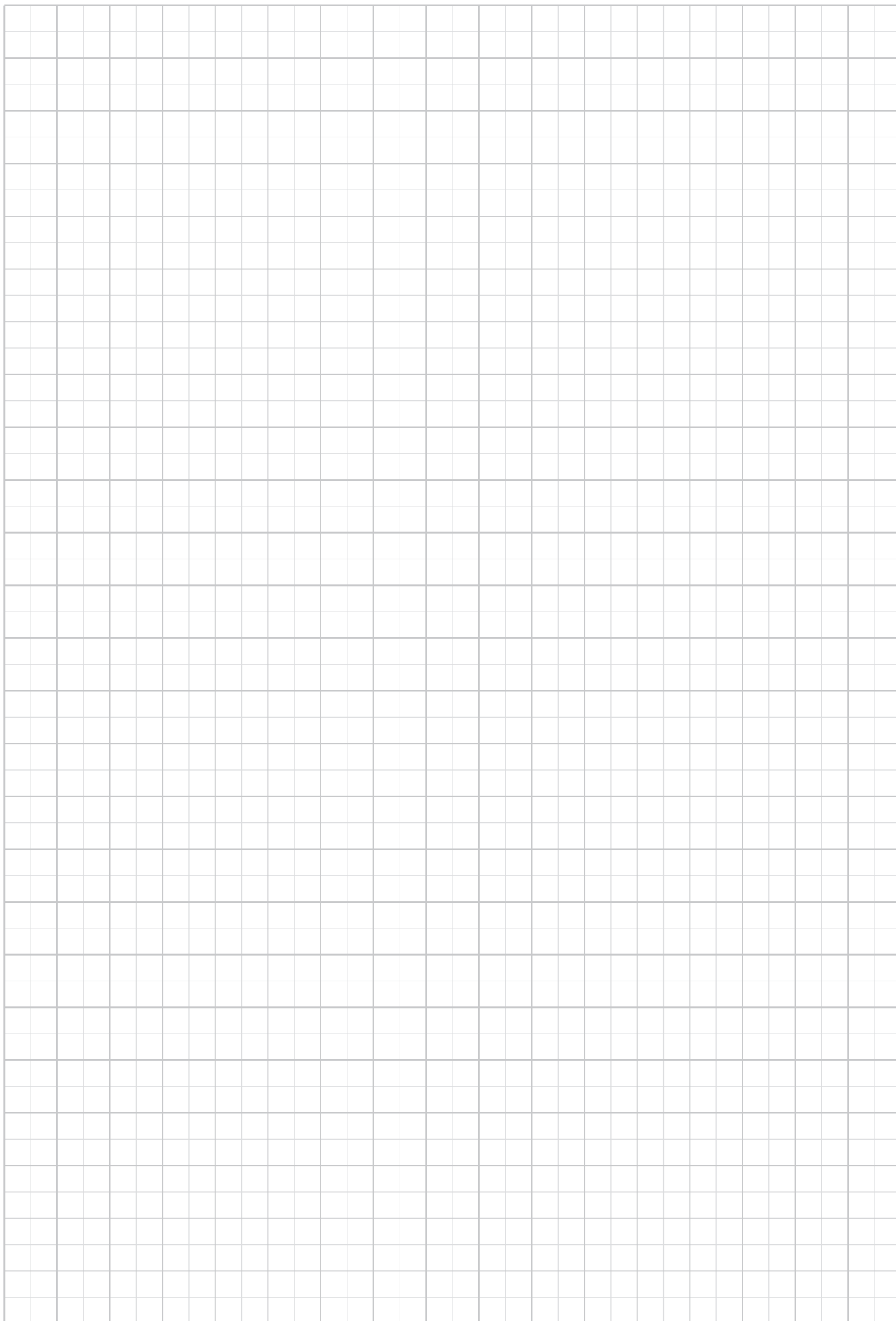
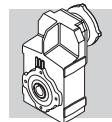
\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.

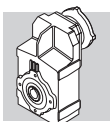


## 55 kW



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>32</b>	15202	0.9	46.1	39700			<b>F903_46.1 P250 IEC250M4</b>	459
<b>37</b>	13367	1.0	40.5	40300			<b>F903_40.5 P250 IEC250M4</b>	459
<b>40</b>	12339	1.1	37.4	40200			<b>F903_37.4 P250 IEC250M4</b>	459
<b>48</b>	10230	1.3	31.0	40300			<b>F903_31.0 P250 IEC250M4</b>	459
<b>52</b>	9443	1.3	28.6	40100			<b>F903_28.6 P250 IEC250M4</b>	459
<b>58</b>	8379	1.4	25.4	39700			<b>F903_25.4 P250 IEC250M4</b>	459
<b>66</b>	7354	1.6	22.3	39400			<b>F903_22.3 P250 IEC250M4</b>	459
<b>72</b>	6788	1.7	20.6	38900			<b>F903_20.6 P250 IEC250M4</b>	459
<b>83</b>	5909	1.9	17.9	38300			<b>F903_17.9 P250 IEC250M4</b>	459
<b>90</b>	5454	1.9	16.5	37800			<b>F903_16.5 P250 IEC250M4</b>	459
<b>102</b>	4796	2.1	14.5	37100			<b>F903_14.5 P250 IEC250M4</b>	459
<b>110</b>	4427	2.1	13.4	36600			<b>F903_13.4 P250 IEC250M4</b>	459
<b>133</b>	3671	2.4	11.1	35400			<b>F903_11.1 P250 IEC250M4</b>	459
<b>144</b>	3388	2.4	10.3	34800			<b>F903_10.3 P250 IEC250M4</b>	459

\*The technical information shall be considered as indicative, the configurations should be matching the data provided by motors manufacturers on rated powers greater than 30 kW.





**F 10** **140 Nm**



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 10 2_7.4</b>	7.4	378	63	2.6	1000	1290	189	76	1.6	1290	1640	417
<b>F 10 2_8.6</b>	8.6	326	67	2.4	980	1350	163	82	1.5	1260	1710	
<b>F 10 2_9.8</b>	9.8	287	73	2.3	980	1410	143	89	1.4	1250	1780	
<b>F 10 2_11.5</b>	11.5	243	78	2.1	950	1480	121	96	1.3	1220	1870	
<b>F 10 2_13.0</b>	13.0	215	85	2.0	940	1530	107	104	1.2	1210	1940	
<b>F 10 2_14.6</b>	14.6	191	94	2.0	1120	1590	96	119	1.3	1300	2000	
<b>F 10 2_17.0</b>	17.0	165	104	1.9	1090	1650	82	128	1.2	1300	2090	
<b>F 10 2_19.3</b>	19.3	145	108	1.7	1100	1730	72	136	1.1	1300	2180	
<b>F 10 2_22.8</b>	22.8	123	119	1.6	1080	1810	61	140	0.95	1300	2310	
<b>F 10 2_25.8</b>	25.8	109	123	1.5	1090	1890	54	140	0.84	1300	2430	
<b>F 10 2_29.6</b>	29.6	94	132	1.4	1060	1970	47	140	0.73	1300	2560	
<b>F 10 2_33.0</b>	33.0	85	137	1.3	1070	2040	42	140	0.65	1300	2670	
<b>F 10 2_35.3</b>	35.3	79	140	1.2	1060	2090	40	140	0.61	1300	2740	
<b>F 10 2_39.6</b>	39.6	71	140	1.1	1080	2190	35	140	0.54	1300	2800	
<b>F 10 2_44.7</b>	44.7	63	140	0.97	1080	2290	31	140	0.48	1300	2800	
<b>F 10 2_48.7</b>	48.7	57	140	0.89	1090	2370	28.7	140	0.44	1300	2800	
<b>F 10 2_56.7</b>	56.7	49	140	0.76	1100	2520	24.7	140	0.38	1300	2800	
<b>F 10 2_63.0</b>	63.0	44	140	0.69	1110	2620	22.2	140	0.34	1300	2800	
<b>F 10 2_71.1</b>	71.1	39	140	0.61	1000	2750	19.7	140	0.30	1300	2800	
<b>F 10 2_81.3</b>	81.3	34	140	0.53	1110	2800	17.2	140	0.27	1300	2800	
<b>F 10 2_91.5</b>	91.5	31	140	0.47	1110	2800	15.3	140	0.24	1300	2800	
<b>F 10 2_106.0</b>	106.0	26.4	140	0.41	1120	2800	13.2	140	0.20	1300	2800	
<b>F 10 2_127.1</b>	127.1	22.0	140	0.34	1130	2800	11.0	140	0.17	1300	2800	







# F 10

# 140 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 10 2_7.4</b>	7.4	122	91	1.2	1300	1890	68	111	0.83	1300	2300	417
<b>F 10 2_8.6</b>	8.6	105	94	1.1	1300	1970	58	112	0.72	1300	2430	
<b>F 10 2_9.8</b>	9.8	92	107	1.1	1300	2050	51	130	0.73	1300	2490	
<b>F 10 2_11.5</b>	11.5	78	110	0.95	1300	2180	43	131	0.63	1300	2660	
<b>F 10 2_13.0</b>	13.0	69	124	0.94	1300	2240	38	140	0.59	1300	2800	
<b>F 10 2_14.6</b>	14.6	61	138	0.93	1300	2320	34	140	0.53	1300	2800	
<b>F 10 2_17.0</b>	17.0	53	140	0.82	1300	2450	29.5	140	0.46	1300	2800	
<b>F 10 2_19.3</b>	19.3	47	140	0.72	1300	2580	25.9	140	0.40	1300	2800	
<b>F 10 2_22.8</b>	22.8	39	140	0.61	1300	2750	21.9	140	0.34	1300	2800	
<b>F 10 2_25.8</b>	25.8	35	140	0.54	1300	2800	19.4	140	0.30	1300	2800	
<b>F 10 2_29.6</b>	29.6	30	140	0.47	1300	2800	16.9	140	0.26	1300	2800	
<b>F 10 2_33.0</b>	33.0	27.3	140	0.42	1300	2800	15.2	140	0.23	1300	2800	
<b>F 10 2_35.3</b>	35.3	25.5	140	0.39	1300	2800	14.1	140	0.22	1300	2800	
<b>F 10 2_39.6</b>	39.6	22.7	140	0.35	1300	2800	12.6	140	0.19	1300	2800	
<b>F 10 2_44.7</b>	44.7	20.1	140	0.31	1300	2800	11.2	140	0.17	1300	2800	
<b>F 10 2_48.7</b>	48.7	18.5	140	0.29	1300	2800	10.3	140	0.16	1300	2800	
<b>F 10 2_56.7</b>	56.7	15.9	140	0.24	1300	2800	8.8	140	0.14	1300	2800	
<b>F 10 2_63.0</b>	63.0	14.3	140	0.22	1300	2800	7.9	140	0.12	1300	2800	
<b>F 10 2_71.1</b>	71.1	12.7	140	0.20	1300	2800	7.0	140	0.11	1300	2800	
<b>F 10 2_81.3</b>	81.3	11.1	140	0.17	1300	2800	6.1	140	0.09	1300	2800	
<b>F 10 2_91.5</b>	91.5	9.8	140	0.15	1300	2800	5.5	140	0.08	1300	2800	
<b>F 10 2_106.0</b>	106.0	8.5	140	0.13	1300	2800	4.7	140	0.07	1300	2800	
<b>F 10 2_127.1</b>	127.1	7.1	140	0.11	1300	2800	3.9	140	0.06	1300	2800	



# F 20 250 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 20 2_6.4	6.4	437	103	5.0	—	1370	218	130	3.1	—	1720	421
F 20 2_7.8	7.8	357	115	4.5	—	1440	179	144	2.8	—	1820	
F 20 2_8.7	8.7	321	123	4.3	—	1490	160	155	2.7	—	1870	
F 20 2_10.0	10.0	279	131	4.0	—	1550	140	165	2.5	—	1950	
F 20 2_11.2	11.2	249	141	3.9	—	1590	125	177	2.4	—	2010	
F 20 2_14.8	14.8	189	166	3.5	760	1740	95	203	2.1	1010	2210	
F 20 2_18.1	18.1	155	175	3.0	750	1870	77	213	1.8	1020	2380	
F 20 2_20.2	20.2	139	182	2.8	810	1940	69	223	1.7	1070	2460	
F 20 2_23.1	23.1	121	190	2.5	770	2030	60	235	1.6	1000	2570	
F 20 2_25.9	25.9	108	196	2.3	830	2110	54	240	1.4	1100	2680	
F 20 2_30.4	30.4	92	205	2.1	780	2230	46	250	1.3	1050	2840	
F 20 2_33.1	33.1	85	210	2.0	800	2300	42	250	1.2	1120	2940	
F 20 2_37.9	37.9	74	220	1.8	740	2400	37	250	1.0	1130	3110	
F 20 2_41.8	41.8	67	225	1.7	780	2490	33	250	0.92	1220	3240	
F 20 2_44.8	44.8	62	235	1.6	690	2540	31	250	0.86	1200	3330	
F 20 2_50.7	50.7	55	238	1.4	780	2660	27.6	250	0.76	1320	3500	
F 20 2_56.7	56.7	49	250	1.4	730	2750	24.7	250	0.68	1360	3660	
F 20 2_61.9	61.9	45	250	1.2	750	2860	22.6	250	0.62	1370	3790	
F 20 2_69.1	69.1	40	250	1.1	760	2990	20.2	250	0.56	1370	3950	
F 20 2_76.8	76.8	36	250	1.0	780	3130	18.2	250	0.50	1380	4000	
F 20 2_90.4	90.4	31	250	0.85	830	3340	15.5	250	0.43	1390	4000	
F 20 2_101.6	101.6	27.5	250	0.76	830	3500	13.8	250	0.38	1390	4000	
F 20 2_114.3	114.3	24.5	250	0.67	850	3670	12.2	250	0.34	1400	4000	
F 20 2_132.2	132.2	21.2	250	0.58	870	3890	10.6	250	0.29	1400	4000	
F 20 3_156.3	156.3	17.9	250	0.50	1170	4000	9.0	250	0.25	1300	4000	
F 20 3_172.6	172.6	16.2	250	0.46	1200	4000	8.1	250	0.23	1300	4000	
F 20 3_184.9	184.9	15.1	250	0.43	1210	4000	7.6	250	0.21	1300	4000	
F 20 3_209.3	209.3	13.4	250	0.38	1240	4000	6.7	250	0.19	1300	4000	
F 20 3_234.0	234.0	12.0	250	0.34	1270	4000	6.0	250	0.17	1300	4000	
F 20 3_255.3	255.3	11.0	250	0.31	1280	4000	5.5	250	0.15	1300	4000	
F 20 3_285.2	285.2	9.8	250	0.28	1300	4000	4.9	250	0.14	1300	4000	
F 20 3_316.9	316.9	8.8	250	0.25	1300	4000	4.4	250	0.12	1300	4000	
F 20 3_372.9	372.9	7.5	250	0.21	1300	4000	3.8	250	0.11	1300	4000	
F 20 3_419.3	419.3	6.7	250	0.19	1300	4000	3.3	250	0.09	1300	4000	
F 20 3_471.7	471.7	5.9	250	0.17	1300	4000	3.0	250	0.08	1300	4000	
F 20 3_545.3	545.3	5.1	250	0.14	1300	4000	2.6	250	0.07	1300	4000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)

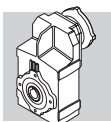


# F 20



# 250 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 20 2_6.4	6.4	140	150	2.3	—	1990	218	183	4.4	—	2420	421
F 20 2_7.8	7.8	115	167	2.1	—	2110	64	189	1.3	—	2610	
F 20 2_8.7	8.7	103	180	2.0	—	2170	57	219	1.4	—	2640	
F 20 2_10.0	10.0	90	191	1.9	—	2260	50	221	1.2	—	2790	
F 20 2_11.2	11.2	80	205	1.8	—	2330	45	250	1.2	—	2830	
F 20 2_14.8	14.8	61	232	1.6	1210	2570	34	250	0.93	1790	3230	
F 20 2_18.1	18.1	50	250	1.4	1150	2740	27.7	250	0.76	1910	3500	
F 20 2_20.2	20.2	45	250	1.2	1320	2870	24.8	250	0.68	1960	3650	
F 20 2_23.1	23.1	39	250	1.1	1350	3040	21.6	250	0.60	1970	3860	
F 20 2_25.9	25.9	35	250	0.96	1500	3190	19.3	250	0.53	2010	4000	
F 20 2_30.4	30.4	29.6	250	0.82	1530	3400	16.5	250	0.45	2020	4000	
F 20 2_33.1	33.1	27.2	250	0.75	1580	3520	15.1	250	0.42	2040	4000	
F 20 2_37.9	37.9	23.8	250	0.65	1590	3720	13.2	250	0.36	2040	4000	
F 20 2_41.8	41.8	21.5	250	0.59	1610	3870	12.0	250	0.33	2070	4000	
F 20 2_44.8	44.8	20.1	250	0.55	1610	3970	11.2	250	0.31	2060	4000	
F 20 2_50.7	50.7	17.7	250	0.49	1640	4000	9.9	250	0.27	2090	4000	
F 20 2_56.7	56.7	15.9	250	0.44	1650	4000	8.8	250	0.24	2110	4000	
F 20 2_61.9	61.9	14.5	250	0.40	1660	4000	8.1	250	0.22	2110	4000	
F 20 2_69.1	69.1	13.0	250	0.36	1660	4000	7.2	250	0.20	2110	4000	
F 20 2_76.8	76.8	11.7	250	0.32	1670	4000	6.5	250	0.18	2120	4000	
F 20 2_90.4	90.4	10.0	250	0.27	1680	4000	5.5	250	0.15	2130	4000	
F 20 2_101.6	101.6	8.9	250	0.24	1680	4000	4.9	250	0.14	2130	4000	
F 20 2_114.3	114.3	7.9	250	0.22	1690	4000	4.4	250	0.12	2140	4000	
F 20 2_132.2	132.2	6.8	250	0.19	1690	4000	3.8	250	0.10	2150	4000	
F 20 3_156.3	156.3	5.8	250	0.16	1300	4000	3.2	250	0.09	1300	4000	
F 20 3_172.6	172.6	5.2	250	0.15	1300	4000	2.9	250	0.08	1300	4000	
F 20 3_184.9	184.9	4.9	250	0.14	1300	4000	2.7	250	0.08	1300	4000	
F 20 3_209.3	209.3	4.3	250	0.12	1300	4000	2.4	250	0.07	1300	4000	
F 20 3_234.0	234.0	3.8	250	0.11	1300	4000	2.1	250	0.06	1300	4000	
F 20 3_255.3	255.3	3.5	250	0.10	1300	4000	2.0	250	0.06	1300	4000	
F 20 3_285.2	285.2	3.2	250	0.09	1300	4000	1.8	250	0.05	1300	4000	
F 20 3_316.9	316.9	2.8	250	0.08	1300	4000	1.6	250	0.04	1300	4000	
F 20 3_372.9	372.9	2.4	250	0.07	1300	4000	1.3	250	0.04	1300	4000	
F 20 3_419.3	419.3	2.1	250	0.06	1300	4000	1.2	250	0.03	1300	4000	
F 20 3_471.7	471.7	1.9	250	0.05	1300	4000	1.1	250	0.03	1300	4000	
F 20 3_545.3	545.3	1.7	250	0.05	1300	4000	0.92	250	0.03	1300	4000	

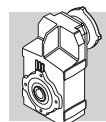
(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# F 25 400 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 25 2_6.9	6.9	408	155	7.0	—	1840	204	195	4.4	—	2320	425
F 25 2_8.4	8.4	334	170	6.3	—	1950	167	215	4.0	—	2450	
F 25 2_9.4	9.4	299	180	5.9	—	2010	150	225	3.7	—	2540	
F 25 2_10.6	10.6	264	240	7.0	—	1850	132	305	4.4	—	2320	
F 25 2_13.0	13.0	216	255	6.1	—	1990	108	320	3.8	—	2510	
F 25 2_14.5	14.5	194	260	5.5	—	2080	97	330	3.5	—	2610	
F 25 2_16.6	16.6	168	270	5.0	—	2190	84	340	3.2	—	2760	
F 25 2_18.6	18.6	150	280	4.6	—	2270	75	350	2.9	—	2870	
F 25 2_21.8	21.8	128	280	4.0	—	2460	64	355	2.5	250	3090	
F 25 2_23.8	23.8	118	285	3.7	250	2540	59	360	2.3	300	3200	
F 25 2_27.2	27.2	103	290	3.3	250	2690	51	365	2.1	320	3400	
F 25 2_30.0	30.0	93	295	3.0	310	2800	47	370	1.9	410	3540	
F 25 2_32.2	32.2	87	295	2.8	310	2900	44	370	1.8	410	3660	
F 25 2_36.4	36.4	77	295	2.5	460	3070	38	370	1.6	600	3880	
F 25 2_40.7	40.7	69	295	2.2	560	3230	34	370	1.4	720	4080	
F 25 2_44.4	44.4	63	295	2.0	720	3360	32	370	1.3	720	4250	
F 25 3_45.6	45.6	61	340	2.4	1440	3100	31	400	1.4	1830	4030	
F 25 3_50.8	50.8	55	350	2.2	1450	3230	27.6	400	1.2	1850	4250	
F 25 3_58.3	58.3	48	365	2.0	1450	3390	24.0	400	1.1	1860	4530	
F 25 3_65.3	65.3	43	375	1.8	1450	3530	21.4	400	0.97	1870	4780	
F 25 3_76.6	76.6	37	395	1.6	1450	3730	18.3	400	0.82	1880	5140	
F 25 3_83.4	83.4	34	400	1.5	1450	3860	16.8	400	0.76	1880	5330	
F 25 3_95.5	95.5	29.3	400	1.3	1460	4130	14.7	400	0.66	1890	5660	
F 25 3_105.4	105.4	26.6	400	1.2	1470	4320	13.3	400	0.60	1890	5910	
F 25 3_113.0	113.0	24.8	400	1.1	1470	4470	12.4	400	0.56	1890	6090	
F 25 3_127.8	127.8	21.9	400	0.99	1480	4730	11.0	400	0.49	1900	6430	
F 25 3_143.0	143.0	19.6	400	0.88	1480	4980	9.8	400	0.44	1910	6500	
F 25 3_155.9	155.9	18.0	400	0.81	1480	5180	9.0	400	0.40	1910	6500	
F 25 3_174.2	174.2	16.1	400	0.72	1490	5440	8.0	400	0.36	1910	6500	
F 25 3_193.6	193.6	14.5	400	0.65	1490	5700	7.2	400	0.33	1910	6500	
F 25 3_227.8	227.8	12.3	400	0.55	1490	6120	6.1	400	0.28	1920	6500	
F 25 3_256.1	256.1	10.9	400	0.49	1490	6430	5.5	400	0.25	1920	6500	
F 25 3_288.1	288.1	9.7	400	0.44	1490	6500	4.9	400	0.22	1920	6500	
F 25 3_333.1	333.1	8.4	400	0.38	1500	6500	4.2	400	0.19	1930	6500	
F 25 4_393.9	393.9	7.1	400	0.33	1270	6500	3.6	400	0.17	1300	6500	
F 25 4_434.9	434.9	6.4	400	0.30	1290	6500	3.2	400	0.15	1300	6500	
F 25 4_466.0	466.0	6.0	400	0.28	1300	6500	3.0	400	0.14	1300	6500	
F 25 4_527.3	527.3	5.3	400	0.25	1300	6500	2.7	400	0.12	1300	6500	
F 25 4_589.7	589.7	4.7	400	0.22	1300	6500	2.4	400	0.11	1300	6500	
F 25 4_643.3	643.3	4.4	400	0.20	1300	6500	2.2	400	0.10	1300	6500	
F 25 4_718.7	718.7	3.9	400	0.18	1300	6500	1.9	400	0.09	1300	6500	
F 25 4_798.5	798.5	3.5	400	0.16	1300	6500	1.8	400	0.08	1300	6500	
F 25 4_939.8	939.8	3.0	400	0.14	1300	6500	1.5	400	0.07	1300	6500	
F 25 4_1057	1057	2.7	400	0.12	1300	6500	1.3	400	0.06	1300	6500	
F 25 4_1189	1189	2.4	400	0.11	1300	6500	1.2	400	0.05	1300	6500	
F 25 4_1374	1374	2.0	400	0.09	1300	6500	1.0	400	0.05	1300	6500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)

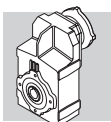


# F 25



# 400 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 25 2_6.9	6.9	131	225	3.2	—	2690	73	255	2.0	370	3350	425
F 25 2_8.4	8.4	107	250	3.0	—	2840	60	260	1.7	590	3630	
F 25 2_9.4	9.4	96	260	2.8	—	2940	53	265	1.6	820	3780	
F 25 2_10.6	10.6	85	355	3.3	—	2680	47	395	2.0	360	3420	
F 25 2_13.0	13.0	69	370	2.8	—	2910	39	400	1.7	620	3750	
F 25 2_14.5	14.5	62	380	2.6	—	3030	35	400	1.5	940	3950	
F 25 2_16.6	16.6	54	395	2.4	—	3190	30	400	1.3	1070	4210	
F 25 2_18.6	18.6	48	400	2.1	300	3350	26.9	400	1.2	1330	4440	
F 25 2_21.8	21.8	41	400	1.8	420	3630	22.9	400	1.0	1450	4770	
F 25 2_23.8	23.8	38	400	1.7	530	3780	21.0	400	0.93	1560	4950	
F 25 2_27.2	27.2	33	400	1.5	610	4030	18.4	400	0.81	1640	5260	
F 25 2_30.0	30.0	30	400	1.3	760	4220	16.6	400	0.73	1790	5490	
F 25 2_32.2	32.2	28.0	400	1.2	760	4360	15.5	400	0.69	1790	5660	
F 25 2_36.4	36.4	24.7	400	1.1	970	4610	13.7	400	0.61	2000	5970	
F 25 2_40.7	40.7	22.1	375	0.91	1330	4950	12.3	375	0.51	2000	6360	
F 25 2_44.4	44.4	20.3	385	0.86	1230	5100	11.3	385	0.48	2000	6500	
F 25 3_45.6	45.6	19.8	400	0.89	2160	4960	11.0	400	0.49	2200	6420	
F 25 3_50.8	50.8	17.7	400	0.80	2180	5210	9.8	400	0.44	2200	6500	
F 25 3_58.3	58.3	15.4	400	0.69	2190	5540	8.6	400	0.39	2200	6500	
F 25 3_65.3	65.3	13.8	400	0.62	2200	5820	7.7	400	0.34	2200	6500	
F 25 3_76.6	76.6	11.8	400	0.53	2200	6240	6.5	400	0.29	2200	6500	
F 25 3_83.4	83.4	10.8	400	0.49	2200	6470	6.0	400	0.27	2200	6500	
F 25 3_95.5	95.5	9.4	400	0.42	2200	6500	5.2	400	0.24	2200	6500	
F 25 3_105.4	105.4	8.5	400	0.38	2200	6500	4.7	400	0.21	2200	6500	
F 25 3_113.0	113.0	8.0	400	0.36	2200	6500	4.4	400	0.20	2200	6500	
F 25 3_127.8	127.8	7.0	400	0.32	2200	6500	3.9	400	0.18	2200	6500	
F 25 3_143.0	143.0	6.3	400	0.28	2200	6500	3.5	400	0.16	2200	6500	
F 25 3_155.9	155.9	5.8	400	0.26	2200	6500	3.2	400	0.14	2200	6500	
F 25 3_174.2	174.2	5.2	400	0.23	2200	6500	2.9	400	0.13	2200	6500	
F 25 3_193.6	193.6	4.6	400	0.21	2200	6500	2.6	400	0.12	2200	6500	
F 25 3_227.8	227.8	4.0	400	0.18	2200	6500	2.2	400	0.10	2200	6500	
F 25 3_256.1	256.1	3.5	400	0.16	2200	6500	2.0	400	0.09	2200	6500	
F 25 3_288.1	288.1	3.1	400	0.14	2200	6500	1.7	400	0.08	2200	6500	
F 25 3_333.1	333.1	2.7	400	0.12	2200	6500	1.5	400	0.07	2200	6500	
F 25 4_393.9	393.9	2.3	400	0.11	1300	6500	1.3	400	0.06	1300	6500	
F 25 4_434.9	434.9	2.1	400	0.10	1300	6500	1.1	400	0.05	1300	6500	
F 25 4_466.0	466.0	1.9	400	0.09	1300	6500	1.1	400	0.05	1300	6500	
F 25 4_527.3	527.3	1.7	400	0.08	1300	6500	0.95	400	0.04	1300	6500	
F 25 4_589.7	589.7	1.5	400	0.07	1300	6500	0.85	400	0.04	1300	6500	
F 25 4_643.3	643.3	1.4	400	0.07	1300	6500	0.78	400	0.04	1300	6500	
F 25 4_718.7	718.7	1.3	400	0.06	1300	6500	0.70	400	0.03	1300	6500	
F 25 4_798.5	798.5	1.1	400	0.05	1300	6500	0.63	400	0.03	1300	6500	
F 25 4_939.8	939.8	0.96	400	0.04	1300	6500	0.53	400	0.02	1300	6500	
F 25 4_1057	1057	0.85	400	0.04	1300	6500	0.47	400	0.02	1300	6500	
F 25 4_1189	1189	0.76	400	0.04	1300	6500	0.42	400	0.02	1300	6500	
F 25 4_1374	1374	0.65	400	0.03	1300	6500	0.36	400	0.02	1300	6500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# F 31 600 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 31 2_6.9	6.9	403	295	13.1	—	2710	201	360	8.0	—	3460	429
F 31 2_8.2	8.2	340	310	11.6	—	2880	170	375	7.0	—	3690	
F 31 2_9.0	9.0	311	310	10.6	—	3000	155	385	6.6	390	3810	
F 31 2_10.7	10.7	261	450	12.9	—	2790	130	525	7.5	500	3670	
F 31 2_12.7	12.7	220	475	11.5	—	2950	110	555	6.7	490	3880	
F 31 2_13.9	13.9	201	475	10.5	290	3100	100	570	6.3	650	4010	
F 31 2_16.8	16.8	167	475	8.7	510	3410	83	595	5.5	680	4310	
F 31 2_18.5	18.5	151	475	7.9	730	3580	76	600	5.0	910	4510	
F 31 2_21.1	21.1	133	475	6.9	830	3830	66	600	4.4	1030	4820	
F 31 2_23.4	23.4	120	475	6.3	1020	4020	60	600	4.0	1270	5060	
F 31 2_27.3	27.3	103	475	5.4	1100	4330	51	600	3.4	1380	5450	
F 31 2_30.1	30.1	93	475	4.9	1270	4540	46	600	3.1	1590	5710	
F 31 2_34.4	34.4	81	475	4.3	1330	4820	41	600	2.7	1660	6070	
F 31 2_37.7	37.7	74	475	3.9	1430	5030	37	600	2.5	1800	6330	
F 31 2_40.4	40.4	69	475	3.6	1440	5190	35	600	2.3	1800	6500	
F 31 2_44.6	44.6	63	475	3.3	1540	5430	31	600	2.1	1930	6500	
F 31 3_47.5	47.5	59	475	3.1	2110	5490	29.4	580	1.9	2200	6500	
F 31 3_52.1	52.1	54	485	2.9	2120	5680	26.9	600	1.8	2200	6500	
F 31 3_62.8	62.8	45	515	2.6	2120	6040	22.3	600	1.5	2200	6500	
F 31 3_69.1	69.1	41	530	2.4	2130	6250	20.3	600	1.4	2200	6500	
F 31 3_78.9	78.9	36	550	2.2	2120	6500	17.8	600	1.2	2200	6500	
F 31 3_87.4	87.4	32	570	2.1	2130	6500	16.0	600	1.1	2200	6500	
F 31 3_101.9	101.9	27.5	595	1.8	2130	6500	13.7	600	0.93	2200	6500	
F 31 3_112.5	112.5	24.9	600	1.7	2130	6500	12.4	600	0.84	2200	6500	
F 31 3_128.4	128.4	21.8	600	1.5	2140	6500	10.9	600	0.74	2200	6500	
F 31 3_140.7	140.7	19.9	600	1.3	2140	6500	9.9	600	0.67	2200	6500	
F 31 3_150.8	150.8	18.6	600	1.3	2140	6500	9.3	600	0.63	2200	6500	
F 31 3_166.8	166.8	16.8	600	1.1	2150	6500	8.4	600	0.57	2200	6500	
F 31 3_185.4	185.4	15.1	600	1.0	2160	6500	7.5	600	0.51	2200	6500	
F 31 3_202.3	202.3	13.8	600	0.94	2160	6500	6.9	600	0.47	2200	6500	
F 31 3_228.2	228.2	12.3	600	0.83	2160	6500	6.1	600	0.41	2200	6500	
F 31 3_253.6	253.6	11.0	600	0.75	2160	6500	5.5	600	0.37	2200	6500	
F 31 3_293.8	293.8	9.5	600	0.64	2170	6500	4.8	600	0.32	2200	6500	
F 31 3_332.8	332.8	8.4	600	0.57	2170	6500	4.2	600	0.28	2200	6500	
F 31 3_374.4	374.4	7.5	600	0.51	2170	6500	3.7	600	0.25	2200	6500	
F 31 4_418.9	418.9	6.7	600	0.47	1230	6500	3.3	600	0.23	1300	6500	
F 31 4_462.6	462.6	6.1	600	0.42	1250	6500	3.0	600	0.21	1300	6500	
F 31 4_527.8	527.8	5.3	600	0.37	1270	6500	2.7	600	0.19	1300	6500	
F 31 4_578.6	578.6	4.8	600	0.34	1290	6500	2.4	600	0.17	1300	6500	
F 31 4_619.9	619.9	4.5	600	0.32	1300	6500	2.3	600	0.16	1300	6500	
F 31 4_685.6	685.6	4.1	600	0.29	1300	6500	2.0	600	0.14	1300	6500	
F 31 4_762.3	762.3	3.7	600	0.26	1300	6500	1.8	600	0.13	1300	6500	
F 31 4_831.6	831.6	3.4	600	0.24	1300	6500	1.7	600	0.12	1300	6500	
F 31 4_938.2	938.2	3.0	600	0.21	1300	6500	1.5	600	0.10	1300	6500	
F 31 4_1042	1042	2.7	600	0.19	1300	6500	1.3	600	0.09	1300	6500	
F 31 4_1208	1208	2.3	600	0.16	1300	6500	1.2	600	0.08	1300	6500	
F 31 4_1368	1368	2.0	600	0.14	1300	6500	1.0	600	0.07	1300	6500	
F 31 4_1539	1539	1.8	600	0.13	1300	6500	0.91	600	0.06	1300	6500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# F 31



# 600 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 31 2_6.9	6.9	130	390	5.6	640	4120	72	390	3.1	2200	5350	429
F 31 2_8.2	8.2	109	390	4.7	990	4450	61	390	2.6	2200	5760	
F 31 2_9.0	9.0	100	390	4.3	1320	4640	55	390	2.4	2200	5980	
F 31 2_10.7	10.7	84	600	5.5	670	4280	47	600	3.1	2200	5710	
F 31 2_12.7	12.7	71	600	4.7	1020	4670	39	600	2.6	2200	6170	
F 31 2_13.9	13.9	65	600	4.3	1350	4880	36	600	2.4	2200	6440	
F 31 2_16.8	16.8	54	600	3.5	1640	5340	29.8	600	2.0	2200	6500	
F 31 2_18.5	18.5	49	600	3.2	1915	5580	27.0	600	1.8	2200	6500	
F 31 2_21.1	21.1	43	600	2.8	2040	5950	23.7	600	1.6	2200	6500	
F 31 2_23.4	23.4	38	600	2.5	2200	6230	21.4	600	1.4	2200	6500	
F 31 2_27.3	27.3	33	600	2.2	2200	6500	18.3	600	1.2	2200	6500	
F 31 2_30.1	30.1	29.9	600	2.0	2200	6500	16.6	600	1.1	2200	6500	
F 31 2_34.4	34.4	26.2	600	1.7	2200	6500	14.6	600	0.96	2200	6500	
F 31 2_37.7	37.7	23.9	600	1.6	2200	6500	13.3	600	0.88	2200	6500	
F 31 2_40.4	40.4	22.3	600	1.5	2200	6500	12.4	600	0.82	2200	6500	
F 31 2_44.6	44.6	20.2	600	1.3	2200	6500	11.2	600	0.74	2200	6500	
F 31 3_47.5	47.5	18.9	600	1.3	2200	6500	10.5	600	0.71	2200	6500	
F 31 3_52.1	52.1	17.3	600	1.2	2200	6500	9.6	600	0.65	2200	6500	
F 31 3_62.8	62.8	14.3	600	0.97	2200	6500	8.0	600	0.54	2200	6500	
F 31 3_69.1	69.1	13.0	600	0.88	2200	6500	7.2	600	0.49	2200	6500	
F 31 3_78.9	78.9	11.4	600	0.77	2200	6500	6.3	600	0.43	2200	6500	
F 31 3_87.4	87.4	10.3	600	0.70	2200	6500	5.7	600	0.39	2200	6500	
F 31 3_101.9	101.9	8.8	600	0.60	2200	6500	4.9	600	0.33	2200	6500	
F 31 3_112.5	112.5	8.0	600	0.54	2200	6500	4.4	600	0.30	2200	6500	
F 31 3_128.4	128.4	7.0	600	0.47	2200	6500	3.9	600	0.26	2200	6500	
F 31 3_140.7	140.7	6.4	600	0.43	2200	6500	3.6	600	0.24	2200	6500	
F 31 3_150.8	150.8	6.0	600	0.40	2200	6500	3.3	600	0.22	2200	6500	
F 31 3_166.8	166.8	5.4	600	0.36	2200	6500	3.0	600	0.20	2200	6500	
F 31 3_185.4	185.4	4.9	600	0.33	2200	6500	2.7	600	0.18	2200	6500	
F 31 3_202.3	202.3	4.4	600	0.30	2200	6500	2.5	600	0.17	2200	6500	
F 31 3_228.2	228.2	3.9	600	0.27	2200	6500	2.2	600	0.15	2200	6500	
F 31 3_253.6	253.6	3.5	600	0.24	2200	6500	2.0	600	0.13	2200	6500	
F 31 3_293.8	293.8	3.1	600	0.21	2200	6500	1.7	600	0.11	2200	6500	
F 31 3_332.8	332.8	2.7	600	0.18	2200	6500	1.5	600	0.10	2200	6500	
F 31 3_374.4	374.4	2.4	600	0.16	2200	6500	1.3	600	0.09	2200	6500	
F 31 4_418.9	418.9	2.1	600	0.15	1300	6500	1.2	600	0.08	1300	6500	
F 31 4_462.6	462.6	1.9	600	0.14	1300	6500	1.1	600	0.08	1300	6500	
F 31 4_527.8	527.8	1.7	600	0.12	1300	6500	0.95	600	0.07	1300	6500	
F 31 4_578.6	578.6	1.6	600	0.11	1300	6500	0.86	600	0.06	1300	6500	
F 31 4_619.9	619.9	1.5	600	0.10	1300	6500	0.81	600	0.06	1300	6500	
F 31 4_685.6	685.6	1.3	600	0.09	1300	6500	0.73	600	0.05	1300	6500	
F 31 4_762.3	762.3	1.2	600	0.08	1300	6500	0.66	600	0.05	1300	6500	
F 31 4_831.6	831.6	1.1	600	0.08	1300	6500	0.60	600	0.04	1300	6500	
F 31 4_938.2	938.2	0.96	600	0.07	1300	6500	0.53	600	0.04	1300	6500	
F 31 4_1042	1042	0.86	600	0.06	1300	6500	0.48	600	0.03	1300	6500	
F 31 4_1208	1208	0.75	600	0.05	1300	6500	0.41	600	0.03	1300	6500	
F 31 4_1368	1368	0.66	600	0.05	1300	6500	0.37	600	0.03	1300	6500	
F 31 4_1539	1539	0.58	600	0.04	1300	6500	0.32	600	0.02	1300	6500	





# F 41 1100 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 41 2_6.7	6.7	416	460	21	—	3410	208	580	13.3	—	4290	431
F 41 2_9.1	9.1	306	515	17.4	—	3750	153	650	11.0	—	4730	
F 41 2_10.8	10.8	260	715	21	—	3310	130	900	12.9	—	4170	
F 41 2_14.6	14.6	191	805	17.0	—	3620	96	1015	10.7	—	4560	
F 41 2_17.1	17.1	164	835	15.1	—	3860	82	1055	9.5	—	4850	
F 41 2_18.9	18.9	148	860	14.0	410	4000	74	1085	8.9	500	5030	
F 41 2_24.1	24.1	116	875	11.2	650	4540	58	1100	7.0	840	5730	
F 41 2_30.1	30.1	93	875	9.0	980	5130	46	1100	5.6	1260	6470	
F 41 2_38.2	38.2	73	875	7.1	1260	5810	37	1100	4.4	1600	7330	
F 41 2_47.9	47.9	58	850	5.5	1680	6600	29.2	1070	3.4	2120	8320	
F 41 3_51.5	51.5	54	880	5.4	3030	6750	27.2	1085	3.3	3500	8500	
F 41 3_60.2	60.2	46	930	4.9	3030	7100	23.2	1100	2.9	3500	8500	
F 41 3_66.5	66.5	42	980	4.6	3030	7280	21.1	1100	2.6	3500	8500	
F 41 3_84.9	84.9	33	1065	4.0	3030	7890	16.5	1100	2.0	3500	8500	
F 41 3_106.0	106.0	26.4	1100	3.3	3040	8500	13.2	1100	1.6	3500	8500	
F 41 3_134.4	134.4	20.8	1100	2.6	3050	8500	10.4	1100	1.3	3500	8500	
F 41 3_168.7	168.7	16.6	1100	2.1	3070	8500	8.3	1100	1.0	3500	8500	
F 41 3_180.7	180.7	15.5	1100	1.9	3070	8500	7.7	1100	0.96	3500	8500	
F 41 3_198.9	198.9	14.1	1100	1.7	3080	8500	7.0	1100	0.87	3500	8500	
F 41 3_220.1	220.1	12.7	1100	1.6	3090	8500	6.4	1100	0.79	3500	8500	
F 41 3_240.1	240.1	11.7	1100	1.4	3090	8500	5.8	1100	0.72	3500	8500	
F 41 3_266.9	266.9	10.5	1100	1.3	3090	8500	5.2	1100	0.65	3500	8500	
F 41 3_296.6	296.6	9.4	1100	1.2	3090	8500	4.7	1100	0.58	3500	8500	
F 41 3_344.8	344.8	8.1	1100	1.0	3100	8500	4.1	1100	0.50	3500	8500	
F 41 4_433.7	433.7	6.5	1100	0.83	1480	8500	3.2	1100	0.41	1910	8500	
F 41 4_549.8	549.8	5.1	1100	0.65	1520	8500	2.5	1100	0.33	1940	8500	
F 41 4_690.1	690.1	4.1	1100	0.52	1540	8500	2.0	1100	0.26	1970	8500	
F 41 4_739.4	739.4	3.8	1100	0.48	1550	8500	1.9	1100	0.24	1980	8500	
F 41 4_813.8	813.8	3.4	1100	0.44	1560	8500	1.7	1100	0.22	1990	8500	
F 41 4_900.5	900.5	3.1	1100	0.40	1570	8500	1.6	1100	0.20	2000	8500	
F 41 4_982.4	982.4	2.9	1100	0.36	1570	8500	1.4	1100	0.18	2000	8500	
F 41 4_1092	1092	2.6	1100	0.33	1580	8500	1.3	1100	0.16	2010	8500	
F 41 4_1213	1213	2.3	1100	0.30	1590	8500	1.2	1100	0.15	2020	8500	
F 41 4_1411	1411	2.0	1100	0.25	1600	8500	1.0	1100	0.13	2020	8500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)

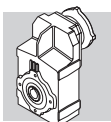


# F 41

# 1100 Nm



	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	$n_2$ min <sup>-1</sup>	$M_{n2}$ Nm	$P_{n1}$ kW	$R_{n1}$ N	$R_{n2}$ N	
F 41 2_6.7	6.7	134	670	9.9	—	4980	74	700	5.7	1760	6450	431
F 41 2_9.1	9.1	99	700	7.6	680	5660	55	700	4.2	2850	7410	
F 41 2_10.8	10.8	84	1025	9.4	480	4900	46	1100	5.6	1950	6480	
F 41 2_14.6	14.6	62	1100	7.5	860	5550	34	1100	4.1	3030	7590	
F 41 2_17.1	17.1	53	1100	6.4	1230	6060	29.2	1100	3.5	3400	8210	
F 41 2_18.9	18.9	48	1100	5.8	1760	6390	26.5	1100	3.2	3500	8500	
F 41 2_24.1	24.1	37	1100	4.5	2210	7260	20.7	1100	2.5	3500	8500	
F 41 2_30.1	30.1	29.9	1100	3.6	2630	8120	16.6	1100	2.0	3500	8500	
F 41 2_38.2	38.2	23.6	1100	2.9	2970	8500	13.1	1100	1.6	3500	8500	
F 41 2_47.9	47.9	18.8	1070	2.2	3490	8500	10.4	1070	1.2	3500	8500	
F 41 3_51.5	51.5	17.5	1100	2.2	3500	8500	9.7	1100	1.2	3500	8500	
F 41 3_60.2	60.2	14.9	1100	1.9	3500	8500	8.3	1100	1.0	3500	8500	
F 41 3_66.5	66.5	13.5	1100	1.7	3500	8500	7.5	1100	0.93	3500	8500	
F 41 3_84.9	84.9	10.6	1100	1.3	3500	8500	5.9	1100	0.73	3500	8500	
F 41 3_106.0	106.0	8.5	1100	1.1	3500	8500	4.7	1100	0.58	3500	8500	
F 41 3_134.4	134.4	6.7	1100	0.83	3500	8500	3.7	1100	0.46	3500	8500	
F 41 3_168.7	168.7	5.3	1100	0.66	3500	8500	3.0	1100	0.37	3500	8500	
F 41 3_180.7	180.7	5.0	1100	0.62	3500	8500	2.8	1100	0.34	3500	8500	
F 41 3_198.9	198.9	4.5	1100	0.56	3500	8500	2.5	1100	0.31	3500	8500	
F 41 3_220.1	220.1	4.1	1100	0.51	3500	8500	2.3	1100	0.28	3500	8500	
F 41 3_240.1	240.1	3.7	1100	0.46	3500	8500	2.1	1100	0.26	3500	8500	
F 41 3_266.9	266.9	3.4	1100	0.42	3500	8500	1.9	1100	0.23	3500	8500	
F 41 3_296.6	296.6	3.0	1100	0.38	3500	8500	1.7	1100	0.21	3500	8500	
F 41 3_344.8	344.8	2.6	1100	0.32	3500	8500	1.5	1100	0.18	3500	8500	
F 41 4_433.7	433.7	2.1	1100	0.27	2200	8500	1.2	1100	0.15	2200	8500	
F 41 4_549.8	549.8	1.6	1100	0.21	2200	8500	0.91	1100	0.12	2200	8500	
F 41 4_690.1	690.1	1.3	1100	0.17	2200	8500	0.72	1100	0.09	2200	8500	
F 41 4_739.4	739.4	1.2	1100	0.16	2200	8500	0.68	1100	0.09	2200	8500	
F 41 4_813.8	813.8	1.1	1100	0.14	2200	8500	0.61	1100	0.08	2200	8500	
F 41 4_900.5	900.5	1.0	1100	0.13	2200	8500	0.56	1100	0.07	2200	8500	
F 41 4_982.4	982.4	0.92	1100	0.12	2200	8500	0.51	1100	0.07	2200	8500	
F 41 4_1092	1092	0.82	1100	0.11	2200	8500	0.46	1100	0.06	2200	8500	
F 41 4_1213	1213	0.74	1100	0.09	2200	8500	0.41	1100	0.05	2200	8500	
F 41 4_1411	1411	0.64	1100	0.08	2200	8500	0.35	1100	0.05	2200	8500	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





# F 51

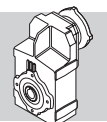
# 1800 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 51 2_7.2	7.2	389	775	33	990	4170	195	975	21	1440	5260	437
F 51 2_9.1	9.1	309	875	30	890	4400	155	1100	18.8	1320	5550	
F 51 2_11.1	11.1	252	1055	29	1460	4530	126	1330	18.5	2010	5700	
F 51 2_14.0	14.0	200	1125	25	1580	4920	100	1420	15.7	2150	6200	
F 51 2_18.8	18.8	149	1225	20	1660	5480	74	1545	12.7	2240	6900	
F 51 2_23.8	23.8	118	1310	17.0	1710	5960	59	1650	10.7	2290	7520	
F 51 2_30.0	30.0	93	1350	13.9	1760	6610	47	1700	8.7	2330	8340	
F 51 2_37.1	37.1	75	1350	11.2	1910	7350	38	1700	7.1	2410	9260	
F 51 3_48.9	48.9	57	1505	9.7	2600	7800	28.6	1800	5.8	3310	10100	
F 51 3_65.8	65.8	43	1650	7.9	2610	8640	21.3	1800	4.3	3380	11600	
F 51 3_83.2	83.2	34	1770	6.7	2630	9380	16.8	1800	3.4	3440	12000	
F 51 3_105.1	105.1	26.6	1800	5.4	2650	10400	13.3	1800	2.7	3460	12000	
F 51 3_129.9	129.9	21.6	1800	4.4	2670	11600	10.8	1800	2.2	3490	12000	
F 51 3_165.6	165.6	16.9	1800	3.4	2700	12000	8.5	1800	1.7	3500	12000	
F 51 3_202.4	202.4	13.8	1800	2.8	2710	12000	6.9	1800	1.4	3500	12000	
F 51 3_216.9	216.9	12.9	1800	2.6	2710	12000	6.5	1800	1.3	3500	12000	
F 51 3_239.8	239.8	11.7	1800	2.4	2730	12000	5.8	1800	1.2	3500	12000	
F 51 3_262.1	262.1	10.7	1800	2.2	2730	12000	5.3	1800	1.1	3500	12000	
F 51 3_285.9	285.9	9.8	1800	2.0	2730	12000	4.9	1800	0.99	3500	12000	
F 51 3_317.3	317.3	8.8	1800	1.8	2740	12000	4.4	1800	0.89	3500	12000	
F 51 3_352.5	352.5	7.9	1800	1.6	2740	12000	4.0	1800	0.80	3500	12000	
F 51 4_429.1	429.1	6.5	1800	1.4	1930	12000	3.3	1800	0.68	2200	12000	
F 51 4_530.5	530.5	5.3	1800	1.1	1970	12000	2.6	1800	0.55	2200	12000	
F 51 4_676.3	676.3	4.1	1800	0.87	2020	12000	2.1	1800	0.43	2200	12000	
F 51 4_826.4	826.4	3.4	1800	0.71	2040	12000	1.7	1800	0.35	2200	12000	
F 51 4_885.5	885.5	3.2	1800	0.66	2050	12000	1.6	1800	0.33	2200	12000	
F 51 4_979.4	979.4	2.9	1800	0.60	2060	12000	1.4	1800	0.30	2200	12000	
F 51 4_1070	1070	2.6	1800	0.55	2070	12000	1.3	1800	0.27	2200	12000	
F 51 4_1168	1168	2.4	1800	0.50	2080	12000	1.2	1800	0.25	2200	12000	
F 51 4_1296	1296	2.2	1800	0.45	2090	12000	1.1	1800	0.23	2200	12000	
F 51 4_1439	1439	1.9	1800	0.41	2100	12000	1.0	1800	0.20	2200	12000	





# F 51 1800 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 51 2_7.2	7.2	125	1100	15.2	1940	6170	70	1100	8.4	3190	8140	437
F 51 2_9.1	9.1	99	1100	12.1	2450	6900	55	1100	6.7	3440	9030	
F 51 2_11.1	11.1	81	1520	13.6	2450	6660	45	1700	8.4	3190	8480	
F 51 2_14.0	14.0	64	1620	11.5	2550	7250	36	1700	6.7	3440	9500	
F 51 2_18.8	18.8	48	1700	9.0	2690	8230	26.6	1700	5.0	3500	10900	
F 51 2_23.8	23.8	38	1700	7.1	2870	9250	21.0	1700	3.9	3500	12000	
F 51 2_30.0	30.0	30	1700	5.6	2960	10300	16.6	1700	3.1	3500	12000	
F 51 2_37.1	37.1	24.2	1700	4.5	3040	11400	13.5	1700	2.5	3500	12000	
F 51 3_48.9	48.9	18.4	1800	3.7	3500	12000	10.2	1800	2.1	3500	12000	
F 51 3_65.8	65.8	13.7	1800	2.8	3500	12000	7.6	1800	1.5	3500	12000	
F 51 3_83.2	83.2	10.8	1800	2.2	3500	12000	6.0	1800	1.2	3500	12000	
F 51 3_105.1	105.1	8.6	1800	1.7	3500	12000	4.8	1800	0.96	3500	12000	
F 51 3_129.9	129.9	6.9	1800	1.4	3500	12000	3.8	1800	0.78	3500	12000	
F 51 3_165.6	165.6	5.4	1800	1.1	3500	12000	3.0	1800	0.61	3500	12000	
F 51 3_202.4	202.4	4.4	1800	0.90	3500	12000	2.5	1800	0.50	3500	12000	
F 51 3_216.9	216.9	4.2	1800	0.84	3500	12000	2.3	1800	0.47	3500	12000	
F 51 3_239.8	239.8	3.8	1800	0.76	3500	12000	2.1	1800	0.42	3500	12000	
F 51 3_262.1	262.1	3.4	1800	0.70	3500	12000	1.9	1800	0.39	3500	12000	
F 51 3_285.9	285.9	3.1	1800	0.64	3500	12000	1.7	1800	0.35	3500	12000	
F 51 3_317.3	317.3	2.8	1800	0.57	3500	12000	1.6	1800	0.32	3500	12000	
F 51 3_352.5	352.5	2.6	1800	0.52	3500	12000	1.4	1800	0.29	3500	12000	
F 51 4_429.1	429.1	2.1	1800	0.44	2200	12000	1.2	1800	0.24	2200	12000	
F 51 4_530.5	530.5	1.7	1800	0.36	2200	12000	0.94	1800	0.20	2200	12000	
F 51 4_676.3	676.3	1.3	1800	0.28	2200	12000	0.74	1800	0.15	2200	12000	
F 51 4_826.4	826.4	1.1	1800	0.23	2200	12000	0.61	1800	0.13	2200	12000	
F 51 4_885.5	885.5	1.0	1800	0.21	2200	12000	0.56	1800	0.12	2200	12000	
F 51 4_979.4	979.4	0.92	1800	0.19	2200	12000	0.51	1800	0.11	2200	12000	
F 51 4_1070	1070	0.84	1800	0.18	2200	12000	0.47	1800	0.10	2200	12000	
F 51 4_1168	1168	0.77	1800	0.16	2200	12000	0.43	1800	0.09	2200	12000	
F 51 4_1296	1296	0.69	1800	0.15	2200	12000	0.39	1800	0.08	2200	12000	
F 51 4_1439	1439	0.63	1800	0.13	2200	12000	0.35	1800	0.07	2200	12000	





# F 60 2900 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 60 3_9.0</b>	9.0	311	920	32	—	13300	156	1160	20	—	16500	441
<b>F 60 3_9.7</b>	9.7	289	1000	33	—	13600	144	1250	20	—	16700	
<b>F 60 3_11.8</b>	11.8	237	1030	28	—	14600	119	1300	17.4	—	17800	
<b>F 60 3_12.7</b>	12.7	220	1110	28	—	14700	110	1400	17.4	—	18000	
<b>F 60 3_14.5</b>	14.5	193	1110	24	—	15500	97	1400	15.3	—	19000	
<b>F 60 3_15.7</b>	15.7	178	1200	24	—	15600	89	1500	15.1	—	19200	
<b>F 60 3_19.1</b>	19.1	147	1200	19.9	—	16800	73	1500	12.4	—	20000	
<b>F 60 3_20.7</b>	20.7	135	1300	19.9	—	17000	68	1640	12.5	—	20000	
<b>F 60 3_23.5</b>	23.5	119	1260	17.0	—	17900	60	1590	10.7	—	20000	
<b>F 60 3_25.4</b>	25.4	110	1370	17.1	—	18100	55	1720	10.7	—	20000	
<b>F 60 3_29.6</b>	29.6	95	2750	29	820	15900	47	2900	15.5	2630	20000	
<b>F 60 3_32.1</b>	32.1	87	2800	28	1290	16200	44	2900	14.3	3260	20000	
<b>F 60 3_38.8</b>	38.8	72	2900	24	1260	17500	36	2900	11.8	3480	20000	
<b>F 60 3_42.1</b>	42.1	67	2900	22	1820	17900	33	2900	10.9	3720	20000	
<b>F 60 3_47.8</b>	47.8	59	2900	19.2	1770	19100	29.3	2900	9.6	3730	20000	
<b>F 60 3_51.8</b>	51.8	54	2900	17.7	2290	19500	27.0	2900	8.9	3830	20000	
<b>F 60 3_63.0</b>	63.0	44	2900	14.6	2310	20000	22.2	2900	7.3	3850	20000	
<b>F 60 3_68.3</b>	68.3	41	2900	13.4	2790	20000	20.5	2900	6.7	3940	20000	
<b>F 60 3_77.6</b>	77.6	36	2900	11.8	2620	20000	18.0	2900	5.9	3920	20000	
<b>F 60 3_84.0</b>	84.0	33	2900	10.9	2960	20000	16.7	2900	5.5	4010	20000	
<b>F 60 3_98.2</b>	98.2	28.5	2900	9.3	2910	20000	14.3	2900	4.7	3980	20000	
<b>F 60 3_106.4</b>	106.4	26.3	2900	8.6	3020	20000	13.2	2900	4.3	4070	20000	
<b>F 60 3_120.5</b>	120.5	23.2	2900	7.6	2970	20000	11.6	2900	3.8	4030	20000	
<b>F 60 3_130.5</b>	130.5	21.5	2900	7.0	3060	20000	10.7	2900	3.5	4110	20000	
<b>F 60 3_150.4</b>	150.4	18.6	2900	6.1	3010	20000	9.3	2900	3.0	4060	20000	
<b>F 60 3_162.9</b>	162.9	17.2	2900	5.6	3090	20000	8.6	2900	2.8	4140	20000	
<b>F 60 3_185.9</b>	185.9	15.1	2900	4.9	3050	20000	7.5	2900	2.5	4100	20000	
<b>F 60 3_201.4</b>	201.4	13.9	2900	4.6	3130	20000	7.0	2900	2.3	4180	20000	
<b>F 60 3_217.6</b>	217.6	12.9	2900	4.2	3070	20000	6.4	2900	2.1	4120	20000	
<b>F 60 3_235.8</b>	235.8	11.9	2900	3.9	3140	20000	5.9	2900	1.9	4190	20000	
<b>F 60 3_259.1</b>	259.1	10.8	2900	3.5	3080	20000	5.4	2900	1.8	4130	20000	
<b>F 60 3_280.7</b>	280.7	10.0	2900	3.3	3150	20000	5.0	2900	1.6	4200	20000	
<b>F 60 4_315.4</b>	315.4	8.9	2900	3.0	3500	20000	4.4	2900	1.5	3500	20000	
<b>F 60 4_341.7</b>	341.7	8.2	2900	2.8	3500	20000	4.1	2900	1.4	3500	20000	
<b>F 60 4_399.3</b>	399.3	7.0	2900	2.4	3500	20000	3.5	2900	1.2	3500	20000	
<b>F 60 4_432.6</b>	432.6	6.5	2900	2.2	3500	20000	3.2	2900	1.1	3500	20000	
<b>F 60 4_489.8</b>	489.8	5.7	2900	1.9	3500	20000	2.9	2900	0.96	3500	20000	
<b>F 60 4_530.7</b>	530.7	5.3	2900	1.8	3500	20000	2.6	2900	0.89	3500	20000	
<b>F 60 4_611.4</b>	611.4	4.6	2900	1.5	3500	20000	2.3	2900	0.77	3500	20000	
<b>F 60 4_662.4</b>	662.4	4.2	2900	1.4	3500	20000	2.1	2900	0.71	3500	20000	
<b>F 60 4_756.0</b>	756.0	3.7	2900	1.2	3500	20000	1.9	2900	0.62	3500	20000	
<b>F 60 4_819.0</b>	819.0	3.4	2900	1.1	3500	20000	1.7	2900	0.57	3500	20000	
<b>F 60 4_885.1</b>	885.1	3.2	2900	1.1	3500	20000	1.6	2900	0.53	3500	20000	
<b>F 60 4_958.9</b>	958.9	2.9	2900	0.98	3500	20000	1.5	2900	0.49	3500	20000	
<b>F 60 4_1054</b>	1054	2.7	2900	0.89	3500	20000	1.3	2900	0.45	3500	20000	
<b>F 60 4_1141</b>	1141	2.5	2900	0.83	3500	20000	1.2	2900	0.41	3500	20000	

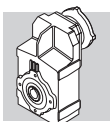
(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





# F 60 2900 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 60 3_9.0</b>	9.0	100	1340	15.1	—	18800	56	1630	10.2	—	20000	441
<b>F 60 3_9.7</b>	9.7	93	1460	15.3	—	19000	52	1780	10.4	—	20000	
<b>F 60 3_11.8</b>	11.8	76	1500	12.9	—	20000	42	1830	8.8	—	20000	
<b>F 60 3_12.7</b>	12.7	71	1620	13.0	—	20000	39	1900	8.4	600	20000	
<b>F 60 3_14.5</b>	14.5	62	1620	11.4	—	20000	34	1900	7.4	490	20000	
<b>F 60 3_15.7</b>	15.7	57	1750	11.3	—	20000	32	1900	6.8	1630	20000	
<b>F 60 3_19.1</b>	19.1	47	1750	9.3	—	20000	26.2	1900	5.6	1660	20000	
<b>F 60 3_20.7</b>	20.7	43	1900	9.3	—	20000	24.2	1900	5.2	2700	20000	
<b>F 60 3_23.5</b>	23.5	38	1840	8.0	—	20000	21.3	1900	4.6	2340	20000	
<b>F 60 3_25.4</b>	25.4	35	1900	7.6	620	20000	19.7	1900	4.2	3330	20000	
<b>F 60 3_29.6</b>	29.6	30	2900	10.0	4220	20000	16.9	2900	5.5	4700	20000	
<b>F 60 3_32.1</b>	32.1	28.0	2900	9.2	4350	20000	15.6	2900	5.1	4700	20000	
<b>F 60 3_38.8</b>	38.8	23.2	2900	7.6	4420	20000	12.9	2900	4.2	4700	20000	
<b>F 60 3_42.1</b>	42.1	21.4	2900	7.0	4530	20000	11.9	2900	3.9	4700	20000	
<b>F 60 3_47.8</b>	47.8	18.8	2900	6.2	4530	20000	10.5	2900	3.4	4700	20000	
<b>F 60 3_51.8</b>	51.8	17.4	2900	5.7	4640	20000	9.7	2900	3.2	4700	20000	
<b>F 60 3_63.0</b>	63.0	14.3	2900	4.7	4660	20000	7.9	2900	2.6	4700	20000	
<b>F 60 3_68.3</b>	68.3	13.2	2900	4.3	4700	20000	7.3	2900	2.4	4700	20000	
<b>F 60 3_77.6</b>	77.6	11.6	2900	3.8	4700	20000	6.4	2900	2.1	4700	20000	
<b>F 60 3_84.0</b>	84.0	10.7	2900	3.5	4700	20000	6.0	2900	1.9	4700	20000	
<b>F 60 3_98.2</b>	98.2	9.2	2900	3.0	4700	20000	5.1	2900	1.7	4700	20000	
<b>F 60 3_106.4</b>	106.4	8.5	2900	2.8	4700	20000	4.7	2900	1.5	4700	20000	
<b>F 60 3_120.5</b>	120.5	7.5	2900	2.4	4700	20000	4.1	2900	1.4	4700	20000	
<b>F 60 3_130.5</b>	130.5	6.9	2900	2.3	4700	20000	3.8	2900	1.3	4700	20000	
<b>F 60 3_150.4</b>	150.4	6.0	2900	2.0	4700	20000	3.3	2900	1.1	4700	20000	
<b>F 60 3_162.9</b>	162.9	5.5	2900	1.8	4700	20000	3.1	2900	1.0	4700	20000	
<b>F 60 3_185.9</b>	185.9	4.8	2900	1.6	4700	20000	2.7	2900	0.88	4700	20000	
<b>F 60 3_201.4</b>	201.4	4.5	2900	1.5	4700	20000	2.5	2900	0.81	4700	20000	
<b>F 60 3_217.6</b>	217.6	4.1	2900	1.4	4700	20000	2.3	2900	0.75	4700	20000	
<b>F 60 3_235.8</b>	235.8	3.8	2900	1.3	4700	20000	2.1	2900	0.69	4700	20000	
<b>F 60 3_259.1</b>	259.1	3.5	2900	1.1	4700	20000	1.9	2900	0.63	4700	20000	
<b>F 60 3_280.7</b>	280.7	3.2	2900	1.1	4700	20000	1.8	2900	0.58	4700	20000	
<b>F 60 4_315.4</b>	315.4	2.9	2900	0.96	3500	20000	1.6	2900	0.53	3500	20000	
<b>F 60 4_341.7</b>	341.7	2.6	2900	0.89	3500	20000	1.5	2900	0.49	3500	20000	
<b>F 60 4_399.3</b>	399.3	2.3	2900	0.76	3500	20000	1.3	2900	0.42	3500	20000	
<b>F 60 4_432.6</b>	432.6	2.1	2900	0.70	3500	20000	1.2	2900	0.39	3500	20000	
<b>F 60 4_489.8</b>	489.8	1.8	2900	0.62	3500	20000	1.0	2900	0.34	3500	20000	
<b>F 60 4_530.7</b>	530.7	1.7	2900	0.57	3500	20000	0.94	2900	0.32	3500	20000	
<b>F 60 4_611.4</b>	611.4	1.5	2900	0.50	3500	20000	0.82	2900	0.28	3500	20000	
<b>F 60 4_662.4</b>	662.4	1.4	2900	0.46	3500	20000	0.75	2900	0.25	3500	20000	
<b>F 60 4_756.0</b>	756.0	1.2	2900	0.40	3500	20000	0.66	2900	0.22	3500	20000	
<b>F 60 4_819.0</b>	819.0	1.1	2900	0.37	3500	20000	0.61	2900	0.21	3500	20000	
<b>F 60 4_885.1</b>	885.1	1.0	2900	0.34	3500	20000	0.56	2900	0.19	3500	20000	
<b>F 60 4_958.9</b>	958.9	0.94	2900	0.32	3500	20000	0.52	2900	0.18	3500	20000	
<b>F 60 4_1054</b>	1054	0.85	2900	0.29	3500	20000	0.47	2900	0.16	3500	20000	
<b>F 60 4_1141</b>	1141	0.79	2900	0.27	3500	20000	0.44	2900	0.15	3500	20000	

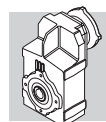
(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





# F 70 5000 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 70 3_10.0</b>	10.0	280	2600	82	1410	14800	140	3200	51	1750	18200	445
<b>F 70 3_10.9</b>	10.9	257	2800	81	1510	14700	128	3450	50	1840	18100	
<b>F 70 3_12.8</b>	12.8	219	2900	72	860	15700	109	3600	44	880	19300	
<b>F 70 3_13.9</b>	13.9	201	3150	72	810	15600	101	3900	44	880	19100	
<b>F 70 3_16.3</b>	16.3	172	3250	63	570	16600	86	4000	39	710	20500	
<b>F 70 3_17.7</b>	17.7	158	3550	63	430	16400	79	4350	39	630	20200	
<b>F 70 3_20.9</b>	20.9	134	3450	52	690	18000	67	4000	30	2090	22700	
<b>F 70 3_22.6</b>	22.6	124	3750	52	640	17800	62	4350	30	2010	22500	
<b>F 70 3_24.6</b>	24.6	114	3550	46	560	19000	57	4000	26	2510	24200	
<b>F 70 3_27.7</b>	27.7	101	3750	43	5070	19600	51	4650	27	6410	24100	
<b>F 70 3_30.0</b>	30.0	93	4050	43	5080	19400	47	5000	26	6420	23900	
<b>F 70 3_35.4</b>	35.4	79	4150	37	5070	20900	40	5000	22	6440	25900	
<b>F 70 3_38.4</b>	38.4	73	4500	37	5060	20700	36	5000	21	6540	26500	
<b>F 70 3_45.2</b>	45.2	62	4600	32	5080	22200	31	5000	17.5	6590	28700	
<b>F 70 3_49.0</b>	49.0	57	4600	30	5170	22700	28.6	5000	16.1	6680	29300	
<b>F 70 3_57.7</b>	57.7	49	5000	27	5090	23800	24.3	5000	13.7	6680	31600	
<b>F 70 3_62.5</b>	62.5	45	5000	25	5170	24300	22.4	5000	12.7	6760	32300	
<b>F 70 3_67.9</b>	67.9	41	5000	23	5110	25500	20.6	5000	11.6	6710	33600	
<b>F 70 3_73.6</b>	73.6	38	5000	21	5190	26100	19.0	5000	10.7	6790	34400	
<b>F 70 3_85.4</b>	85.4	33	5000	18.5	5190	28000	16.4	5000	9.3	6780	35000	
<b>F 70 3_92.5</b>	92.5	30	5000	17.1	5260	28700	15.1	5000	8.5	6860	35000	
<b>F 70 3_101.2</b>	101.2	27.7	5000	15.6	5220	30000	13.8	5000	7.8	6820	35000	
<b>F 70 3_109.6</b>	109.6	25.5	5000	14.4	5290	30700	12.8	5000	7.2	6890	35000	
<b>F 70 3_122.7</b>	122.7	22.8	5000	12.9	5250	32300	11.4	5000	6.4	6850	35000	
<b>F 70 3_133.0</b>	133.0	21.1	5000	11.9	5320	33100	10.5	5000	5.9	6920	35000	
<b>F 70 3_153.8</b>	153.8	18.2	5000	10.3	5280	35000	9.1	5000	5.1	6880	35000	
<b>F 70 3_166.7</b>	166.7	16.8	5000	9.5	5350	35000	8.4	5000	4.7	6950	35000	
<b>F 70 3_180.9</b>	180.9	15.5	5000	8.7	5310	35000	7.7	5000	4.4	6910	35000	
<b>F 70 3_196.0</b>	196.0	14.3	5000	8.1	5370	35000	7.1	5000	4.0	6970	35000	
<b>F 70 4_216.5</b>	216.5	12.9	5000	7.5	2130	35000	6.5	5000	3.7	2860	35000	
<b>F 70 4_234.6</b>	234.6	11.9	5000	6.9	2130	35000	6.0	5000	3.5	2860	35000	
<b>F 70 4_280.9</b>	280.9	10.0	5000	5.8	2200	35000	5.0	5000	2.9	2940	35000	
<b>F 70 4_304.3</b>	304.3	9.2	5000	5.3	2200	35000	4.6	5000	2.7	2940	35000	
<b>F 70 4_372.5</b>	372.5	7.5	5000	4.4	2260	35000	3.8	5000	2.2	3000	35000	
<b>F 70 4_403.5</b>	403.5	6.9	5000	4.0	2260	35000	3.5	5000	2.0	3000	35000	
<b>F 70 4_471.2</b>	471.2	5.9	5000	3.4	2300	35000	3.0	5000	1.7	3040	35000	
<b>F 70 4_510.4</b>	510.4	5.5	5000	3.2	2300	35000	2.7	5000	1.6	3040	35000	
<b>F 70 4_606.8</b>	606.8	4.6	5000	2.7	2340	35000	2.3	5000	1.3	3070	35000	
<b>F 70 4_657.4</b>	657.4	4.3	5000	2.5	2340	35000	2.1	5000	1.2	3070	35000	
<b>F 70 4_759.0</b>	759.0	3.7	5000	2.1	2360	35000	1.8	5000	1.1	3090	35000	
<b>F 70 4_822.2</b>	822.2	3.4	5000	2.0	2360	35000	1.7	5000	1.0	3090	35000	
<b>F 70 4_899.4</b>	899.4	3.1	5000	1.8	2370	35000	1.6	5000	0.90	3110	35000	
<b>F 70 4_974.4</b>	974.4	2.9	5000	1.7	2370	35000	1.4	5000	0.83	3110	35000	
<b>F 70 4_1091</b>	1091	2.6	5000	1.5	2390	35000	1.3	5000	0.74	3120	35000	
<b>F 70 4_1182</b>	1182	2.4	5000	1.4	2390	35000	1.2	5000	0.69	3120	35000	
<b>F 70 4_1368</b>	1368	2.0	5000	1.2	2400	35000	1.0	5000	0.59	3130	35000	
<b>F 70 4_1481</b>	1481	1.9	5000	1.1	2400	35000	0.95	5000	0.55	3130	35000	
<b>F 70 4_1585</b>	1585	1.8	5000	1.0	2410	35000	0.88	5000	0.51	3140	35000	
<b>F 70 4_1717</b>	1717	1.6	5000	0.95	2410	35000	0.82	5000	0.47	3140	35000	
<b>F 70 4_2019</b>	2019	1.4	5000	0.80	2420	35000	0.69	5000	0.40	3150	35000	
<b>F 70 4_2188</b>	2188	1.3	5000	0.74	2420	35000	0.64	5000	0.37	3150	35000	

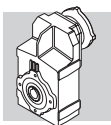






# F 70 5000 Nm

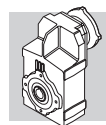
	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 70 3_10.0	10.0	90	3200	33	4870	21700	50	3200	18.1	7000	27000	
F 70 3_10.9	10.9	83	3450	32	4970	21700	46	3450	17.9	7000	27200	
F 70 3_12.8	12.8	70	3850	31	2540	22500	39	3600	15.9	7000	28300	
F 70 3_13.9	13.9	65	4200	31	2380	22400	36	3900	15.8	7000	28300	
F 70 3_16.3	16.3	55	4000	25	3830	24500	31	4000	13.9	7000	30700	
F 70 3_17.7	17.7	51	4350	25	3750	24400	28.2	4350	13.9	7000	30800	
F 70 3_20.9	20.9	43	4000	19.5	5210	27000	23.9	4000	10.8	7000	33700	
F 70 3_22.6	22.6	40	4350	19.6	5130	26900	22.1	4350	10.9	7000	33800	
F 70 3_24.6	24.6	37	4000	16.5	5630	28700	20.3	4000	9.2	7000	35000	
F 70 3_27.7	27.7	32	5000	18.4	7000	28100	18.1	4650	9.5	7000	35000	
F 70 3_30.0	30.0	30	5000	16.9	7000	28800	16.7	5000	9.4	7000	35000	
F 70 3_35.4	35.4	25.4	5000	14.4	7000	31000	14.1	5000	8.0	7000	35000	
F 70 3_38.4	38.4	23.4	5000	13.2	7000	31700	13.0	5000	7.4	7000	35000	
F 70 3_45.2	45.2	19.9	5000	11.2	7000	34100	11.1	5000	6.2	7000	35000	
F 70 3_49.0	49.0	18.4	5000	10.4	7000	34900	10.2	5000	5.8	7000	35000	
F 70 3_57.7	57.7	15.6	5000	8.8	7000	35000	8.7	5000	4.9	7000	35000	
F 70 3_62.5	62.5	14.4	5000	8.1	7000	35000	8.0	5000	4.5	7000	35000	
F 70 3_67.9	67.9	13.3	5000	7.5	7000	35000	7.4	5000	4.2	7000	35000	
F 70 3_73.6	73.6	12.2	5000	6.9	7000	35000	6.8	5000	3.8	7000	35000	
F 70 3_85.4	85.4	10.5	5000	6.0	7000	35000	5.9	5000	3.3	7000	35000	
F 70 3_92.5	92.5	9.7	5000	5.5	7000	35000	5.4	5000	3.1	7000	35000	
F 70 3_101.2	101.2	8.9	5000	5.0	7000	35000	4.9	5000	2.8	7000	35000	
F 70 3_109.6	109.6	8.2	5000	4.6	7000	35000	4.6	5000	2.6	7000	35000	
F 70 3_122.7	122.7	7.3	5000	4.1	7000	35000	4.1	5000	2.3	7000	35000	
F 70 3_133.0	133.0	6.8	5000	3.8	7000	35000	3.8	5000	2.1	7000	35000	
F 70 3_153.8	153.8	5.9	5000	3.3	7000	35000	3.3	5000	1.8	7000	35000	
F 70 3_166.7	166.7	5.4	5000	3.0	7000	35000	3.0	5000	1.7	7000	35000	
F 70 3_180.9	180.9	5.0	5000	2.8	7000	35000	2.8	5000	1.6	7000	35000	
F 70 3_196.0	196.0	4.6	5000	2.6	7000	35000	2.6	5000	1.4	7000	35000	
F 70 4_216.5	216.5	4.2	5000	2.4	3430	35000	2.3	5000	1.3	3500	35000	
F 70 4_234.6	234.6	3.8	5000	2.2	3430	35000	2.1	5000	1.2	3500	35000	
F 70 4_280.9	280.9	3.2	5000	1.9	3500	35000	1.8	5000	1.0	3500	35000	
F 70 4_304.3	304.3	3.0	5000	1.7	3500	35000	1.6	5000	0.95	3500	35000	
F 70 4_372.5	372.5	2.4	5000	1.4	3500	35000	1.3	5000	0.78	3500	35000	
F 70 4_403.5	403.5	2.2	5000	1.3	3500	35000	1.2	5000	0.72	3500	35000	
F 70 4_471.2	471.2	1.9	5000	1.1	3500	35000	1.1	5000	0.62	3500	35000	
F 70 4_510.4	510.4	1.8	5000	1.0	3500	35000	0.98	5000	0.57	3500	35000	
F 70 4_606.8	606.8	1.5	5000	0.86	3500	35000	0.82	5000	0.48	3500	35000	
F 70 4_657.4	657.4	1.4	5000	0.79	3500	35000	0.76	5000	0.44	3500	35000	
F 70 4_759.0	759.0	1.2	5000	0.69	3500	35000	0.66	5000	0.38	3500	35000	
F 70 4_822.2	822.2	1.1	5000	0.63	3500	35000	0.61	5000	0.35	3500	35000	
F 70 4_899.4	899.4	1.0	5000	0.58	3500	35000	0.56	5000	0.32	3500	35000	
F 70 4_974.4	974.4	0.92	5000	0.54	3500	35000	0.51	5000	0.30	3500	35000	
F 70 4_1091	1091	0.82	5000	0.48	3500	35000	0.46	5000	0.27	3500	35000	
F 70 4_1182	1182	0.76	5000	0.44	3500	35000	0.42	5000	0.25	3500	35000	
F 70 4_1368	1368	0.66	5000	0.38	3500	35000	0.37	5000	0.21	3500	35000	
F 70 4_1481	1481	0.61	5000	0.35	3500	35000	0.34	5000	0.20	3500	35000	
F 70 4_1585	1585	0.57	5000	0.33	3500	35000	0.32	5000	0.18	3500	35000	
F 70 4_1717	1717	0.52	5000	0.30	3500	35000	0.29	5000	0.17	3500	35000	
F 70 4_2019	2019	0.45	5000	0.26	3500	35000	0.25	5000	0.14	3500	35000	
F 70 4_2188	2188	0.41	5000	0.24	3500	35000	0.23	5000	0.13	3500	35000	

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



# F 80 8000 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 80 3_10.3</b>	10.3	272	3250	100	610	17200	136	4100	63	220	21800	448
<b>F 80 3_11.2</b>	11.2	250	3520	99	620	17800	125	4440	63	230	21700	
<b>F 80 3_12.9</b>	12.9	217	3560	87	670	18900	109	4480	55	350	23100	
<b>F 80 3_14.0</b>	14.0	200	3850	87	700	18800	100	4860	55	310	23000	
<b>F 80 3_16.2</b>	16.2	173	3760	73	760	20300	86	4740	46	430	24800	
<b>F 80 3_17.6</b>	17.6	159	4000	72	730	20300	80	5140	46	410	24700	
<b>F 80 3_20.3</b>	20.3	138	4060	63	780	21700	69	5120	40	440	26500	
<b>F 80 3_22.0</b>	22.0	127	4400	63	780	21600	64	5540	40	470	26400	
<b>F 80 3_25.2</b>	25.2	111	4230	53	700	23300	56	5330	33	360	28500	
<b>F 80 3_28.8</b>	28.8	97	6550	72	4590	20500	49	8000	44	5890	25400	
<b>F 80 3_31.3</b>	31.3	89	7100	72	4590	20000	45	8000	40	6040	26000	
<b>F 80 3_36.0</b>	36.0	78	7250	64	4560	21500	39	8000	35	6110	28100	
<b>F 80 3_39.0</b>	39.0	72	6700	54	4890	23000	36	8000	32	6240	28800	
<b>F 80 3_45.3</b>	45.3	62	7900	55	4440	22700	31	8000	28	6240	31100	
<b>F 80 3_49.1</b>	49.1	57	8000	52	4750	23200	28.5	8000	26	6360	31900	
<b>F 80 3_56.7</b>	56.7	49	8000	45	4780	25200	24.7	8000	22	6390	34300	
<b>F 80 3_61.5</b>	61.5	46	8000	41	4890	25800	22.8	8000	21	6500	35100	
<b>F 80 3_70.4</b>	70.4	40	8000	36	4850	27800	19.9	8000	18.0	6460	37500	
<b>F 80 3_76.3</b>	76.3	37	8000	33	4950	28500	18.3	8000	16.6	6560	38400	
<b>F 80 3_85.2</b>	85.2	33	8000	30	4940	30300	16.4	8000	14.8	6550	40500	
<b>F 80 3_92.3</b>	92.3	30	8000	27	5040	31000	15.2	8000	13.7	6640	41500	
<b>F 80 3_105.0</b>	105.0	26.7	8000	24	5000	33200	13.3	8000	12.0	6610	44000	
<b>F 80 3_113.8</b>	113.8	24.6	8000	22	5090	34000	12.3	8000	11.1	6700	45000	
<b>F 80 3_122.5</b>	122.5	22.9	8000	21	5020	35400	11.4	8000	10.3	6630	45000	
<b>F 80 3_132.7</b>	132.7	21.1	8000	19.1	5110	36200	10.6	8000	9.5	6720	45000	
<b>F 80 3_147.9</b>	147.9	18.9	8000	17.1	5060	38200	9.5	8000	8.6	6660	45000	
<b>F 80 3_160.2</b>	160.2	17.5	8000	15.8	5140	39100	8.7	8000	7.9	6750	45000	
<b>F 80 3_184.6</b>	184.6	15.2	8000	13.7	5090	41800	7.6	8000	6.9	6700	45000	
<b>F 80 3_200.0</b>	200.0	14.0	8000	12.7	5180	42800	7.0	8000	6.3	6780	45000	
<b>F 80 4_218.5</b>	218.5	12.8	8000	11.9	1020	45000	6.4	8000	5.9	2400	45000	
<b>F 80 4_273.9</b>	273.9	10.2	8000	9.5	1470	45000	5.1	8000	4.7	2680	45000	
<b>F 80 4_296.7</b>	296.7	9.4	8000	8.8	1470	45000	4.7	8000	4.4	2680	45000	
<b>F 80 4_353.7</b>	353.7	7.9	8000	7.3	1850	45000	4.0	8000	3.7	2770	45000	
<b>F 80 4_383.2</b>	383.2	7.3	8000	6.8	1850	45000	3.7	8000	3.4	2770	45000	
<b>F 80 4_451.5</b>	451.5	6.2	8000	5.8	2040	45000	3.1	8000	2.9	2820	45000	
<b>F 80 4_489.1</b>	489.1	5.7	8000	5.3	2040	45000	2.9	8000	2.7	2820	45000	
<b>F 80 4_563.9</b>	563.9	5.0	8000	4.6	2130	45000	2.5	8000	2.3	2860	45000	
<b>F 80 4_610.9</b>	610.9	4.6	8000	4.3	2130	45000	2.3	8000	2.1	2860	45000	
<b>F 80 4_714.9</b>	714.9	3.9	8000	3.6	2160	45000	2.0	8000	1.8	2890	45000	
<b>F 80 4_774.4</b>	774.4	3.6	8000	3.4	2160	45000	1.8	8000	1.7	2890	45000	
<b>F 80 4_897.3</b>	897.3	3.1	8000	2.9	2200	45000	1.6	8000	1.4	2930	45000	
<b>F 80 4_972.0</b>	972.0	2.9	8000	2.7	2200	45000	1.4	8000	1.3	2930	45000	
<b>F 80 4_1058</b>	1058	2.6	8000	2.5	2210	45000	1.3	8000	1.2	2950	45000	
<b>F 80 4_1146</b>	1146	2.4	8000	2.3	2210	45000	1.2	8000	1.1	2950	45000	
<b>F 80 4_1277</b>	1277	2.2	8000	2.0	2230	45000	1.1	8000	1.0	2960	45000	
<b>F 80 4_1384</b>	1384	2.0	8000	1.9	2230	45000	1.0	8000	0.94	2960	45000	
<b>F 80 4_1578</b>	1578	1.8	8000	1.6	2240	45000	0.89	8000	0.82	2970	45000	
<b>F 80 4_1709</b>	1709	1.6	8000	1.5	2240	45000	0.82	8000	0.76	2970	45000	
<b>F 80 4_1834</b>	1834	1.5	8000	1.4	2250	45000	0.76	8000	0.71	2980	45000	
<b>F 80 4_1987</b>	1987	1.4	8000	1.3	2250	45000	0.70	8000	0.65	2980	45000	

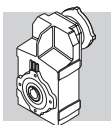


# F 80 8000 Nm



	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 80 3_10.3	10.3	87	4740	47	—	24700	49	5770	32	—	29300	
F 80 3_11.2	11.2	80	5140	47	—	24600	45	6250	32	—	29200	
F 80 3_12.9	12.9	70	5200	41	—	26200	39	6320	28	—	31100	
F 80 3_14.0	14.0	64	5620	41	—	26100	36	6800	27	—	31000	
F 80 3_16.2	16.2	56	5490	34	—	28200	31	6250	22	1540	34200	
F 80 3_17.6	17.6	51	5960	34	—	28100	28.4	6800	22	1410	30000	
F 80 3_20.3	20.3	44	5930	30	—	30100	24.6	6250	17.4	3710	37300	
F 80 3_22.0	22.0	41	6420	30	—	30000	22.7	6800	17.5	3590	37200	
F 80 3_25.2	25.2	36	6175	25	—	32400	19.8	6250	14.0	4660	40500	
F 80 3_28.8	28.8	31	8000	28	7000	31000	17.4	8000	15.7	7000	39600	
F 80 3_31.3	31.3	28.8	8000	26	7000	31700	16.0	8000	14.4	7000	40600	
F 80 3_36.0	36.0	25.0	8000	23	7000	34100	13.9	8000	12.6	7000	43300	
F 80 3_39.0	39.0	23.1	8000	21	7000	34900	12.8	8000	11.6	7000	44300	
F 80 3_45.3	45.3	19.9	8000	18.0	7000	37500	11.0	8000	10.0	7000	45000	
F 80 3_49.1	49.1	18.3	8000	16.6	7000	38400	10.2	8000	9.2	7000	45000	
F 80 3_56.7	56.7	15.9	8000	14.3	7000	41100	8.8	8000	8.0	7000	45000	
F 80 3_61.5	61.5	14.6	8000	13.2	7000	42000	8.1	8000	7.3	7000	45000	
F 80 3_70.4	70.4	12.8	8000	11.6	7000	44700	7.1	8000	6.4	7000	45000	
F 80 3_76.3	76.3	11.8	8000	10.7	7000	45000	6.6	8000	5.9	7000	45000	
F 80 3_85.2	85.2	10.6	8000	9.5	7000	45000	5.9	8000	5.3	7000	45000	
F 80 3_92.3	92.3	9.8	8000	8.8	7000	45000	5.4	8000	4.9	7000	45000	
F 80 3_105.0	105.0	8.6	8000	7.7	7000	45000	4.8	8000	4.3	7000	45000	
F 80 3_113.8	113.8	7.9	8000	7.1	7000	45000	4.4	8000	4.0	7000	45000	
F 80 3_122.5	122.5	7.3	8000	6.6	7000	45000	4.1	8000	3.7	7000	45000	
F 80 3_132.7	132.7	6.8	8000	6.1	7000	45000	3.8	8000	3.4	7000	45000	
F 80 3_147.9	147.9	6.1	8000	5.5	7000	45000	3.4	8000	3.1	7000	45000	
F 80 3_160.2	160.2	5.6	8000	5.1	7000	45000	3.1	8000	2.8	7000	45000	
F 80 3_184.6	184.6	4.9	8000	4.4	7000	45000	2.7	8000	2.4	7000	45000	
F 80 3_200.0	200.0	4.5	8000	4.1	7000	45000	2.5	8000	2.3	7000	45000	
F 80 4_218.5	218.5	4.1	8000	3.8	3130	45000	2.3	8000	2.1	3500	45000	
F 80 4_273.9	273.9	3.3	8000	3.0	3240	45000	1.8	8000	1.7	3500	45000	
F 80 4_296.7	296.7	3.0	8000	2.8	3240	45000	1.7	8000	1.6	3500	45000	
F 80 4_353.7	353.7	2.5	8000	2.4	3330	45000	1.4	8000	1.3	3500	45000	
F 80 4_383.2	383.2	2.3	8000	2.2	3330	45000	1.3	8000	1.2	3500	45000	
F 80 4_451.5	451.5	2.0	8000	1.8	3380	45000	1.1	8000	1.0	3500	45000	
F 80 4_489.1	489.1	1.8	8000	1.7	3380	45000	1.0	8000	0.95	3500	45000	
F 80 4_563.9	563.9	1.6	8000	1.5	3420	45000	0.89	8000	0.82	3500	45000	
F 80 4_610.9	610.9	1.5	8000	1.4	3420	45000	0.82	8000	0.76	3500	45000	
F 80 4_714.9	714.9	1.3	8000	1.2	3460	45000	0.70	8000	0.65	3500	45000	
F 80 4_774.4	774.4	1.2	8000	1.1	3460	45000	0.65	8000	0.60	3500	45000	
F 80 4_897.3	897.3	1.0	8000	0.93	3490	45000	0.56	8000	0.52	3500	45000	
F 80 4_972.0	972.0	0.93	8000	0.86	3490	45000	0.51	8000	0.48	3500	45000	
F 80 4_1058	1058	0.85	8000	0.79	3500	45000	0.47	8000	0.44	3500	45000	
F 80 4_1146	1146	0.79	8000	0.73	3500	45000	0.44	8000	0.40	3500	45000	
F 80 4_1277	1277	0.70	8000	0.65	3500	45000	0.39	8000	0.36	3500	45000	
F 80 4_1384	1384	0.65	8000	0.60	3500	45000	0.36	8000	0.34	3500	45000	
F 80 4_1578	1578	0.57	8000	0.53	3500	45000	0.32	8000	0.29	3500	45000	
F 80 4_1709	1709	0.53	8000	0.49	3500	45000	0.29	8000	0.27	3500	45000	
F 80 4_1834	1834	0.49	8000	0.46	3500	45000	0.27	8000	0.25	3500	45000	
F 80 4_1987	1987	0.45	8000	0.42	3500	45000	0.25	8000	0.23	3500	45000	

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(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)





# F 90 14000 Nm

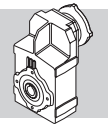
	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
<b>F 90 3_10.3</b>	10.3	272	6500	200	5480	23800	136	8000	123	8000	29300	451
<b>F 90 3_11.1</b>	11.1	252	7150	204	5280	23300	126	8800	125	7770	28700	
<b>F 90 3_13.4</b>	13.4	209	7550	178	4880	25000	104	9300	110	7280	30700	
<b>F 90 3_14.5</b>	14.5	193	8100	177	5000	24700	97	10000	109	7400	30300	
<b>F 90 3_16.5</b>	16.5	170	8400	161	4540	26000	85	10300	99	6960	32000	
<b>F 90 3_17.9</b>	17.9	156	8950	158	4560	25700	78	11000	97	7180	31700	
<b>F 90 3_20.6</b>	20.6	136	9200	141	3980	27400	68	11300	87	6260	33700	
<b>F 90 3_22.3</b>	22.3	126	9750	138	4280	27100	63	12000	85	6590	33400	
<b>F 90 3_25.4</b>	25.4	110	10050	125	3620	28700	55	12000	75	6310	36000	
<b>F 90 3_28.6</b>	28.6	98	9750	108	9800	30900	49	12000	66	12400	38000	
<b>F 90 3_31.0</b>	31.0	90	10550	108	9800	30300	45	13000	66	12400	37300	
<b>F 90 3_37.4</b>	37.4	75	10950	93	9820	32800	37	13500	57	12400	40400	
<b>F 90 3_40.5</b>	40.5	69	11900	93	9820	32100	35	14000	55	12500	40600	
<b>F 90 3_46.1</b>	46.1	61	12050	83	9840	34300	30	14000	48	12600	43600	
<b>F 90 3_49.9</b>	49.9	56	13050	83	9840	33500	28.1	14000	44	12700	44700	
<b>F 90 3_57.3</b>	57.3	49	13050	72	9810	36300	24.4	14000	39	12700	48100	
<b>F 90 3_62.1</b>	62.1	45	14000	71	9830	35600	22.5	14000	36	12800	49300	
<b>F 90 3_70.8</b>	70.8	40	14000	63	9830	38500	19.8	14000	31	12800	52700	
<b>F 90 3_76.7</b>	76.7	37	14000	58	9960	39500	18.3	14000	29	13000	54000	
<b>F 90 3_88.4</b>	88.4	32	14000	50	9930	42800	15.8	14000	25	12900	55000	
<b>F 90 3_95.8</b>	95.8	29.2	14000	46	10100	43800	14.6	14000	23	13100	55000	
<b>F 90 3_103.3</b>	103.3	27.1	14000	43	9960	45900	13.6	14000	21	13000	55000	
<b>F 90 3_111.9</b>	111.9	25.0	14000	40	10100	47100	12.5	14000	19.8	13100	55000	
<b>F 90 3_126.8</b>	126.8	22.1	14000	35	10000	50300	11.0	14000	17.5	13000	55000	
<b>F 90 3_137.3</b>	137.3	20.4	14000	32	10100	51500	10.2	14000	16.1	13100	55000	
<b>F 90 3_150.3</b>	150.3	18.6	14000	29	10100	54000	9.3	14000	14.7	13100	55000	
<b>F 90 3_162.8</b>	162.8	17.2	14000	27	10200	55000	8.6	14000	13.6	13200	55000	
<b>F 90 3_179.2</b>	179.2	15.6	14000	25	10200	55000	7.8	14000	12.4	13100	55000	
<b>F 90 3_194.2</b>	194.2	14.4	14000	23	10200	55000	7.2	14000	11.4	13200	55000	
<b>F 90 4_213.6</b>	213.6	13.1	14000	21	—	55000	6.6	14000	10.6	—	55000	
<b>F 90 4_231.4</b>	231.4	12.1	14000	19.6	—	55000	6.1	14000	9.8	—	55000	
<b>F 90 4_268.7</b>	268.7	10.4	14000	16.9	—	55000	5.2	14000	8.5	420	55000	
<b>F 90 4_291.1</b>	291.1	9.6	14000	15.6	—	55000	4.8	14000	7.8	420	55000	
<b>F 90 4_361.8</b>	361.8	7.7	14000	12.6	—	55000	3.9	14000	6.3	990	55000	
<b>F 90 4_392.0</b>	392.0	7.1	14000	11.6	—	55000	3.6	14000	5.8	990	55000	
<b>F 90 4_457.5</b>	457.5	6.1	14000	9.9	—	55000	3.1	14000	5.0	1390	55000	
<b>F 90 4_495.6</b>	495.6	5.6	14000	9.2	—	55000	2.8	14000	4.6	1390	55000	
<b>F 90 4_577.5</b>	577.5	4.8	14000	7.9	—	55000	2.4	14000	3.9	1600	55000	
<b>F 90 4_625.6</b>	625.6	4.5	14000	7.3	—	55000	2.2	14000	3.6	1600	55000	
<b>F 90 4_714.0</b>	714.0	3.9	14000	6.4	—	55000	2.0	14000	3.2	1800	55000	
<b>F 90 4_773.4</b>	773.4	3.6	14000	5.9	—	55000	1.8	14000	2.9	1800	55000	
<b>F 90 4_910.2</b>	910.2	3.1	14000	5.0	—	55000	1.5	14000	2.5	2020	55000	
<b>F 90 4_986.0</b>	986.0	2.8	14000	4.6	—	55000	1.4	14000	2.3	2020	55000	
<b>F 90 4_1112</b>	1112	2.5	14000	4.1	—	55000	1.3	14000	2.0	2110	55000	
<b>F 90 4_1205</b>	1205	2.3	14000	3.8	—	55000	1.2	14000	1.9	2110	55000	
<b>F 90 4_1318</b>	1318	2.1	14000	3.4	—	55000	1.1	14000	1.7	2220	55000	
<b>F 90 4_1428</b>	1428	2.0	14000	3.2	—	55000	0.98	14000	1.6	2220	55000	
<b>F 90 4_1571</b>	1571	1.8	14000	2.9	—	55000	0.89	14000	1.4	2260	55000	
<b>F 90 4_1702</b>	1702	1.6	14000	2.7	—	55000	0.82	14000	1.3	2260	55000	
<b>F 90 4_1937</b>	1937	1.4	14000	2.3	—	55000	0.72	14000	1.2	2300	55000	
<b>F 90 4_2099</b>	2099	1.3	14000	2.2	—	55000	0.67	14000	1.1	2300	55000	

(—) Contact our technical service department advising radial load data (rotation direction, orientation, position)



# F 90 14000 Nm

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
F 90 3_10.3	10.3	87	9150	90	10000	33400	49	9600	53	15000	41900	451
F 90 3_11.1	11.1	81	10050	92	9780	32700	45	10400	53	15000	41600	
F 90 3_13.4	13.4	67	10600	80	9270	35100	37	12500	53	12700	42100	
F 90 3_14.5	14.5	62	11400	80	9390	34600	34	13550	53	12700	41400	
F 90 3_16.5	16.5	55	11750	72	8890	36600	30	12300	42	14600	46400	
F 90 3_17.9	17.9	50	12550	71	9140	36200	27.9	13150	41	14800	46200	
F 90 3_20.6	20.6	44	12200	60	9100	39700	24.3	12200	33	15000	51000	
F 90 3_22.3	22.3	40	13200	60	9120	39000	22.4	13200	33	15000	50700	
F 90 3_25.4	25.4	35	12000	48	10400	43800	19.7	12000	27	15000	55000	
F 90 3_28.6	28.6	31	13700	49	14400	43400	17.5	14000	28	15000	55000	
F 90 3_31.0	31.0	29.0	14000	46	14500	44000	16.1	14000	26	15000	55000	
F 90 3_37.4	37.4	24.1	14000	38	14700	48400	13.4	14000	21	15000	55000	
F 90 3_40.5	40.5	22.2	14000	35	14800	49600	12.3	14000	19.5	15000	55000	
F 90 3_46.1	46.1	19.5	14000	31	14900	53000	10.8	14000	17.2	15000	55000	
F 90 3_49.9	49.9	18.0	14000	29	15000	54200	10.0	14000	15.8	15000	55000	
F 90 3_57.3	57.3	15.7	14000	25	15000	55000	8.7	14000	13.8	15000	55000	
F 90 3_62.1	62.1	14.5	14000	23	15000	55000	8.1	14000	12.7	15000	55000	
F 90 3_70.8	70.8	12.7	14000	20	15000	55000	7.1	14000	11.2	15000	55000	
F 90 3_76.7	76.7	11.7	14000	18.6	15000	55000	6.5	14000	10.3	15000	55000	
F 90 3_88.4	88.4	10.2	14000	16.1	15000	55000	5.7	14000	8.9	15000	55000	
F 90 3_95.8	95.8	9.4	14000	14.9	15000	55000	5.2	14000	8.3	15000	55000	
F 90 3_103.3	103.3	8.7	14000	13.8	15000	55000	4.8	14000	7.7	15000	55000	
F 90 3_111.9	111.9	8.0	14000	12.7	15000	55000	4.5	14000	7.1	15000	55000	
F 90 3_126.8	126.8	7.1	14000	11.2	15000	55000	3.9	14000	6.2	15000	55000	
F 90 3_137.3	137.3	6.6	14000	10.4	15000	55000	3.6	14000	5.8	15000	55000	
F 90 3_150.3	150.3	6.0	14000	9.5	15000	55000	3.3	14000	5.3	15000	55000	
F 90 3_162.8	162.8	5.5	14000	8.7	15000	55000	3.1	14000	4.9	15000	55000	
F 90 3_179.2	179.2	5.0	14000	7.9	15000	55000	2.8	14000	4.4	15000	55000	
F 90 3_194.2	194.2	4.6	14000	7.3	15000	55000	2.6	14000	4.1	15000	55000	
F 90 4_213.6	213.6	4.2	14000	6.8	810	55000	2.3	14000	3.8	2350	55000	
F 90 4_231.4	231.4	3.9	14000	6.3	810	55000	2.2	14000	3.5	2350	55000	
F 90 4_268.7	268.7	3.3	14000	5.4	1390	55000	1.9	14000	3.0	2920	55000	
F 90 4_291.1	291.1	3.1	14000	5.0	1390	55000	1.7	14000	2.8	2920	55000	
F 90 4_361.8	361.8	2.5	14000	4.0	1960	55000	1.4	14000	2.2	3390	55000	
F 90 4_392.0	392.0	2.3	14000	3.7	1960	55000	1.3	14000	2.1	3390	55000	
F 90 4_457.5	457.5	2.0	14000	3.2	2360	55000	1.1	14000	1.8	3490	55000	
F 90 4_495.6	495.6	1.8	14000	2.9	2360	55000	1.0	14000	1.6	3490	55000	
F 90 4_577.5	577.5	1.6	14000	2.5	2570	55000	0.87	14000	1.4	3500	55000	
F 90 4_625.6	625.6	1.4	14000	2.3	2570	55000	0.80	14000	1.3	3500	55000	
F 90 4_714.0	714.0	1.3	14000	2.0	2770	55000	0.70	14000	1.1	3500	55000	
F 90 4_773.4	773.4	1.2	14000	1.9	2770	55000	0.65	14000	1.0	3500	55000	
F 90 4_910.2	910.2	0.99	14000	1.6	2840	55000	0.55	14000	0.89	3500	55000	
F 90 4_986.0	986.0	0.91	14000	1.5	2840	55000	0.51	14000	0.82	3500	55000	
F 90 4_1112	1112	0.81	14000	1.3	2860	55000	0.45	14000	0.73	3500	55000	
F 90 4_1205	1205	0.75	14000	1.2	2860	55000	0.41	14000	0.67	3500	55000	
F 90 4_1318	1318	0.68	14000	1.1	2890	55000	0.38	14000	0.62	3500	55000	
F 90 4_1428	1428	0.63	14000	1.0	2890	55000	0.35	14000	0.57	3500	55000	
F 90 4_1571	1571	0.57	14000	0.93	2900	55000	0.32	14000	0.52	3500	55000	
F 90 4_1702	1702	0.53	14000	0.86	2900	55000	0.29	14000	0.48	3500	55000	
F 90 4_1937	1937	0.46	14000	0.75	2910	55000	0.26	14000	0.42	3500	55000	
F 90 4_2099	2099	0.43	14000	0.70	2910	55000	0.24	14000	0.39	3500	55000	



## 61 MOTOR AVAILABILITY

Please be aware that motor-gearbox combinations resulting from the following charts are purely based on geometrical compatibility.

**When selecting a gearmotor, refer to procedure specified at paragraph 12 and observe particularly the condition  $S \geq f_s$ .**


(D 56)

													
		BN										IEC	
P <sub>n1</sub> (#) [kW]	2p	0.37	0.75	1.5	2.2	4	4	9.2	18.5	22	30	45	55
	4p	0.25	0.55	1.1	1.85	3	4	9.2	15	22	30	45	55
	6p	0.12	0.37	0.75	1.1	1.85	2.2	5.5	11	15	18.5	30	37
		P63	P71	P80	P90	P100	P112	P132	P160	P180	P200	P225	P250
F 10 2	i =	7.4_127.1		7.4_91.5		7.4_91.5							
F 20 2		8.7_132.2 ⊖ (14.8_18.1)		6.4_114.3		6.4_114.3							
F 20 3		156.3_545.3		156.3_545.3		156.3_545.3							
F 25 2		9.4_44.4 ⊖ (10.6_13.0)		6.9_44.4		6.9_44.4							
F 25 3		50.8_333.1		45.6_288.1		45.6_288.1							
F 25 4		393.9_1374		393.9_1374		393.9_1374							
F 31 2		18.5_44.6		6.9_44.6		6.9_44.6		6.9_37.7					
F 31 3		69.1_374.4		47.5_374.4		47.5_374.4		47.5_140.7					
F 31 4		418.9_1539		418.9_1539		418.9_1539							
F 41 2		24.1_47.9		6.7_47.9		6.7_47.9		6.7_47.9					
F 41 3		84.9_344.8		51.5_344.8		51.5_344.8		51.5_168.7					
F 41 4		433.7_1411		433.7_1411		433.7_1411							
F 51 2		30.0_37.1		7.2_37.1		7.2_37.1		7.2_37.1	7.2_37.1	7.2_37.1			
F 51 3		105.1_352.5		48.9_352.5		48.9_352.5		48.9_202.4	48.9_202.4	48.9_202.4			
F 51 4		429.1_1439		429.1_1439		429.1_1439							
F 60 3		98.2_280.7 ⊖ (29.6_32.1)		11.8_280.7 ⊖ (29.6_32.1)		11.8_280.7 ⊖ (29.6_32.1)		9.0_201.4	9.0_201.4	9.0_201.4			
F 60 4		315.4_1141		315.4_1141		315.4_1141							
F 70 3				85.4_196.0		85.4_196.0		16.3_196.0 ⊖ (27.7_38.4)	10.0_196.0	10.0_196.0	10.0_49.0 ⊖ (20.9_24.6)		
F 70 4		372.5_2188		216.5_2188		216.5_2188		216.5_822.2					
F 80 3				105.0_200.0		105.0_200.0		20.3_200.0 ⊖ (28.8_49.1)	12.9_200.0 ⊖ (28.8_31.3)	10.3_200.0	10.3_132.7	10.3_132.7	
F 80 4	451.5_1987		218.5_1987		218.5_1987		218.5_972.0						
F 90 3			126.8_194.2		126.8_194.2		25.4_194.2 ⊖ (28.6_62.1)	20.6_194.2 ⊖ (28.6_49.9)	10.3_194.2	10.3_162.8	10.3_162.8	10.3_162.8	
F 90 4	577.5_2099		213.6_2099		213.6_2099		213.6_1205	213.6_1205	213.6_1205				

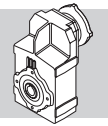
(#) P<sub>n1</sub> = maximum installable power on input P<sub>-</sub>



(D 57)

							
		M05	M1	M2	M3	M4	M5
F 10 2		7.4_127.1	7.4_71.1	7.4_91.5	7.4_91.5		
F 20 2		8.7_132.2 ⊖ (14.8_18.1)	8.7_90.4 ⊖ (14.8_18.1)	6.4_114.3	6.4_114.3		
F 20 3		156.3_545.3	156.3_545.3	156.3_545.3	156.3_545.3		
F 25 2		9.4_44.4 ⊖ (10.6_13.0)	9.4_44.4 ⊖ (10.6_13.0)	6.9_44.4	6.9_44.4		
F 25 3		50.8_333.1	50.8_227.8	45.6_288.1	45.6_288.1		
F 25 4		393.9_1374	393.9_1374	393.9_1374	393.9_1374		
F 31 2			18.5_44.6	6.9_44.6	6.9_44.6	6.9_37.7	
F 31 3			69.1_293.8	47.5_374.4	47.5_374.4	47.5_140.7	
F 31 4		418.9_1539	418.9_1539	418.9_1539	418.9_1539		
F 41 2			24.1_47.9	6.7_47.9	6.7_47.9	6.7_47.9	
F 41 3			84.9_344.8	51.5_344.8	51.5_344.8	51.5_168.7	
F 41 4	i =	433.7_1411	433.7_1411	433.7_1411	433.7_1411		
F 51 2			30.0_37.1	7.2_37.1	7.2_37.1	7.2_37.1	7.2_37.1
F 51 3			105.1_352.5	48.9_352.5	48.9_352.5	48.9_202.4	48.9_202.4
F 51 4			429.1_1439	429.1_1439	429.1_1439		
F 60 3				11.8_280.7 ⊖ (29.6_32.1)	11.8_280.7 ⊖ (29.6_32.1)	9_201.4	9_201.4
F 60 4			315.4_1141	315.4_1141	315.4_1141		
F 70 3				85.4_196.0	85.4_196.0	16.3_196.0 ⊖ (27.7_38.4)	16.3_196.0 ⊖ (27.7_38.4)
F 70 4			372.5_2188	216.5_2188	216.5_2188	216.5_822.2	
F 80 3					105.0_200.0	20.3_200.0 ⊖ (28.8_49.1)	20.3_200.0 ⊖ (28.8_49.1)
F 80 4			451.5_1987	218.5_1987	218.5_1987	218.5_972.0	
F 90 3					126.8_194.2	25.4_194.2 ⊖ (28.6_62.1)	25.4_194.2 ⊖ (28.6_62.1)
F 90 4				213.6_2099	213.6_2099	213.6_1205	





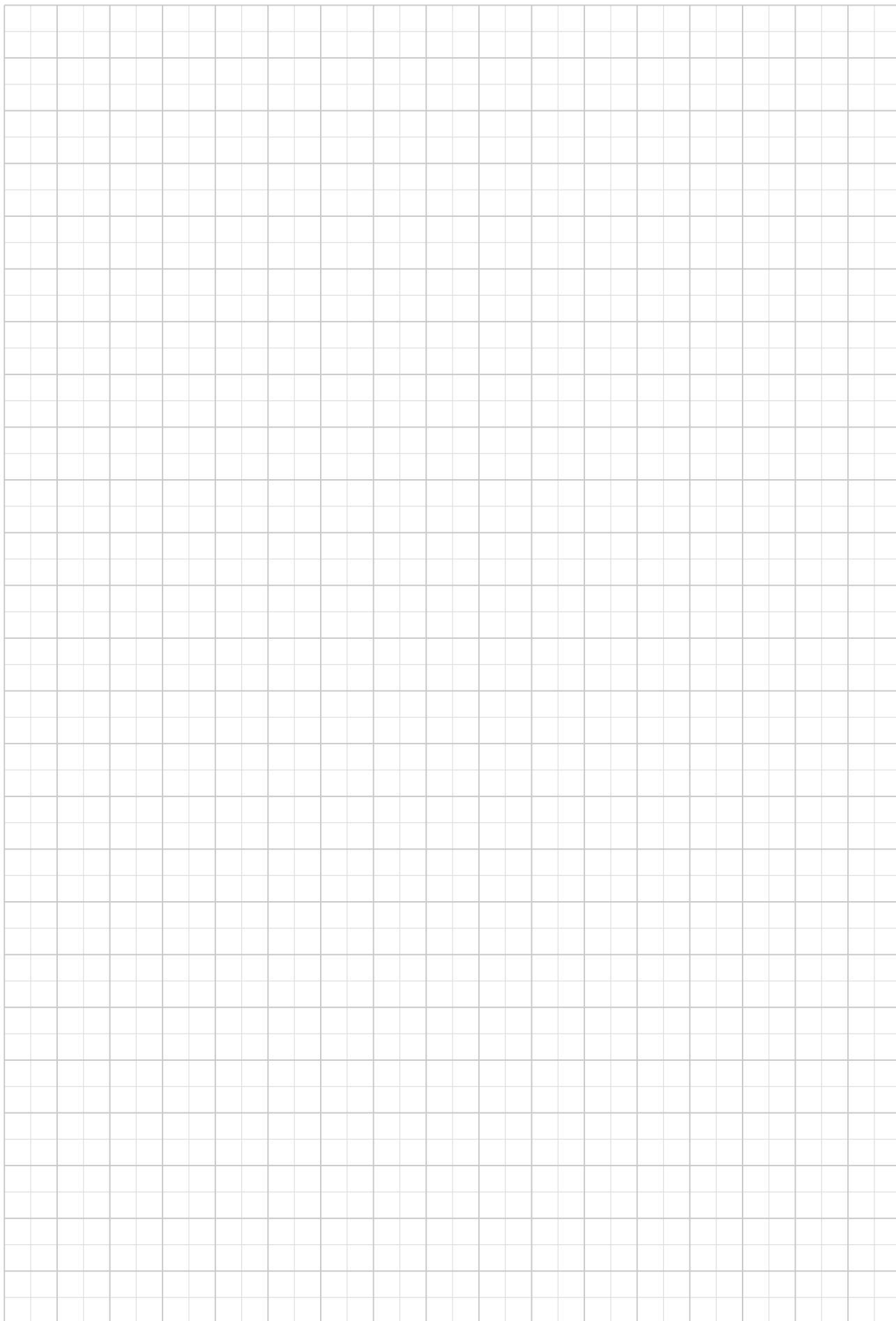
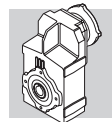
Motor adapters matching the most popular brands of servomotors are available for units size F 10 ... F 60. Dimensions of servomotor inputs are provided within the drawing section for each frame size. The code **SK** applies for inputs featuring a conventional keyway, while through the specification of the **SC** code the input shaft will feature a clamping device instead.

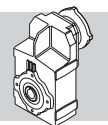
(D 58)

		SERVO INPUT							
		SK60A	SK60B	SK80A	SK80B	SK80C	SK95A	SK95B	SK95C
		SC60A	SC60B	SC80A	SC80B	SC80C	SC95A	SC95B	SC95C
<b>F 10 2</b>	i =	7.4_127.1	7.4_71.1	7.4_71.1		7.4_91.5	7.4_71.1	7.4_91.5	7.4_91.5
<b>F 20 2</b>		8.7_132.2 ⌀(14.8_18.1)	8.7_90.4 ⌀(14.8_18.1)	8.7_90.4 ⌀(14.8_18.1)		6.4_114.3	8.7_90.4 ⌀(14.8_18.1)	6.4_114.3	6.4_114.3
<b>F 20 3</b>		156.3_545.3	156.3_545.3	156.3_545.3		156.3_545.3	156.3_545.3	156.3_545.3	156.3_545.3
<b>F 25 2</b>		9.4_44.4 ⌀(10.6_13.0)	9.4_44.4 ⌀(10.6_13.0)	9.4_44.4 ⌀(10.6_13.0)		6.9_44.4	9.4_44.4 ⌀(10.6_13.0)	6.9_44.4	6.9_44.4
<b>F 25 3</b>		45.6_333.1	45.6_227.8	45.6_227.8		45.6_288.1	45.6_227.8	45.6_288.1	45.6_288.1
<b>F 25 4</b>		393.9_1374	393.9_1374	393.9_1374		393.9_1374	393.9_1374	393.9_1374	393.9_1374
<b>F 31 2</b>		18.5_44.6	18.5_44.6	18.5_44.6		6.9_44.6	18.5_44.6	6.9_44.6	6.9_44.6
<b>F 31 3</b>		69.1_374.4	69.1_293.8	69.1_293.8		47.5_374.4	69.1_293.8	47.5_374.4	47.5_374.4
<b>F 31 4</b>		418.9_1539	418.9_1539	418.9_1539		418.9_1539	418.9_1539	418.9_1539	418.9_1539
<b>F 41 2</b>					24.1_47.9	6.7_47.9	24.1_47.9	6.7_47.9	6.7_47.9
<b>F 41 3</b>					84.9_344.8	51.5_344.8	84.9_344.8	51.5_344.8	51.5_344.8
<b>F 41 4</b>		433.7_1411	433.7_1411	433.7_1411		433.7_1411	433.7_1411	433.7_1411	433.7_1411
<b>F 51 2</b>					30.0_37.1	7.2_37.1	30.0_37.1	7.2_37.1	7.2_37.1
<b>F 51 3</b>					105.1_352.5	48.9_352.5	105.1_352.5	48.9_352.5	48.9_352.5
<b>F 51 4</b>						429.1_1439	429.1_1439	429.1_1439	429.1_1439
<b>F 60 3</b>						11.8_280.7 ⌀(29.6_32.1)	106.4_280.7	11.8_280.7 ⌀(29.6_32.1)	11.8_280.7 ⌀(29.6_32.1)
<b>F 60 4</b>					315.4_1141	315.4_1141	315.4_1141	315.4_1141	315.4_1141

(D 59)

		SERVO INPUT					
		SK110A	SK110B	SK130A	SK130B	SK180A	SK180B
		SC110A	SC110B	SC130A	SC130B	SC180A	SC180B
<b>F 10 2</b>	i =	7.4_91.5	7.4_91.5				
<b>F 20 2</b>		6.4_114.3	6.4_114.3				
<b>F 20 3</b>		156.3_545.3	156.3_545.3				
<b>F 25 2</b>		6.9_44.4	6.9_44.4				
<b>F 25 3</b>		45.6_288.1	45.6_288.1				
<b>F 25 4</b>		393.9_1374	393.9_1374				
<b>F 31 2</b>		6.9_44.6	6.9_44.6	6.9_44.6			
<b>F 31 3</b>		47.5_374.4	47.5_374.4	47.5_374.4			
<b>F 31 4</b>		418.9_1539	418.9_1539				
<b>F 41 2</b>		6.7_47.9	6.7_47.9	6.7_47.9	6.7_47.9	6.7_47.9	6.7_47.9
<b>F 41 3</b>		51.5_344.8	51.5_344.8	51.5_344.8	51.5_168.7	51.5_168.7	51.5_168.7
<b>F 41 4</b>		433.7_1411	433.7_1411				
<b>F 51 2</b>		7.2_37.1	7.2_37.1	7.2_37.1	7.2_37.1	7.2_37.1	7.2_37.1
<b>F 51 3</b>		48.9_352.5	48.9_352.5	48.9_352.5	48.9_202.4	48.9_202.4	48.9_202.4
<b>F 51 4</b>		429.1_1439	429.1_1439	429.1_1439			
<b>F 60 3</b>		11.8_280.7 ⌀(29.6_32.1)	11.8_280.7 ⌀(29.6_32.1)	11.8_280.7 ⌀(29.6_32.1)	9.0_201.4	9.0_201.4	9.0_201.4
<b>F 60 4</b>		315.4_1141	315.4_1141	315.4_1141			





## 62 MOMENT OF INERTIA

The following charts indicate moment of inertia values  $J_r$  [kgm<sup>2</sup>] referred to the gear unit high speed shaft. A key to the symbols used follows:



Values under this icon refer to compact gear units, without motor. To obtain the overall moment of inertia for the gearmotor just add the value of the inertia for the specific compact motor, given in the relevant rating chart.



Values under this symbol refer to gearboxes with IEC motor adaptor (IEC size...).



This symbol refers to gearbox values.




Values under this symbol refer to gear unit with servomotor input adapter.

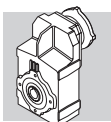
## F 10

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]							
			63	71	80	90	100	112	
F 10 2_7.4	7.4	1.0	1.8	1.8	3.8	3.7	4.9	4.9	1.7
F 10 2_8.6	8.6	0.77	1.5	1.5	3.6	3.5	4.7	4.7	1.5
F 10 2_9.8	9.8	0.64	1.4	1.4	3.4	3.3	4.5	4.5	1.3
F 10 2_11.5	11.5	0.48	1.2	1.2	3.3	3.2	4.4	4.4	1.2
F 10 2_13.0	13.0	0.38	1.1	1.1	3.2	3.1	4.3	4.3	1.1
F 10 2_14.6	14.6	0.61	1.4	1.4	3.4	3.3	4.5	4.5	1.3
F 10 2_17.0	17.0	0.48	1.3	1.2	3.3	3.2	4.4	4.4	1.2
F 10 2_19.3	19.3	0.41	1.2	1.2	3.2	3.1	4.3	4.3	1.1
F 10 2_22.8	22.8	0.32	1.1	1.1	3.1	3.0	4.2	4.2	1.0
F 10 2_25.8	25.8	0.25	1.0	1.0	3.1	2.9	4.1	4.1	0.93
F 10 2_29.6	29.6	0.19	1.0	0.95	3.0	2.9	4.1	4.1	0.87
F 10 2_33.0	33.0	0.16	0.93	0.92	3.0	2.8	4.1	4.1	0.84
F 10 2_35.3	35.3	0.14	0.92	0.90	3.0	2.8	4.0	4.0	0.83
F 10 2_39.6	39.6	0.12	0.90	0.88	2.9	2.8	4.0	4.0	0.80
F 10 2_44.7	44.7	0.10	0.88	0.86	2.9	2.8	4.0	4.0	0.79
F 10 2_48.7	48.7	0.09	0.86	0.85	2.9	2.8	4.0	4.0	0.77
F 10 2_56.7	56.7	0.07	0.84	0.83	2.9	2.7	4.0	4.0	0.75
F 10 2_63.0	63.0	0.06	0.83	0.82	2.9	2.7	3.9	3.9	0.74
F 10 2_71.1	71.1	0.05	0.82	0.81	2.8	2.7	3.9	3.9	0.73
F 10 2_81.3	81.3	0.04	0.78	0.77	2.8	2.7	3.9	3.9	0.67
F 10 2_91.5	91.5	0.03	0.78	0.76	2.8	2.7	3.9	3.9	0.66
F 10 2_106.0	106.0	0.03	0.77	0.76	—	—	—	—	0.66
F 10 2_127.1	127.1	0.02	0.76	0.75	—	—	—	—	0.65




# F 10

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 SERVO									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 10 2_7.4	7.4	1.3	1.5	1.3	1.7	3.8	4.3	3.8	4.3	3.7	4.7
F 10 2_8.6	8.6	1.0	1.3	1.1	1.5	3.6	4.0	3.6	4.1	3.5	4.5
F 10 2_9.8	9.8	0.91	1.2	0.93	1.4	3.5	3.9	3.4	3.9	3.3	4.3
F 10 2_11.5	11.5	0.75	1.0	0.77	1.2	3.3	3.7	3.3	3.8	3.2	4.2
F 10 2_13.0	13.0	0.65	0.91	0.67	1.1	3.2	3.6	3.2	3.7	3.1	4.1
F 10 2_14.6	14.6	0.88	1.1	0.91	1.3	3.4	3.9	3.4	3.9	3.3	4.3
F 10 2_17.0	17.0	0.75	1.0	0.77	1.2	3.3	3.7	3.3	3.8	3.2	4.2
F 10 2_19.3	19.3	0.68	0.94	0.70	1.1	3.2	3.7	3.2	3.7	3.1	4.1
F 10 2_22.8	22.8	0.59	0.85	0.61	1.0	3.1	3.6	3.1	3.6	3.0	4.0
F 10 2_25.8	25.8	0.52	0.78	0.54	0.98	3.1	3.5	3.1	3.6	2.9	3.9
F 10 2_29.6	29.6	0.46	0.72	0.48	0.92	3.0	3.4	3.0	3.5	2.9	3.9
F 10 2_33.0	33.0	0.43	0.69	0.45	0.89	3.0	3.4	3.0	3.5	2.8	3.8
F 10 2_35.3	35.3	0.41	0.67	0.43	0.87	3.0	3.4	3.0	3.5	2.8	3.8
F 10 2_39.6	39.6	0.39	0.65	0.41	0.85	2.9	3.3	2.9	3.4	2.8	3.8
F 10 2_44.7	44.7	0.37	0.63	0.39	0.83	2.9	3.4	2.9	3.4	2.8	3.8
F 10 2_48.7	48.7	0.36	0.62	0.38	0.82	2.9	3.3	2.9	3.4	2.8	3.8
F 10 2_56.7	56.7	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7
F 10 2_63.0	63.0	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.7	3.7
F 10 2_71.1	71.1	0.32	0.58	0.34	0.78	2.9	3.3	2.8	3.3	2.7	3.7
F 10 2_81.3	81.3	0.31	0.57	—	—	—	—	2.8	3.3	2.7	3.7
F 10 2_91.5	91.5	0.30	0.56	—	—	—	—	2.8	3.3	2.7	3.7
F 10 2_106.0	106.0	0.30	0.56	—	—	—	—	—	—	—	—
F 10 2_127.1	127.1	0.29	0.55	—	—	—	—	—	—	—	—




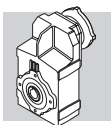
## F 20

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]							
			63	71	80	90	100	112	
F 20 2_6.4	6.4	2.2	—	—	5.0	4.8	6.0	6.0	3.9
F 20 2_7.8	7.8	1.5	—	—	4.3	4.2	5.4	5.4	3.3
F 20 2_8.7	8.7	1.3	2.0	2.0	4.1	3.9	5.2	5.2	3.0
F 20 2_10.0	10.0	1.0	1.8	1.7	3.8	3.7	4.9	4.9	2.7
F 20 2_11.2	11.2	0.88	1.6	1.6	3.6	3.5	4.7	4.7	2.6
F 20 2_14.8	14.8	1.2	—	—	4.0	3.9	5.1	5.1	2.9
F 20 2_18.1	18.1	0.90	—	—	3.7	3.5	4.7	4.7	2.6
F 20 2_20.2	20.2	0.78	1.5	1.5	3.5	3.4	4.6	4.6	2.5
F 20 2_23.1	23.1	0.64	1.4	1.3	3.4	3.3	4.5	4.5	2.4
F 20 2_25.9	25.9	0.57	1.3	1.3	3.3	3.2	4.4	4.4	2.3
F 20 2_30.4	30.4	0.41	1.1	1.1	3.2	3.0	4.3	4.3	2.1
F 20 2_33.1	33.1	0.36	1.1	1.1	3.1	3.0	4.2	4.2	2.1
F 20 2_37.9	37.9	0.30	1.0	1.0	3.1	2.9	4.1	4.1	2.0
F 20 2_41.8	41.8	0.27	1.0	1.0	3.0	2.9	4.1	4.1	2.0
F 20 2_44.8	44.8	0.24	1.0	1.0	3.0	2.9	4.1	4.1	2.0
F 20 2_50.7	50.7	0.21	0.93	0.92	3.0	2.8	4.1	4.1	1.9
F 20 2_56.7	56.7	0.18	0.91	0.90	2.9	2.8	4.0	4.0	1.9
F 20 2_61.9	61.9	0.16	0.89	0.88	2.9	2.8	4.0	4.0	1.9
F 20 2_69.1	69.1	0.14	0.87	0.86	2.9	2.8	4.0	4.0	1.8
F 20 2_76.8	76.8	0.12	0.86	0.85	2.9	2.8	4.0	4.0	1.8
F 20 2_90.4	90.4	0.10	0.84	0.82	2.9	2.7	3.9	3.9	1.8
F 20 2_101.6	101.6	0.09	0.80	0.79	2.8	2.7	3.9	3.9	1.8
F 20 2_114.3	114.3	0.08	0.79	0.77	2.8	2.7	3.9	3.9	1.8
F 20 2_132.2	132.2	0.03	0.78	0.77	—	—	—	—	1.8
F 20 3_156.3	156.3	0.04	0.81	0.80	2.8	2.7	3.9	3.9	0.72
F 20 3_172.6	172.6	0.04	0.81	0.80	2.8	2.7	3.9	3.9	0.72
F 20 3_184.9	184.9	0.04	0.81	0.80	2.8	2.7	3.9	3.9	0.72
F 20 3_209.3	209.3	0.03	0.81	0.79	2.8	2.7	3.9	3.9	0.72
F 20 3_234.0	234.0	0.03	0.81	0.79	2.8	2.7	3.9	3.9	0.71
F 20 3_255.3	255.3	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.71
F 20 3_285.2	285.2	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.71
F 20 3_316.9	316.9	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.71
F 20 3_372.9	372.9	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.71
F 20 3_419.3	419.3	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.66
F 20 3_471.7	471.7	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.66
F 20 3_545.3	545.3	0.03	0.80	0.79	2.8	2.7	3.9	3.9	0.66







## F 20

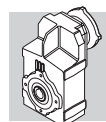
		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 SERVO									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 20 2_6.4	6.4	—	—	—	—	—	—	5.0	5.5	4.8	5.8
F 20 2_7.8	7.8	—	—	—	—	—	—	4.3	4.8	4.2	5.2
F 20 2_8.7	8.7	1.6	1.8	1.6	2.0	4.1	4.6	4.1	4.6	3.9	4.9
F 20 2_10.0	10.0	1.3	1.5	1.3	1.7	3.8	4.3	3.8	4.3	3.7	4.7
F 20 2_11.2	11.2	1.2	1.4	1.2	1.6	3.7	4.1	3.6	4.1	3.5	4.5
F 20 2_14.8	14.8	—	—	—	—	—	—	4.0	4.5	3.9	4.9
F 20 2_18.1	18.1	—	—	—	—	—	—	3.7	4.2	3.5	4.5
F 20 2_20.2	20.2	1.1	1.3	1.1	1.5	3.6	4.0	3.5	4.0	3.4	4.4
F 20 2_23.1	23.1	0.91	1.2	0.93	1.4	3.5	3.9	3.4	3.9	3.3	4.3
F 20 2_25.9	25.9	0.84	1.1	0.86	1.3	3.4	3.8	3.3	3.8	3.2	4.2
F 20 2_30.4	30.4	0.68	0.94	0.70	1.1	3.2	3.7	3.2	3.7	3.0	4.0
F 20 2_33.1	33.1	0.63	0.89	0.65	1.1	3.2	3.6	3.1	3.6	3.0	4.0
F 20 2_37.9	37.9	0.47	0.83	0.59	1.0	3.1	3.6	3.1	3.6	2.9	3.9
F 20 2_41.8	41.8	0.44	0.80	0.56	1.0	3.1	3.5	3.0	3.5	2.9	3.9
F 20 2_44.8	44.8	0.41	0.77	0.53	0.97	3.1	3.5	3.0	3.5	2.9	3.9
F 20 2_50.7	50.7	0.48	0.74	0.50	0.94	3.0	3.5	3.0	3.5	2.8	3.8
F 20 2_56.7	56.7	0.45	0.71	0.47	0.91	3.0	3.4	2.9	3.4	2.8	3.8
F 20 2_61.9	61.9	0.43	0.69	0.45	0.89	3.0	3.4	2.9	3.4	2.8	3.8
F 20 2_69.1	69.1	0.41	0.67	0.43	0.87	3.0	3.4	2.9	3.4	2.8	3.8
F 20 2_76.8	76.8	0.39	0.65	0.41	0.85	2.9	3.4	2.9	3.4	2.8	3.8
F 20 2_90.4	90.4	0.37	0.63	0.39	0.83	2.9	3.4	2.9	3.4	2.7	3.7
F 20 2_101.6	101.6	0.36	0.62	—	—	—	—	2.8	3.3	2.7	3.7
F 20 2_114.3	114.3	0.35	0.61	—	—	—	—	2.8	3.3	2.7	3.7
F 20 2_132.2	132.2	0.30	0.56	—	—	—	—	—	—	—	—
F 20 3_156.3	156.3	0.31	0.57	0.33	0.77	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_172.6	172.6	0.31	0.57	0.33	0.77	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_184.9	184.9	0.31	0.57	0.33	0.77	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_209.3	209.3	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_234.0	234.0	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_255.3	255.3	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_285.2	285.2	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_316.9	316.9	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_372.9	372.9	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_419.3	419.3	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_471.7	471.7	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7
F 20 3_545.3	545.3	0.30	0.56	0.32	0.76	2.9	3.3	2.8	3.3	2.7	3.7




## F 25

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]							
			 IEC						
			63	71	80	90	100		
F 25 2_6.9	6.9	2.7	—	—	5.4	5.3	6.5	6.5	4.4
F 25 2_8.4	8.4	1.9	—	—	4.6	4.5	5.7	5.7	3.6
F 25 2_9.4	9.4	1.6	2.3	2.3	4.3	4.2	5.4	5.4	3.3
F 25 2_10.6	10.6	1.9	—	—	4.6	4.5	5.7	5.7	3.6
F 25 2_13.0	13.0	1.3	—	—	4.1	4.0	5.2	5.2	3.0
F 25 2_14.5	14.5	1.1	1.8	1.8	3.9	3.8	5.0	5.0	2.8
F 25 2_16.6	16.6	0.90	1.6	1.6	3.7	3.5	4.7	4.7	2.6
F 25 2_18.6	18.6	0.77	1.5	1.5	3.5	3.4	4.6	4.6	2.5
F 25 2_21.8	21.8	0.57	1.3	1.3	3.3	3.2	4.4	4.4	2.3
F 25 2_23.8	23.8	0.48	1.2	1.2	3.2	3.1	4.3	4.3	2.2
F 25 2_27.2	27.2	0.40	1.1	1.1	3.2	3.0	4.2	4.2	2.1
F 25 2_30.0	30.0	0.35	1.1	1.1	3.1	3.0	4.2	4.2	2.1
F 25 2_32.2	32.2	0.31	1.0	1.0	3.1	2.9	4.2	4.2	2.0
F 25 2_36.4	36.4	0.26	1.0	1.0	3.0	2.9	4.1	4.1	2.0
F 25 2_40.7	40.7	0.22	1.0	0.94	3.0	2.9	4.1	4.1	1.9
F 25 2_44.4	44.4	0.20	0.93	0.92	3.0	2.8	4.0	4.0	1.9
F 25 3_45.6	45.6	0.79	—	—	3.6	3.4	4.6	4.6	2.5
F 25 3_50.8	50.8	0.70	1.4	1.4	3.5	3.3	4.5	4.5	2.4
F 25 3_58.3	58.3	0.58	1.3	1.3	3.3	3.2	4.4	4.4	2.3
F 25 3_65.3	65.3	0.52	1.2	1.2	3.3	3.1	4.4	4.4	2.2
F 25 3_76.6	76.6	0.38	1.1	1.1	3.1	3.0	4.2	4.2	2.1
F 25 3_83.4	83.4	0.32	1.0	1.0	3.1	3.0	4.2	4.2	2.0
F 25 3_95.5	95.5	0.28	1.0	1.0	3.0	2.9	4.1	4.1	2.0
F 25 3_105.4	105.4	0.25	1.0	1.0	3.0	2.9	4.1	4.1	2.0
F 25 3_113.0	113.0	0.23	0.95	0.94	3.0	2.9	4.1	4.1	1.9
F 25 3_127.8	127.8	0.20	0.92	0.91	3.0	2.8	4.0	4.0	1.9
F 25 3_143.0	143.0	0.17	0.90	0.89	2.9	2.8	4.0	4.0	1.9
F 25 3_155.9	155.9	0.15	0.88	0.87	2.9	2.8	4.0	4.0	1.9
F 25 3_174.2	174.2	0.13	0.87	0.86	2.9	2.8	4.0	4.0	1.8
F 25 3_193.6	193.6	0.12	0.85	0.84	2.9	2.7	4.0	4.0	1.8
F 25 3_227.8	227.8	0.10	0.83	0.82	2.9	2.7	3.9	3.9	1.8
F 25 3_256.1	256.1	0.09	0.79	0.78	2.8	2.7	3.9	3.9	1.8
F 25 3_288.1	288.1	0.08	0.78	0.77	2.8	2.7	3.9	3.9	1.8
F 25 3_333.1	333.1	0.03	0.78	0.76	—	—	—	—	1.8
F 25 4_393.9	393.9	0.02	0.80	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_434.9	434.9	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_466.0	466.0	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_527.3	527.3	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_589.7	589.7	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_643.3	643.3	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_718.7	718.7	0.02	0.79	0.78	2.8	2.7	3.9	3.9	0.70
F 25 4_798.5	798.5	0.01	0.79	0.77	2.8	2.7	3.9	3.9	0.70
F 25 4_939.8	939.8	0.01	0.79	0.77	2.8	2.7	3.9	3.9	0.69
F 25 4_1057	1057	0.01	0.79	0.77	2.8	2.7	3.9	3.9	0.64
F 25 4_1189	1189	0.01	0.78	0.77	2.8	2.7	3.9	3.9	0.64
F 25 4_1374	1374	0.01	0.78	0.77	2.8	2.7	3.9	3.9	0.64







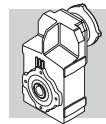
# F 25

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 SERVO									
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 25 2_6.9	6.9	—	—	—	—	—	—	5.4	5.9	5.3	6.3
F 25 2_8.4	8.4	—	—	—	—	—	—	4.6	5.1	4.5	5.5
F 25 2_9.4	9.4	1.9	2.1	1.9	2.3	4.4	4.9	4.3	4.8	4.2	5.2
F 25 2_10.6	10.6	—	—	—	—	—	—	4.6	5.1	4.5	5.5
F 25 2_13.0	13.0	—	—	—	—	—	—	4.1	4.6	4.0	5.0
F 25 2_14.5	14.5	1.4	1.6	1.4	1.8	3.9	4.4	3.9	4.4	3.8	4.8
F 25 2_16.6	16.6	1.2	1.4	1.2	1.6	3.7	4.2	3.7	4.2	3.5	4.5
F 25 2_18.6	18.6	1.0	1.3	1.1	1.5	3.6	4.0	3.5	4.0	3.4	4.4
F 25 2_21.8	21.8	0.84	1.1	0.86	1.3	3.4	3.8	3.3	3.8	3.2	4.2
F 25 2_23.8	23.8	0.75	1.0	0.77	1.2	3.3	3.7	3.2	3.7	3.1	4.1
F 25 2_27.2	27.2	0.67	0.93	0.69	1.1	3.2	3.7	3.2	3.7	3.0	4.0
F 25 2_30.0	30.0	0.62	0.88	0.64	1.1	3.2	3.6	3.1	3.6	3.0	4.0
F 25 2_32.2	32.2	0.58	0.84	1.4	1.8	3.1	3.6	3.1	3.6	2.9	3.9
F 25 2_36.4	36.4	0.53	0.79	0.55	0.99	3.1	3.5	3.0	3.5	2.9	3.9
F 25 2_40.7	40.7	0.49	0.75	0.51	0.95	3.0	3.5	3.0	3.5	2.9	3.9
F 25 2_44.4	44.4	0.47	0.73	0.49	0.93	3.0	3.5	3.0	3.5	2.8	3.8
F 25 3_45.6	45.6	1.1	1.3	1.1	1.5	3.6	4.0	3.6	4.1	3.4	4.4
F 25 3_50.8	50.8	0.97	1.2	0.99	1.4	3.5	4.0	3.5	4.0	3.3	4.3
F 25 3_58.3	58.3	0.85	1.1	0.87	1.3	3.4	3.8	3.3	3.8	3.2	4.2
F 25 3_65.3	65.3	0.79	1.1	0.84	1.2	3.3	3.8	3.3	3.8	3.1	4.1
F 25 3_76.6	76.6	0.65	0.91	0.67	1.1	3.2	3.6	3.1	3.6	3.0	4.0
F 25 3_83.4	83.4	0.59	0.85	0.61	1.0	3.1	3.6	3.1	3.6	3.0	4.0
F 25 3_95.5	95.5	0.55	0.81	0.57	1.0	3.1	3.5	3.0	3.5	2.9	3.9
F 25 3_105.4	105.4	0.52	0.78	0.54	0.98	3.1	3.5	3.0	3.5	2.9	3.9
F 25 3_113.0	113.0	0.50	0.76	0.52	0.96	3.1	3.5	3.0	3.5	2.9	3.9
F 25 3_127.8	127.8	0.47	0.73	0.49	0.93	3.0	3.5	3.0	3.5	2.8	3.8
F 25 3_143.0	143.0	0.44	0.70	0.46	0.90	3.0	3.4	2.9	3.4	2.8	3.8
F 25 3_155.9	155.9	0.42	0.68	0.44	0.88	3.0	3.4	2.9	3.4	2.8	3.8
F 25 3_174.2	174.2	0.40	0.66	0.42	0.86	3.0	3.4	2.9	3.4	2.8	3.8
F 25 3_193.6	193.6	0.39	0.65	0.41	0.85	2.9	3.4	2.9	3.4	2.7	3.7
F 25 3_227.8	227.8	0.37	0.63	0.39	0.83	2.9	3.4	2.9	3.4	2.7	3.7
F 25 3_256.1	256.1	0.36	0.62	—	—	—	—	2.8	3.3	2.7	3.7
F 25 3_288.1	288.1	0.35	0.61	—	—	—	—	2.8	3.3	2.7	3.7
F 25 3_333.1	333.1	0.30	0.56	—	—	—	—	—	—	—	—
F 25 4_393.9	393.9	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_434.9	434.9	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_466.0	466.0	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_527.3	527.3	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_589.7	589.7	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_643.3	643.3	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_718.7	718.7	0.29	0.55	0.31	0.75	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_798.5	798.5	0.28	0.54	0.30	0.74	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_939.8	939.8	0.28	0.54	0.30	0.74	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_1057	1057	0.28	0.54	0.30	0.74	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_1189	1189	0.28	0.54	0.30	0.74	2.8	3.3	2.8	3.3	2.7	3.7
F 25 4_1374	1374	0.28	0.54	0.30	0.74	2.8	3.3	2.8	3.3	2.7	3.7




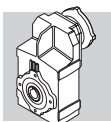
# F 31

	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]								
			63	71	80	90 	100	112	132	
F 31 2_6.9	6.9	5.0	—	—	7.8	7.6	8.9	8.9	22	7.1
F 31 2_8.2	8.2	3.7	—	—	6.5	6.3	7.5	7.5	20	5.8
F 31 2_9.0	9.0	3.2	—	—	6.0	5.8	7.0	7.0	20	5.3
F 31 2_10.7	10.7	3.5	—	—	6.3	6.2	7.4	7.4	20	5.6
F 31 2_12.7	12.7	2.6	—	—	5.4	5.3	6.5	6.5	19	4.7
F 31 2_13.9	13.9	2.3	—	—	5.1	4.9	6.2	6.2	19	4.4
F 31 2_16.8	16.8	1.8	—	—	4.6	4.4	5.6	5.6	18	3.9
F 31 2_18.5	18.5	1.5	2.2	2.2	4.2	4.1	5.3	5.3	18	3.5
F 31 2_21.1	21.1	1.1	1.8	1.8	3.9	3.7	5.0	5.0	18	3.2
F 31 2_23.4	23.4	1.0	1.7	1.7	3.7	3.6	4.8	4.8	18	3.0
F 31 2_27.3	27.3	0.78	1.5	1.5	3.5	3.4	4.6	4.6	17	2.8
F 31 2_30.1	30.1	0.65	1.4	1.4	3.4	3.3	4.5	4.5	17	2.7
F 31 2_34.4	34.4	0.53	1.3	1.2	3.3	3.2	4.4	4.4	17	2.6
F 31 2_37.7	37.7	0.47	1.2	1.2	3.2	3.1	4.3	4.3	17	2.5
F 31 2_40.4	40.4	0.42	1.1	1.1	3.2	3.0	4.3	4.3	—	2.5
F 31 2_44.6	44.6	0.37	1.1	1.1	3.1	3.0	4.2	4.2	—	2.4
F 31 3_47.5	47.5	1.6	—	—	4.3	4.2	5.4	5.4	18	3.6
F 31 3_52.1	52.1	1.4	—	—	4.2	4.0	5.3	5.3	18	3.5
F 31 3_62.8	62.8	1.2	—	—	3.9	3.8	5.0	5.0	18	3.2
F 31 3_69.1	69.1	1.0	1.7	1.7	3.7	3.6	4.8	4.8	18	3.0
F 31 3_78.9	78.9	0.72	1.4	1.4	3.5	3.4	4.6	4.6	17	2.8
F 31 3_87.4	87.4	0.66	1.4	1.4	3.4	3.3	4.5	4.5	17	2.7
F 31 3_101.9	101.9	0.54	1.3	1.2	3.3	3.2	4.4	4.4	17	2.6
F 31 3_112.5	112.5	0.46	1.2	1.2	3.2	3.1	4.3	4.3	17	2.5
F 31 3_128.4	128.4	0.38	1.1	1.1	3.1	3.0	4.2	4.2	17	2.4
F 31 3_140.7	140.7	0.35	1.1	1.1	3.1	3.0	4.2	4.2	17	2.4
F 31 3_150.8	150.8	0.31	1.0	1.0	3.1	2.9	4.2	4.2	—	2.4
F 31 3_166.8	166.8	0.28	1.0	1.0	3.0	2.9	4.1	4.1	—	2.3
F 31 3_185.4	185.4	0.24	1.0	1.0	3.0	2.9	4.1	4.1	—	2.3
F 31 3_202.3	202.3	0.21	0.94	0.93	3.0	2.8	4.1	4.1	—	2.3
F 31 3_228.2	228.2	0.18	0.92	0.90	2.9	2.8	4.0	4.0	—	2.2
F 31 3_253.6	253.6	0.16	0.89	0.88	2.9	2.8	4.0	4.0	—	2.2
F 31 3_293.8	293.8	0.13	0.86	0.85	2.9	2.8	4.0	4.0	—	2.2
F 31 3_332.8	332.8	0.11	0.82	0.81	2.9	2.7	4.0	4.0	—	2.2
F 31 3_374.4	374.4	0.10	0.81	0.79	2.9	2.7	3.9	3.9	—	2.2
F 31 4_418.9	418.9	0.09	0.86	0.85	2.9	2.8	3.9	3.9	—	0.77
F 31 4_462.6	462.6	0.08	0.86	0.84	2.9	2.7	3.9	3.9	—	0.77
F 31 4_527.8	527.8	0.08	0.85	0.84	2.9	2.7	3.9	3.9	—	0.76
F 31 4_578.6	578.6	0.08	0.85	0.84	2.9	2.7	3.9	3.9	—	0.76
F 31 4_619.9	619.9	0.07	0.85	0.83	2.9	2.7	3.9	3.9	—	0.76
F 31 4_685.6	685.6	0.07	0.85	0.83	2.9	2.7	3.9	3.9	—	0.76
F 31 4_762.3	762.3	0.07	0.84	0.83	2.9	2.7	3.9	3.9	—	0.75
F 31 4_831.6	831.6	0.07	0.84	0.83	2.9	2.7	3.9	3.9	—	0.75
F 31 4_938.2	938.2	0.07	0.84	0.83	2.9	2.7	3.9	3.9	—	0.75
F 31 4_1042	1042	0.07	0.84	0.83	2.9	2.7	3.9	3.9	—	0.75
F 31 4_1208	1208	0.06	0.84	0.82	2.9	2.7	3.9	3.9	—	0.75
F 31 4_1368	1368	0.06	0.84	0.82	2.9	2.7	3.9	3.9	—	0.75
F 31 4_1539	1539	0.06	0.84	0.82	2.9	2.7	3.9	3.9	—	0.75





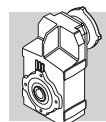
# F 31

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
													
	i	60A		60B 80A		95A		80C 95B 110A		95C 110B		130A	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 31 2_6.9	6.9	—	—	—	—	—	—	7.8	8.3	7.6	8.6	7.6	8.6
F 31 2_8.2	8.2	—	—	—	—	—	—	6.5	7.0	6.3	7.3	6.3	7.3
F 31 2_9.0	9.0	—	—	—	—	—	—	6.0	6.5	5.8	6.8	5.8	6.8
F 31 2_10.7	10.7	—	—	—	—	—	—	6.3	6.8	6.2	7.2	6.2	7.2
F 31 2_12.7	12.7	—	—	—	—	—	—	5.4	5.9	5.3	6.3	5.3	6.3
F 31 2_13.9	13.9	—	—	—	—	—	—	5.1	5.6	4.9	5.9	4.9	5.9
F 31 2_16.8	16.8	—	—	—	—	—	—	4.6	5.1	4.4	5.4	4.4	5.4
F 31 2_18.5	18.5	1.8	2.0	1.8	2.2	4.3	4.8	4.2	4.7	4.1	5.1	4.1	5.1
F 31 2_21.1	21.1	1.4	1.6	1.4	1.8	3.9	4.3	3.9	4.4	3.7	4.7	3.7	4.7
F 31 2_23.4	23.4	1.3	1.5	1.3	1.7	3.8	4.3	3.7	4.2	3.6	4.6	3.6	4.6
F 31 2_27.3	27.3	1.1	1.3	1.1	1.5	3.6	4.0	3.5	4.0	3.4	4.4	3.4	4.4
F 31 2_30.1	30.1	0.92	1.2	0.94	1.4	3.5	3.9	3.4	3.9	3.3	4.3	3.3	4.3
F 31 2_34.4	34.4	0.80	1.1	0.82	1.3	3.4	3.8	3.3	3.8	3.2	4.2	3.2	4.2
F 31 2_37.7	37.7	0.74	1.0	0.76	1.2	3.3	3.7	3.2	3.7	3.1	4.1	3.1	4.1
F 31 2_40.4	40.4	0.69	0.95	0.71	1.1	3.2	3.7	3.2	3.7	3.0	4.0	3.0	4.0
F 31 2_44.6	44.6	0.64	0.90	0.66	1.1	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0
F 31 3_47.5	47.5	—	—	—	—	—	—	4.3	4.8	4.2	5.2	4.2	5.2
F 31 3_52.1	52.1	—	—	—	—	—	—	4.2	4.7	4.0	5.0	4.0	5.0
F 31 3_62.8	62.8	—	—	—	—	—	—	3.9	4.4	3.8	4.8	3.8	4.8
F 31 3_69.1	69.1	1.3	1.5	1.3	1.7	3.8	4.3	3.7	4.2	3.6	4.6	3.6	4.6
F 31 3_78.9	78.9	0.99	1.3	1.0	1.4	3.5	4.0	3.5	4.0	3.4	4.4	3.4	4.4
F 31 3_87.4	87.4	0.93	1.2	0.95	1.4	3.5	3.9	3.4	3.9	3.3	4.3	3.3	4.3
F 31 3_101.9	101.9	0.81	1.1	0.83	1.3	3.4	3.8	3.3	3.8	3.2	4.2	3.2	4.2
F 31 3_112.5	112.5	0.73	0.99	0.75	1.2	3.3	3.7	3.2	3.7	3.1	4.1	3.1	4.1
F 31 3_128.4	128.4	0.65	0.91	0.67	1.1	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0
F 31 3_140.7	140.7	0.62	0.88	0.64	1.1	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0
F 31 3_150.8	150.8	0.58	0.84	0.60	1.0	3.1	3.6	3.1	3.6	2.9	3.9	2.9	3.9
F 31 3_166.8	166.8	0.55	0.81	0.57	1.0	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9
F 31 3_185.4	185.4	0.51	0.77	0.53	0.97	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9
F 31 3_202.3	202.3	0.48	0.74	0.50	0.93	3.0	3.5	3.0	3.5	2.8	3.8	2.8	3.8
F 31 3_228.2	228.2	0.45	0.71	0.47	0.91	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8
F 31 3_253.6	253.6	0.43	0.69	0.45	0.89	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8
F 31 3_293.8	293.8	0.40	0.66	0.42	0.86	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8
F 31 3_332.8	332.8	0.38	0.64	—	—	—	—	2.9	3.4	2.7	3.7	2.7	3.7
F 31 3_374.4	374.4	0.37	0.63	—	—	—	—	2.9	3.4	2.7	3.7	2.7	3.7
F 31 4_418.9	418.9	0.36	0.62	0.38	0.82	2.9	3.3	2.9	3.4	2.8	3.8	—	—
F 31 4_462.6	462.6	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_527.8	527.8	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_578.6	578.6	0.35	0.61	0.37	0.81	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_619.9	619.9	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_685.6	685.6	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_762.3	762.3	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_831.6	831.6	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_938.2	938.2	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_1042	1042	0.34	0.60	0.36	0.80	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_1208	1208	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_1368	1368	0.33	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.7	3.7	—	—
F 31 4_1539	1539	0.83	0.59	0.35	0.79	2.9	3.3	2.9	3.4	2.7	3.7	—	—




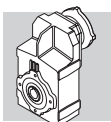
# F 41

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			63	71	80	90 	100	112	132	
F 41 2_6.7	6.7	12	—	—	15	15	18	18	29	21
F 41 2_9.1	9.1	7.2	—	—	10	9.8	13	13	24	16
F 41 2_10.8	10.8	8.0	—	—	11	11	13	13	25	17
F 41 2_14.6	14.6	5.0	—	—	7.7	7.6	10	10	21	14
F 41 2_17.1	17.1	3.5	—	—	6.3	6.2	8.9	8.9	20	12
F 41 2_18.9	18.9	3.1	—	—	5.8	5.7	8.5	8.5	20	12
F 41 2_24.1	24.1	2.1	2.8	2.8	4.9	4.8	7.5	7.5	19	11
F 41 2_30.1	30.1	1.5	2.2	2.2	4.3	4.2	6.9	6.9	18	10
F 41 2_38.2	38.2	0.95	1.7	1.7	3.7	3.6	6.3	6.3	17	9.7
F 41 2_47.9	47.9	0.67	1.4	1.4	3.4	3.3	6.0	6.0	17	9.5
F 41 3_51.5	51.5	3.0	—	—	5.7	5.6	8.4	8.4	19	12
F 41 3_60.2	60.2	2.1	—	—	4.9	4.7	7.5	7.5	19	11
F 41 3_66.5	66.5	1.9	—	—	4.7	4.5	7.3	7.3	18	11
F 41 3_84.9	84.9	1.4	2.1	2.1	4.2	4.0	6.8	6.8	18	10
F 41 3_106.0	106.0	1.1	1.8	1.7	3.8	3.7	6.4	6.4	18	9.8
F 41 3_134.4	134.4	0.66	1.4	1.4	3.4	3.3	6.0	6.0	17	9.4
F 41 3_168.7	168.7	0.49	1.2	1.2	3.2	3.1	5.9	5.9	17	9.3
F 41 3_180.7	180.7	0.43	1.1	1.1	3.2	3.1	5.8	5.8	—	9.2
F 41 3_198.9	198.9	0.39	1.1	1.1	3.1	3.0	5.8	5.8	—	9.2
F 41 3_220.1	220.1	0.36	1.1	1.1	3.1	3.0	5.7	5.7	—	9.1
F 41 3_240.1	240.1	0.31	1.0	1.0	3.1	2.9	5.7	5.7	—	9.1
F 41 3_266.9	266.9	0.28	1.0	1.0	3.0	2.9	5.7	5.7	—	9.1
F 41 3_296.6	296.6	0.23	1.0	1.0	3.0	2.9	5.6	5.6	—	9.0
F 41 3_344.8	344.8	0.19	0.92	0.91	2.9	2.8	5.6	5.6	—	9.0
F 41 4_433.7	433.7	0.21	0.94	0.93	3.0	2.8	4.1	4.1	—	1.9
F 41 4_549.8	549.8	0.19	0.92	0.90	2.9	2.8	4.0	4.0	—	1.9
F 41 4_690.1	690.1	0.18	0.91	0.89	2.9	2.8	4.0	4.0	—	1.9
F 41 4_739.4	739.4	0.17	0.90	0.89	2.9	2.8	4.0	4.0	—	1.9
F 41 4_813.8	813.8	0.17	0.90	0.89	2.9	2.8	4.0	4.0	—	1.9
F 41 4_900.5	900.5	0.17	0.90	0.89	2.9	2.8	4.0	4.0	—	1.9
F 41 4_982.4	982.4	0.17	0.90	0.88	2.9	2.8	4.0	4.0	—	1.9
F 41 4_1092	1092	0.16	0.89	0.88	2.9	2.8	4.0	4.0	—	1.9
F 41 4_1213	1213	0.16	0.89	0.88	2.9	2.8	4.0	4.0	—	1.9
F 41 4_1411	1411	0.16	0.89	0.88	2.9	2.8	4.0	4.0	—	1.9




# F 41

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]																	
		 SERVO																	
	i	60A		60B 80A		80B		95A		80C 95B 110A		95C 110B		130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 41 2_6.7	6.7	—	—	—	—	—	—	—	—	15	16	15	16	15	16	29	31	29	34
F 41 2_9.1	9.1	—	—	—	—	—	—	—	—	10	11	9.8	11	9.8	11	24	27	24	29
F 41 2_10.8	10.8	—	—	—	—	—	—	—	—	11	12	11	12	11	12	25	27	25	30
F 41 2_14.6	14.6	—	—	—	—	—	—	—	—	7.7	8.2	7.6	8.6	7.6	8.6	22	24	21	26
F 41 2_17.1	17.1	—	—	—	—	—	—	—	—	6.3	6.8	6.2	7.2	6.2	7.2	20	23	20	25
F 41 2_18.9	18.9	—	—	—	—	—	—	—	—	5.8	6.3	5.7	6.7	5.7	6.7	20	23	20	25
F 41 2_24.1	24.1	—	—	—	—	4.9	5.4	4.9	5.4	4.9	5.4	4.8	5.8	4.8	5.8	19	22	19	24
F 41 2_30.1	30.1	—	—	—	—	4.3	4.8	4.3	4.8	4.3	4.8	4.2	5.2	4.2	5.2	18	21	18	23
F 41 2_38.2	38.2	—	—	—	—	3.8	4.2	3.8	4.2	3.7	4.2	3.6	4.6	3.6	4.6	18	20	17	22
F 41 2_47.9	47.9	—	—	—	—	3.5	3.9	3.5	3.9	3.4	3.9	3.3	4.3	3.3	4.3	18	20	17	22
F 41 3_51.5	51.5	—	—	—	—	—	—	—	—	5.7	6.2	5.6	6.6	5.6	6.6	20	22	19	24
F 41 3_60.2	60.2	—	—	—	—	—	—	—	—	4.9	5.4	4.7	5.7	4.7	5.7	19	22	19	24
F 41 3_66.5	66.5	—	—	—	—	—	—	—	—	4.7	5.2	4.5	5.5	4.5	5.5	19	21	18	23
F 41 3_84.9	84.9	—	—	—	—	4.2	4.7	4.2	4.7	4.2	4.7	4.0	5.0	4.0	5.0	18	21	18	23
F 41 3_106.0	106.0	—	—	—	—	3.9	4.4	3.9	4.4	3.8	4.3	3.7	4.7	3.7	4.7	18	21	18	23
F 41 3_134.4	134.4	—	—	—	—	3.5	3.9	3.5	3.9	3.4	3.9	3.3	4.3	3.3	4.3	18	20	17	22
F 41 3_168.7	168.7	—	—	—	—	3.3	3.7	3.3	3.7	3.2	3.7	3.1	4.1	3.1	4.1	17	20	17	22
F 41 3_180.7	180.7	—	—	—	—	3.3	3.7	3.3	3.7	3.2	3.7	3.1	4.1	3.1	4.1	—	—	—	—
F 41 3_198.9	198.9	—	—	—	—	3.2	3.6	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0	—	—	—	—
F 41 3_220.1	220.1	—	—	—	—	3.2	3.6	3.2	3.6	3.1	3.6	3.0	4.0	3.0	4.0	—	—	—	—
F 41 3_240.1	240.1	—	—	—	—	3.1	3.6	3.1	3.6	3.1	3.6	2.9	3.9	2.9	3.9	—	—	—	—
F 41 3_266.9	266.9	—	—	—	—	3.1	3.5	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9	—	—	—	—
F 41 3_296.6	296.6	—	—	—	—	3.1	3.5	3.1	3.5	3.0	3.5	2.9	3.9	2.9	3.9	—	—	—	—
F 41 3_344.8	344.8	—	—	—	—	3.0	3.4	3.0	3.4	2.9	3.4	2.8	3.8	2.8	3.8	—	—	—	—
F 41 4_433.7	433.7	0.48	0.74	0.50	0.94	—	—	3.0	3.5	3.0	3.5	2.8	3.8	—	—	—	—	—	—
F 41 4_549.8	549.8	0.46	0.72	0.48	0.92	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_690.1	690.1	0.45	0.71	0.47	0.91	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_739.4	739.4	0.44	0.70	0.46	0.90	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_813.8	813.8	0.44	0.70	0.46	0.90	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_900.5	900.5	0.44	0.70	0.46	0.90	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_982.4	982.4	0.44	0.70	0.46	0.90	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_1092	1092	0.43	0.69	0.45	0.89	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_1213	1213	0.43	0.69	0.45	0.89	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—
F 41 4_1411	1411	0.43	0.69	0.45	0.89	—	—	3.0	3.4	2.9	3.4	2.8	3.8	—	—	—	—	—	—




## F 51

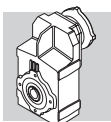
	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
			63	71	80	90	100	112	132	160	180	
F 51 2_7.2	7.2	25	—	—	28	28	30	30	42	101	103	34
F 51 2_9.1	9.1	17	—	—	20	19	22	22	33	92	94	26
F 51 2_11.1	11.1	16	—	—	19	19	22	22	33	92	94	25
F 51 2_14.0	14.0	11	—	—	14	14	17	17	28	87	89	20
F 51 2_18.8	18.8	7.0	—	—	9.8	9.6	12	12	24	83	85	16
F 51 2_23.8	23.8	4.5	—	—	7.3	7.2	9.9	9.9	21	80	82	13
F 51 2_30.0	30.0	3.1	3.8	3.8	5.9	5.8	8.5	8.5	20	79	81	12
F 51 2_37.1	37.1	2.2	3.0	3.0	5.0	4.9	7.6	7.6	19	78	80	11
F 51 3_48.9	48.9	6.2	—	—	8.9	8.8	12	12	23	82	84	15
F 51 3_65.8	65.8	4.2	—	—	6.9	6.8	9.6	9.6	21	80	82	13
F 51 3_83.2	83.2	2.7	—	—	5.5	5.4	8.1	8.1	19	78	80	12
F 51 3_105.1	105.1	2.0	2.7	2.7	4.8	4.6	7.4	7.4	19	78	80	11
F 51 3_129.9	129.9	1.5	2.2	2.2	4.3	4.1	6.9	6.9	18	77	79	10
F 51 3_165.6	165.6	0.95	1.7	1.7	3.7	3.6	6.3	6.3	17	76	78	9.7
F 51 3_202.4	202.4	0.72	1.4	1.4	3.5	3.3	6.1	6.1	17	76	78	9.5
F 51 3_216.9	216.9	0.64	1.4	1.3	3.4	3.3	6.0	6.0	—	—	—	9.4
F 51 3_239.8	239.8	0.60	1.3	1.3	3.4	3.2	6.0	6.0	—	—	—	9.4
F 51 3_262.1	262.1	0.53	1.3	1.3	3.3	3.2	5.9	5.9	—	—	—	9.3
F 51 3_285.9	285.9	0.46	1.2	1.2	3.2	3.1	5.8	5.8	—	—	—	9.2
F 51 3_317.3	317.3	0.39	1.1	1.1	3.2	3.0	5.8	5.8	—	—	—	9.2
F 51 3_352.5	352.5	0.28	1.1	1.1	3.1	3.0	5.7	5.7	—	—	—	9.1
F 51 4_429.1	429.1	0.36	1.1	1.1	3.1	3.0	5.7	5.7	—	—	—	2.4
F 51 4_530.5	530.5	0.33	1.1	1.0	3.1	3.0	5.7	5.7	—	—	—	2.4
F 51 4_676.3	676.3	0.30	1.0	1.0	3.1	2.9	5.7	5.7	—	—	—	2.4
F 51 4_826.4	826.4	0.28	1.0	1.0	3.0	2.9	5.7	5.7	—	—	—	2.3
F 51 4_885.5	885.5	0.28	1.0	1.0	3.0	2.9	5.7	5.7	—	—	—	2.3
F 51 4_979.4	979.4	0.28	1.0	1.0	3.0	2.9	5.7	5.7	—	—	—	2.3
F 51 4_1070	1070	0.27	1.0	1.0	3.0	2.9	5.6	5.6	—	—	—	2.3
F 51 4_1168	1168	0.27	1.0	1.0	3.0	2.9	5.6	5.6	—	—	—	2.3
F 51 4_1296	1296	0.26	1.0	1.0	3.0	2.9	5.6	5.6	—	—	—	2.3
F 51 4_1439	1439	0.26	1.0	1.0	3.0	2.9	5.6	5.6	—	—	—	2.3






# F 51

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
													
	i	80B		95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 51 2_7.2	7.2	—	—	—	—	28	29	28	23	42	44	42	47
F 51 2_9.1	9.1	—	—	—	—	20	21	19	20	34	36	33	38
F 51 2_11.1	11.1	—	—	—	—	19	20	19	20	33	35	33	38
F 51 2_14.0	14.0	—	—	—	—	14	15	14	15	28	30	28	33
F 51 2_18.8	18.8	—	—	—	—	9.8	10	9.6	11	24	26	24	29
F 51 2_23.8	23.8	—	—	—	—	7.3	7.8	7.2	8.2	21	24	21	26
F 51 2_30.0	30.0	5.9	6.4	5.9	6.4	5.9	6.4	5.8	6.8	20	23	20	25
F 51 2_37.1	37.1	5.0	5.5	5.0	5.5	5.0	5.5	4.9	5.9	19	22	19	24
F 51 3_48.9	48.9	—	—	—	—	8.9	9.4	8.8	9.8	23	26	23	28
F 51 3_65.8	65.8	—	—	—	—	6.9	7.4	6.8	7.8	21	24	21	26
F 51 3_83.2	83.2	—	—	—	—	5.5	6.0	5.4	6.4	20	22	19	24
F 51 3_105.1	105.1	4.8	5.3	4.8	5.3	4.8	5.3	4.6	5.6	19	21	19	24
F 51 3_129.9	129.9	4.3	4.8	4.3	4.8	4.3	4.8	4.1	5.1	18	21	18	23
F 51 3_165.6	165.6	3.8	4.2	3.8	4.2	3.7	4.2	3.6	4.6	18	20	17	22
F 51 3_202.4	202.4	3.5	4.0	3.5	4.0	3.5	4.0	3.3	4.3	18	20	17	22
F 51 3_216.9	216.9	3.5	3.9	3.5	3.9	3.4	3.9	3.3	4.3	—	—	—	—
F 51 3_239.8	239.8	3.4	3.9	3.4	3.9	3.4	3.9	3.2	4.2	—	—	—	—
F 51 3_262.1	262.1	3.4	3.8	3.4	3.8	3.3	3.8	3.2	4.2	—	—	—	—
F 51 3_285.9	285.9	3.3	3.7	3.3	3.7	3.2	3.7	3.1	4.1	—	—	—	—
F 51 3_317.3	317.3	3.2	3.6	3.2	3.6	3.2	3.7	3.0	4.0	—	—	—	—
F 51 3_352.5	352.5	3.1	3.5	3.1	3.5	3.1	3.6	3.0	4.0	—	—	—	—
F 51 4_429.1	429.1	—	—	3.2	3.6	3.1	3.6	3.0	4.0	—	—	—	—
F 51 4_530.5	530.5	—	—	3.2	3.6	3.1	3.6	3.0	4.0	—	—	—	—
F 51 4_676.3	676.3	—	—	3.1	3.6	3.1	3.6	2.9	3.9	—	—	—	—
F 51 4_826.4	826.4	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_885.5	885.5	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_979.4	979.4	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_1070	1070	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_1168	1168	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_1296	1296	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—
F 51 4_1439	1439	—	—	3.1	3.5	3.0	3.5	2.9	3.9	—	—	—	—






## F 60

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
												
		63	71	80	90	100	112	132	160	180		
F 60 3_9.0	9.0	40	—	—	—	—	—	—	59	118	116	61
F 60 3_9.7	9.7	38	—	—	—	—	—	—	57	116	114	59
F 60 3_11.8	11.8	25	—	—	28	28	29	29	44	103	101	46
F 60 3_12.7	12.7	24	—	—	27	27	28	28	43	102	100	45
F 60 3_14.5	14.5	18	—	—	21	20	22	22	37	96	94	39
F 60 3_15.7	15.7	17	—	—	20	20	21	21	36	95	93	38
F 60 3_19.1	19.1	10	—	—	13	13	14	14	29	89	86	31
F 60 3_20.7	20.7	9.9	—	—	13	13	14	14	29	88	86	31
F 60 3_23.5	23.5	7.3	—	—	10	10	11	11	26	86	83	28
F 60 3_25.4	25.4	7.1	—	—	9.9	9.9	11	11	26	85	83	28
F 60 3_29.6	29.6	15	—	—	—	—	—	—	34	93	91	36
F 60 3_32.1	32.1	15	—	—	—	—	—	—	34	93	91	36
F 60 3_38.8	38.8	11	—	—	14	13	15	15	30	89	87	32
F 60 3_42.1	42.1	11	—	—	13	13	15	15	29	89	87	31
F 60 3_47.8	47.8	8.2	—	—	11	11	12	12	27	86	84	29
F 60 3_51.8	51.8	8.1	—	—	11	11	12	12	27	86	84	29
F 60 3_63.0	63.0	4.9	—	—	7.7	7.6	8.9	8.9	24	83	81	26
F 60 3_68.3	68.3	4.8	—	—	7.7	7.6	8.9	8.9	24	83	81	26
F 60 3_77.6	77.6	3.7	—	—	6.6	6.5	7.8	7.8	23	82	80	25
F 60 3_84.0	84.0	3.7	—	—	6.5	6.5	7.8	7.8	23	82	80	25
F 60 3_98.2	98.2	2.7	4.2	4.2	5.6	5.5	6.8	6.8	22	81	79	24
F 60 3_106.4	106.4	2.7	4.2	4.2	5.5	5.4	6.8	6.8	22	81	79	24
F 60 3_120.5	120.5	1.8	3.2	3.2	4.6	4.6	5.9	5.9	21	80	78	23
F 60 3_130.5	130.5	1.8	3.2	3.2	4.6	4.6	5.8	5.8	21	80	78	23
F 60 3_150.4	150.4	1.3	2.7	2.7	4.1	4.1	5.4	5.4	20	80	77	22
F 60 3_162.9	162.9	1.3	2.7	2.7	4.1	4.1	5.4	5.4	20	80	77	22
F 60 3_185.9	185.9	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	79	77	22
F 60 3_201.4	201.4	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	79	77	22
F 60 3_217.6	217.6	0.70	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	22
F 60 3_235.8	235.8	0.70	2.2	2.2	3.6	3.5	4.8	4.8	—	—	—	22
F 60 3_259.1	259.1	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	22
F 60 3_280.7	280.7	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	22

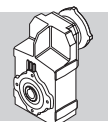
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.






## F 60

		J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
		 SERVO									
	i	95A		80C 95B 110A		95C 110B 130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
F 60 3_9.0	9.0	—	—	—	—	—	—	57	59	59	64
F 60 3_9.7	9.7	—	—	—	—	—	—	55	57	57	62
F 60 3_11.8	11.8	—	—	28	29	28	29	42	44	44	49
F 60 3_12.7	12.7	—	—	27	28	27	28	41	43	43	48
F 60 3_14.5	14.5	—	—	21	22	20	21	35	37	37	42
F 60 3_15.7	15.7	—	—	20	21	20	21	34	36	36	41
F 60 3_19.1	19.1	—	—	13	14	13	14	27	29	29	34
F 60 3_20.7	20.7	—	—	13	14	13	14	27	29	29	34
F 60 3_23.5	23.5	—	—	10	11	10	11	24	27	26	31
F 60 3_25.4	25.4	—	—	9.9	10	9.9	11	24	27	26	31
F 60 3_29.6	29.6	—	—	—	—	—	—	32	34	34	39
F 60 3_32.1	32.1	—	—	—	—	—	—	32	34	34	39
F 60 3_38.8	38.8	—	—	14	15	13	14	28	30	30	35
F 60 3_42.1	42.1	—	—	13	14	13	14	28	30	29	34
F 60 3_47.8	47.8	—	—	11	12	11	12	25	28	27	32
F 60 3_51.8	51.8	—	—	11	12	11	12	25	28	27	32
F 60 3_63.0	63.0	—	—	7.7	8.2	7.6	8.6	22	24	24	29
F 60 3_68.3	68.3	—	—	7.7	8.2	7.6	8.6	22	24	24	29
F 60 3_77.6	77.6	—	—	6.6	7.1	6.5	7.5	21	23	23	28
F 60 3_84.0	84.0	—	—	6.5	7.0	6.5	7.5	21	23	23	28
F 60 3_98.2	98.2	—	—	5.6	6.1	5.5	6.5	20	22	22	27
F 60 3_106.4	106.4	5.5	6.0	5.5	6.0	5.4	6.4	20	22	22	27
F 60 3_120.5	120.5	2.2	2.7	4.6	5.1	4.6	5.6	19	21	21	26
F 60 3_130.5	130.5	2.2	2.7	4.6	5.1	4.6	5.6	19	21	21	26
F 60 3_150.4	150.4	4.1	4.6	4.1	4.6	4.1	5.1	18	21	20	25
F 60 3_162.9	162.9	4.1	4.6	4.1	4.6	4.1	5.1	18	21	20	25
F 60 3_185.9	185.9	3.7	4.2	3.8	4.3	3.7	4.7	18	20	20	25
F 60 3_201.4	201.4	3.7	4.2	3.8	4.3	3.7	4.7	18	20	20	25
F 60 3_217.6	217.6	3.5	4.0	3.6	4.1	3.5	4.5	—	—	—	—
F 60 3_235.8	235.8	3.5	4.0	3.6	4.1	3.5	4.5	—	—	—	—
F 60 3_259.1	259.1	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—
F 60 3_280.7	280.7	3.3	3.8	3.4	3.9	3.3	4.3	—	—	—	—

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.






## F 70

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]									
			 IEC								
		80	90	100	112	132	160	180	200		
F 70 3_10.0	10.0	—	—	—	—	—	169	167	176	133	
F 70 3_10.9	10.9	—	—	—	—	—	166	163	173	129	
F 70 3_12.8	12.8	—	—	—	—	—	139	137	146	102	
F 70 3_13.9	13.9	—	—	—	—	—	137	135	144	100	
F 70 3_16.3	16.3	39	—	—	—	58	117	115	124	80	
F 70 3_17.7	17.7	37	—	—	—	56	116	113	123	79	
F 70 3_20.9	20.9	26	—	—	—	45	105	102	—	68	
F 70 3_22.6	22.6	26	—	—	—	44	104	102	—	67	
F 70 3_24.6	24.6	21	—	—	—	40	99	97	—	62	
F 70 3_27.7	27.7	—	—	—	—	—	128	126	135	73	
F 70 3_30.0	30.0	—	—	—	—	—	127	125	134	73	
F 70 3_35.4	35.4	—	—	—	—	—	114	112	121	77	
F 70 3_38.4	38.4	—	—	—	—	—	114	111	121	77	
F 70 3_45.2	45.2	23	—	—	—	42	101	99	108	65	
F 70 3_49.0	49.0	23	—	—	—	42	101	99	108	65	
F 70 3_57.7	57.7	17	—	—	—	36	95	93	—	58	
F 70 3_62.5	62.5	17	—	—	—	36	95	93	—	58	
F 70 3_67.9	67.9	14	—	—	—	33	92	90	—	55	
F 70 3_73.6	73.6	14	—	—	—	33	92	90	—	55	
F 70 3_85.4	85.4	9.0	11	11	13	13	28	87	85	—	50
F 70 3_92.5	92.5	9.0	11	11	13	13	28	87	85	—	50
F 70 3_101.2	101.2	6.3	8.9	8.8	10	10	25	85	82	—	47
F 70 3_109.6	109.6	6.3	8.9	8.8	10	10	25	85	82	—	47
F 70 3_122.7	122.7	5.1	7.9	7.8	9.1	9.1	24	83	81	—	46
F 70 3_133.0	133.0	5.1	7.9	7.8	9.1	9.1	24	83	81	—	46
F 70 3_153.8	153.8	3.2	6.0	6.0	7.3	7.3	22	81	79	—	44
F 70 3_166.7	166.7	3.2	6.0	6.0	7.3	7.3	22	81	79	—	44
F 70 3_180.9	180.9	2.3	5.1	5.1	6.3	6.3	21	81	78	—	43
F 70 3_196.0	196.0	2.3	5.1	5.0	6.3	6.3	21	81	78	—	43

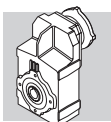
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.






## F 80

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
			 IEC									
		80	90	100	112	132	160	180	200	225		
F 80 3_10.3	10.3	—	—	—	—	—	—	286	300	578	252	
F 80 3_11.2	11.2	—	—	—	—	—	—	277	291	569	244	
F 80 3_12.9	12.9	—	—	—	—	—	217	218	231	509	184	
F 80 3_14.0	14.0	—	—	—	—	—	212	212	226	504	178	
F 80 3_16.2	16.2	—	—	—	—	—	173	171	180	464	136	
F 80 3_17.6	17.6	—	—	—	—	—	170	167	177	461	133	
F 80 3_20.3	20.3	60	—	—	—	79	139	136	146	431	102	
F 80 3_22.0	22.0	58	—	—	—	77	136	134	143	429	100	
F 80 3_25.2	25.2	43	—	—	—	62	121	119	150	413	84	
F 80 3_28.8	28.8	—	—	—	—	—	—	189	203	480	155	
F 80 3_31.3	31.3	—	—	—	—	—	—	188	201	479	154	
F 80 3_36.0	36.0	—	—	—	—	—	155	155	169	447	121	
F 80 3_39.0	39.0	—	—	—	—	—	154	154	168	446	121	
F 80 3_45.3	45.3	—	—	—	—	—	133	132	141	425	97	
F 80 3_49.1	49.1	—	—	—	—	—	133	131	140	425	97	
F 80 3_56.7	56.7	35	—	—	—	54	113	111	120	406	77	
F 80 3_61.5	61.5	35	—	—	—	54	113	111	120	406	76	
F 80 3_70.4	70.4	27	—	—	—	46	105	103	133	397	68	
F 80 3_76.3	76.3	27	—	—	—	45	105	103	133	396	68	
F 80 3_85.2	85.2	20	—	—	—	39	99	96	126	389	62	
F 80 3_92.3	92.3	20	—	—	—	39	99	96	126	389	61	
F 80 3_105.0	105.0	14	16	16	17	17	32	92	90	119	383	55
F 80 3_113.8	113.8	14	16	16	17	17	32	92	90	119	382	55
F 80 3_122.5	122.5	13	15	15	17	17	32	91	89	118	381	54
F 80 3_132.7	132.7	13	15	15	16	16	31	91	89	118	381	54
F 80 3_147.9	147.9	8.5	11	11	13	13	27	87	85	—	—	50
F 80 3_160.2	160.2	8.5	11	11	13	13	27	87	84	—	—	50
F 80 3_184.6	184.6	5.1	7.9	7.8	9.1	9.1	24	83	81	—	—	46
F 80 3_200.0	200.0	5.0	7.9	7.8	9.1	9.1	24	83	81	—	—	46

For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



## F 90

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]											
			 IEC										
		80	90	100	112	132	160	180	200	225	250		
F 90 3_10.3	10.3	—	—	—	—	—	—	549	559	843	870	850	
F 90 3_11.1	11.1	—	—	—	—	—	—	529	539	823	850	830	
F 90 3_13.4	13.4	—	—	—	—	—	—	373	383	667	694	674	
F 90 3_14.5	14.5	—	—	—	—	—	—	361	371	655	682	662	
F 90 3_16.5	16.5	—	—	—	—	—	—	286	296	580	607	587	
F 90 3_17.9	17.9	—	—	—	—	—	—	278	288	572	599	579	
F 90 3_20.6	20.6	—	—	—	—	—	224	222	232	516	542	513	
F 90 3_22.3	22.3	—	—	—	—	—	220	217	227	511	537	508	
F 90 3_25.4	25.4	103	—	—	—	122	181	179	188	474	500	471	
F 90 3_28.6	28.6	—	—	—	—	—	—	291	301	585	613	593	
F 90 3_31.0	31.0	—	—	—	—	—	—	289	299	583	610	590	
F 90 3_37.4	37.4	—	—	—	—	—	—	222	232	516	543	523	
F 90 3_40.5	40.5	—	—	—	—	—	—	220	230	514	541	521	
F 90 3_46.1	46.1	—	—	—	—	—	—	186	196	480	507	487	
F 90 3_49.9	49.9	—	—	—	—	—	—	185	195	479	506	486	
F 90 3_57.3	57.3	—	—	—	—	—	161	158	168	452	479	450	
F 90 3_62.1	62.1	—	—	—	—	—	160	158	167	451	478	449	
F 90 3_70.8	70.8	61	—	—	—	80	139	137	146	432	458	429	
F 90 3_76.7	76.7	60	—	—	—	79	139	136	146	431	458	429	
F 90 3_88.4	88.4	44	—	—	—	63	123	120	151	414	441	412	
F 90 3_95.8	95.8	44	—	—	—	63	122	120	151	414	441	412	
F 90 3_103.3	103.3	41	—	—	—	59	119	117	146	410	436	408	
F 90 3_111.9	111.9	40	—	—	—	59	119	116	146	409	436	407	
F 90 3_126.8	126.8	26	29	29	30	30	45	105	102	132	395	422	393
F 90 3_137.3	137.3	26	29	29	30	30	45	104	102	132	395	422	393
F 90 3_150.3	150.3	21	24	24	25	25	40	100	97	127	390	417	388
F 90 3_162.8	162.8	21	24	24	25	25	40	100	97	127	390	417	388
F 90 3_179.2	179.2	14	16	16	18	18	33	92	90	—	—	—	381
F 90 3_194.2	194.2	14	16	16	17	17	33	92	90	—	—	—	381

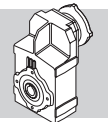
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



## 63 EXACT RATIOS

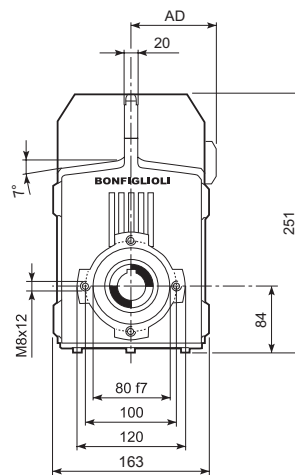
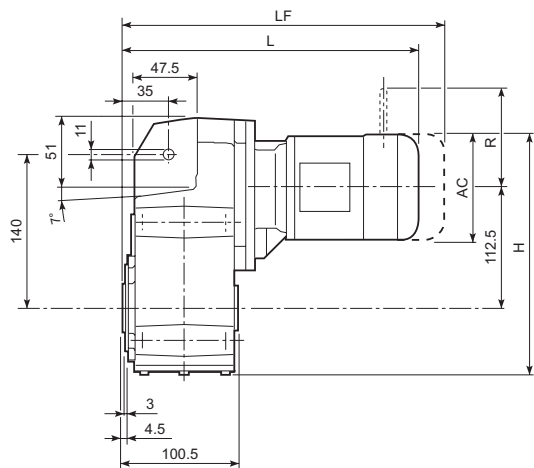
i <sub>N</sub>	F 10	F 20	F 25	F 31	F 41	F 51	F 60	F 70	F 80	F 90
6.3		6.41210								
7.1	7.40443		6.86957	6.94907	6.72727	7.19408				
8.0		7.83478	8.39375	8.22917						
9.0	8.58204	8.73227	9.35526	9.01630	9.13580	9.05114	8.96000			
10.0	9.76974	10.03069	10.62451	10.74747			9.70667	10.01538	10.33846	10.26577
11.2	11.53759	11.23370			10.77273	11.11005	11.75320	10.85000	11.20000	11.12125
12.5	13.02632		12.98182	12.72727		13.97796	12.73263	12.81731	12.90240	13.41346
14.0	14.64777	14.79842	14.46890	13.94466	14.62963		14.47385	13.88542	13.97760	14.53125
16.0	16.97738		16.62032	16.80000	17.11667		15.68000	16.34455	16.24615	16.52538
18.0		18.08182	18.61364	18.48804	18.89130	18.82155	19.06872	17.70660	17.60000	17.90250
20.0	19.32692	20.15311	21.81818	21.11230			20.65778	20.86538	20.33231	20.56731
22.4	22.82418	23.14973	23.75758	23.38636		23.79447	23.46381	22.60417	22.02667	22.28125
25.0	25.76923	25.92614	27.20455	27.27273	24.11579		25.41913	24.55695	25.22585	25.38622
28.0	29.63462	30.38961	30.03636	30.12121	30.11875	30.03828	29.61538	27.69231	28.84615	28.61169
31.5	32.98462	33.09091	32.18182	34.36364			32.08333	30.00000	31.25000	30.99600
35.5	35.34066	37.89205	36.41958	37.67273	38.18333	37.13636	38.84771	35.43956	36.00000	37.38462
40.0	39.64497	41.83636	40.72727	40.36364			42.08502	38.39286	39.00000	40.50000
45.0	44.66667	44.82468	45.56607	44.64336	47.92667		47.84024	45.19231	45.32967	46.05785
50.0	48.72727	50.72727	50.78571	47.54630	51.49270	48.89965	51.82692	48.95833	49.10714	49.89600
56.0	56.69231	56.72727	58.33718	52.09420	60.24646		63.02761	57.69231	56.73077	57.32308
63.0	62.99145	61.88430	65.33371	62.76111	66.49275	65.84416	68.27991	62.50000	61.45833	62.10000
71.0	71.12308	69.13636	76.58163	69.06725			77.55467	73.55769	70.38462	70.75385
80.0	81.31624	76.81818	83.38889	78.87092	84.88166	83.24111	84.01756	85.38462	76.25000	76.65000
90.0	91.48077	90.40909	95.48772	87.36632			98.19838	92.50000	92.30769	88.39385
100.0	106.02198	101.63636	105.42738	101.88492	106.01061	105.08407	106.38158	101.18343	105.00000	103.33491
112.2		114.34091	112.95791	112.52623			120.45488	109.61538	113.75000	111.94615
125.5	127.12821	132.19481	127.83242	128.37500	134.39596	129.91558	130.49279	122.72727	122.48521	126.77538
140.0		156.30469	142.95238	140.73704			150.35503	132.95455	132.69231	150.30533
160.0		172.57500	155.94805	166.77778	168.69010	165.62338	162.88462	166.66667	160.22727	162.83077
180.0		184.90179	174.22321	185.43056	180.73939	202.39481	185.89349	180.94406	184.61538	179.21958
200.0		209.25000	193.58135	202.28788	198.92028	216.85158	201.38462	196.02273	200.00000	194.15455
225.0		234.00000	227.83036	228.22222	220.13131	239.84416	217.64679	216.52422	218.49174	213.59178
250.0		255.27273	256.12302	253.58025	240.14325	262.11039	259.08284	234.56790	273.89277	231.39109
280.0		285.18750	288.13839	293.83611	266.93818	285.93861	280.67308	280.93645	296.71717	268.72770
315.0		316.87500	333.13010	332.82407	296.59798	317.26753	315.38899	304.34783	353.67893	291.12168
355.0		372.93750		374.42708	344.79515	352.51948	341.67140	372.46964	383.15217	361.84615
400.0		419.25000	393.88686	418.86023		429.09330	399.34008	403.50877	451.49061	392.00000
450.0		471.65625	434.88795	462.60785	433.67975		432.61842	471.15385	489.11483	457.45099
500.0			465.95137	527.76389			489.84985	510.41667	563.87675	495.57191
560.0		545.30357	527.30872	578.58560	549.80165	530.48864	530.67067	606.83761	610.86648	577.48888
630.0			589.67857	619.91314	690.09587	676.29545	611.44379	657.40741	714.86014	625.61296
710.0			643.28571	685.64198	739.38843	826.44545	755.96686	758.97436	774.43182	713.95030
800.0			718.67076	762.32562	813.76478	885.47727	818.96410	822.22222	897.27273	773.44615
900.0			798.52307	831.62795	900.53719	979.36364	885.09695	899.40828	972.04545	910.18225
1000.0			939.80022	938.24691	982.40421	1070.28409	958.85503	974.35897	1058.06885	986.03077
1125.0			1056.50744	1042.49657	1092.01983	1167.58264	1053.60355	1090.90909	1146.24126	1112.25941
1250.0			1188.57087	1207.99290	1213.35537	1295.50909	1141.40385	1181.81818	1277.33630	1204.94769
1400.0			1374.16167	1368.27675	1410.52562	1439.45455		1367.52137	1383.78099	1427.90059
1600.0				1539.31134				1584.61538	1577.62238	1571.37386
1800.0								1716.66667	1709.09091	1702.32168
2000.0								2019.23077	1833.98601	1937.26864
2250.0								2187.50000	1986.81818	2098.70769





## 64 DIMENSIONS

### F 10...M

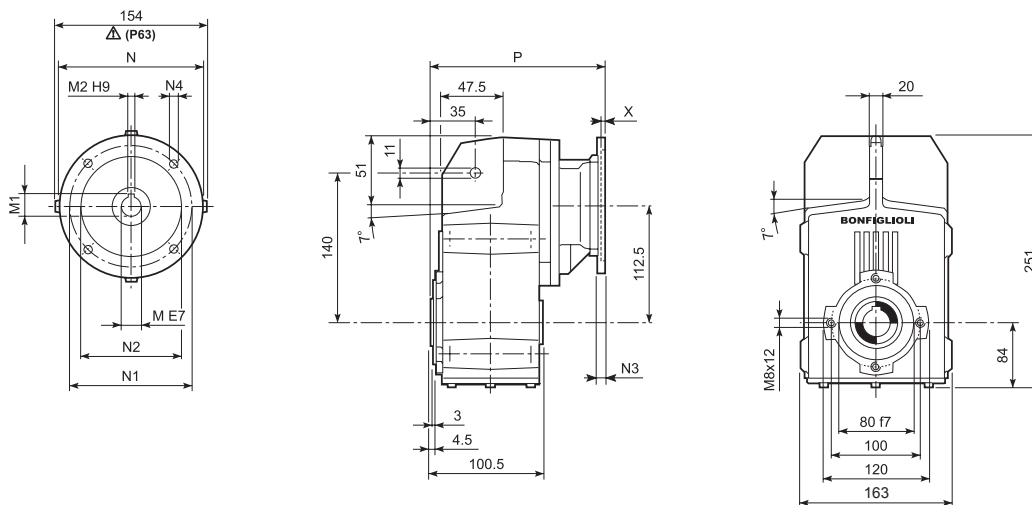


								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD
F 10 2	S05	M05	121	220.5	311.5	95	12	377.5	13	96	122	116	95
F 10 2	S1	M1	138	265.5	340.5	108	14	401.5	17	103	135	124	108
F 10 2	S2	M2S	156	274.5	369.5	119	18	439.5	21	129	146	134	119
F 10 2	S3	M3S	195	294	412.5	142	22	508.5	30	160	158	160	142
F 10 2	S3	M3L	195	294	444.5	142	24	535.5	31	160	158	160	142



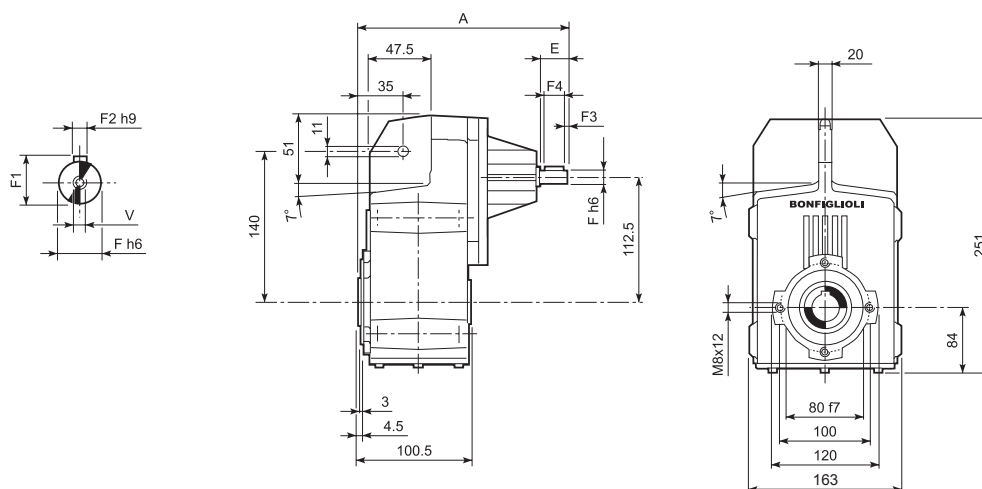


## F 10...P(IEC)

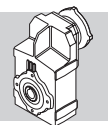


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg		
		F 10 2	P63	11	12.8	4	140	115	95	—	M8x19	4	185.5	8
		F 10 2	P71	14	16.3	5	160	130	110	—	M8x16	4.5	185.5	8
		F 10 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	205	9
		F 10 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	205	9
		F 10 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	215	13
		F 10 2	P112	28	31.3	8	250	215	180	—	M12x16	4.5	215	13

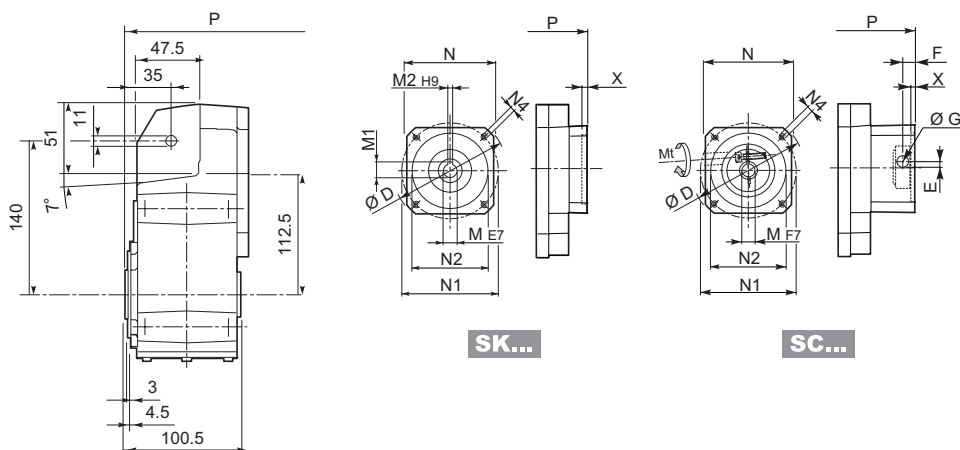
## F 10...HS



		A	E	F	F1	F2	F3	F4	V	Kg		
		F 10 2	HS	192	40	16	18	5	2.5	35	M6x16	7.5



## F 10...SK / SC



SK...

SC...

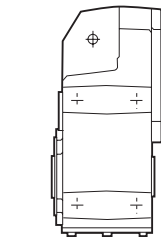
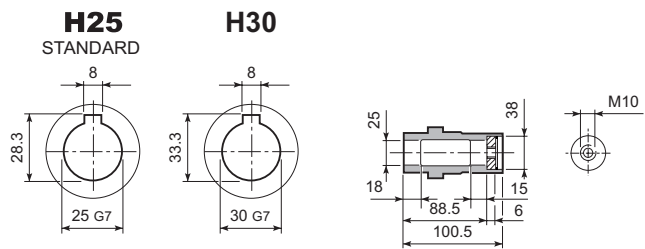
		D	M	M1	M2	N	N1	N2	N4	X	P	
F 10 2	SK 60A	102	11	12.8	4	82	75	60	M5x10	3.5	157	8
F 10 2	SK 60B	102	14	16.3	5	82	75	60	M5x10	4	164	8
F 10 2	SK 80A	115	14	16.3	5	90	100	80	M6x12	4	164	8
F 10 2	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	205	9
F 10 2	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	205	9
F 10 2	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	205	9
F 10 2	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	205	9
F 10 2	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	205	9
F 10 2	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	205	9

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P	
F 10 2	SC 60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	184	8
F 10 2	SC 60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	184	9
F 10 2	SC 80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	184	9
F 10 2	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	228.5	10
F 10 2	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	228.5	10
F 10 2	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	228.5	10
F 10 2	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	228.5	10
F 10 2	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	228.5	11
F 10 2	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	228.5	11

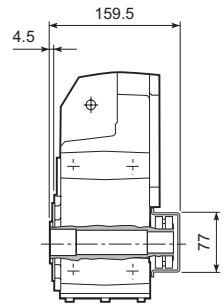
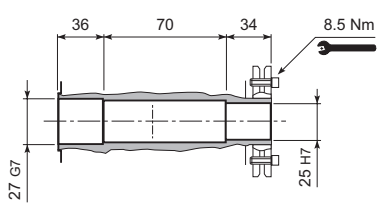


# F 10

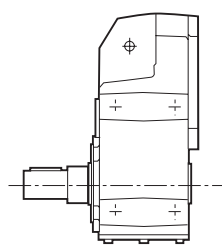
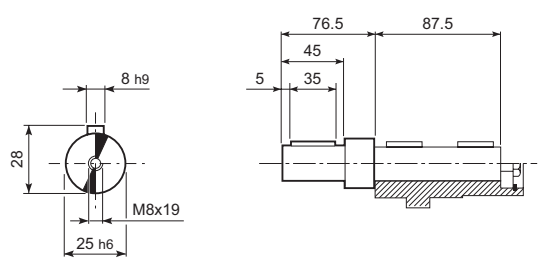
## F 10...H



## F 10...S

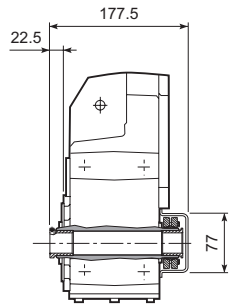
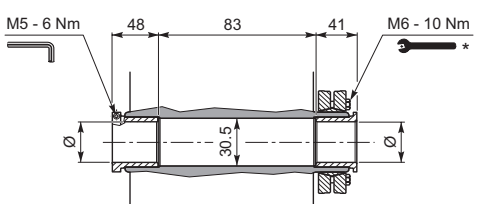


## F 10...R

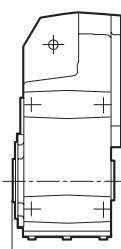
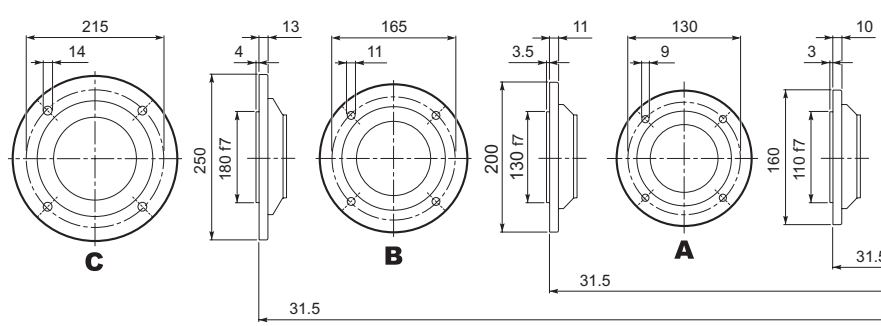


## F 10...QF

	Ø
QF25	25
QF30	30



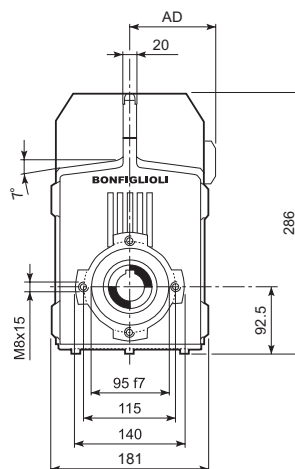
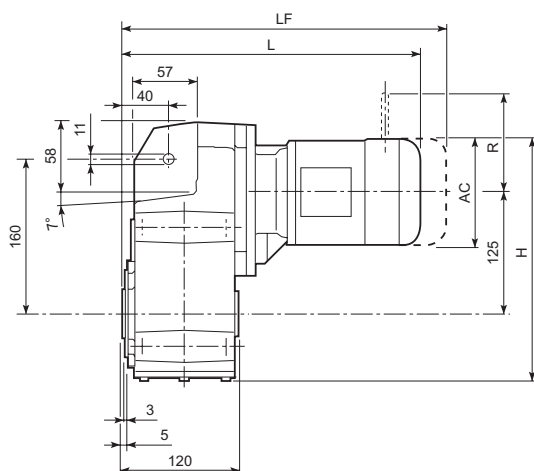
## F 10...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



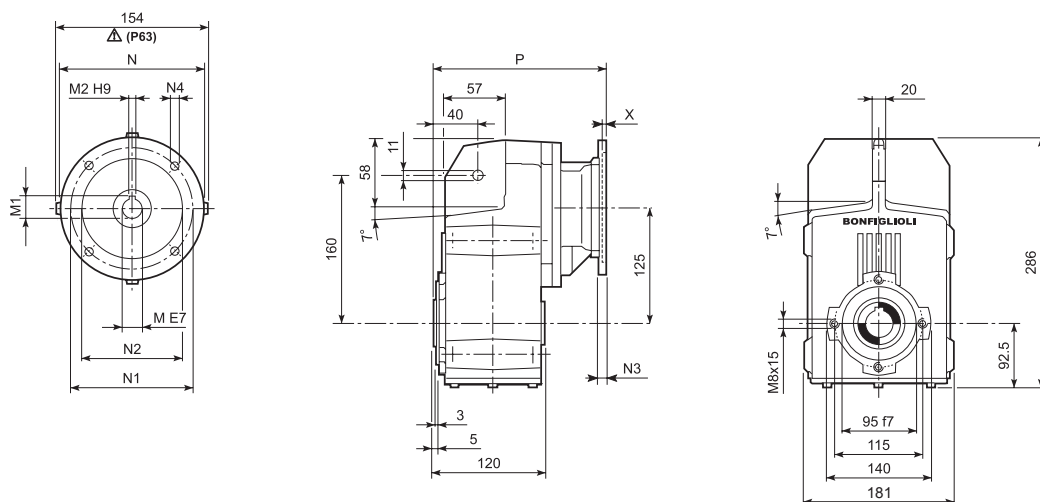
## F 20...M



								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD
F 20 2	S05	M05	121	278.2	323.5	95	15	389.5	17	96	122	116	95
F 20 2	S1	M1	138	286.7	352.5	108	17	413.5	20	103	135	124	108
F 20 2	S2	M2S	156	295.7	381.5	119	21	451.5	25	129	146	134	119
F 20 2	S3	M3S	195	315.2	424.5	142	26	520.5	33	160	158	160	142
F 20 2	S3	M3L	195	315.2	456.5	142	31	547.5	38	160	158	160	142
F 20 3	S05	M05	121	278.2	379	95	17	445	18	96	122	116	95
F 20 3	S1	M1	138	286.7	408	108	19	469	21	103	135	124	108
F 20 3	S2	M2S	156	295.7	437	119	22	507	26	129	146	134	119
F 20 3	S3	M3S	195	315.2	480	142	27	576	34	160	158	160	142
F 20 3	S3	M3L	195	315.2	512	142	32	603	39	160	158	160	142

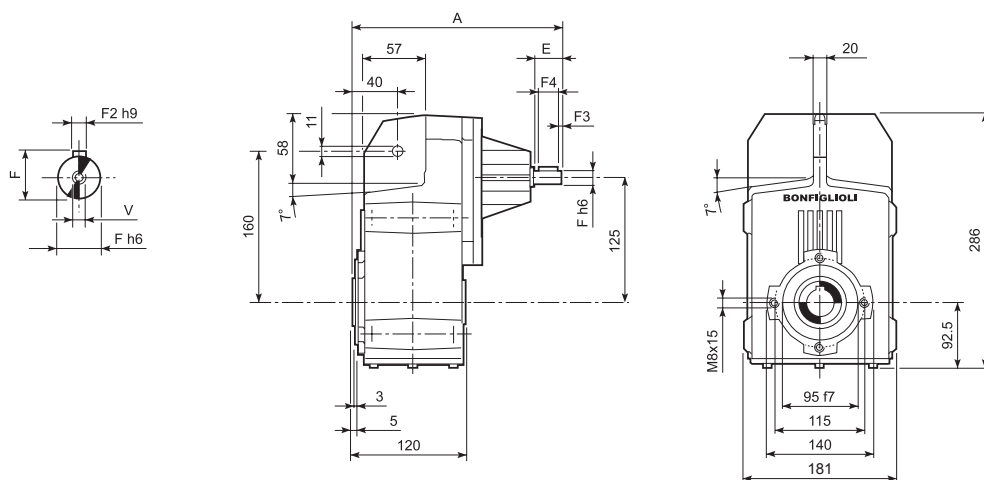


## F 20...P(IEC)

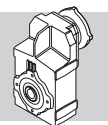


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 20 2	P63	11	12.8	4	140	115	95	—	M8x19	4	197.5	12
F 20 2	P71	14	16.3	5	160	130	110	—	M8x16	4.5	197.5	12
F 20 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	217	13
F 20 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	217	12
F 20 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	227	16
F 20 2	P112	28	31.3	8	250	215	180	—	M12x16	4.5	227	16
F 20 3	P63	11	12.8	4	140	115	95	—	M8x19	4	253	13
F 20 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	253	13
F 20 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	272.5	14
F 20 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	272.5	14
F 20 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	282.5	18
F 20 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	282.5	18

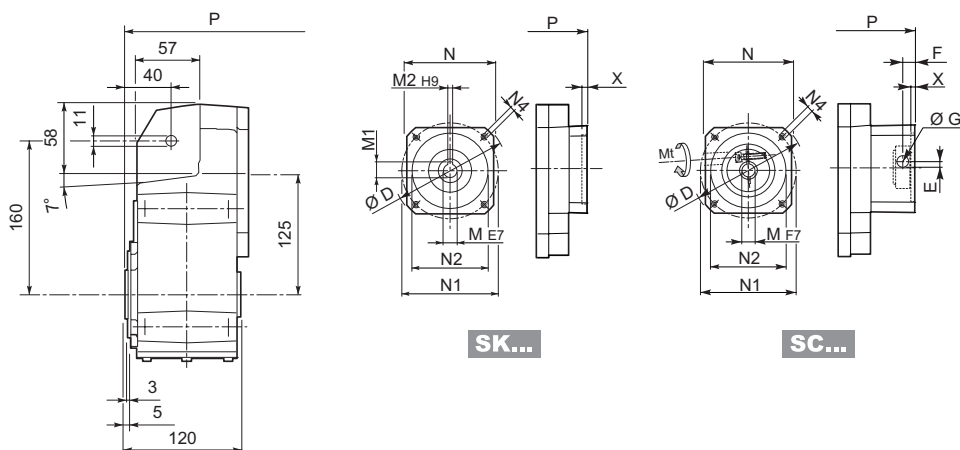
## F 20...HS



		A	E	F	F1	F2	F3	F4	V	Kg
F 20 2	HS	247.5	40	19	21.5	6	2.5	35	M6x16	11.5
F 20 3		260	40	16	18	5	2.5	35	M6x16	12.4



## F 20...SK / SC



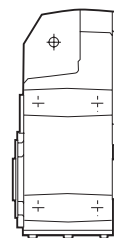
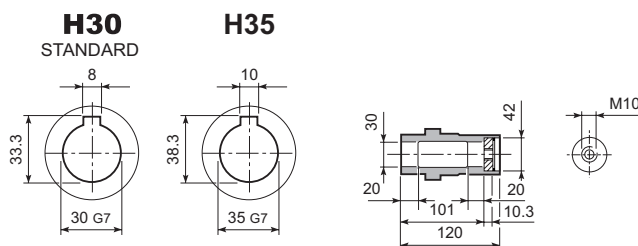
		D	M	M1	M2	N	N1	N2	N4	X	2x		3x	
											P	Kg	P	Kg
F 20 2/3	SK 60A	102	11	12.8	4	82	75	60	M5x10	3.5	169	11	224.5	12
F 20 2/3	SK 60B	102	14	16.3	5	82	75	60	M5x10	4	176	12	231.5	13
F 20 2/3	SK 80A	115	14	16.3	5	90	100	80	M6x12	4	217	12	231.5	13
F 20 2/3	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	217	13	272.5	14
F 20 2/3	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	217	13	272.5	14
F 20 2/3	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	217	13	272.5	14
F 20 2/3	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	217	13	272.5	14
F 20 2/3	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	217	13	272.5	14
F 20 2/3	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	217	13	272.5	14

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2x		3x	
														P	Kg	P	Kg
F 20 2/3	SC 60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	196	12	251.5	13
F 20 2/3	SC 60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	196	13	251.5	14
F 20 2/3	SC 80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	196	13	251.5	14
F 20 2/3	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	240.5	14	296	15
F 20 2/3	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	240.5	14	296	15
F 20 2/3	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	240.5	14	296	15
F 20 2/3	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	240.5	14	296	15
F 20 2/3	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	240.5	15	296	16
F 20 2/3	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	240.5	15	296	16

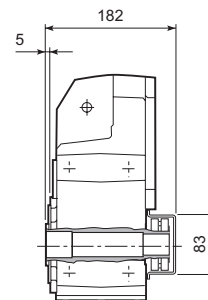
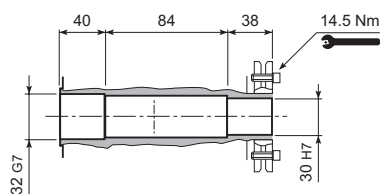


# F 20

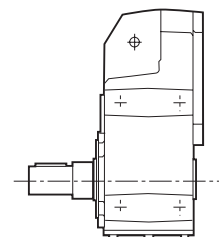
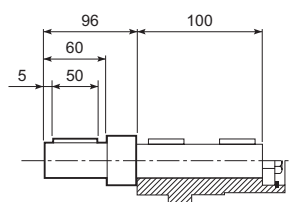
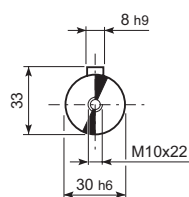
## F 20...H



## F 20...S

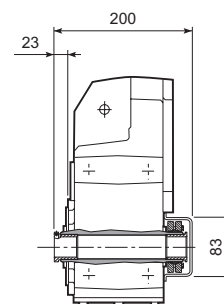
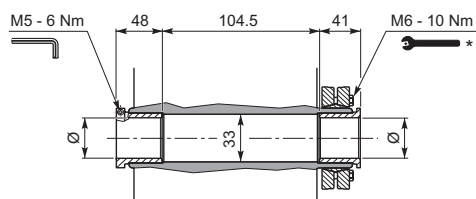


## F 20...R

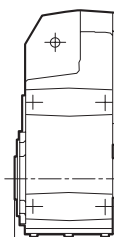
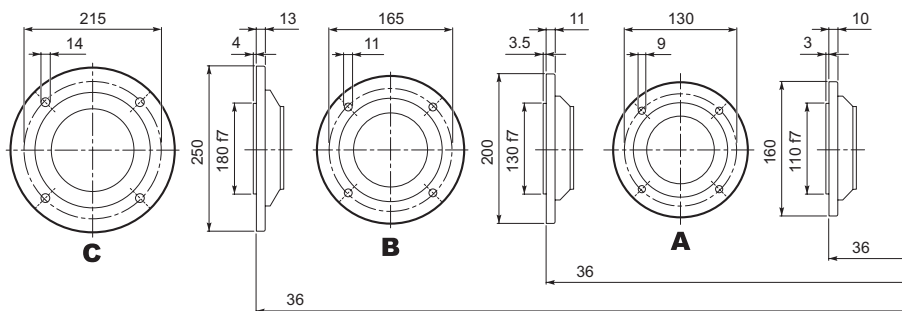


## F 20...QF

	Ø
QF25	25
QF30	30

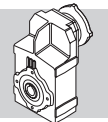


## F 20...F...

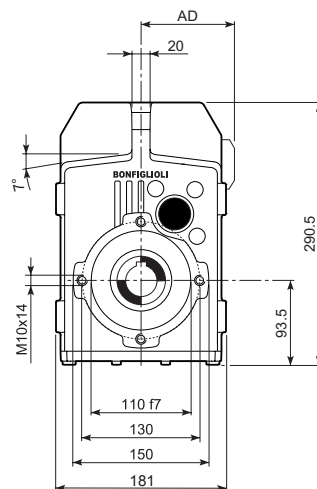
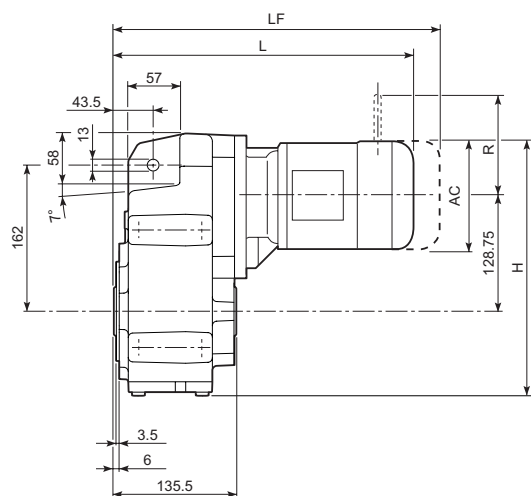


\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.





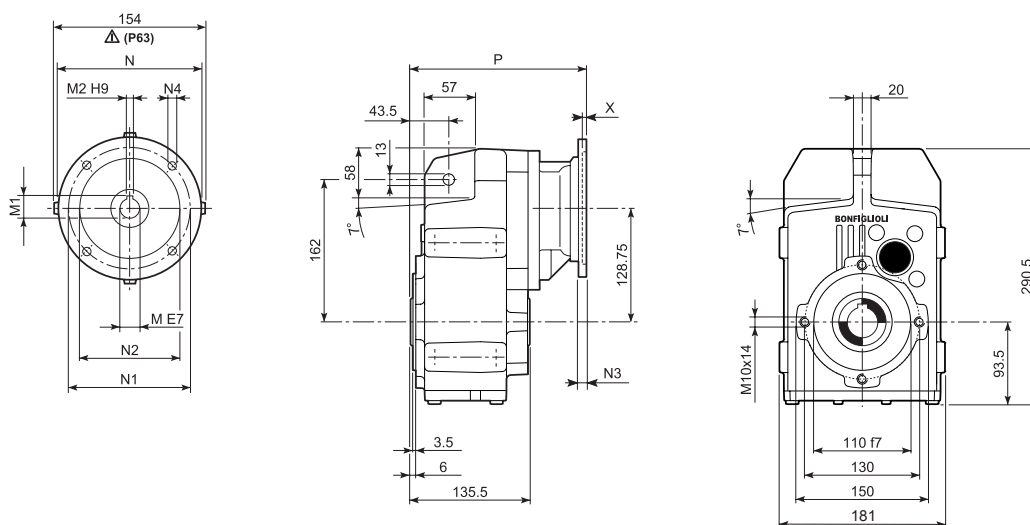
## F 25...M



								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD
F 25 2/3	S05	M05	121	283	339	95	15	405	17	96	122	116	95
F 25 2/3	S1	M1	138	291.5	368	108	17	429	20	103	135	124	108
F 25 2/3	S2	M2S	156	300.5	397	119	21	467	25	129	146	134	119
F 25 2/3	S3	M3S	195	320	440	142	26	536	33	160	158	160	142
F 25 2/3	S3	M3L	195	320	472	142	31	563	38	160	158	160	142
F 25 4	S05	M05	121	283	394.5	95	17	460.5	18	96	122	116	95
F 25 4	S1	M1	138	291.5	423.5	108	19	484.5	21	103	135	124	108
F 25 4	S2	M2S	156	300.5	452.5	119	22	522.5	26	129	146	134	119
F 25 4	S3	M3S	195	320	495.5	142	27	591.5	34	160	158	160	142
F 25 4	S3	M3L	195	320	527.5	142	32	618.5	39	160	158	160	142

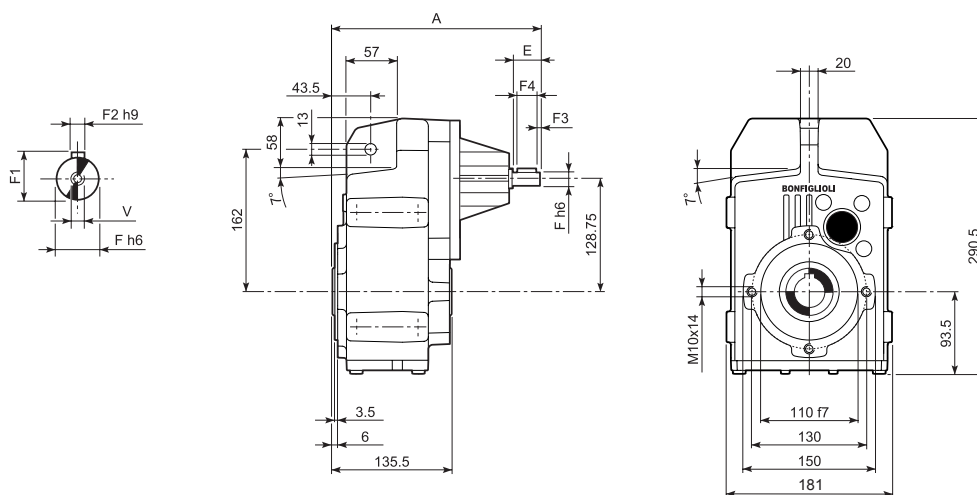


## F 25...P(IEC)

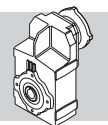


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 25 2/3	P63	11	12.8	4	140	115	95	—	M8x19	4	213	12
F 25 2/3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	213	12
F 25 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	232.5	13
F 25 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	232.5	13
F 25 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	242.5	16
F 25 2/3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	242.5	16
F 25 4	P63	11	12.8	4	140	115	95	—	M8x19	4	268.5	13
F 25 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	268.5	13
F 25 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	288	14
F 25 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	288	14
F 25 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	298	18
F 25 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	298	18

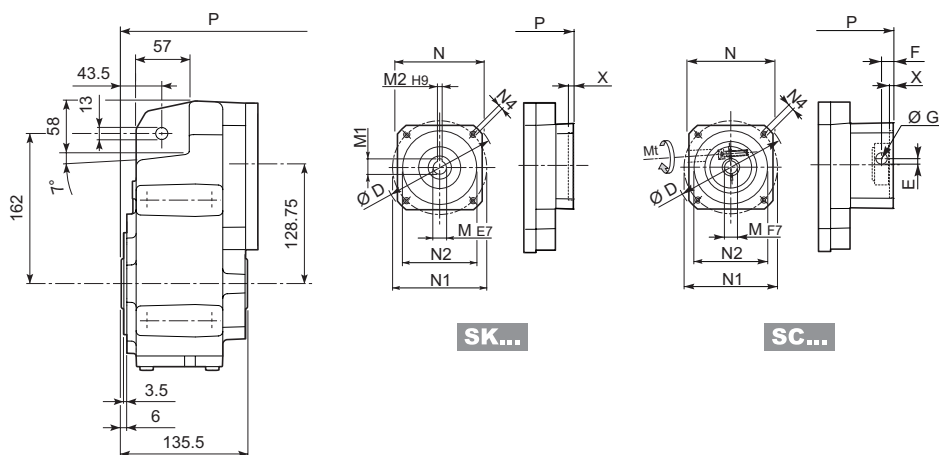
## F 25...HS



		A	E	F	F1	F2	F3	F4	V	Kg
F 25 2	HS	263	40	19	21.5	6	2.5	35	M6x16	11.5
F 25 3		263	40	19	21.5	6	2.5	35	M6x16	11.5
F 25 4		275.5	40	16	18	5	2.5	35	M6x16	12.5



## F 25...SK / SC



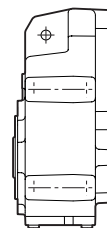
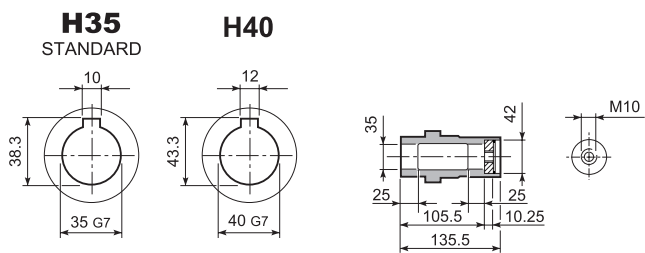
		D	M	M1	M2	N	N1	N2	N4	X	2/3x		4x	
											P		P	
F 25 2/3/4	SK 60A	102	11	12.8	4	82	75	60	M5x10	3.5	184.5	11	240	12
F 25 2/3/4	SK 60B	102	14	16.3	5	82	75	60	M5x10	4	191.5	12	247	13
F 25 2/3/4	SK 80A	115	14	16.3	5	90	100	80	M6x12	4	191.5	12	247	13
F 25 2/3/4	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	232.5	13	288	14
F 25 2/3/4	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	232.5	13	288	14
F 25 2/3/4	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	232.5	13	288	14
F 25 2/3/4	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	232.5	13	288	14
F 25 2/3/4	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	232.5	13	288	14
F 25 2/3/4	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	232.5	13	288	14

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2/3x		4x	
														P		P	
F 25 2/3/4	SC 60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	211.5	12	267	13
F 25 2/3/4	SC 60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	211.5	13	267	14
F 25 2/3/4	SC 80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	211.5	13	267	14
F 25 2/3/4	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	256	14	311.5	15
F 25 2/3/4	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	256	14	311.5	15
F 25 2/3/4	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	256	14	311.5	15
F 25 2/3/4	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	256	14	311.5	15
F 25 2/3/4	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	256	15	311.5	16
F 25 2/3/4	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	256	15	311.5	16

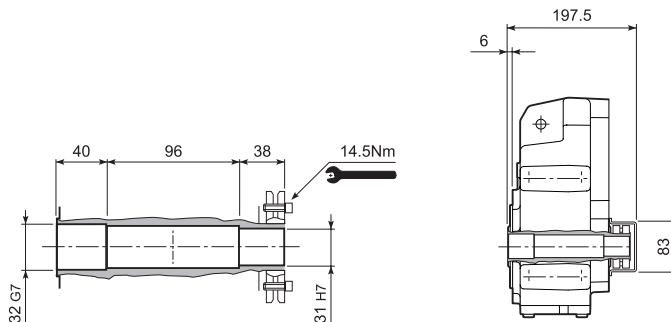


# F 25

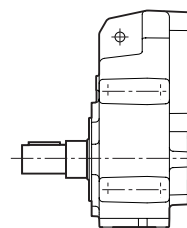
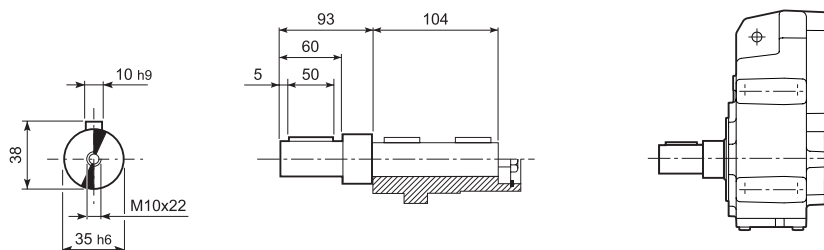
## F 25...H



## F 25...S



## F 25...R

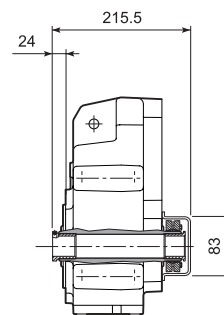
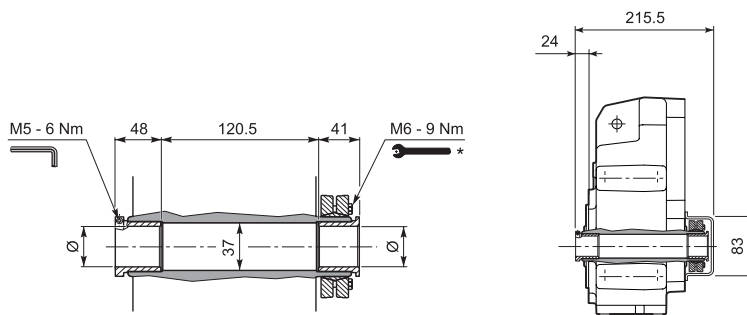


## F 25...QF

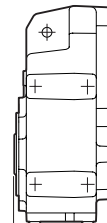
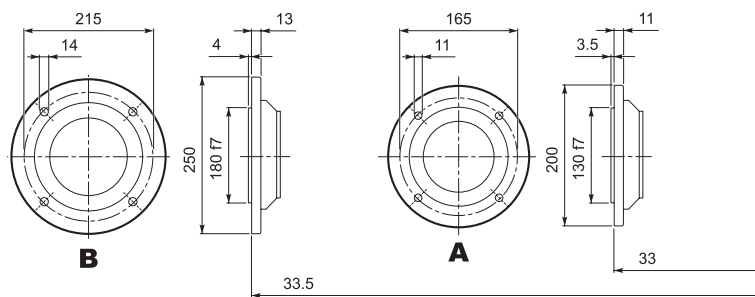
	Ø
QF30	30
QF32	32



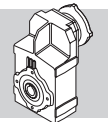
	M <sub>n2</sub> max [Nm]
F 25 QF30	350



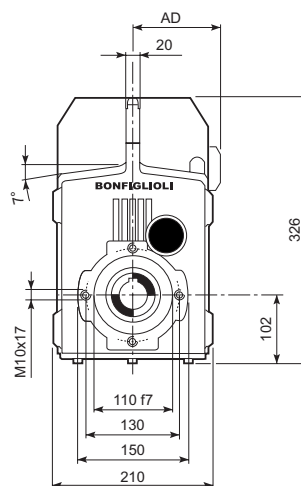
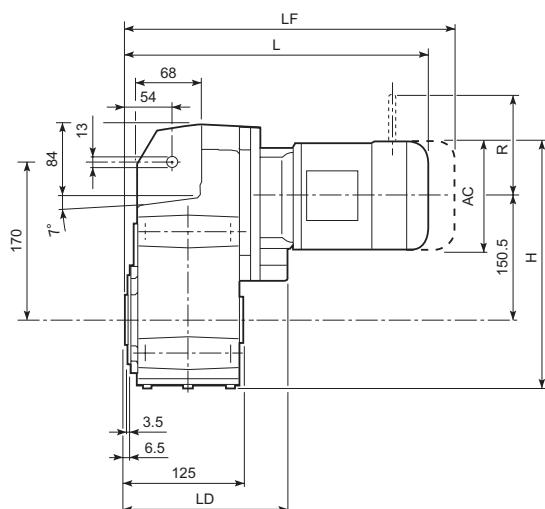
## F 25...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



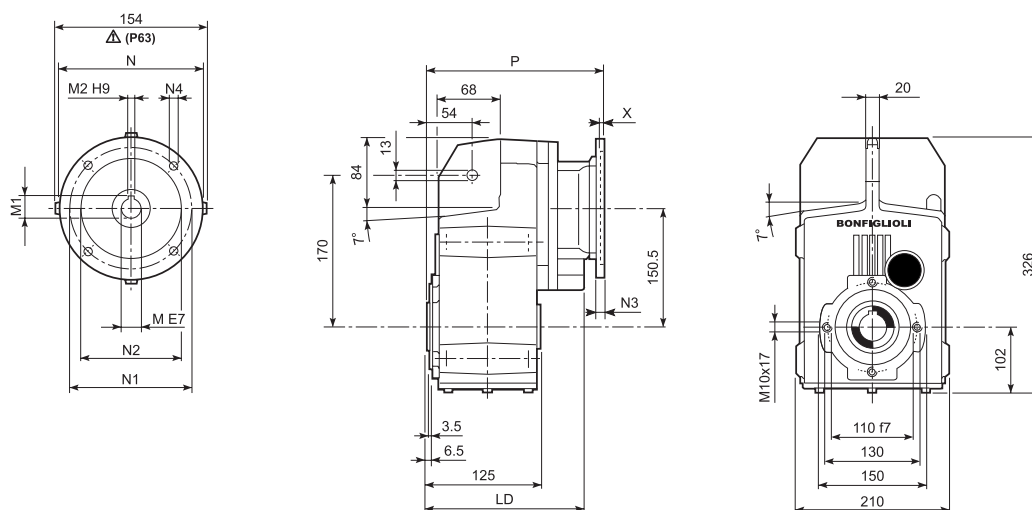
## F 31...M



										M...FD M...FA		M...FD		M...FA	
			AC	H	L	LD	AD		LF		R	AD	R	AD	
F 31 2/3	S1	M1	138	321.3	380.5	183.5	108	22	441.5	25	103	135	124	108	
F 31 2/3	S2	M2S	156	330.3	409.5	195.5	119	26	479.5	30	129	146	134	119	
F 31 2/3	S3	M3S	195	349.8	452.5	205.5	142	31	548.5	38	160	158	160	142	
F 31 2/3	S3	M3L	195	349.8	484.5	205.5	142	38	575.5	45	160	158	160	142	
F 31 2/3	S4	M4	258	381.3	592.5	—	193	72	701.5	79	204	210	200	193	
F 31 2/3	S4	M4L	258	381.3	592.5	—	193	78	701.5	85	204	210	200	193	
F 31 4	S05	M05	121	312.8	409	—	95	20	475	22	96	122	116	95	
F 31 4	S1	M1	138	321.3	438	—	108	22	499	25	103	135	124	108	
F 31 4	S2	M2S	156	330.3	467	—	119	26	537	31	129	146	134	119	
F 31 4	S3	M3S	195	349.8	510	—	142	31	606	39	160	158	160	142	
F 31 4	S3	M3L	195	349.8	542	—	142	38	633	46	160	158	160	142	

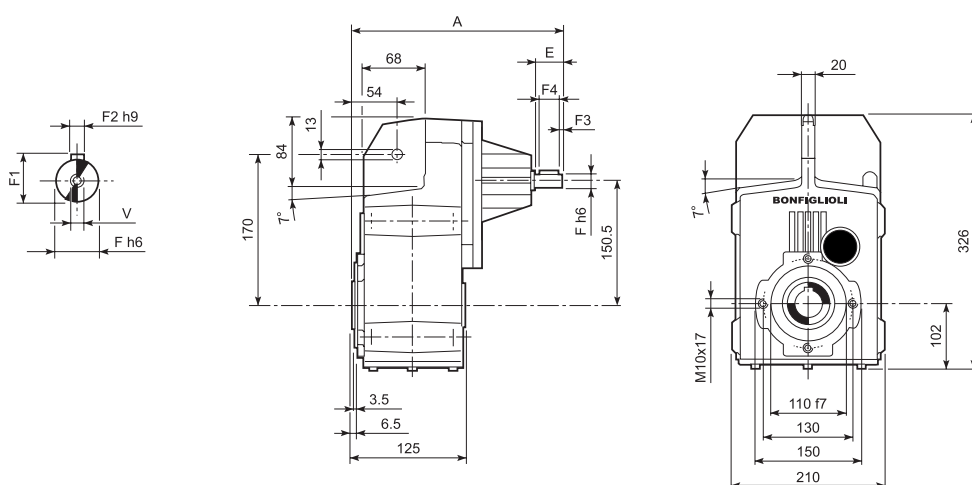


## F 31...P(IEC)

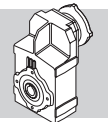


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 31 2/3	P63	195.5	11	12.8	4	140	115	95	—	M8x19	4	225.5	17
F 31 2/3	P71	195.5	14	16.3	5	160	130	110	—	M8x16	4.5	225.5	17
F 31 2/3	P80	205.5	19	21.8	6	200	165	130	—	M10x14.5	4	245	18
F 31 2/3	P90	205.5	24	27.3	8	200	165	130	—	M10x14.5	4	245	17
F 31 2/3	P100	205.5	28	31.3	8	250	215	180	—	M12x16	4.5	255	21
F 31 2/3	P112	205.5	28	31.3	8	250	215	180	—	M12x16	4.5	255	21
F 31 2/3	P132	—	38	41.3	10	300	265	230	—	14	5	291.5	24
F 31 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	283	17
F 31 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	283	17
F 31 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	302.5	18
F 31 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	302.5	18
F 31 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	312.5	22
F 31 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	312.5	22

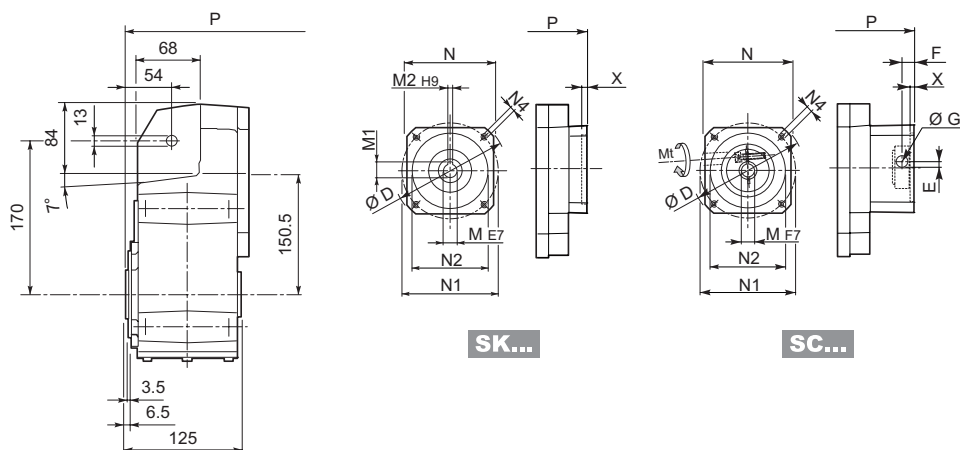
## F 31...HS



		A	E	F	F1	F2	F3	F4	V	Kg
F 31 2	HS	275.5	40	19	21.5	6	2.5	35	M6x16	16.7
F 31 3		275.5	40	19	21.5	6	2.5	35	M6x16	16.7
F 31 4		290	40	16	18	5	2.5	35	M6x16	16.5



## F 31...SK / SC



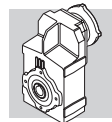
SK...

SC...

		D	M	M1	M2	N	N1	N2	N4	X	2/3x		4x	
											P	Kg	P	Kg
	SK 60A	102	11	12.8	4	82	75	60	M5x10	3.5	197	16	254.5	16
	SK 60B	102	14	16.3	5	82	75	60	M5x10	4	204	17	261.5	17
	SK 80A	115	14	16.3	5	90	100	80	M6x12	4	204	17	261.5	17
	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	245	18	302.5	18
	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	245	18	302.5	18
	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	245	18	302.5	18
	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	245	18	302.5	18
	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	245	18	302.5	18
	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	245	18	302.5	18
	SK 130A	188	24	27.3	8	142	165	130	M10x20	5	245	18	—	—

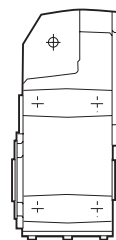
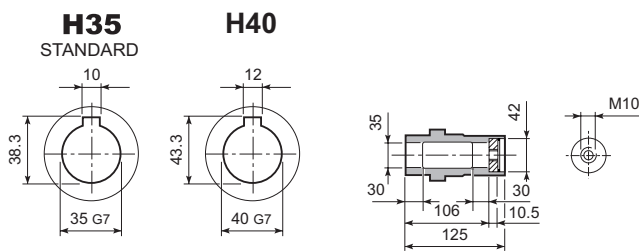
			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2/3x		4x	
														P	Kg	P	Kg
	SC 60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	224	17	281.5	17
	SC 60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	224	18	281.5	18
	SC 80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	224	18	281.5	18
	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	268.5	19	326	19
	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	268.5	19	326	19
	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	268.5	19	326	19
	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	268.5	19	326	19
	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	268.5	20	326	20
	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	268.5	20	326	20
	SC 130A	M6	15	188	19	16	17.75	24	142	165	130	M10x20	5	268.5	21	—	—



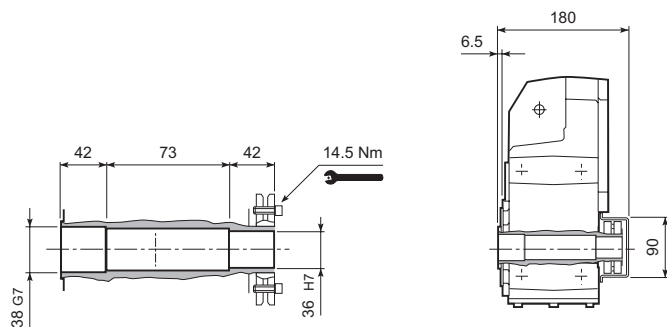


# F 31

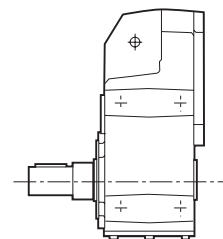
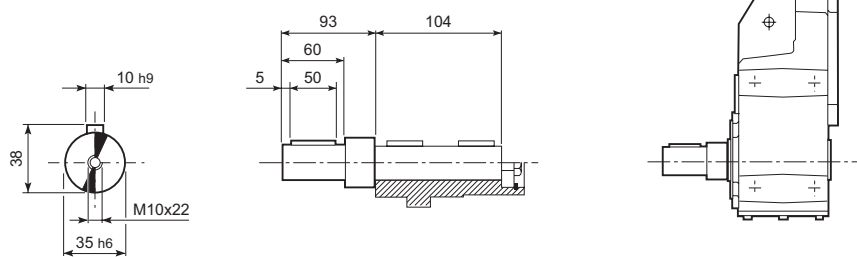
## F 31...H



## F 31...S

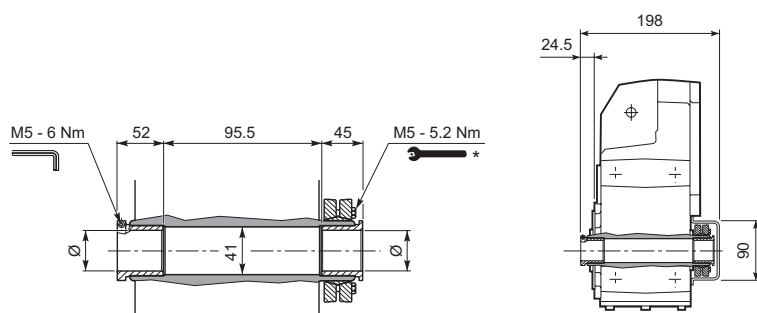


## F 31...R

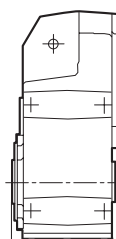
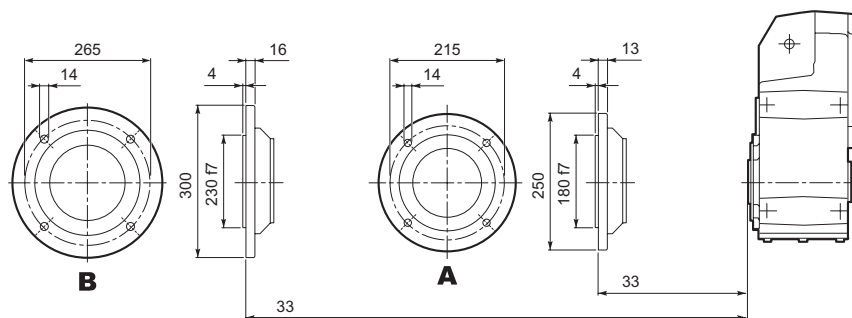


## F 31...QF

	Ø
QF35	35
QF40	40



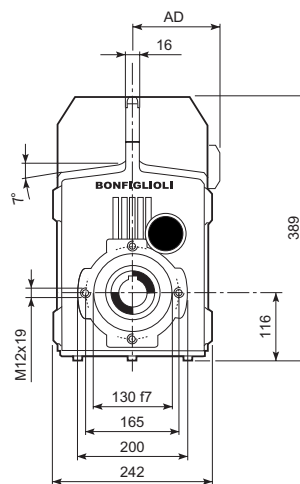
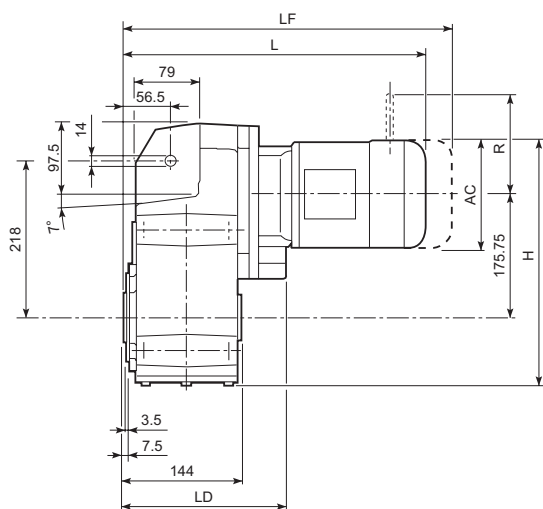
## F 31...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



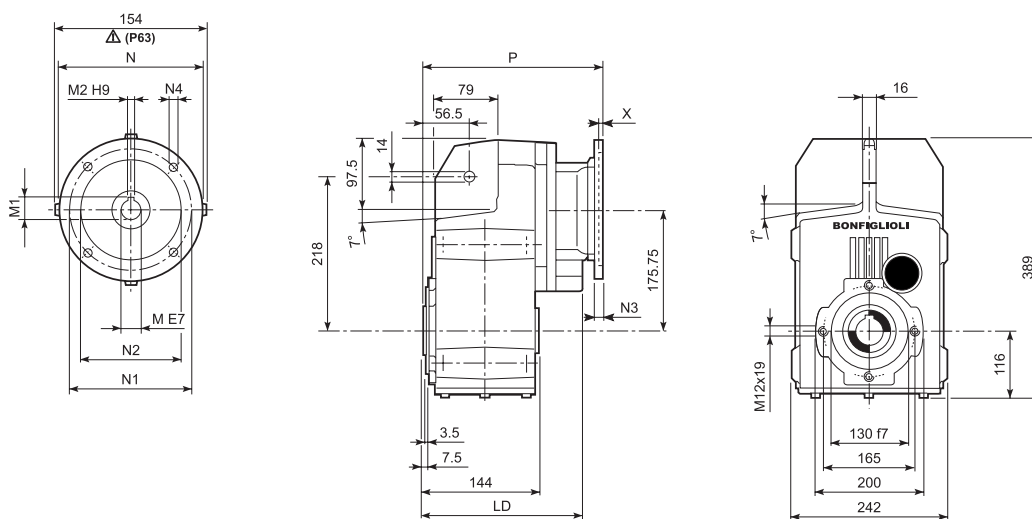
## F 41...M



										M...FD M...FA		M...FD		M...FA	
			AC	H	L	LD	AD	Kg	LF	Kg	R	AD	R	AD	
F 41 2/3	S1	M1	138	360.8	401	199.5	108	46	462	48	103	135	124	108	
F 41 2/3	S2	M2S	156	369.8	430	215	119	49	500	53	129	146	134	119	
F 41 2/3	S3	M3S	195	389.3	473	231	142	54	569	62	160	158	160	142	
F 41 2/3	S3	M3L	195	389.3	505	231	142	62	596	69	160	158	160	142	
F 41 2/3	S4	M4	258	420.8	613	—	193	96	722	114	226	210	217	193	
F 41 2/3	S4	M4LC	258	420.8	648	—	193	104	747	122	226	210	217	193	
F 41 4	S05	M05	231	352.3	433.5	—	95	45	499.5	46	96	122	116	95	
F 41 4	S1	M1	138	360.8	462.5	—	108	47	523.5	49	103	135	124	108	
F 41 4	S2	M2S	156	369.8	491.5	—	119	50	561.5	58	129	146	134	119	
F 41 4	S3	M3S	195	389.3	534.5	—	142	55	630.5	62	160	158	160	142	
F 41 4	S3	M3L	195	389.3	566.5	—	142	63	657.5	70	160	158	160	142	

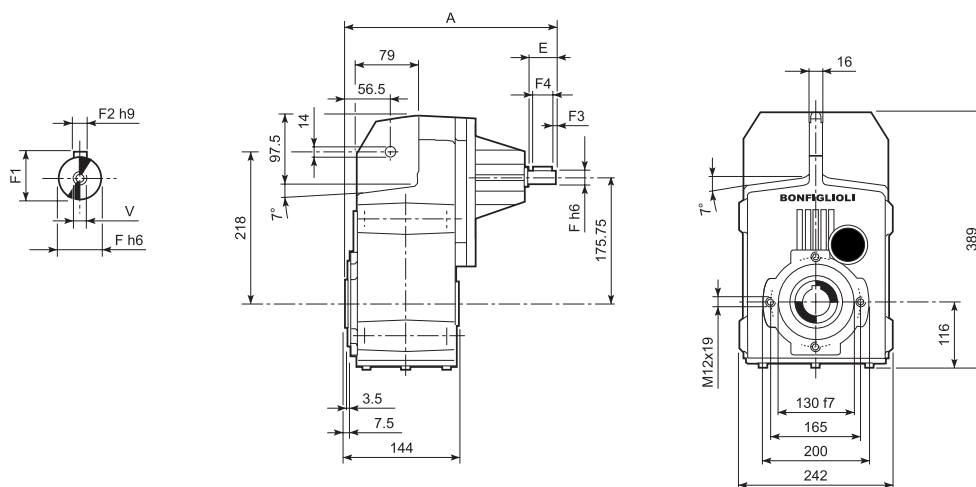


## F 41...P(IEC)



		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 41 2/3	P63	215	11	12.8	4	140	115	95	—	M8x19	4	246	42
F 41 2/3	P71	215	14	16.3	5	160	130	110	—	M8x16	4.5	246	42
F 41 2/3	P80	231	19	21.8	6	200	165	130	—	M10x14.5	4	265.5	43
F 41 2/3	P90	231	24	27.3	8	200	165	130	—	M10x14.5	4	265.5	43
F 41 2/3	P100	231	28	31.3	8	250	215	180	—	M12x16	4.5	275.5	47
F 41 2/3	P112	231	28	31.3	8	250	215	180	—	M12x16	4.5	275.5	47
F 41 2/3	P132	—	38	41.3	10	300	265	230	16	14	5	312	50
F 41 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	307.5	44
F 41 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	307.5	44
F 41 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	327	45
F 41 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	327	45
F 41 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	337	49
F 41 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	337	49

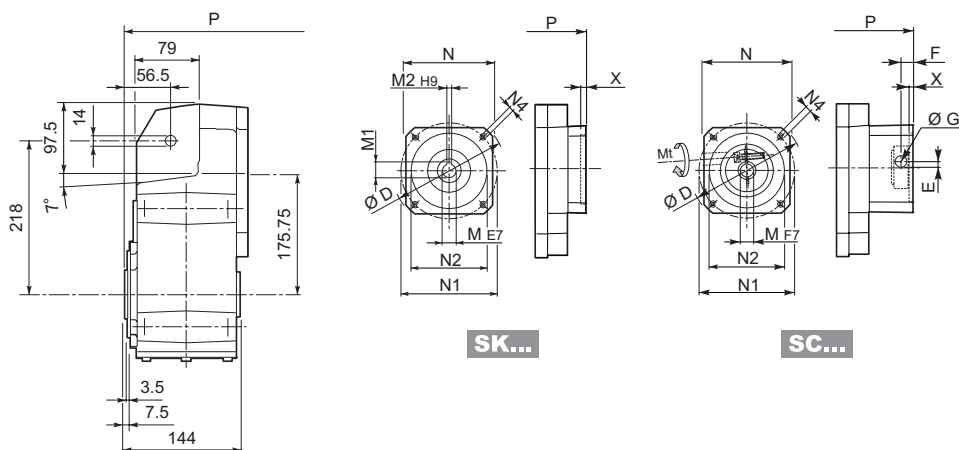
## F 41...HS



		A	E	F	F1	F2	F3	F4	V	Kg
F 41 2	HS	335.5	50	24	27	8	2.5	45	M8x19	44.9
F 41 3		335.5	50	24	27	8	2.5	45	M8x19	46.4
F 41 4		357.5	40	19	21.5	6	2.5	35	M6x16	43.5



## F 41...SK / SC



SK...

SC...

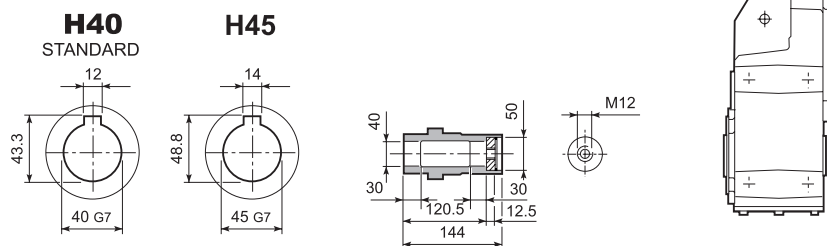
		D	M	M1	M2	N	N1	N2	N4	X	2/3x		4x	
											P		P	
F 41 4	SK 60A	102	11	12.8	4	82	75	60	M5x10	3.5	—	—	279	43
F 41 4	SK 60B	102	14	16.3	5	82	75	60	M5x10	4	—	—	286	44
F 41 4	SK 80A	115	14	16.3	5	90	100	80	M6x12	4	—	—	286	44
F 41 2/3	SK 80B	120	14	16.3	5	96	100	80	M6x12	4	265.5	43	—	—
F 41 2/3/4	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	265.5	43	327	45
F 41 2/3/4	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	265.5	43	327	45
F 41 2/3/4	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	265.5	43	327	45
F 41 2/3/4	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	265.5	43	327	45
F 41 2/3/4	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	265.5	43	327	45
F 41 2/3/4	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	265.5	43	327	45
F 41 2/3	SK 130A	188	24	27.3	8	142	165	130	M10x20	5	265.5	45	—	—
F 41 2/3	SK 130B	189	32	35.3	10	160	165	130	M10x20	5	312	47	—	—
F 41 2/3	SK 180A	240	32	35.3	10	192	215	180	M12x19	5	312	47	—	—
F 41 2/3	SK 180B	240	38	41.3	10	192	215	180	M12x19	5	312	47	—	—

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2/3x		4x	
														P		P	
F 41 4	SC 60A	M6	15	102	7	12.5	12.5	11	82	75	60	M5x10	4	—	—	306	44
F 41 4	SC 60B	M6	15	102	7	12.5	12.5	14	82	75	60	M5x10	4	—	—	306	45
F 41 4	SC 80A	M6	15	115	6	12.5	12.5	14	90	100	80	M6x12	4	—	—	306	45
F 41 2/3	SC 80B	M6	15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	289	44	—	—
F 41 2/3/4	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	289	44	350.5	46
F 41 2/3/4	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	289	44	350.5	46
F 41 2/3/4	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	289	44	350.5	46
F 41 2/3/4	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	289	44	350.5	46
F 41 2/3/4	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	289	45	350.5	47
F 41 2/3/4	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	289	45	350.5	47
F 41 2/3	SC 130A	M6	15	188	19	16	17.75	24	142	165	130	M10x20	5	289	46	—	—
F 41 2/3	SC 130B	M8	36	189	20	17	17.75	32	160	165	130	M10x20	5	335	50	—	—
F 41 2/3	SC 180A	M8	36	240	20	17.5	17.75	32	192	215	180	M12x24	5	339	50	—	—
F 41 2/3	SC 180B	M8	36	240	20	17.5	17.75	38	192	215	180	M12x24	5	339	50	—	—

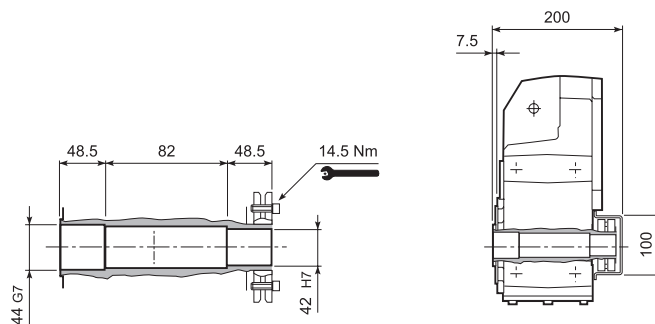


# F 41

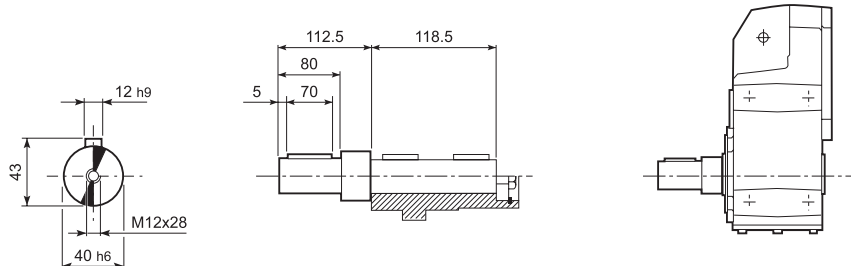
## F 41...H



## F 41...S



## F 41...R

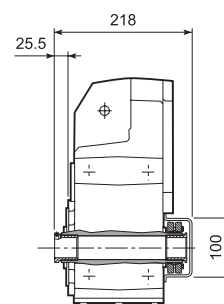
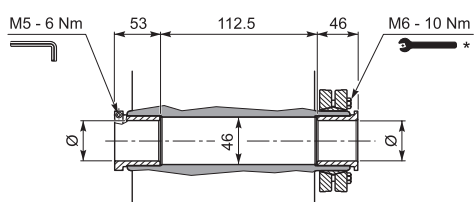


## F 41...QF

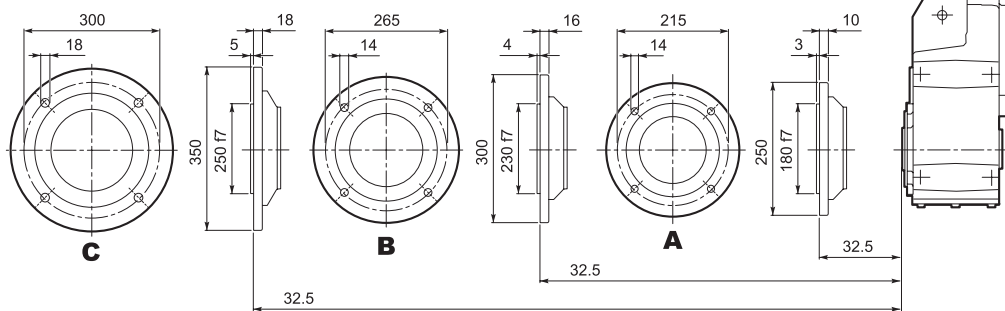
	Ø
QF42	42
QF45	45



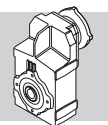
	M <sub>n2</sub> max [Nm]
F 41 QF42	850
F 41 QF45	1000



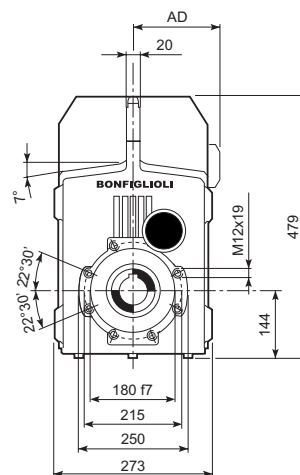
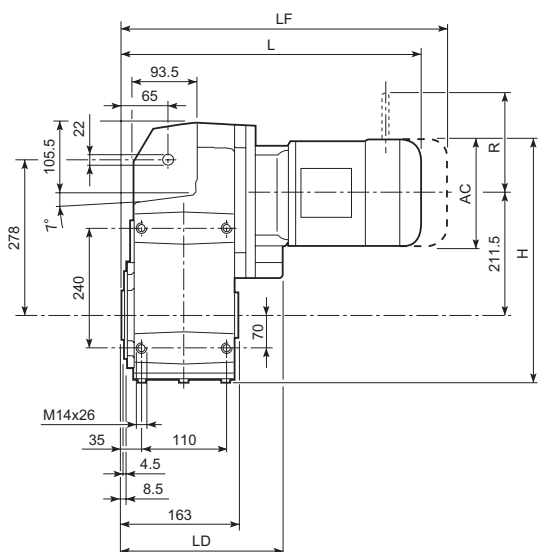
## F 41...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



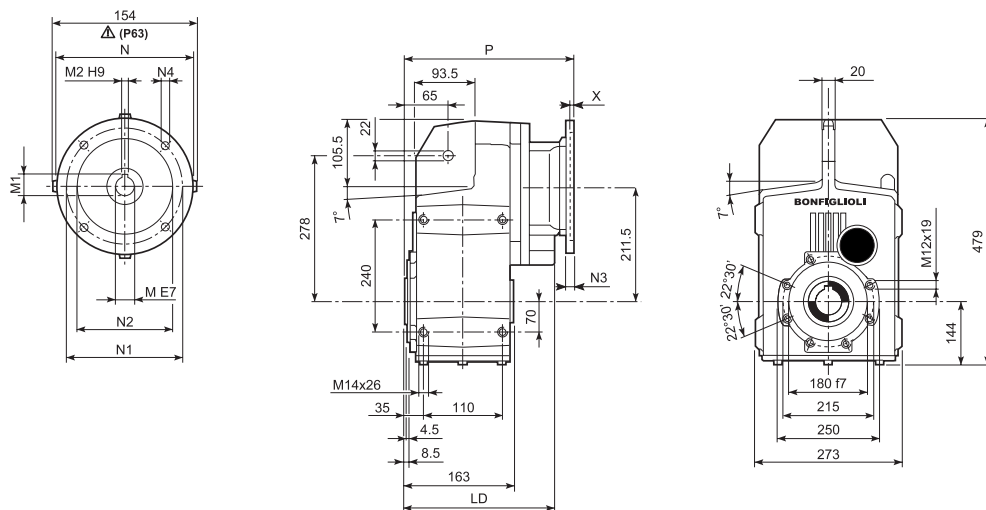
## F 51...M



										M...FD M...FA		M...FD		M...FA	
			AC	H	L	LD	AD		LF		R	AD	R	AD	
F 51 2/3	S1	M1	138	424	423	—	108	73	484	76	103	135	124	108	
F 51 2/3	S2	M2S	156	433	452	238	119	73	522	76	129	146	134	119	
F 51 2/3	S3	M3S	195	452.5	495	253	142	77	591	85	160	158	160	142	
F 51 2/3	S3	M3L	195	452.5	527	253	142	85	618	92	160	158	160	142	
F 51 2/3	S4	M4	258	484	635	238	193	119	744	137	226	210	217	193	
F 51 2/3	S4	M4LC	258	484	670	238	193	127	769	145	226	210	217	193	
F 51 2/3	S5	M5S	310	510	721.5	—	245	153	861.5	188	266	245	247	245	
F 51 2/3	S5	M5L	310	510	765.5	—	245	169	905.5	204	266	245	247	245	
F 51 4	S1	M1	138	424	494.5	—	108	75	555.5	78	103	135	124	108	
F 51 4	S2	M2S	156	433	523.5	—	119	79	593.5	83	129	146	134	119	
F 51 4	S3	M3S	195	452.5	566.5	—	142	84	662.5	91	160	158	160	142	
F 51 4	S3	M3L	195	452.5	598.5	—	142	91	689.5	98	160	158	160	142	

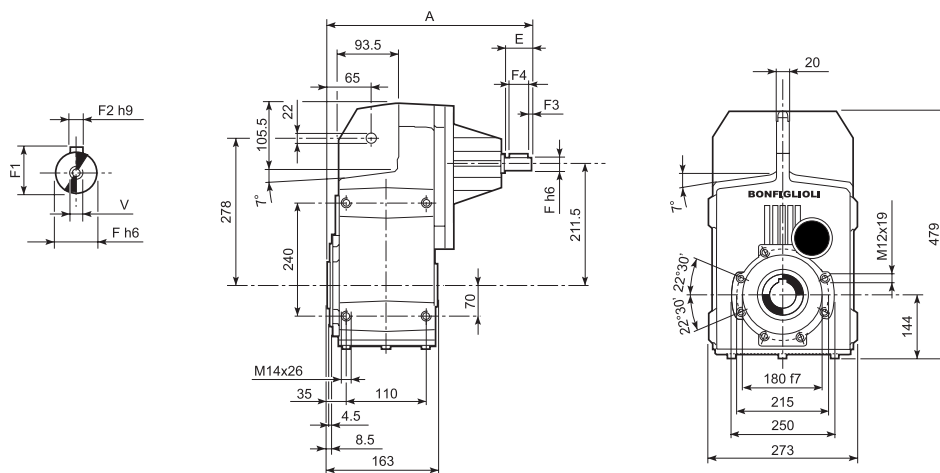


## F 51...P(IEC)



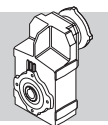
		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 51 2/3	P63	238	11	12.8	4	140	115	95	—	M8x19	4	268	65
F 51 2/3	P71	238	14	16.3	5	160	130	110	—	M8x16	4.5	268	65
F 51 2/3	P80	253	19	21.8	6	200	165	130	—	M10x14.5	4	287.5	67
F 51 2/3	P90	253	24	27.3	8	200	165	130	—	M10x14.5	4	287.5	67
F 51 2/3	P100	238	28	31.3	8	250	215	180	—	M12x16	4.5	297.5	71
F 51 2/3	P112	238	28	31.3	8	250	215	180	—	M12x16	4.5	297.5	71
F 51 2/3	P132	238	38	41.3	10	300	265	230	16	14	5	334	74
F 51 2/3	P160	—	42	45.3	12	350	300	250	23	18	5.5	384.5	78
F 51 2/3	P180	—	48	51.8	14	350	300	250	23	18	5.5	384.5	78
F 51 4	P63	—	11	12.8	4	140	115	95	—	M8x19	4	339.5	70
F 51 4	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	339.5	70
F 51 4	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	359	71
F 51 4	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	359	71
F 51 4	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	369	75
F 51 4	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	369	75

## F 51...HS

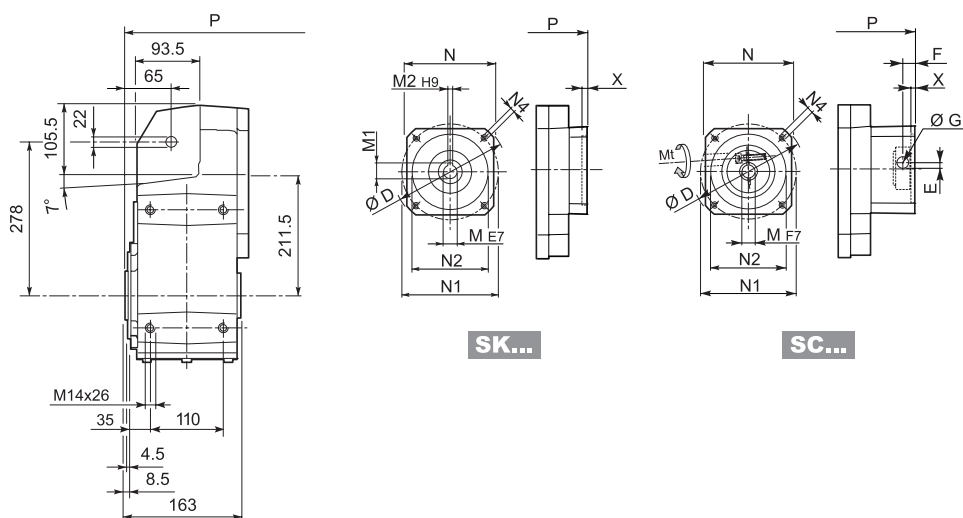


		A	E	F	F1	F2	F3	F4	V	Kg
F 51 2	HS	357.5	50	24	27	8	2.5	45	M8x19	65
F 51 3		357.5	50	24	27	8	2.5	45	M8x19	68
F 51 4		389.5	40	19	21.5	6	2.5	35	M6x16	70





## F 51...SK / SC



SK...

SC...

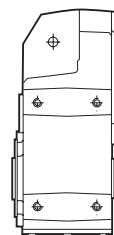
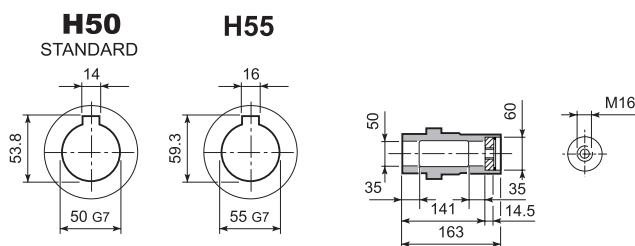
		D	M	M1	M2	N	N1	N2	N4	X	2/3x		4x	
											P	Kg	P	Kg
	SK 80B	120	14	16.3	5	96	100	80	M6x12	4	287.5	67	—	—
	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	287.5	67	359	71
	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	287.5	67	359	71
	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	287.5	67	359	71
	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	287.5	67	359	71
	SK 110A	150	19	21.8	6	120	130	110	M8x12	5	287.5	67	359	71
	SK 110B	150	24	27.3	8	120	130	110	M8x12	5	287.5	67	359	71
	SK 130A	188	24	27.3	8	142	165	130	M10x20	5	287.5	69	359	73
	SK 130B	189	32	35.3	10	160	165	130	M10x20	5	334	75	—	—
	SK 180A	240	32	35.3	10	192	215	180	M12x19	5	334	75	—	—
	SK 180B	240	38	41.3	10	192	215	180	M12x19	5	334	75	—	—

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2/3x		4x	
														P	Kg	P	Kg
	SC 80B	M6	15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	311	70	—	—
	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	311	70	382.5	74
	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	311	70	382.5	74
	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	311	70	382.5	74
	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	311	70	382.5	74
	SC 110A	M6	15	150	16.5	16	17.75	19	120	130	110	M8x16	5	311	71	382.5	75
	SC 110B	M6	15	150	16.5	16	17.75	24	120	130	110	M8x16	5	311	71	382.5	75
	SC 130A	M6	15	188	19	16	17.75	24	142	165	130	M10x20	5	311	72	382.5	76
	SC 130B	M8	36	189	20	17	17.75	32	160	165	130	M10x20	5	357	75	—	—
	SC 180A	M8	36	240	20	17.5	17.75	32	192	215	180	M12x24	5	361	75	—	—
	SC 180B	M8	36	240	20	17.5	17.75	38	192	215	180	M12x24	5	361	75	—	—

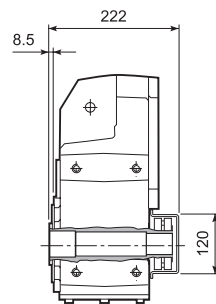
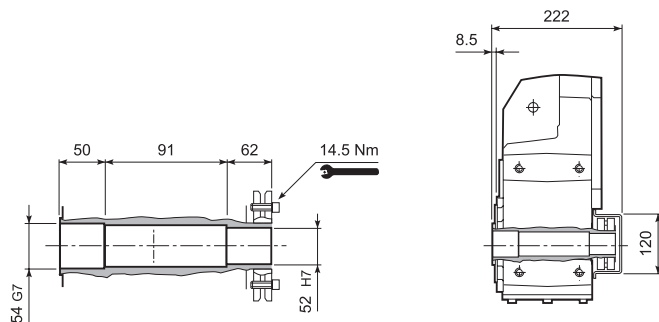


# F 51

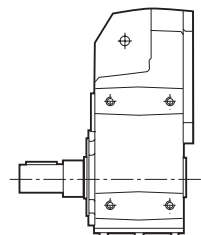
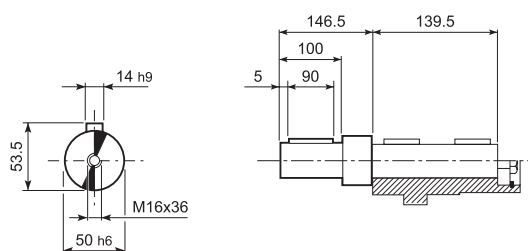
## F 51...H



## F 51...S



## F 51...R

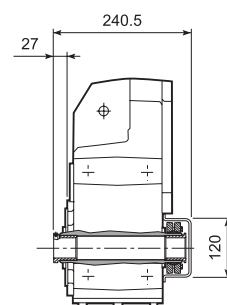
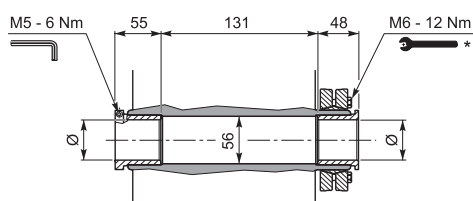


## F 51...QF

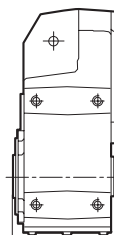
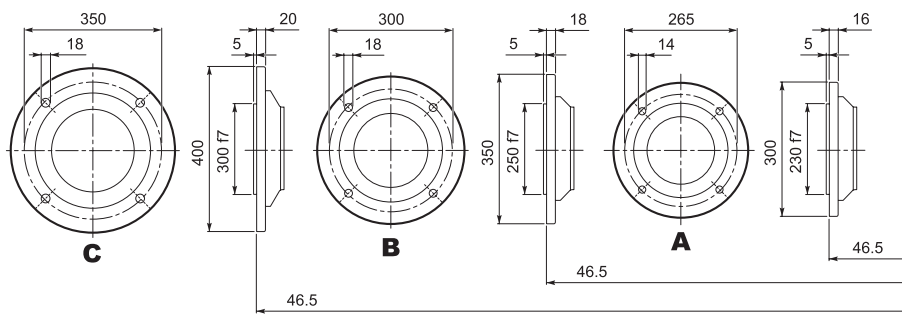
	Ø
QF50	50
QF55	55



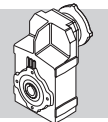
	M <sub>n2</sub> max [Nm]
F 51 QF50	1750



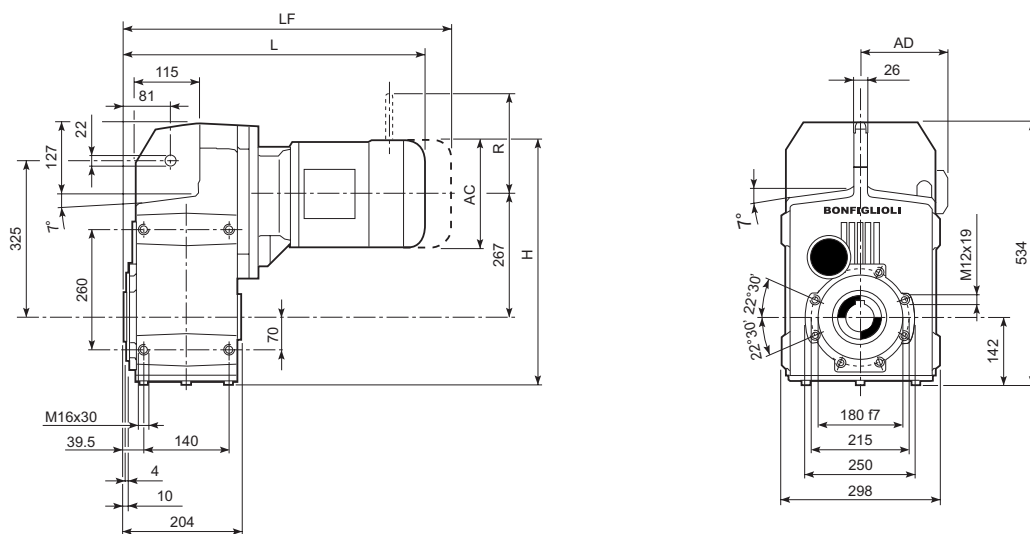
## F 51...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



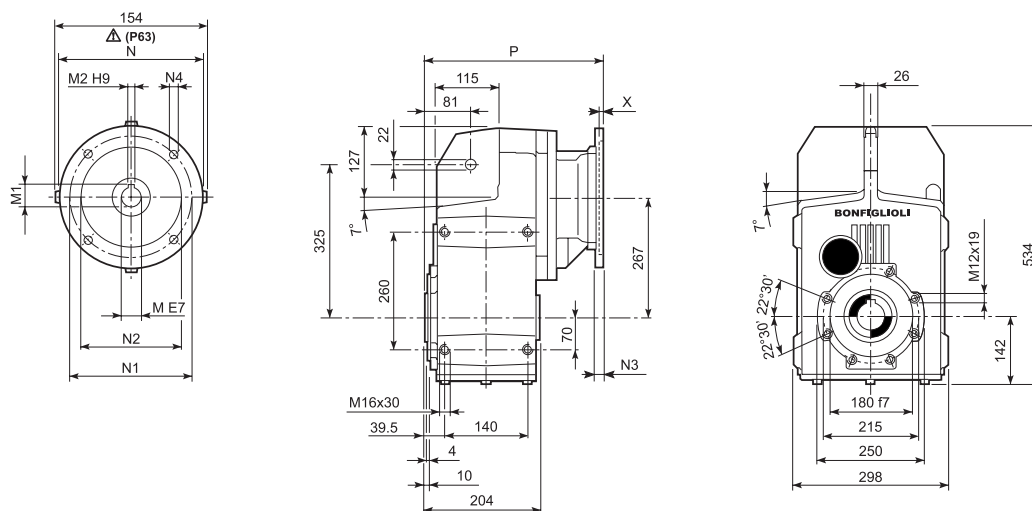
## F 60...M



								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD	Kg	LF	Kg	R	AD	R	AD
F 60 3	S2	M2S	156	487	486.5	119	114	556.5	121	129	146	134	119
F 60 3	S3	M3S	195	506.5	529.5	142	114	625.5	122	160	158	160	142
F 60 3	S3	M3L	195	506.5	561.5	142	122	652.5	129	160	158	160	142
F 60 3	S4	M4	258	538	669.5	193	156	777.5	174	226	210	217	193
F 60 3	S4	M4LC	258	538	704.5	193	164	802.5	182	226	210	217	193
F 60 3	S5	M5S	310	564	756	245	184	896	214	266	245	247	245
F 60 3	S5	M5L	310	564	800	245	200	940	230	266	245	247	245
F 60 4	S1	M1	138	478	528	108	113	589	116	103	135	124	108
F 60 4	S2	M2S	156	487	557	119	117	627	121	129	146	134	119
F 60 4	S3	M3S	195	506.5	600	142	122	696	129	160	158	160	142
F 60 4	S3	M3L	195	506.5	632	142	129	723	136	160	158	160	142

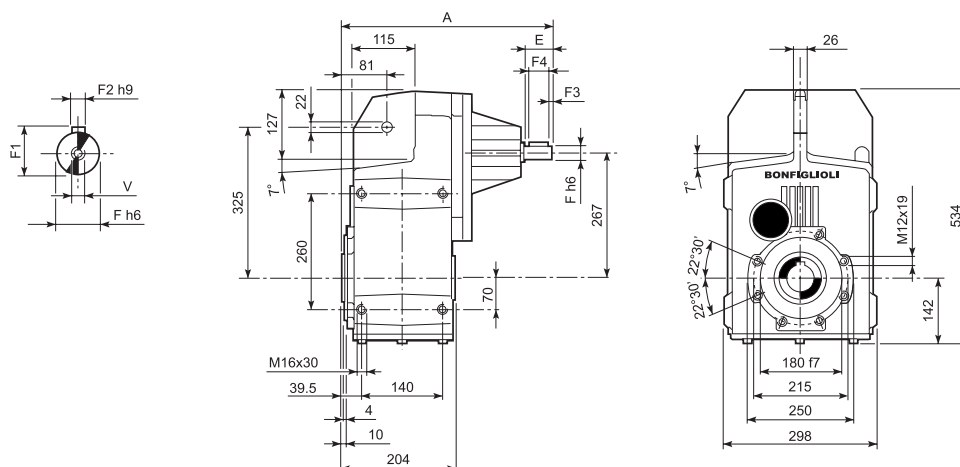


## F 60...P(IEC)

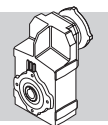


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 60 3	P63	11	12.8	4	140	115	95	—	M8x19	4	302.5	103
F 60 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	302.5	103
F 60 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	322	104
F 60 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	322	104
F 60 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	331	108
F 60 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	331	108
F 60 3	P132	38	41.3	10	300	265	230	16	14	5	367.5	111
F 60 3	P160	42	45.3	12	350	300	250	23	18	5.5	419	116
F 60 3	P180	48	51.8	14	350	300	250	23	18	5.5	419	116
F 60 4	P63	11	12.8	4	140	115	95	—	M8x19	4	373	108
F 60 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	373	108
F 60 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	392.5	110
F 60 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	392.5	110
F 60 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	402.5	114
F 60 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	402.5	114

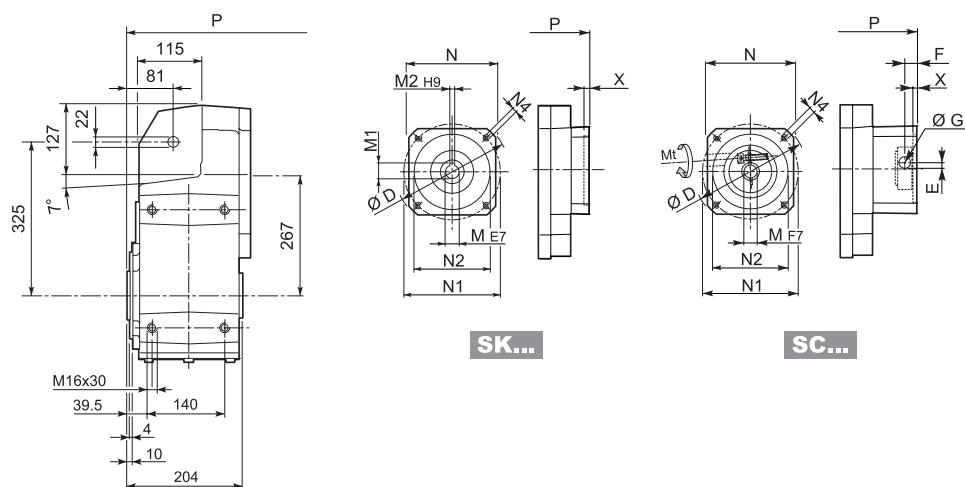
## F 60...HS



		A	E	F	F1	F2	F3	F4	V	Kg
F 60 3	HS	419	60	28	31	8	5.0	50	M10x22	108
F 60 4		462.5	50	24	27	8	2.5	45	M8x19	105



## F 60...SK / SC



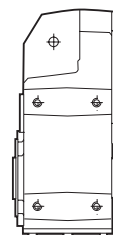
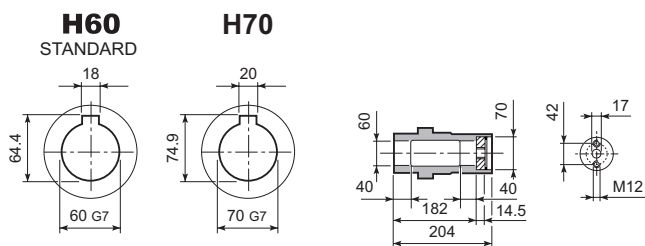
		D	M	M1	M2	N	N1	N2	N4	X	2/3x		4x	
											P		P	
F 60 4	SK 80B	120	14	16.3	5	96	100	80	M6x12	4	—	—	392.5	109
F 60 3/4	SK 80C	120	19	21.8	6	96	100	80	M6x12	4	322	106	392.5	112
F 60 3/4	SK 95A	130	14	16.3	5	102	115	95	M8x12	4	322	106	392.5	112
F 60 3/4	SK 95B	130	19	21.8	6	102	115	95	M8x12	4	322	106	392.5	112
F 60 3/4	SK 95C	130	24	27.3	8	102	115	95	M8x12	4	322	106	392.5	112
F 60 3/4	SK 110A	140	19	21.8	6	120	130	110	M8x12	5	322	106	392.5	112
F 60 3/4	SK 110B	140	24	27.3	8	120	130	110	M8x12	5	322	106	392.5	112
F 60 3/4	SK 130A	188	24	27.3	8	142	165	130	M10x20	5	322	108	392.5	112
F 60 3	SK 130B	189	32	35.3	10	160	165	130	M10x20	5	368.5	109	—	—
F 60 3	SK 180A	240	32	35.3	10	192	215	180	M12x19	5	368.5	109	—	—
F 60 3	SK 180B	240	38	41.3	10	192	215	180	M12x19	5	368.5	109	—	—

			Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	2/3x		4x	
														P		P	
F 60 4	SC 80B	M6	15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	—	—	416	113
F 60 3/4	SC 80C	M6	15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	345.5	107	416	113
F 60 3/4	SC 95A	M6	15	130	16.5	15	17.75	14	102	115	95	M8x16	4	345.5	107	416	113
F 60 3/4	SC 95B	M6	15	130	16.5	15	17.75	19	102	115	95	M8x16	4	345.5	107	416	113
F 60 3/4	SC 95C	M6	15	130	16.5	15	17.75	24	102	115	95	M8x16	4	345.5	107	416	113
F 60 3/4	SC 110A	M6	15	140	16.5	16	17.75	19	120	130	110	M8x16	5	345.5	108	416	113
F 60 3/4	SC 110B	M6	15	140	16.5	16	17.75	24	120	130	110	M8x16	5	345.5	108	416	113
F 60 3/4	SC 130A	M6	15	188	19	16	17.75	24	142	165	130	M10x20	5	345.5	109	416	115
F 60 3	SC 130B	M8	36	189	20	17	17.75	32	160	165	130	M10x20	5	390.5	112	—	—
F 60 3	SC 180A	M8	36	240	20	17.5	17.75	32	192	215	180	M12x24	5	394.5	112	—	—
F 60 3	SC 180B	M8	36	240	20	17.5	17.75	38	192	215	180	M12x24	5	394.5	112	—	—

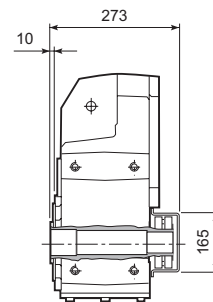
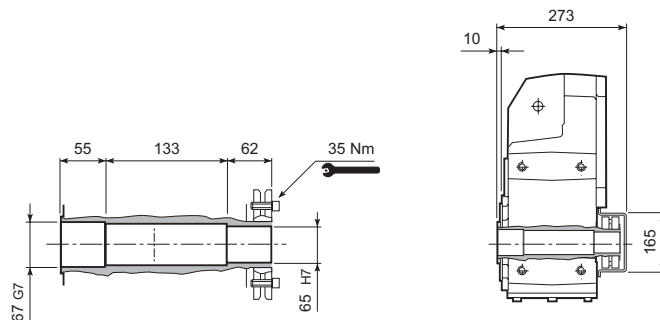


# F 60

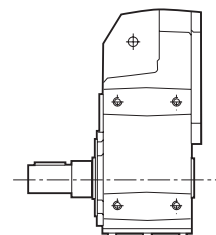
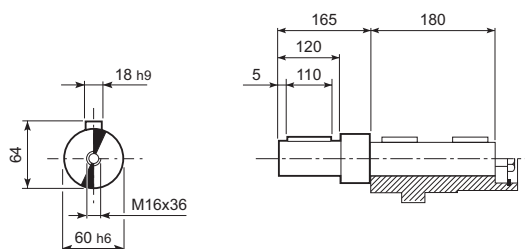
## F 60...H



## F 60...S

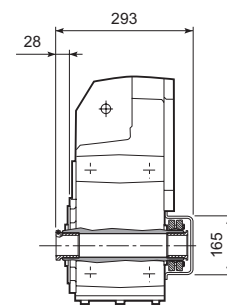
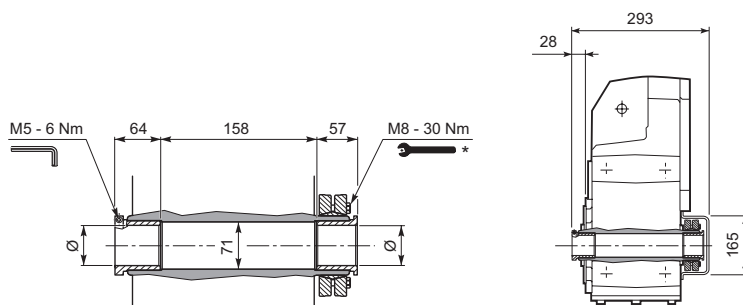


## F 60...R

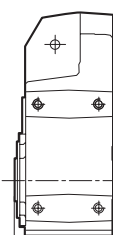
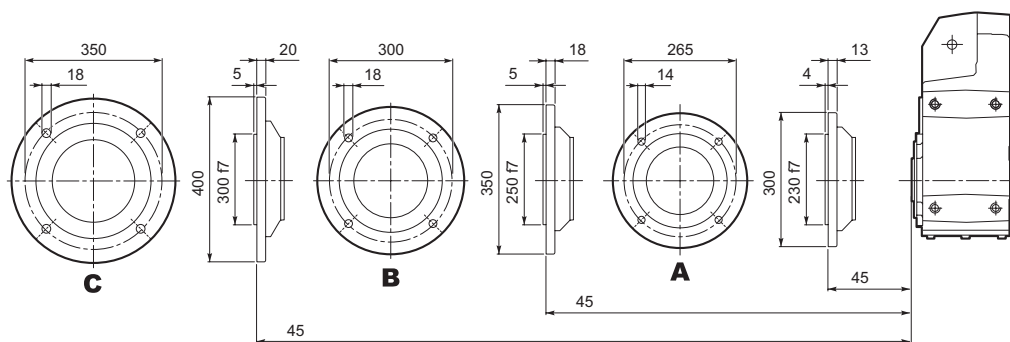


## F 60...QF

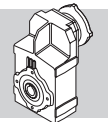
	Ø
QF60	60
QF65	65
QF70	70



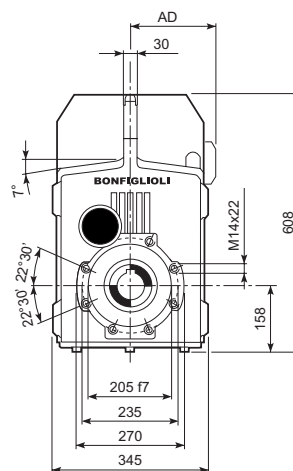
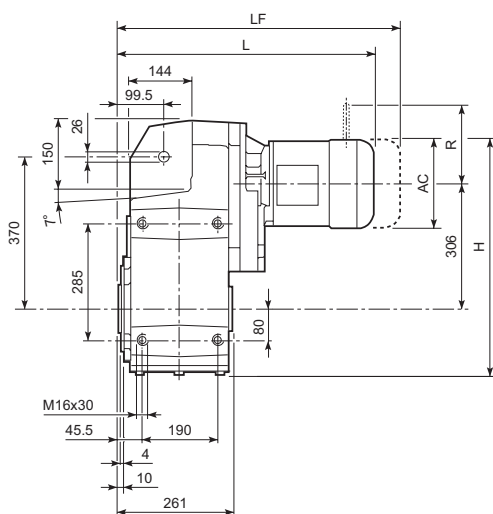
## F 60...F...



\* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



## F 70...M

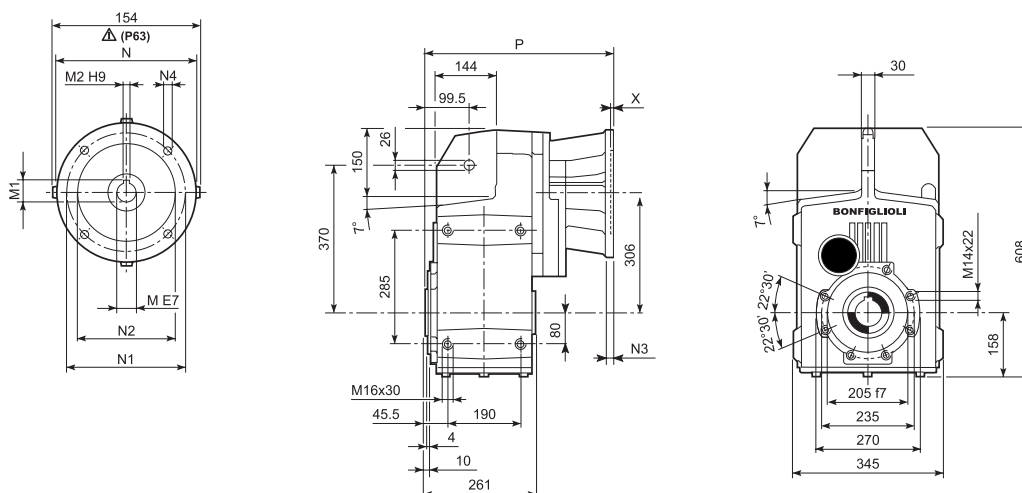


								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD
F 70 3	S2	M2S	156	542	552	119	173	622	177	129	146	134	119
F 70 3	S3	M3S	195	561.5	595	142	178	691	186	160	158	160	142
F 70 3	S3	M3L	195	561.5	627	142	186	718	193	160	158	160	142
F 70 3	S4	M4	258	593	735	193	220	844	238	226	210	217	193
F 70 3	S4	M4LC	258	593	770	193	228	869	246	226	210	217	193
F 70 3	S5	M5S	310	619	821.5	245	248	961.5	278	266	245	247	245
F 70 3	S5	M5L	310	619	865.5	245	264	1005.5	294	266	245	247	245
F 70 4	S1	M1	138	533	574	108	173	635	176	103	135	124	108
F 70 4	S2	M2S	156	542	603	119	177	673	180	129	146	134	119
F 70 4	S3	M3S	195	561.5	646	142	181	742	189	160	158	160	142
F 70 4	S3	M3L	195	561.5	678	142	189	769	196	160	158	160	142
F 70 4	S4	M4	258	593	786	193	223	895	241	226	210	217	193
F 70 4	S4	M4LC	258	593	821	193	231	920	249	226	210	217	193



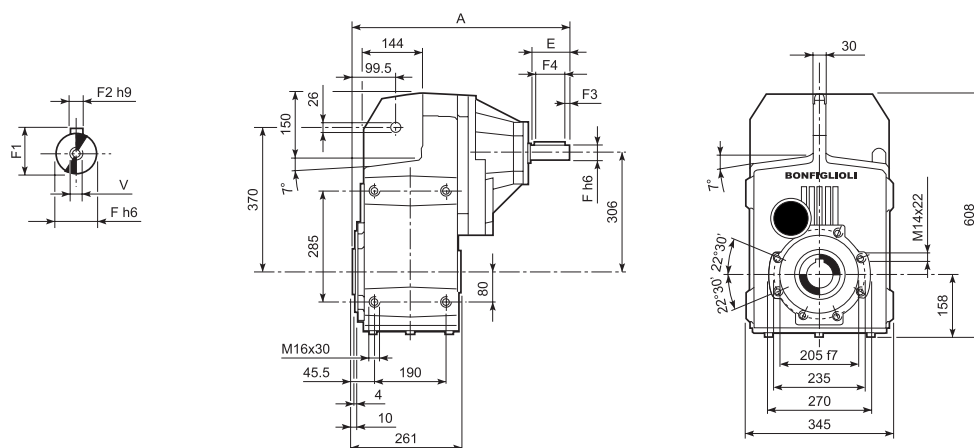


## F 70...P(IEC)

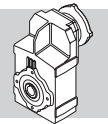


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 70 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	387.5	167
F 70 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	387.5	167
F 70 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	397.5	171
F 70 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	397.5	171
F 70 3	P132	38	41.3	10	300	265	230	16	14	5	434	173
F 70 3	P160	42	45.3	12	350	300	250	23	18	6	489.5	185
F 70 3	P180	48	51.8	14	350	300	250	23	18	6	489.5	185
F 70 3	P200	55	59.3	16	400	350	300	—	M16x25	7	514.5	206
F 70 4	P63	11	12.8	4	140	115	95	—	M8x19	4	419	168
F 70 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	419	168
F 70 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	438.5	170
F 70 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	438.5	170
F 70 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	174
F 70 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	174
F 70 4	P132	38	41.3	10	300	265	230	16	14	5	482	176

## F 70...HS

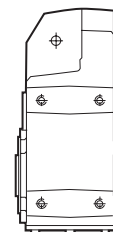
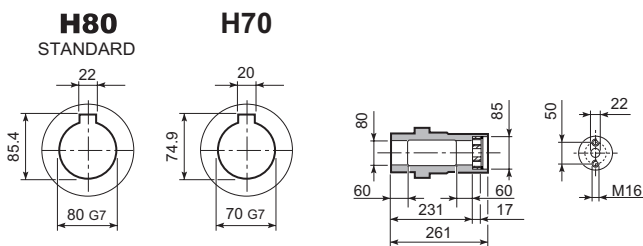


		A	E	F	F1	F2	F3	F4	V	Kg
F 70 3	HS	572	110	42	45	12	10	90	M12x28	186
F 70 4		508.5	50	24	27	8	2.5	45	M8x19	174

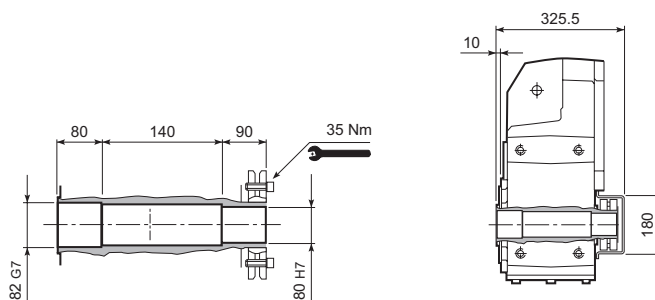


# F 70

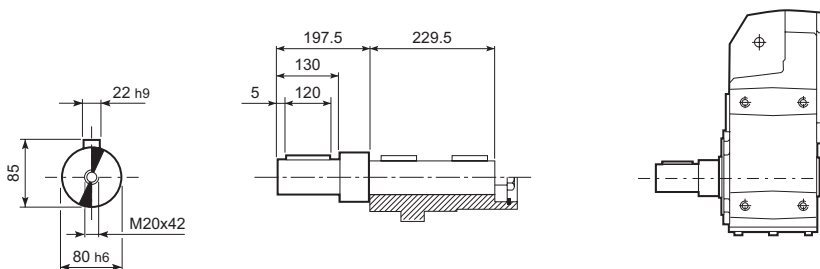
## F 70...H



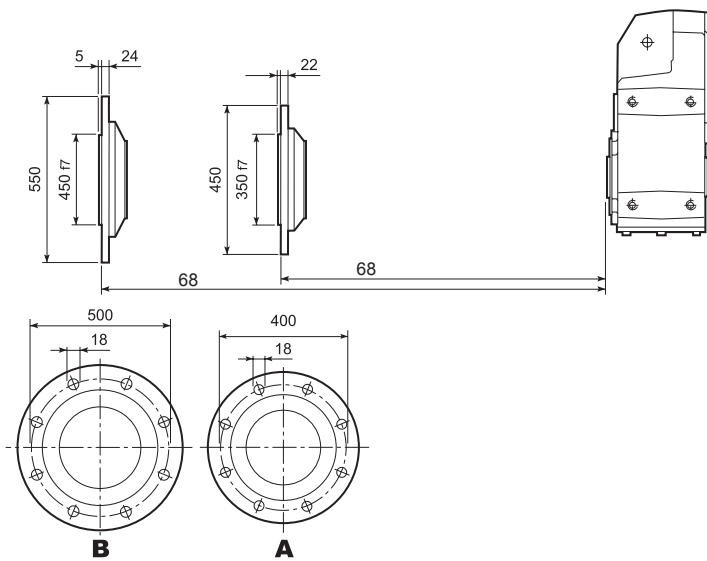
## F 70...S



## F 70...R



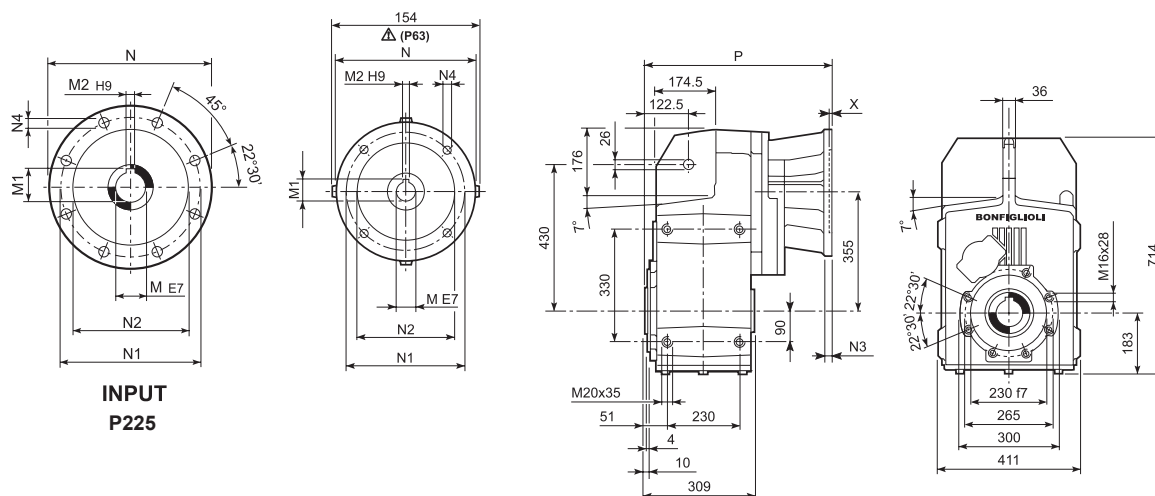
## F 70...F...







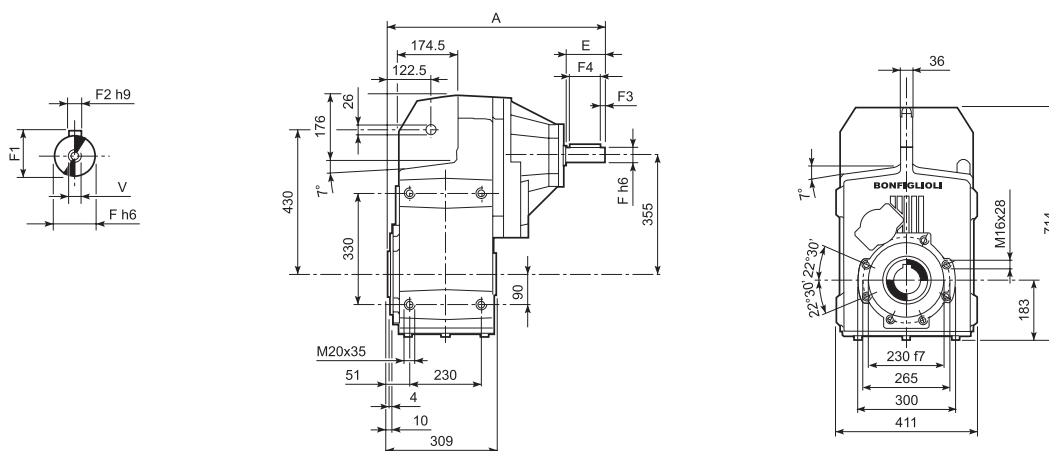
## F 80...P(IEC)



INPUT  
P225

		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 80 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	445.5	255
F 80 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	445.5	255
F 80 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	455.5	259
F 80 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	455.5	259
F 80 3	P132	38	41.3	10	300	265	230	16	14	5	492	261
F 80 3	P160	42	45.3	12	350	300	250	23	18	6	547.5	276
F 80 3	P180	48	51.8	14	350	300	250	23	18	6	547.5	276
F 80 3	P200	55	59.3	16	400	350	300	—	M16x25	7	572.5	298
F 80 3	P225	60	64.4	18	450	400	350	25	18	6	618	298
F 80 4	P63	11	12.8	4	140	115	95	—	M8x19	4	489	258
F 80 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	489	258
F 80 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	508.5	260
F 80 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	508.5	260
F 80 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	518.5	264
F 80 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	518.5	264
F 80 4	P132	38	41.3	10	300	265	230	16	14	5	552	266

## F 80...HS

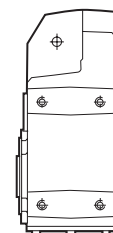
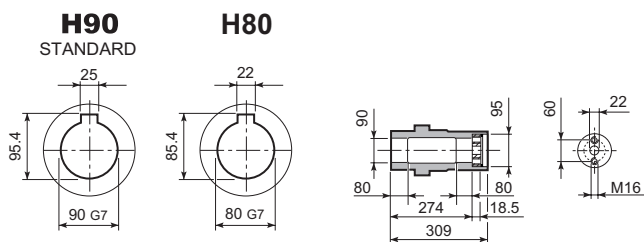


		A	E	F	F1	F2	F3	F4	V	Kg
F 80 3	HS	630	110	42	45	12	10	90	M12x28	273
F 80 4		575.5	50	24	27	8	2.5	45	M8x19	263

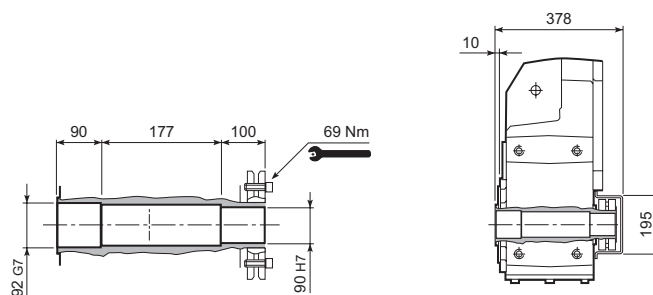


# F 80

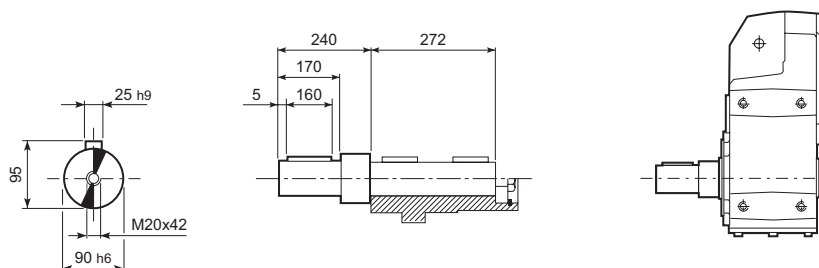
## F 80...H



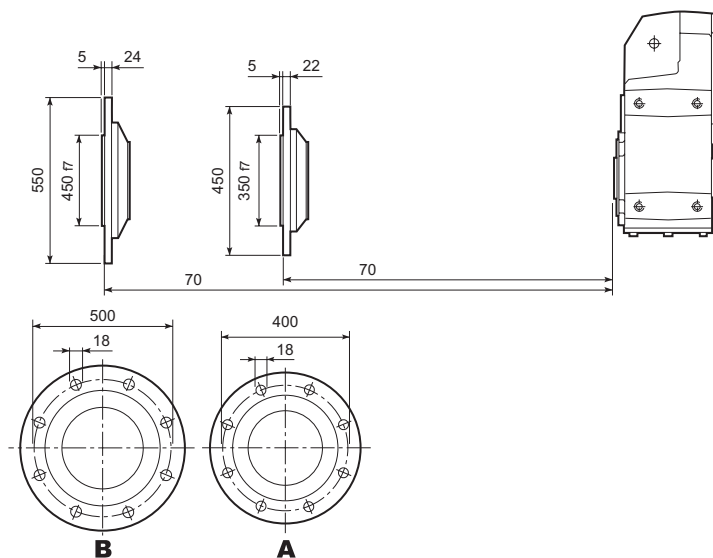
## F 80...S

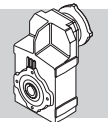


## F 80...R

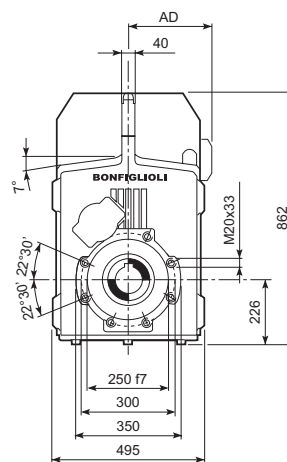
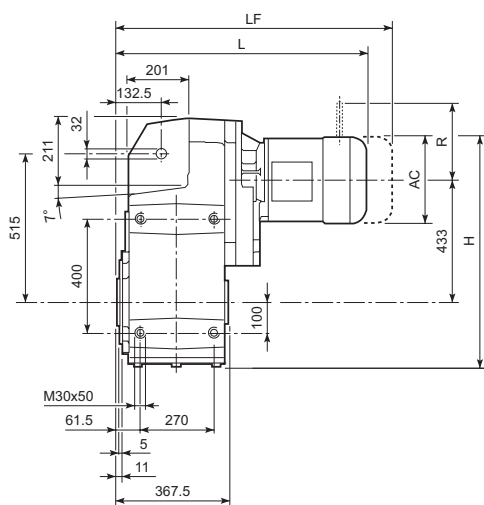


## F 80...F...





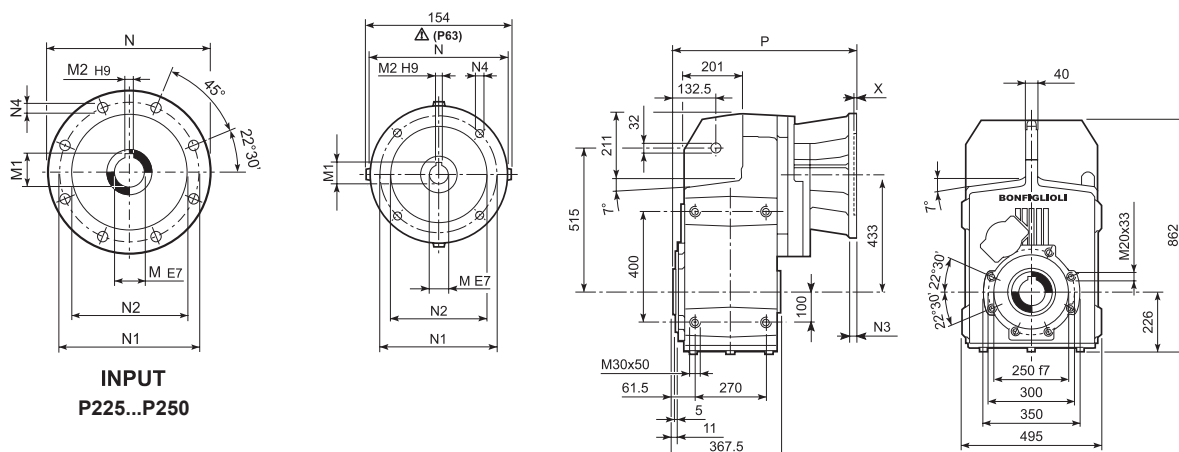
## F 90...M



								M...FD M...FA		M...FD		M...FA	
			AC	H	L	AD		LF		R	AD	R	AD
F 90 3	S3	M3S	195	756	728	142	453	824	460	160	158	160	142
F 90 3	S3	M3L	195	756	760	142	460	851	467	160	158	160	142
F 90 3	S4	M4	258	787.5	868	193	494	977	512	226	210	217	193
F 90 3	S5	M5L	310	813.5	998.5	245	538	1138.5	568	266	245	247	245
F 90 4	S2	M2S	156	736.5	768	119	456	838	460	129	146	134	119
F 90 4	S3	M3S	195	756	811	142	460	907	468	160	158	160	142
F 90 4	S3	M3L	195	756	843	142	468	934	475	160	158	160	142
F 90 4	S4	M4	258	787.5	951	193	502	1060	520	226	210	217	193
F 90 4	S4	M4LC	258	787.5	986	193	510	1085	528	226	210	217	193



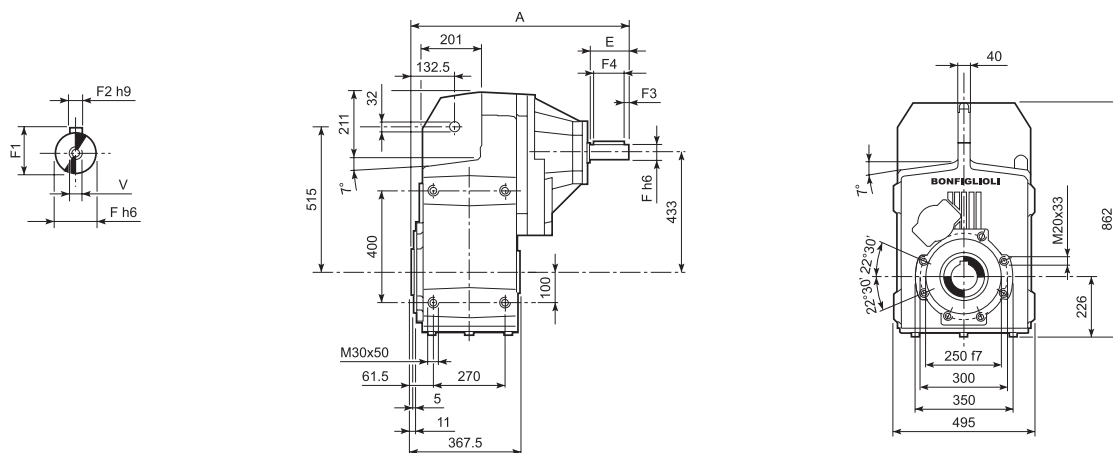
## F 90...P(IEC)



**INPUT**  
**P225...P250**

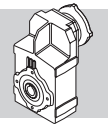
		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
F 90 3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	520.5	442
F 90 3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	520.5	442
F 90 3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	530.5	446
F 90 3	P112	28	31.3	8	250	215	180	—	M12x16	4.5	530.5	446
F 90 3	P132	38	41.3	10	300	265	230	16	14	5	567	449
F 90 3	P160	42	45.3	12	350	300	250	23	18	6	622.5	463
F 90 3	P180	48	51.8	14	350	300	250	23	18	6	622.5	463
F 90 3	P200	55	59.3	16	400	350	300	—	M16x25	7	647.5	485
F 90 3	P225	60	64.4	18	450	400	350	30	18	6	693	485
F 90 3	P250	65	69.4	18	550	500	450	30	18	6	723	507
F 90 4	P63	11	12.8	4	140	115	95	—	M8x19	4	584	448
F 90 4	P71	14	16.3	5	160	130	110	—	M8x16	4.5	584	448
F 90 4	P80	19	21.8	6	200	165	130	—	M10x14.5	4	603.5	450
F 90 4	P90	24	27.3	8	200	165	130	—	M10x14.5	4	603.5	450
F 90 4	P100	28	31.3	8	250	215	180	—	M12x16	4.5	613.5	454
F 90 4	P112	28	31.3	8	250	215	180	—	M12x16	4.5	613.5	454
F 90 4	P132	38	41.3	10	300	265	230	16	14	5	650	455
F 90 4	P160	42	45.3	12	350	300	250	23	18	5.5	700.5	461
F 90 4	P180	48	51.8	14	350	300	250	23	18	5.5	700.5	461

## F 90...HS



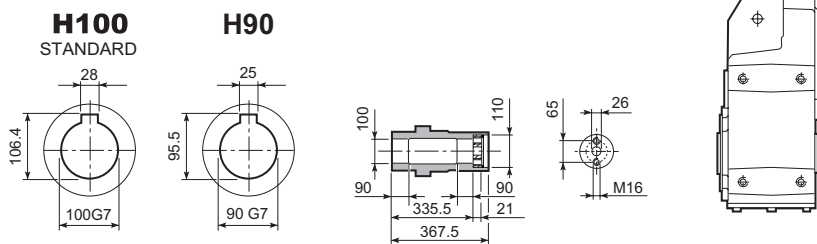
		A	E	F	F1	F2	F3	F4	V	Kg
F 90 3	HS	806.5	140	60	64	18	10	120	M16x36	485
F 90 4		673.5	50	24	27	8	2.5	45	M8x19	452



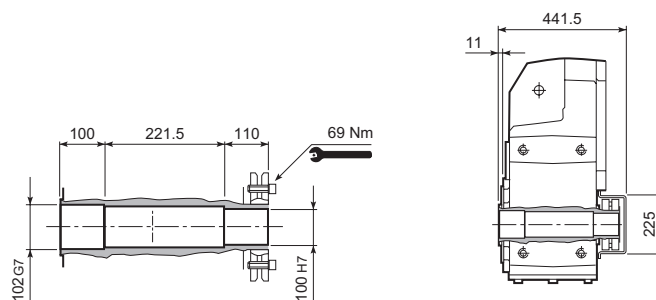


# F 90

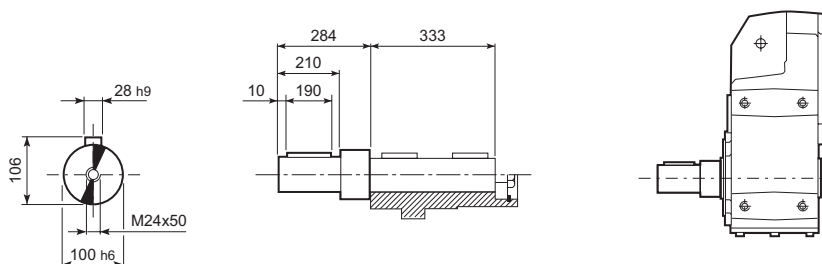
## F 90...H



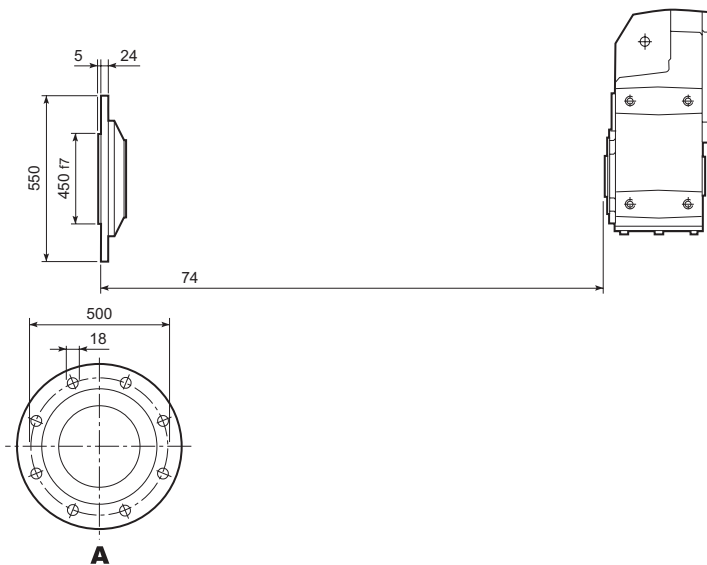
## F 90...S



## F 90...R



## F 90...F...



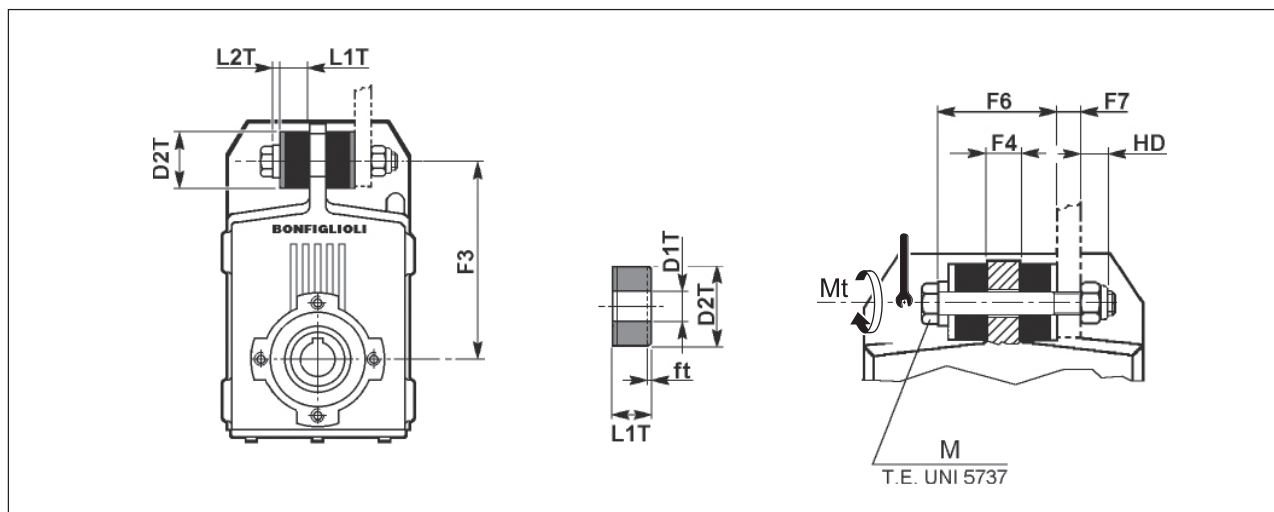
**A**



## 65 ACCESSORIES

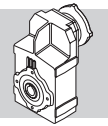
### Anti-vibration kit

The gearboxes of the F series are supplied with an anti-vibration kit at customer request. The kit includes all components required for shaft mounting (torque arm is out of scope). Dimensions are shown in the following table.



	F3	F4	F6	F7 (max.)	HD	L1T	L2T	D1T	D2T	M	Mt [Nm]	ft
<b>F 10</b>	140	20	55	10	12.3	15	5	11	30	M10x80	10	1.5
<b>F 20</b>	160	20	55	10	12.3	15	5	11	30	M10x80	10	1.5
<b>F 25</b>	162	20	65	20	14.8	20	5	12.5	40	M12x100	20	1.5
<b>F 31</b>	170	20	65	20	14.8	20	5	12.5	40	M12x100	20	1.5
<b>F 41</b>	218	16	61	24	14.8	20	5	12.5	40	M12x100	20	2.3
<b>F 51</b>	278	20	90	47	23	30	10	21	60	M20x160	50	3.0
<b>F 60</b>	325	26	96	41	23	30	10	21	60	M20x160	50	4.0
<b>F 70</b>	370	30	122	50	28	40	12	25	80	M24x200	100	4.0
<b>F 80</b>	430	36	128	44	28	40	12	25	80	M24x200	100	6.0
<b>F 90</b>	515	40	175	40	33.2	60	15	32	100	M30x260	200	9.0

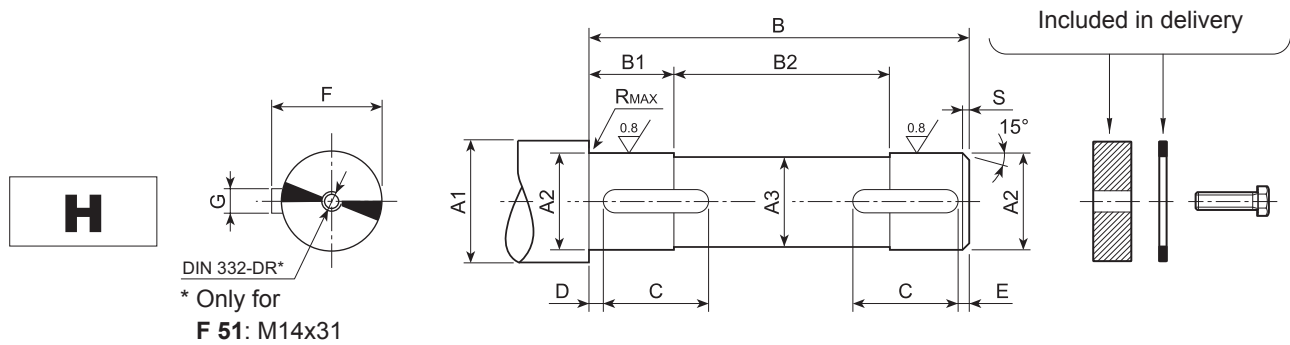
$f_t$  = shortening of the rubber buffer under rated torque transmission.





## 66 CUSTOMER' SHAFT

Make the driven shaft to be coupled to the gear unit's output shaft from a good quality steel, respecting the dimensions given in the table.

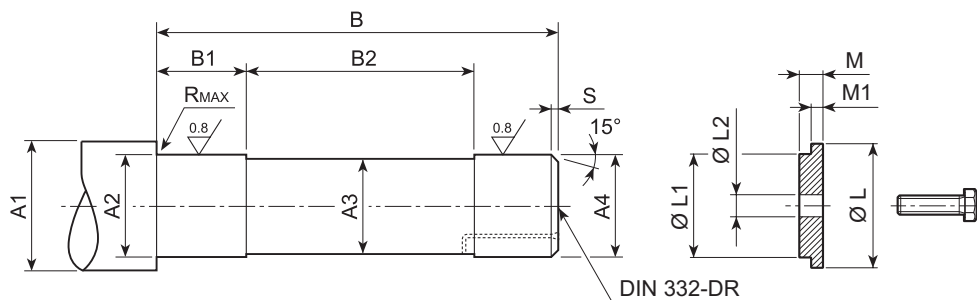
A device such as that illustrated below should also be installed to secure the shaft axially. Take care to verify and dimension the various components to suit the needs of the application.



	A1	A2	A3	B	B1	B2	C	D	E	F	G	R	S		
F 10	≥ 35	30 h7	29	87.5	15.5	56.5	20	2	2	33	8 h9	0.5	1.5	8x7x20 A	M8x25
	≥ 30	25 h7	24	87.5	15.5	56.5	20	2	2	28	8 h9	0.5	1.5	8x7x20 A	
F 20	≥ 42	35 h7	34	99	18	63	22	2	2	38	10 h9	0.5	1.5	10x8x22 A	M8x30
	≥ 35	30 h7	29	99	18	63	22	2	2	33	8 h9	0.5	1.5	8x7x22 A	
F 25	≥ 47	40 h7	39	104	23	58	30	2	2	43	12 h9	0.5	1.5	12x8x30 A	M8x30
	≥ 42	35 h7	34	104	23	58	30	2	2	38	10 h9	0.5	1.5	10x8x30 A	
F 31	≥ 47	40 h7	39	104	28	48	30	2	2	43	12 h9	0.5	1.5	12x8x30 A	M8x30
	≥ 42	35 h7	34	104	28	48	30	2	2	38	10 h9	0.5	1.5	10x8x30 A	
F 41	≥ 52	45 h7	44	118	27.5	63	45	2.5	2.5	48.5	14 h9	1	2.0	14x9x45 A	M10x30
	≥ 47	40 h7	39	118	27.5	63	45	2.5	2.5	43	12 h9	1	2.0	12x8x45 A	
F 51	≥ 63	55 h7	54	139	33	73	50	2.5	2.5	59	16 h9	1	2.0	16x10x50 A	M14x45
	≥ 57	50 h7	49	139	33	73	50	2.5	2.5	53.5	14 h9	1	2.0	14x9x50 A	
F 60	≥ 78	70 h7	69	180	38	104	70	2.5	2.5	74.5	20 h9	1	2.0	20x12x70 A	M16x45
	≥ 68	60 h7	59	180	38	104	70	2.5	2.5	64	18 h9	1	2.0	18x11x70 A	
F 70	≥ 89	80 h7	79	229	58	113	75	3	3	85	22 h9	2.5	2.5	22x14x75 A	M20x55
	≥ 78	70 h7	69	229	58	113	75	3	3	74.5	20 h9	2.5	2.5	20x12x75 A	
F 80	≥ 99	90 h7	89	272	78	116	100	3	3	95	25 h9	2.5	2.5	25x14x100 A	M20x55
	√ 89	80 h7	79	272	78	116	100	3	3	85	22 h9	2.5	2.5	22x14x100 A	
F 90	≥ 111	100 h7	99	333	87.5	158	110	3	3	106	28 h9	2.5	2.5	28x16x110 A	M24x65
	≥ 99	90 h7	89	333	87.5	158	110	3	3	95	25 h9	2.5	2.5	25x14x110 A	

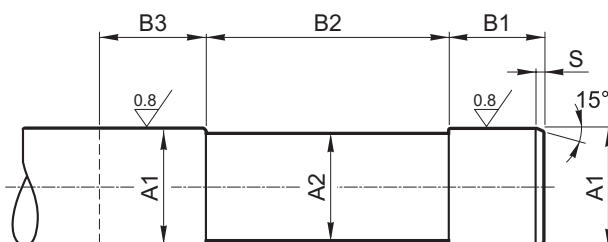


**S**

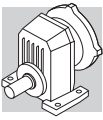


	A1	A2	A3	A4	B	B1	B2	R	S	L	L1	L2	M	M1	UNI 5739
<b>F 10</b>	≥ 36	27 h7	24	25 h6	138	34	70	0.5	1.5	29.5	25 d9	9	7	5.5	M8x25
<b>F 20</b>	≥ 42	32 h7	29	30 h6	160	38	84	0.5	1.5	35.5	30 d9	9	7	5.5	M8x25
<b>F 25</b>	≥ 42	32 h7	30	31 h6	172	38	96	0.5	1.5	35.5	31 d9	9	7	5.5	M8x25
<b>F 31</b>	≥ 50	38 h7	35	36 h6	155	40	73	1	2	43	36 d9	9	7	5.5	M8x25
<b>F 41</b>	≥ 58	44 h7	41	42 h6	177	46.5	82	1	2	49	42 d9	11	8.5	7	M10x30
<b>F 51</b>	≥ 68	54 h7	51	52 g6	201	48	91	1	2	61	52 d9	18	9	7.5	M16x45
<b>F 60</b>	≥ 84	67 h7	64	65 g6	248	53	133	1.5	2	80	65 d9	18	9	7.5	M16x45
<b>F 70</b>	≥ 104	82 h7	79	80 g6	308	78	140	2.5	2.5	95	80 d9	22	13.5	12	M20x55
<b>F 80</b>	≥ 114	92 h7	89	90 g6	365	88	177	2.5	2.5	105	90 d9	22	13.5	12	M20x55
<b>F 90</b>	≥ 126	102 h7	99	100 g6	429.5	98	221.5	2.5	2.5	120	100 d9	26	20	18.5	M24x70

**QF**



		A1	A2	B1	B2	B3	S
<b>F 10</b>	<b>QF25</b>	25 h6	24	41	83	≥ 50	1.5
	<b>QF30</b>	30 h6	29				
<b>F 20</b>	<b>QF25</b>	25 h6	24	41	104.5	≥ 50	1.5
	<b>QF30</b>	30 h6	29				
<b>F 25</b>	<b>QF30</b>	30 h6	29	41	120.5	≥ 50	1.5
	<b>QF32</b>	32 h6	31				
<b>F 31</b>	<b>QF35</b>	35 h6	34	45	95.5	≥ 54	1.5
	<b>QF40</b>	40 h6	39				
<b>F 41</b>	<b>QF42</b>	42 h6	41	46	112.5	≥ 55	2
	<b>QF45</b>	45 h6	44				
<b>F 51</b>	<b>QF50</b>	50 h6	49	48	131	≥ 57	2
	<b>QF55</b>	55 h6	54				
<b>F 60</b>	<b>QF60</b>	60 h6	59	57	158	≥ 66	2.5
	<b>QF65</b>	65 h6	64				
	<b>QF70</b>	70 h6	69				



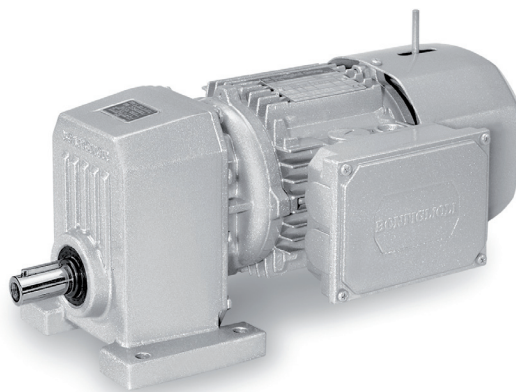
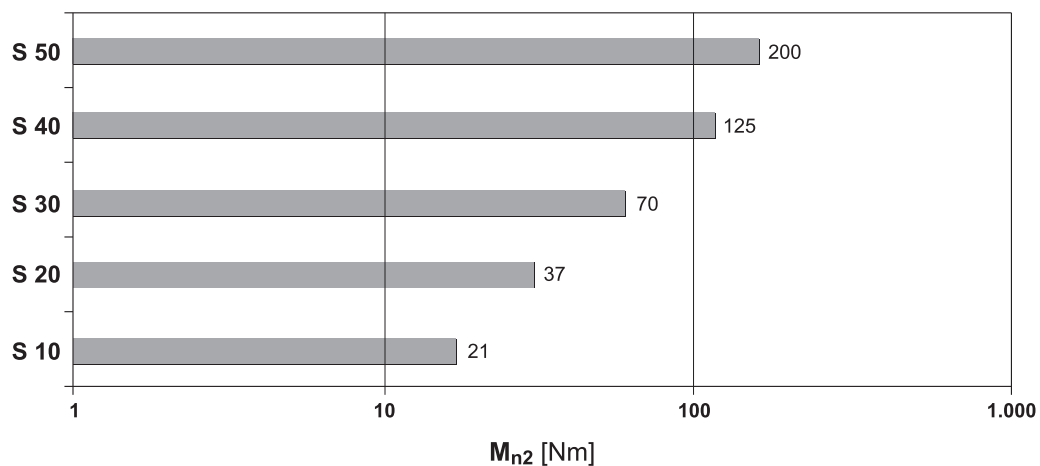
## SINGLE STAGE GEARBOXES SERIES S

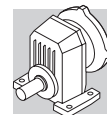
### 67 DESIGN FEATURES

The main design characteristics are:

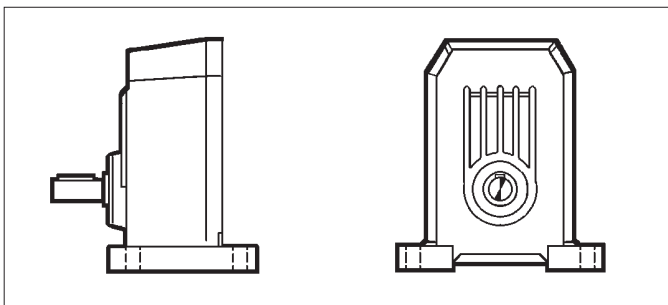
- modularity
- space effective
- high efficiency
- quiet operation
- gears in hardened and case-hardened steel
- bare aluminium housing for sizes 10, 20, 30, unpainted high strength painted cast-iron housings for larger frame sizes
- input and output shafts from high grade steel.

(E 60)





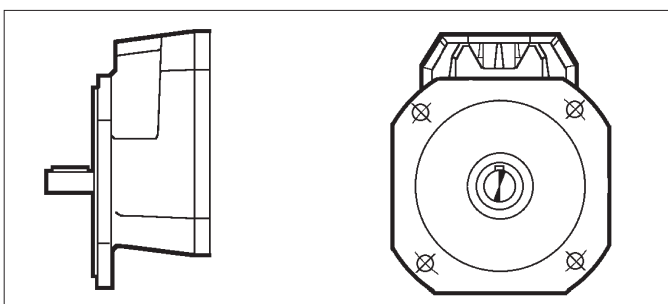
68 VERSIONS



**P**

Foot mount

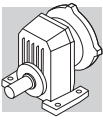
S 10 ... S 50



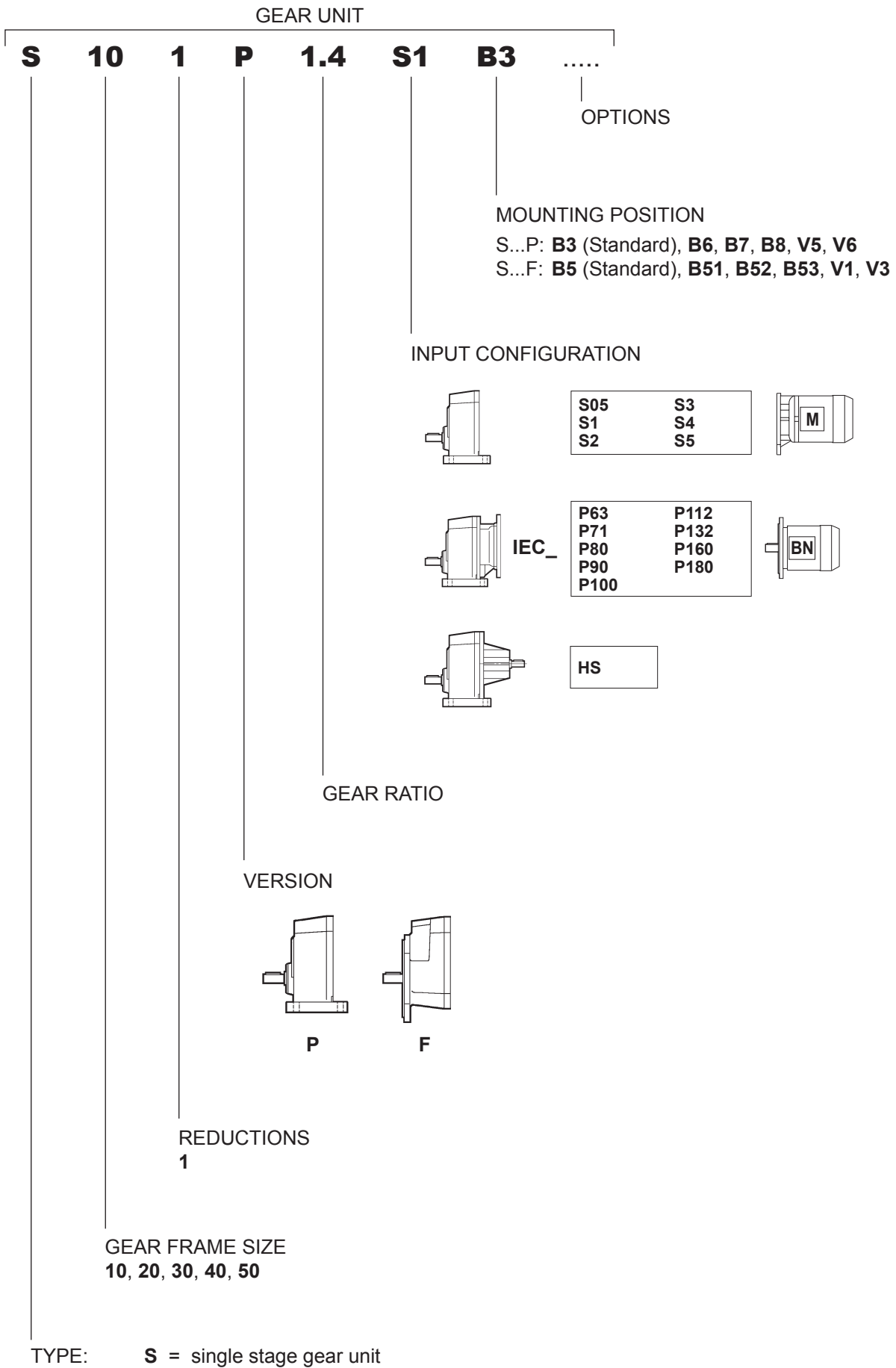
**F**

Flange mount

S 10 ... S 50



**69 DESIGNATION**







MOTOR

BRAKE

**M 1LA 4 230/400-50 IP54 CLF ..... W FD 7.5 R SB 220 SA .....**

OPTIONS

BRAKE  
SUPPLY

RECTIFIER TYPE  
AC/DC  
**NB, SB, NBR, SBR**

BRAKE HAND RELEASE  
**R, RM**

BRAKE TORQUE

BRAKE TYPE  
**FD** (d.c. brake)  
**FA** (a.c. brake)

TERMINAL BOX POSITION  
**W** (default), **N, E, S**

MOTOR MOUNTING  
— (compact motor)  
**B5** (IEC - motor)

INSULATION CLASS  
**CL F** standard  
**CL H** option

DEGREE OF PROTECTION  
**IP55** standard (IP54 - brake motor)

VOLTAGE - FREQUENCY

POLE NUMBER  
**2, 4, 6, 2/4, 2/6, 2/8, 2/12, 4/6, 4/8**

MOTOR SIZE  
**0B ... 5LA** (compact motor)  
**63A ... 180L** (IEC motor)

MOTOR TYPE  
**M** = compact 3-phase  
**BN** = IEC 3-phase



## 69.1 Gearbox options

### SO

Gear units S10, S20, S30, S40, usually factory filled with oil, to be supplied unlubricated.

### LO

Gearbox S50, usually supplied without oil, to be supplied with synthetic oil currently used by BONFIGLIOLI RIDUTTORI and filled according to requested mounting position.

### DV

Dual oil seals on input shaft. (Available only for compact gearmotors).

### VV

Fluoro elastomer oil seal on input shaft.

### PV

All oil seals in Fluoro elastomer.

## SURFACE PROTECTION

When no specific protection class is requested, the painted (ferrous) surfaces of gearboxes are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, gearboxes can be delivered with **C3** and **C4** surface protection, obtained by painting the complete gearbox.

(E 61)

SURFACE PROTECTION	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
<b>C3</b>	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
<b>C4</b>	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C	C4

Gearboxes with optional protection to class **C3** or **C4** are available in a choice of colours.

If no specific colour is requested (see the "PAINTING" option) gearboxes are finished in RAL 7042.

Gearboxes can also be supplied with surface protection for corrosivity class **C5** according to UNI EN ISO 12944-2. Contact our Technical Service for further details.



## PAINTING

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

(E 62)

PAINTING	Colour	RAL number
<b>RAL7042*</b>	Traffic Grey A	7042
<b>RAL5010</b>	Gentian Blue	5010
<b>RAL9005</b>	Jet Black	9005
<b>RAL9006</b>	White Aluminium	9006
<b>RAL9010</b>	Pure White	9010

\* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.

## CERTIFICATES

### AC - Certificate of compliance

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

### CC - Inspection certificate

The document entails checking on order compliance, the visual inspection of external conditions and of mating dimensions. Checking on main functional parameters in unloaded conditions is also performed along with oil seal proofing, both in static and in running conditions. Units inspected are sampled within the shipping batch and marked individually.

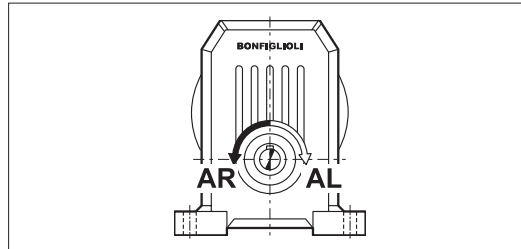


## 69.2 Motor options

### AL, AR

A backstop device on the motor itself, as described in the electric motors section of this catalogue, is available for gearmotors with integral M Series motors. The following table shows the direction of free rotation of the gearbox, on the basis of which the correct option must be selected.

(E 64)



For further information on options, consult the electric motors section.

## 70 MOUNTING POSITION AND TERMINAL BOX ANGULAR LOCATION

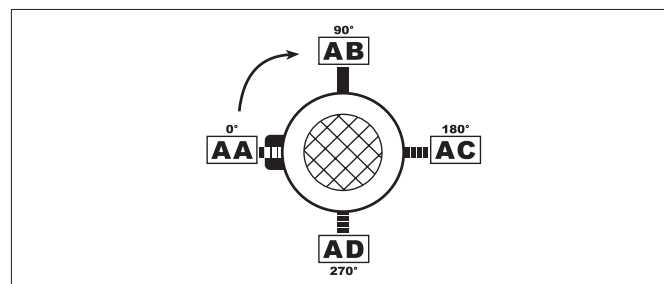
Location of motor terminal box can be specified by viewing the motor from the fan side; standard location is shown in black (W).

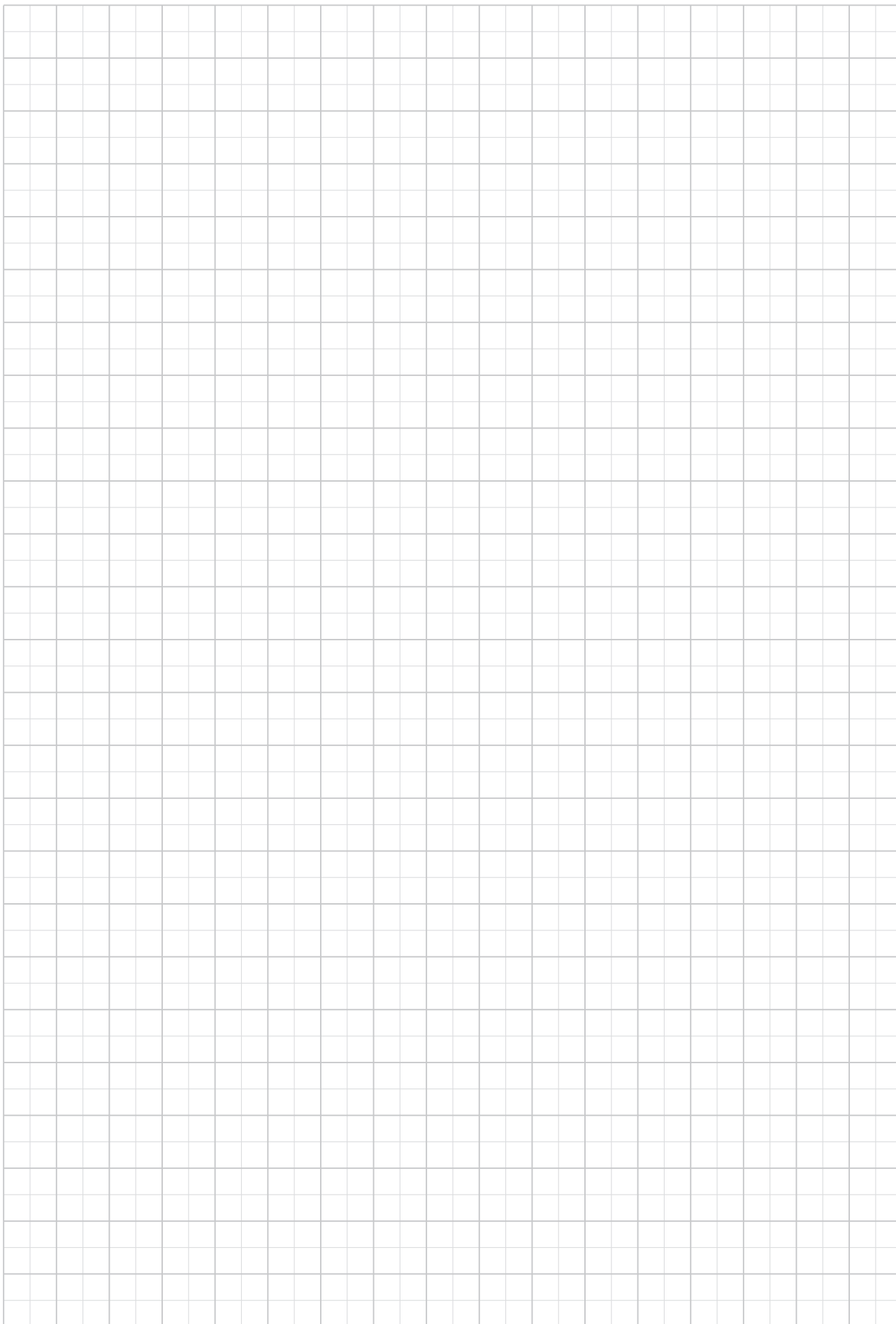
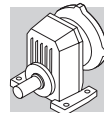
### Angular position of the brake release lever.

Unless otherwise specified, brake motors have the manual device side located, 90° apart from terminal box.

Different angles can be specified through the relevant options available.

(E 63)

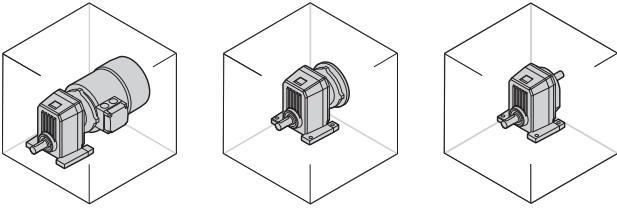






# S ... P

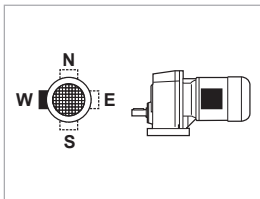
## B3



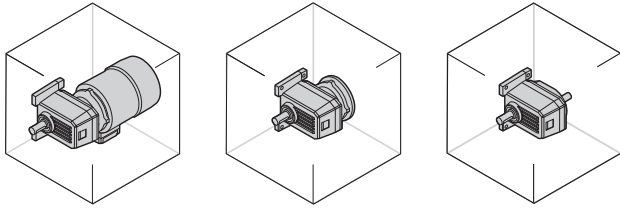
\_S

\_P(IEC)

\_HS



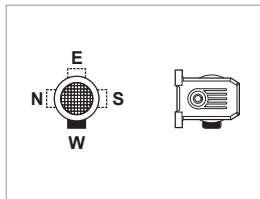
## B6



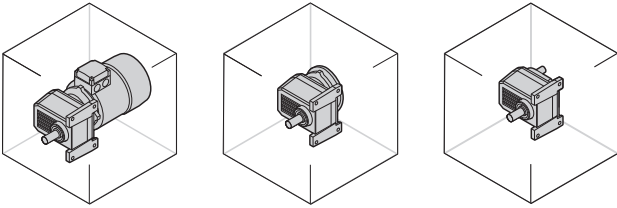
\_S

\_P(IEC)

\_HS



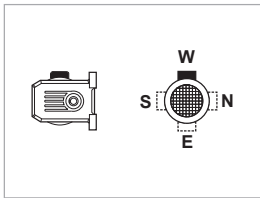
## B7



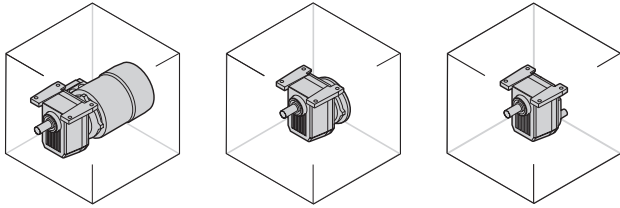
\_S

\_P(IEC)

\_HS



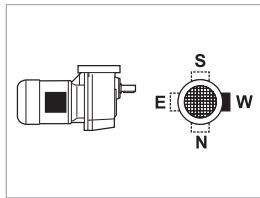
## B8



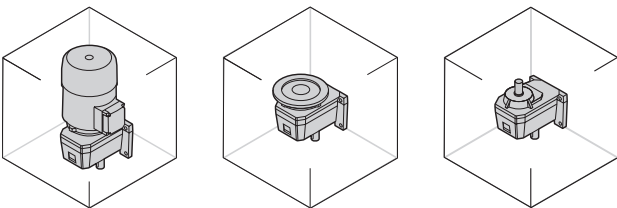
\_S

\_P(IEC)

\_HS



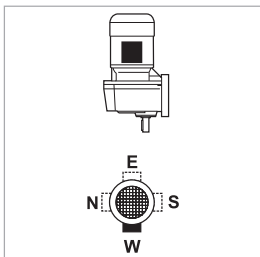
## V5



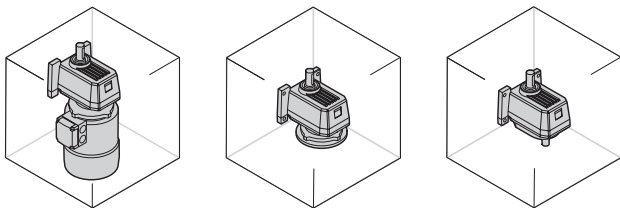
\_S

\_P(IEC)

\_HS



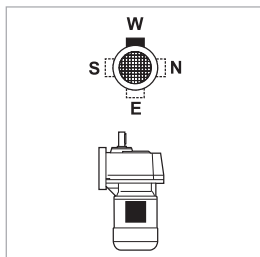
## V6



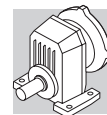
\_S

\_P(IEC)

\_HS

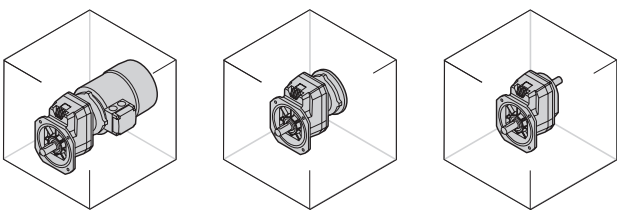


W = Default



# S ... F

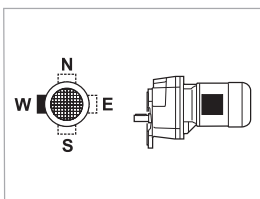
## B5



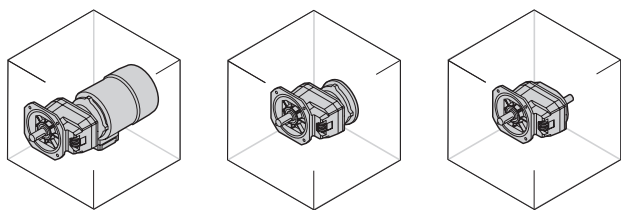
\_S

\_P(IEC)

\_HS



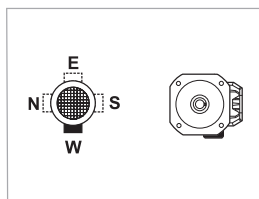
## B51



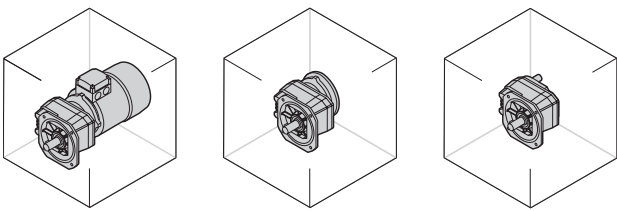
\_S

\_P(IEC)

\_HS



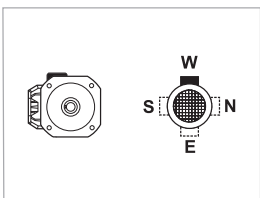
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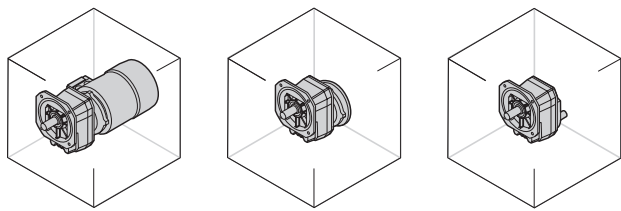
\_S

\_P(IEC)

\_HS



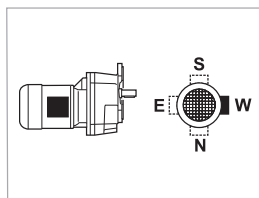
## B52



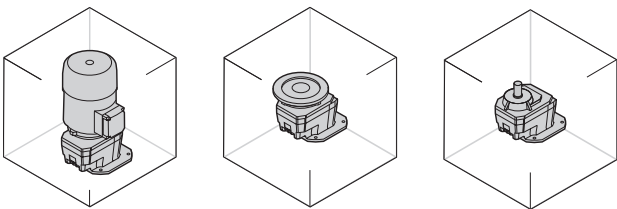
\_S

\_P(IEC)

\_HS



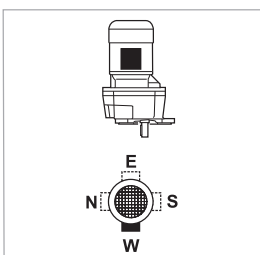
## V1



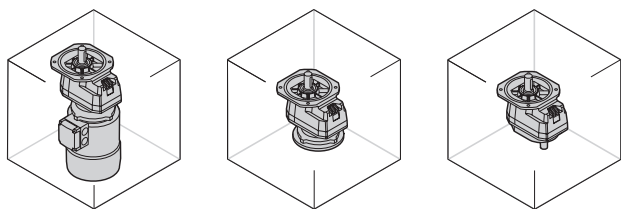
\_S

\_P(IEC)

\_HS



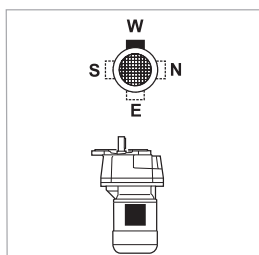
## V3



\_S

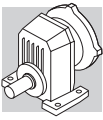
\_P(IEC)

\_HS



W = Default





## 71 OVERHUNG LOADS

External transmissions keyed onto input and/or output shaft generate loads that act radially onto same shaft.

Resulting shaft loading must be compatible with both the bearing and the shaft capacity. Namely shaft loading ( $R_{c1}$  for input shaft,  $R_{c2}$  for output shaft), must be equal or lower than admissible overhung load capacity for shaft under study ( $R_{n1}$  for input shaft,  $R_{n2}$  for output shaft). OHL capability listed in the rating chart section.

In the formulas given below, index (1) applies to parameters relating to input shaft, whereas index (2) refers to output shaft.

The load generated by an external transmission can be calculated with close approximation by the following equations:

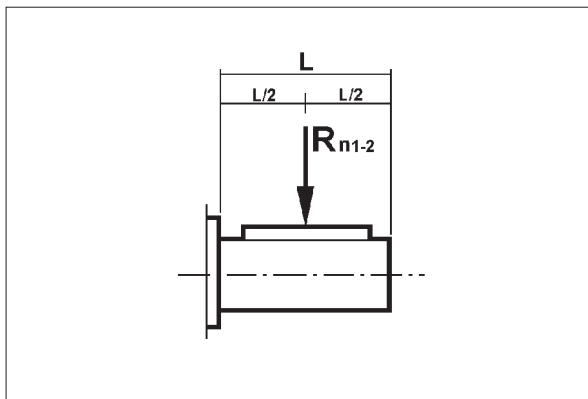
$$R_{c1} [N] = \frac{2000 \cdot M_1 [Nm] \cdot K_r}{d [mm]} \quad ; \quad R_{c2} [N] = \frac{2000 \cdot M_2 [Nm] \cdot K_r}{d [mm]} \quad (44)$$

(E 65)

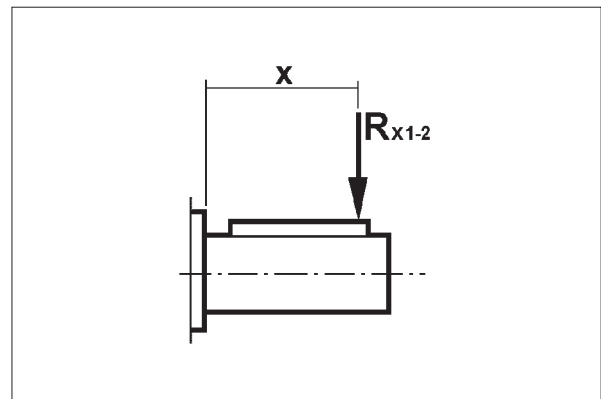
$M_1$ [Nm]	Torque applied to input shaft	$K_r = 1,25$	Gear transmission
$M_2$ [Nm]	Torque drawn at output shaft	$K_r = 1,5$	V-belt transmission
$d$ [mm]	Pitch diameter of element keyed onto shaft	$K_r = 2,0$	Flat belt transmission
$K_r = 1$	Chain transmission		

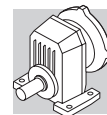
Verification of OHL capability varies depending on whether load applies at midpoint of shaft or it is shifted further out:

(E 66)



(E 67)





### a) Load applied at midpoint of shaft, tab. (E66)

A comparison of shaft loading with catalogue OHL ratings should verify the following condition:

$$R_{c1} \leq R_{n1} \quad [\text{input shaft}]$$

or

$$R_{c2} \leq R_{n2} \quad [\text{output shaft}]$$

### b) Load off the midpoint tab. (E67)

When load is shifted at an “x” distance from shaft shoulder, permissible load must be calculated for that distance.

Revised permissible overhung loads  $R_{x1}$  (input) and  $R_{x2}$  (output) are calculated respectively from original rated values  $R_{n1}$  and  $R_{n2}$  through factor:

$$\frac{a}{b+x} \quad (45)$$

(E 68)

	Load location factors					
	Output shaft			Input shaft		
	a	b	c	a	b	c
<b>S 10 1</b>	61	46	200	21	1	300
<b>S 20 1</b>	73.5	53.5	270	40	20	350
<b>S 30 1</b>	91.5	66.5	380	38.5	18.5	350
<b>S 40 1</b>	126.5	96.5	600	49.5	24.5	450
<b>S 50 1</b>	153.5	113.5	680	49.5	24.5	450

Verification procedure is described here after.

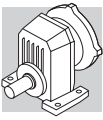
### INPUT SHAFT

1. Calculate:

$$R_{x1} = R_{n1} \cdot \frac{a}{b+x} \quad (46)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (47)$$



Finally, the following condition must be verified:

$$R_{c1} \leq R_{x1} \quad (48)$$

## OUTPUT SHAFT

1. Calculate:

$$R_{x2} = R_{n2} \cdot \frac{a}{b+x} \quad (49)$$

N.B. Subject to condition:

$$\frac{L}{2} \leq x \leq c \quad (50)$$

Finally, the following condition must be verified:

$$R_{c2} \leq R_{x2} \quad (51)$$

## 72 THRUST LOADS, $A_{n1}$ , $A_{n2}$

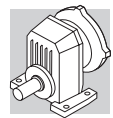
Permissible thrust loads on input [ $A_{n1}$ ] and output [ $A_{n2}$ ] shafts are obtained from the radial loading for the shaft under consideration [ $R_{n1}$ ] and [ $R_{n2}$ ] through the following equation:

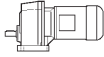


$$\begin{aligned} A_{n1} &= R_{n1} \cdot 0.2 \\ A_{n2} &= R_{n2} \cdot 0.2 \end{aligned} \quad (52)$$

The thrust loads calculated through these formulas apply to thrust forces occurring at the same time as rated radial loads.

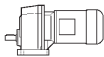


In the only case that no overhung load acts on the shaft the value of the admissible thrust load [ $A_n$ ] amounts to 50% of rated OHL [ $R_n$ ] on same shaft.

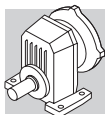
Where thrust loads exceed permissible value or largely prevail over radial loads, contact Bonfiglioli Riduttori for an in-depth analysis of the application.


**73 GEARMOTOR RATING CHARTS**
**0.09 kW**

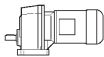



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>69</b>	12.1	2.9	13.1	2400			<b>S301_13.1 P63 BN63A6</b>	507
<b>73</b>	11.5	1.7	12.4	1500	<b>S201_12.4 S05 M05A6</b>	504	<b>S201_12.4 P63 BN63A6</b>	505
<b>74</b>	11.4	1.1	12.3	1160	<b>S101_12.3 S05 M05A6</b>	502	<b>S101_12.3 P63 BN63A6</b>	503
<b>85</b>	10.0	2.0	10.8	1500	<b>S201_10.8 S05 M05A6</b>	504	<b>S201_10.8 P63 BN63A6</b>	505
<b>88</b>	9.5	1.3	10.3	1100	<b>S101_10.3 S05 M05A6</b>	502	<b>S101_10.3 P63 BN63A6</b>	503
<b>103</b>	8.2	1.5	8.9	1060	<b>S101_8.9 S05 M05A6</b>	502	<b>S101_8.9 P63 BN63A6</b>	503
<b>107</b>	7.9	2.5	8.5	1500	<b>S201_8.5 S05 M05A6</b>	504	<b>S201_8.5 P63 BN63A6</b>	505
<b>132</b>	6.4	2.7	6.9	990	<b>S101_6.9 S05 M05A6</b>	502	<b>S101_6.9 P63 BN63A6</b>	503
<b>149</b>	5.7	3.0	6.1	960	<b>S101_6.1 S05 M05A6</b>	502	<b>S101_6.1 P63 BN63A6</b>	503
<b>193</b>	4.4	3.2	4.7	890	<b>S101_4.7 S05 M05A6</b>	502	<b>S101_4.7 P63 BN63A6</b>	503
<b>237</b>	3.6	3.9	3.8	830	<b>S101_3.8 S05 M05A6</b>	502	<b>S101_3.8 P63 BN63A6</b>	503
<b>284</b>	3.0	4.7	3.2	790	<b>S101_3.2 S05 M05A6</b>	502	<b>S101_3.2 P63 BN63A6</b>	503
<b>364</b>	2.3	5.2	2.5	730	<b>S101_2.5 S05 M05A6</b>	502	<b>S101_2.5 P63 BN63A6</b>	503
<b>485</b>	1.7	6.9	1.9	670	<b>S101_1.9 S05 M05A6</b>	502	<b>S101_1.9 P63 BN63A6</b>	503
<b>640</b>	1.3	9.1	1.4	610	<b>S101_1.4 S05 M05A6</b>	502	<b>S101_1.4 P63 BN63A6</b>	503

**0.12 kW**

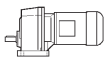

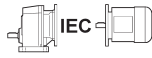

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>69</b>	16.2	2.2	13.1	2400			<b>S301_13.1 P63 BN63A4</b>	507
<b>73</b>	15.3	1.3	12.4	1500	<b>S201_12.4 S05 M05B6</b>	504	<b>S201_12.4 P63 BN63B6</b>	505
<b>85</b>	13.3	1.5	10.8	1500	<b>S201_10.8 S05 M05B6</b>	504	<b>S201_10.8 P63 BN63B6</b>	505
<b>88</b>	12.7	2.8	10.3	2400			<b>S301_10.3 P63 BN63B6</b>	507
<b>88</b>	12.7	0.9	10.3	1060	<b>S101_10.3 S05 M05B6</b>	502	<b>S101_10.3 P63 BN63B6</b>	503
<b>102</b>	11.0	3.2	8.9	2400			<b>S301_8.9 P63 BN63B6</b>	507
<b>103</b>	11.0	1.1	8.9	1030	<b>S101_8.9 S05 M05B6</b>	502	<b>S101_8.9 P63 BN63B6</b>	503
<b>107</b>	10.5	2.8	13.1	2400			<b>S301_13.1 P63 BN63B6</b>	507
<b>107</b>	10.5	1.9	8.5	1500	<b>S201_8.5 S05 M05B6</b>	504	<b>S201_8.5 P63 BN63B6</b>	505
<b>113</b>	10.0	1.7	12.4	1500	<b>S201_12.4 S05 M05A4</b>	504	<b>S201_12.4 P63 BN63A4</b>	505
<b>114</b>	9.9	1.0	12.3	1000	<b>S101_12.3 S05 M05A4</b>	502	<b>S101_12.3 P63 BN63A4</b>	503
<b>126</b>	8.9	3.4	7.2	1500	<b>S201_7.2 S05 M05B6</b>	504	<b>S201_7.2 P63 BN63B6</b>	505
<b>130</b>	8.6	2.0	10.8	1500	<b>S201_10.8 S05 M05A4</b>	504	<b>S201_10.8 P63 BN63A4</b>	505
<b>132</b>	8.5	2.0	6.9	960	<b>S101_6.9 S05 M05B6</b>	502	<b>S101_6.9 P63 BN63B6</b>	503
<b>136</b>	8.3	1.2	10.3	960	<b>S101_10.3 S05 M05A4</b>	502	<b>S101_10.3 P63 BN63A4</b>	503
<b>149</b>	7.5	2.3	6.1	940	<b>S101_6.1 S05 M05B6</b>	502	<b>S101_6.1 P63 BN63B6</b>	503
<b>158</b>	7.1	1.4	8.9	920	<b>S101_8.9 S05 M05A4</b>	502	<b>S101_8.9 P63 BN63A4</b>	503
<b>165</b>	6.8	2.5	8.5	1500	<b>S201_8.5 S05 M05A4</b>	504	<b>S201_8.5 P63 BN63A4</b>	505
<b>193</b>	5.8	2.4	4.7	870	<b>S101_4.7 S05 M05B6</b>	502	<b>S101_4.7 P63 BN63B6</b>	503
<b>203</b>	5.5	2.7	6.9	860	<b>S101_6.9 S05 M05A4</b>	502	<b>S101_6.9 P63 BN63A4</b>	503
<b>229</b>	4.9	3.1	6.1	830	<b>S101_6.1 S05 M05A4</b>	502	<b>S101_6.1 P63 BN63A4</b>	503
<b>237</b>	4.7	2.9	3.8	820	<b>S101_3.8 S05 M05B6</b>	502	<b>S101_3.8 P63 BN63B6</b>	503
<b>284</b>	3.9	3.5	3.2	780	<b>S101_3.2 S05 M05B6</b>	502	<b>S101_3.2 P63 BN63B6</b>	503
<b>296</b>	3.8	3.2	4.7	770	<b>S101_4.7 S05 M05A4</b>	502	<b>S101_4.7 P63 BN63A4</b>	503
<b>364</b>	3.1	3.9	3.8	720	<b>S101_3.8 S05 M05A4</b>	502	<b>S101_3.8 P63 BN63A4</b>	503
<b>364</b>	3.1	3.9	2.5	720	<b>S101_2.5 S05 M05B6</b>	502	<b>S101_2.5 P63 BN63B6</b>	503
<b>438</b>	2.6	4.7	3.2	680	<b>S101_3.2 S05 M05A4</b>	502	<b>S101_3.2 P63 BN63A4</b>	503

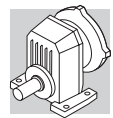


## 0.12 kW

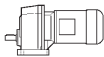



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
485	2.3	5.2	1.9	660	S101_1.9 S05 M05B6	502	S101_1.9 P63 BN63B6	503
560	2.0	5.0	2.5	630	S101_2.5 S05 M05A4	502	S101_2.5 P63 BN63A4	503
640	1.8	6.8	1.4	600	S101_1.4 S05 M05B6	502	S101_1.4 P63 BN63B6	503
747	1.5	6.6	1.9	580	S101_1.9 S05 M05A4	502	S101_1.9 P63 BN63A4	503
985	1.1	8.8	1.4	530	S101_1.4 S05 M05A4	502	S101_1.4 P63 BN63A4	503

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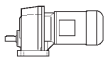



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
69	24.6	1.4	13.1	2400			S301_13.1 P71 BN71A6	507
73	23.2	2.5	12.4	3800	S401_12.4 S1 M1SC6	508	S401_12.4 P71 BN71A6	500
84	20.1	1.0	10.8	1500			S201_10.8 P71 BN71A6	505
84	20.0	2.9	10.7	3800	S401_10.7 S1 M1SC6	508	S401_10.7 P71 BN71A6	500
87	19.3	1.8	10.3	2400	S301_10.3 S1 M1SC6	506	S301_10.3 P71 BN71A6	507
101	16.6	2.1	8.9	2400	S301_8.9 S1 M1SC6	506	S301_8.9 P71 BN71A6	507
106	15.9	1.3	8.5	1500	S201_8.5 S1 M1SC6	504	S201_8.5 P71 BN71A6	505
106	15.9	1.9	13.1	2400			S301_13.1 P63 BN63B4	507
112	15.1	1.1	12.4	1500	S201_12.4 S05 M05B4	504	S201_12.4 P63 BN63B4	505
112	15.0	3.3	12.4	3800			S401_12.4 P63 BN63B4	509
125	13.5	2.2	7.2	1500	S201_7.2 S1 M1SC6	504	S201_7.2 P71 BN71A6	505
129	13.0	1.3	10.8	1500	S201_10.8 S05 M05B4	504	S201_10.8 P63 BN63B4	505
130	12.9	1.3	6.9	910	S101_6.9 S1 M1SC6	502	S101_6.9 P71 BN71A6	503
135	12.5	2.4	10.3	2330			S301_10.3 P63 BN63B4	507
147	11.4	1.5	6.1	890	S101_6.1 S1 M1SC6	502	S101_6.1 P71 BN71A6	503
155	10.9	2.8	5.8	1500	S201_5.8 S1 M1SC6	504	S201_5.8 P71 BN71A6	505
156	10.8	2.8	8.9	2230			S301_8.9 P63 BN63B4	507
157	10.8	0.9	8.9	880	S101_8.9 S05 M05B4	502	S101_8.9 P63 BN63B4	503
164	10.3	1.7	8.5	1500	S201_8.5 S05 M05B4	504	S201_8.5 P63 BN63B4	505
189	8.9	3.4	4.8	1500	S201_4.8 S1 M1SC6	504	S201_4.8 P71 BN71A6	505
190	8.8	1.6	4.7	830	S101_4.7 S1 M1SC6	502	S101_4.7 P71 BN71A6	503
192	8.8	3.0	7.2	1500	S201_7.2 S05 M05B4	504	S201_7.2 P63 BN63B4	505
201	8.4	1.8	6.9	820	S101_6.9 S05 M05B4	502	S101_6.9 P63 BN63B4	503
214	7.9	3.1	13.1	2020			S301_13.1 P63 BN63A2	507
226	7.5	1.7	12.4	1480	S201_12.4 S05 M05A2	504	S201_12.4 P63 BN63A2	505
227	7.4	2.0	6.1	800	S101_6.1 S05 M05B4	502	S101_6.1 P63 BN63B4	503
228	7.4	1.1	12.3	800	S101_12.3 S05 M05A2	502	S101_12.3 P63 BN63A2	503
234	7.2	1.9	3.8	790	S101_3.8 S1 M1SC6	502	S101_3.8 P71 BN71A6	503
261	6.4	2.0	10.8	1420	S201_10.8 S05 M05A2	504	S201_10.8 P63 BN63A2	505
273	6.2	1.3	10.3	760	S101_10.3 S05 M05A2	502	S101_10.3 P63 BN63A2	503
281	6.0	2.3	3.2	750	S101_3.2 S1 M1SC6	502	S101_3.2 P71 BN71A6	503
294	5.7	2.1	4.7	750	S101_4.7 S05 M05B4	502	S101_4.7 P63 BN63B4	503
317	5.3	1.5	8.9	730	S101_8.9 S05 M05A2	502	S101_8.9 P63 BN63A2	503
331	5.1	2.6	8.5	1320	S201_8.5 S05 M05A2	504	S201_8.5 P63 BN63A2	505
360	4.7	2.6	2.5	700	S101_2.5 S1 M1SC6	502	S101_2.5 P71 BN71A6	503
361	4.7	2.6	3.8	700	S101_3.8 S05 M05B4	502	S101_3.8 P63 BN63B4	503
407	4.1	2.9	6.9	680	S101_6.9 S05 M05A2	502	S101_6.9 P63 BN63A2	503
434	3.9	3.1	3.2	670	S101_3.2 S05 M05B4	502	S101_3.2 P63 BN63B4	503
460	3.7	3.3	6.1	660	S101_6.1 S05 M05A2	502	S101_6.1 P63 BN63A2	503

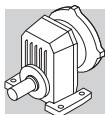


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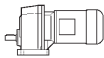


n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
480	3.5	3.4	1.9	640	S101_1.9 S1 M1SC6	502	S101_1.9 P71 BN71A6	503
556	3.0	3.3	2.5	620	S101_2.5 S05 M05B4	502	S101_2.5 P63 BN63B4	503
594	2.8	3.5	4.7	610	S101_4.7 S05 M05A2	502	S101_4.7 P63 BN63A2	503
633	2.7	4.5	1.4	590	S101_1.4 S1 M1SC6	502	S101_1.4 P71 BN71A6	503
731	2.3	4.3	3.8	570	S101_3.8 S05 M05A2	502	S101_3.8 P63 BN63A2	503
741	2.3	4.4	1.9	570	S101_1.9 S05 M05B4	502	S101_1.9 P63 BN63B4	503
878	1.9	5.2	3.2	540	S101_3.2 S05 M05A2	502	S101_3.2 P63 BN63A2	503
978	1.7	5.8	1.4	520	S101_1.4 S05 M05B4	502	S101_1.4 P63 BN63B4	503
1124	1.5	5.3	2.5	500	S101_2.5 S05 M05A2	502	S101_2.5 P63 BN63A2	503
1499	1.1	7.1	1.9	460	S101_1.9 S05 M05A2	502	S101_1.9 P63 BN63A2	503
1977	0.9	9.4	1.4	420	S101_1.4 S05 M05A2	502	S101_1.4 P63 BN63A2	503

## 0.25 kW




n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
69	34.1	1.0	13.1	2400			S301_13.1 P71 BN71B6	507
70	33.5	3.0	12.9	6520	S501_12.9 S1 M1SD6	510	S501_12.9 P71 BN71B6	511
73	32.2	1.8	12.4	3800	S401_12.4 S1 M1SD6	508	S401_12.4 P71 BN71B6	509
84	27.7	2.1	10.7	3800	S401_10.7 S1 M1SD6	508	S401_10.7 P71 BN71B6	509
87	26.8	1.3	10.3	2400	S301_10.3 S1 M1SD6	506	S301_10.3 P71 BN71B6	507
101	23.1	1.5	8.9	2400	S301_8.9 S1 M1SD6	506	S301_8.9 P71 BN71B6	507
104	22.5	3.1	8.6	3800	S401_8.6 S1 M1SD6	508	S401_8.6 P71 BN71B6	509
105	22.3	1.3	13.1	2400			S301_13.1 P71 BN71A4	507
106	22.1	0.9	8.5	1500	S201_8.5 S1 M1SD6	504	S201_8.5 P71 BN71B6	505
111	21.1	2.4	12.4	3800			S401_12.4 P71 BN71A4	509
125	18.8	1.6	7.2	1500	S201_7.2 S1 M1SD6	504	S201_7.2 P71 BN71B6	505
127	18.4	3.1	7.1	2340	S301_7.1 S1 M1SD6	506	S301_7.1 P71 BN71B6	507
128	18.3	0.9	10.8	1500	S201_10.8 S05 M05C4	504	S201_10.8 P71 BN71A4	505
129	18.2	2.8	10.7	3800			S401_10.7 P71 BN71A4	509
130	17.9	0.9	6.9	850	S101_6.9 S1 M1SD6	502	S101_6.9 P71 BN71B6	503
133	17.5	1.7	10.3	2300			S301_10.3 P71 BN71A4	507
147	15.9	1.1	6.1	840	S101_6.1 S1 M1SD6	502	S101_6.1 P71 BN71B6	503
155	15.1	2.0	5.8	1500	S201_5.8 S1 M1SD6	504	S201_5.8 P71 BN71B6	505
155	15.1	2.0	8.9	2200			S301_8.9 P71 BN71A4	507
162	14.5	1.2	8.5	1500	S201_8.5 S05 M05C4	504	S201_8.5 P71 BN71A4	505
189	12.4	2.4	4.8	1500	S201_4.8 S1 M1SD6	504	S201_4.8 P71 BN71B6	505
190	12.3	1.1	4.7	790	S101_4.7 S1 M1SD6	502	S101_4.7 P71 BN71B6	503
190	12.3	2.1	7.2	1500	S201_7.2 S05 M05C4	504	S201_7.2 P71 BN71A4	505
199	11.7	1.3	6.9	780	S101_6.9 S05 M05C4	502	S101_6.9 P71 BN71A4	503
214	10.9	2.2	13.1	2000			S301_13.1 P63 BN63B2	507
225	10.4	1.4	6.1	770	S101_6.1 S05 M05C4	502	S101_6.1 P71 BN71A4	503
226	10.3	1.3	12.4	1450	S201_12.4 S05 M05B2	504	S201_12.4 P63 BN63B2	505
229	10.2	2.9	3.9	1440	S201_3.9 S1 M1SD6	504	S201_3.9 P71 BN71B6	505
234	10.0	1.4	3.8	750	S101_3.8 S1 M1SD6	502	S101_3.8 P71 BN71B6	503
236	9.9	2.6	5.8	1430	S201_5.8 S05 M05C4	504	S201_5.8 P71 BN71A4	505
261	9.0	1.5	10.8	1390	S201_10.8 S05 M05B2	504	S201_10.8 P63 BN63B2	505
273	8.6	2.8	10.3	1860			S301_10.3 P63 BN63B2	507
273	8.6	0.9	10.3	730	S101_10.3 S05 M05B2	502	S101_10.3 P63 BN63B2	503



## 0.25 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
281	8.3	1.7	3.2	720	S101_3.2 S1 M1SD6	502	S101_3.2 P71 BN71B6	503
288	8.1	3.2	4.8	1350	S201_4.8 S05 M05C4	504	S201_4.8 P71 BN71A4	505
291	8.0	1.5	4.7	720	S101_4.7 S05 M05C4	502	S101_4.7 P71 BN71A4	503
316	7.4	3.2	8.9	1770			S301_8.9 P63 BN63B2	507
317	7.4	1.1	8.9	710	S101_8.9 S05 M05B2	502	S101_8.9 P63 BN63B2	503
331	7.1	1.8	8.5	1300	S201_8.5 S05 M05B2	504	S201_8.5 P63 BN63B2	505
358	6.5	1.8	3.8	680	S101_3.8 S05 M05C4	502	S101_3.8 P71 BN71A4	503
360	6.5	1.8	2.5	680	S101_2.5 S1 M1SD6	502	S101_2.5 P71 BN71B6	503
389	6.0	3.5	7.2	1240	S201_7.2 S05 M05B2	504	S201_7.2 P63 BN63B2	505
407	5.7	2.1	6.9	660	S101_6.9 S05 M05B2	502	S101_6.9 P63 BN63B2	503
430	5.4	2.2	3.2	650	S101_3.2 S05 M05C4	502	S101_3.2 P71 BN71A4	503
460	5.1	2.4	6.1	640	S101_6.1 S05 M05B2	502	S101_6.1 P63 BN63B2	503
480	4.9	2.5	1.9	620	S101_1.9 S1 M1SD6	502	S101_1.9 P71 BN71B6	503
550	4.3	2.4	2.5	610	S101_2.5 S05 M05C4	502	S101_2.5 P71 BN71A4	503
594	3.9	2.5	4.7	600	S101_4.7 S05 M05B2	502	S101_4.7 P63 BN63B2	503
633	3.7	3.2	1.4	580	S101_1.4 S1 M1SD6	502	S101_1.4 P71 BN71B6	503
731	3.2	3.1	3.8	560	S101_3.8 S05 M05B2	502	S101_3.8 P63 BN63B2	503
733	3.2	3.1	1.9	560	S101_1.9 S05 M05C4	502	S101_1.9 P71 BN71A4	503
878	2.7	3.8	3.2	530	S101_3.2 S05 M05B2	502	S101_3.2 P63 BN63B2	503
968	2.4	4.1	1.4	510	S101_1.4 S05 M05C4	502	S101_1.4 P71 BN71A4	503
1124	2.1	3.8	2.5	500	S101_2.5 S05 M05B2	502	S101_2.5 P63 BN63B2	503
1499	1.6	5.1	1.9	450	S101_1.9 S05 M05B2	502	S101_1.9 P63 BN63B2	503
1977	1.2	6.8	1.4	420	S101_1.4 S05 M05B2	502	S101_1.4 P63 BN63B2	503

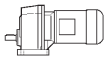



## 0.37 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
71	49.0	2.0	12.9	6420	S501_12.9 S1 M1LA6	510	S501_12.9 P80 BN80A6	511
73	47.2	1.2	12.4	3800	S401_12.4 S1 M1LA6	508	S401_12.4 P80 BN80A6	509
85	40.6	1.4	10.7	3800	S401_10.7 S1 M1LA6	508	S401_10.7 P80 BN80A6	509
87	39.8	2.9	10.5	6020	S501_10.5 S1 M1LA6	510	S501_10.5 P80 BN80A6	511
102	33.8	1.0	8.9	2400	S301_8.9 S1 M1LA6	506	S301_8.9 P80 BN80A6	507
104	33.2	0.9	13.1	2390			S301_13.1 P71 BN71B4	507
105	32.9	2.1	8.6	3800	S401_8.6 S1 M1LA6	508	S401_8.6 P80 BN80A6	509
106	32.6	3.1	12.9	5650	S501_12.9 S1 M1SD4	510	S501_12.9 P71 BN71B4	511
110	31.3	1.6	12.4	3800	S401_12.4 S1 M1SD4	508	S401_12.4 P71 BN71B4	509
126	27.5	1.1	7.2	1500	S201_7.2 S1 M1LA6	504	S201_7.2 P80 BN80A6	505
127	27.2	3.3	7.2	3800	S401_7.2 S1 M1LA6	508	S401_7.2 P80 BN80A6	509
128	27.0	2.1	7.1	2260	S301_7.1 S1 M1LA6	506	S301_7.1 P80 BN80A6	507
128	27.0	1.9	10.7	3800	S401_10.7 S1 M1SD4	508	S401_10.7 P71 BN71B4	509
133	26.0	1.2	10.3	2240	S301_10.3 S1 M1SD4	506	S301_10.3 P71 BN71B4	507
154	22.5	1.3	8.9	2150	S301_8.9 S1 M1SD4	506	S301_8.9 P71 BN71B4	507
156	22.2	2.6	5.8	2140	S301_5.8 S1 M1LA6	506	S301_5.8 P80 BN80A6	507
156	22.1	1.4	5.8	1500	S201_5.8 S1 M1LA6	504	S201_5.8 P80 BN80A6	505
159	21.8	2.7	8.6	3610	S401_8.6 S1 M1SD4	508	S401_8.6 P71 BN71B4	509
184	18.8	3.1	4.9	2040	S301_4.9 S1 M1LA6	506	S301_4.9 P80 BN80A6	507
190	18.3	1.4	7.2	1460	S201_7.2 S1 M1SD4	504	S201_7.2 P71 BN71B4	505
191	18.1	1.7	4.8	1460	S201_4.8 S1 M1LA6	504	S201_4.8 P80 BN80A6	505

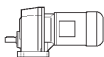





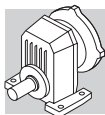


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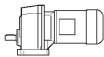


<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>193</b>	17.9	2.8	7.1	2020	<b>S301_7.1 S1 M1SD4</b>	506	<b>S301_7.1 P71 BN71B4</b>	507
<b>214</b>	16.2	1.5	13.1	1960			<b>S301_13.1 P71 BN71A2</b>	507
<b>224</b>	15.4	1.0	6.1	710	<b>S101_6.1 S1 M1SD4</b>	502	<b>S101_6.1 P71 BN71B4</b>	503
<b>227</b>	15.3	2.6	12.4	3230			<b>S401_12.4 P71 BN71A2</b>	509
<b>231</b>	15.0	2.0	3.9	1380	<b>S201_3.9 S1 M1LA6</b>	504	<b>S201_3.9 P80 BN80A6</b>	505
<b>234</b>	14.8	3.4	5.8	1900	<b>S301_5.8 S1 M1SD4</b>	506	<b>S301_5.8 P71 BN71B4</b>	507
<b>235</b>	14.7	1.8	5.8	1390	<b>S201_5.8 S1 M1SD4</b>	504	<b>S201_5.8 P71 BN71B4</b>	505
<b>237</b>	14.6	1.0	3.8	690	<b>S101_3.8 S1 M1LA6</b>	502	<b>S101_3.8 P80 BN80A6</b>	503
<b>261</b>	13.2	1.0	10.8	1350	<b>S201_10.8 S05 M05C2</b>	504	<b>S201_10.8 P71 BN71A2</b>	505
<b>263</b>	13.1	3.0	10.7	3080			<b>S401_10.7 P71 BN71A2</b>	509
<b>273</b>	12.7	1.9	10.3	1820			<b>S301_10.3 P71 BN71A2</b>	507
<b>284</b>	12.2	1.1	3.2	670	<b>S101_3.2 S1 M1LA6</b>	502	<b>S101_3.2 P80 BN80A6</b>	503
<b>287</b>	12.1	2.2	4.8	1310	<b>S201_4.8 S1 M1SD4</b>	504	<b>S201_4.8 P71 BN71B4</b>	505
<b>290</b>	11.9	1.0	4.7	670	<b>S101_4.7 S1 M1SD4</b>	502	<b>S101_4.7 P71 BN71B4</b>	503
<b>293</b>	11.8	2.5	3.1	1300	<b>S201_3.1 S1 M1LA6</b>	504	<b>S201_3.1 P80 BN80A6</b>	505
<b>316</b>	11.0	2.2	8.9	1740			<b>S301_8.9 P71 BN71A2</b>	507
<b>331</b>	10.5	1.2	8.5	1270	<b>S201_8.5 S05 M05C2</b>	504	<b>S201_8.5 P71 BN71A2</b>	505
<b>348</b>	9.9	2.6	3.9	1240	<b>S201_3.9 S1 M1SD4</b>	504	<b>S201_3.9 P71 BN71B4</b>	505
<b>356</b>	9.7	1.2	3.8	640	<b>S101_3.8 S1 M1SD4</b>	502	<b>S101_3.8 P71 BN71B4</b>	503
<b>364</b>	9.5	1.3	2.5	630	<b>S101_2.5 S1 M1LA6</b>	502	<b>S101_2.5 P80 BN80A6</b>	503
<b>373</b>	9.3	3.2	2.4	1210	<b>S201_2.4 S1 M1LA6</b>	504	<b>S201_2.4 P80 BN80A6</b>	505
<b>389</b>	8.9	2.4	7.2	1210	<b>S201_7.2 S05 M05C2</b>	504	<b>S201_7.2 P71 BN71A2</b>	505
<b>407</b>	8.5	1.4	6.9	630	<b>S101_6.9 S05 M05C2</b>	502	<b>S101_6.9 P71 BN71A2</b>	503
<b>428</b>	8.1	1.5	3.2	620	<b>S101_3.2 S1 M1SD4</b>	502	<b>S101_3.2 P71 BN71B4</b>	503
<b>440</b>	7.9	3.3	3.1	1160	<b>S201_3.1 S1 M1SD4</b>	504	<b>S201_3.1 P71 BN71B4</b>	505
<b>460</b>	7.5	1.6	6.1	610	<b>S101_6.1 S05 M05C2</b>	502	<b>S101_6.1 P71 BN71A2</b>	503
<b>480</b>	7.2	2.8	1.9	1130	<b>S201_1.9 S1 M1LA6</b>	504	<b>S201_1.9 P80 BN80A6</b>	505
<b>483</b>	7.2	2.9	5.8	1130	<b>S201_5.8 S05 M05C2</b>	504	<b>S201_5.8 P71 BN71A2</b>	505
<b>485</b>	7.1	1.7	1.9	590	<b>S101_1.9 S1 M1LA6</b>	502	<b>S101_1.9 P80 BN80A6</b>	503
<b>548</b>	6.3	1.6	2.5	580	<b>S101_2.5 S1 M1SD4</b>	502	<b>S101_2.5 P71 BN71B4</b>	503
<b>594</b>	5.8	1.7	4.7	570	<b>S101_4.7 S05 M05C2</b>	502	<b>S101_4.7 P71 BN71A2</b>	503
<b>640</b>	5.4	2.2	1.4	550	<b>S101_1.4 S1 M1LA6</b>	502	<b>S101_1.4 P80 BN80A6</b>	503
<b>731</b>	4.7	2.1	3.8	540	<b>S101_3.8 S05 M05C2</b>	502	<b>S101_3.8 P71 BN71A2</b>	503
<b>731</b>	4.7	2.1	1.9	540	<b>S101_1.9 S1 M1SD4</b>	502	<b>S101_1.9 P71 BN71B4</b>	503
<b>878</b>	3.9	2.5	3.2	520	<b>S101_3.2 S05 M05C2</b>	502	<b>S101_3.2 P71 BN71A2</b>	503
<b>964</b>	3.6	2.8	1.4	500	<b>S101_1.4 S1 M1SD4</b>	502	<b>S101_1.4 P71 BN71B4</b>	503
<b>1124</b>	3.1	2.6	2.5	480	<b>S101_2.5 S05 M05C2</b>	502	<b>S101_2.5 P71 BN71A2</b>	503
<b>1499</b>	2.3	3.5	1.9	440	<b>S101_1.9 S05 M05C2</b>	502	<b>S101_1.9 P71 BN71A2</b>	503
<b>1977</b>	1.8	4.6	1.4	410	<b>S101_1.4 S05 M05C2</b>	502	<b>S101_1.4 P71 BN71A2</b>	503

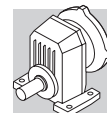
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<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>71</b>	72.1	1.4	12.9	6290	<b>S501_12.9 S2 M2SA6</b>	510	<b>S501_12.9 P80 BN80B6</b>	511
<b>86</b>	59.7	1.0	10.7	3800	<b>S401_10.7 S2 M2SA6</b>	508	<b>S401_10.7 P80 BN80B6</b>	509
<b>88</b>	58.5	2.0	10.5	5910	<b>S501_10.5 S2 M2SA6</b>	510	<b>S501_10.5 P80 BN80B6</b>	511
<b>105</b>	49.1	2.5	8.8	5600	<b>S501_8.8 S2 M2SA6</b>	510	<b>S501_8.8 P80 BN80B6</b>	511
<b>107</b>	48.3	1.4	8.6	3800	<b>S401_8.6 S2 M2SA6</b>	508	<b>S401_8.6 P80 BN80B6</b>	509

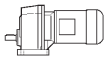





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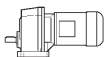



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
107	48.1	2.1	12.9	5560	S501_12.9 S1 M1LA4	510	S501_12.9 P80 BN80A4	511
111	46.3	1.1	12.4	3800	S401_12.4 S1 M1LA4	508	S401_12.4 P80 BN80A4	509
124	41.4	3.4	7.4	5310	S501_7.4 S2 M2SA6	510	S501_7.4 P80 BN80B6	511
129	40.0	2.2	7.2	3780	S401_7.2 S2 M2SA6	508	S401_7.2 P80 BN80B6	509
129	39.8	1.3	10.7	3770	S401_10.7 S1 M1LA4	508	S401_10.7 P80 BN80A4	509
130	39.7	1.5	7.1	2150	S301_7.1 S2 M2SA6	506	S301_7.1 P80 BN80B6	507
132	39.0	2.8	10.5	5220	S501_10.5 S1 M1LA4	510	S501_10.5 P80 BN80A4	511
152	33.9	3.1	6.1	3600	S401_6.1 S2 M2SA6	508	S401_6.1 P80 BN80B6	509
155	33.2	0.9	8.9	2060	S301_8.9 S1 M1LA4	506	S301_8.9 P80 BN80A4	507
157	32.7	1.8	5.8	2050	S301_5.8 S2 M2SA6	506	S301_5.8 P80 BN80B6	507
157	32.7	3.4	8.8	4940	S501_8.8 S1 M1LA4	510	S501_8.8 P80 BN80A4	511
158	32.6	0.9	5.8	1420	S201_5.8 S2 M2SA6	504	S201_5.8 P80 BN80B6	505
160	32.2	1.9	8.6	3540	S401_8.6 S1 M1LA4	508	S401_8.6 P80 BN80A4	509
186	27.6	2.1	4.9	1960	S301_4.9 S2 M2SA6	506	S301_4.9 P80 BN80B6	507
191	26.9	1.0	7.2	1370	S201_7.2 S1 M1LA4	504	S201_7.2 P80 BN80A4	505
193	26.7	1.1	4.8	1370	S201_4.8 S2 M2SA6	504	S201_4.8 P80 BN80B6	505
193	26.7	3.0	7.2	3350	S401_7.2 S1 M1LA4	508	S401_7.2 P80 BN80A4	509
195	26.4	1.9	7.1	1940	S301_7.1 S1 M1LA4	506	S301_7.1 P80 BN80A4	507
214	24.0	1.0	13.1	1900			S301_13.1 P71 BN71B2	507
218	23.6	3.4	12.9	4460	S501_12.9 S1 M1SD2	510	S501_12.9 P71 BN71B2	511
227	22.7	1.8	12.4	3190	S401_12.4 S1 M1SD2	508	S401_12.4 P71 BN71B2	509
233	22.1	2.6	3.9	1850	S301_3.9 S2 M2SA6	506	S301_3.9 P80 BN80B6	507
234	22.0	1.4	3.9	1300	S201_3.9 S2 M2SA6	504	S201_3.9 P80 BN80B6	505
236	21.8	2.3	5.8	1840	S301_5.8 S1 M1LA4	506	S301_5.8 P80 BN80A4	507
237	21.7	1.2	5.8	1310	S201_5.8 S1 M1LA4	504	S201_5.8 P80 BN80A4	505
263	19.5	2.0	10.7	3040	S401_10.7 S1 M1SD2	508	S401_10.7 P71 BN71B2	509
273	18.9	1.3	10.3	1780	S301_10.3 S1 M1SD2	506	S301_10.3 P71 BN71B2	507
280	18.4	2.7	4.9	1760	S301_4.9 S1 M1LA4	506	S301_4.9 P80 BN80A4	507
289	17.8	1.5	4.8	1250	S201_4.8 S1 M1LA4	504	S201_4.8 P80 BN80A4	505
296	17.4	1.7	3.1	1230	S201_3.1 S2 M2SA6	504	S201_3.1 P80 BN80B6	505
300	17.1	3.4	3.1	1720	S301_3.1 S2 M2SA6	506	S301_3.1 P80 BN80B6	507
316	16.3	1.5	8.9	1700	S301_8.9 S1 M1SD2	506	S301_8.9 P71 BN71B2	507
325	15.8	3.0	8.6	2850	S401_8.6 S1 M1SD2	508	S401_8.6 P71 BN71B2	509
350	14.7	3.4	3.9	1650	S301_3.9 S1 M1LA4	506	S301_3.9 P80 BN80A4	507
351	14.7	1.8	3.9	1190	S201_3.9 S1 M1LA4	504	S201_3.9 P80 BN80A4	505
377	13.6	2.2	2.4	1160	S201_2.4 S2 M2SA6	504	S201_2.4 P80 BN80B6	505
389	13.2	1.6	7.2	1160	S201_7.2 S1 M1SD2	504	S201_7.2 P71 BN71B2	505
396	13.0	3.1	7.1	1600	S301_7.1 S1 M1SD2	506	S301_7.1 P71 BN71B2	507
407	12.6	0.9	6.9	570	S101_6.9 S1 M1SD2	502	S101_6.9 P71 BN71B2	503
431	11.9	1.0	3.2	560	S101_3.2 S1 M1LA4	502	S101_3.2 P80 BN80A4	503
444	11.6	2.2	3.1	1120	S201_3.1 S1 M1LA4	504	S201_3.1 P80 BN80A4	505
460	11.2	1.1	6.1	570	S101_6.1 S1 M1SD2	502	S101_6.1 P71 BN71B2	503
483	10.7	2.0	5.8	1100	S201_5.8 S1 M1SD2	504	S201_5.8 P71 BN71B2	505
486	10.6	1.9	1.9	1080	S201_1.9 S2 M2SA6	504	S201_1.9 P80 BN80B6	505
491	10.5	1.1	1.9	540	S101_1.9 S2 M2SA6	502	S101_1.9 P80 BN80B6	503
504	10.2	3.4	1.8	1470	S301_1.8 S2 M2SA6	506	S301_1.8 P80 BN80B6	507
552	9.3	1.1	2.5	540	S101_2.5 S1 M1LA4	502	S101_2.5 P80 BN80A4	503
566	9.1	2.9	2.4	1050	S201_2.4 S1 M1LA4	504	S201_2.4 P80 BN80A4	505
589	8.7	2.4	4.8	1040	S201_4.8 S1 M1SD2	504	S201_4.8 P71 BN71B2	505
594	8.7	1.2	4.7	540	S101_4.7 S1 M1SD2	502	S101_4.7 P71 BN71B2	503
647	8.0	1.5	1.4	510	S101_1.4 S2 M2SA6	502	S101_1.4 P80 BN80B6	503

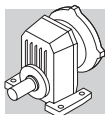


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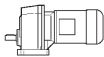


<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
661	7.8	2.6	1.4	990	<b>S201_1.4 S2 M2SA6</b>	504	<b>S201_1.4 P80 BN80B6</b>	505
714	7.2	2.9	3.9	980	<b>S201_3.9 S1 M1SD2</b>	504	<b>S201_3.9 P71 BN71B2</b>	505
728	7.1	2.4	1.9	970	<b>S201_1.9 S1 M1LA4</b>	504	<b>S201_1.9 P80 BN80A4</b>	505
731	7.0	1.4	3.8	510	<b>S101_3.8 S1 M1SD2</b>	502	<b>S101_3.8 P71 BN71B2</b>	503
736	7.0	1.4	1.9	500	<b>S101_1.9 S1 M1LA4</b>	502	<b>S101_1.9 P80 BN80A4</b>	503
878	5.9	1.7	3.2	490	<b>S101_3.2 S1 M1SD2</b>	502	<b>S101_3.2 P71 BN71B2</b>	503
971	5.3	1.9	1.4	470	<b>S101_1.4 S1 M1LA4</b>	502	<b>S101_1.4 P80 BN80A4</b>	503
992	5.2	3.3	1.4	890			<b>S201_1.4 P80 BN80A4</b>	505
1124	4.6	1.7	2.5	460	<b>S101_2.5 S1 M1SD2</b>	502	<b>S101_2.5 P71 BN71B2</b>	503
1499	3.4	2.3	1.9	430	<b>S101_1.9 S1 M1SD2</b>	502	<b>S101_1.9 P71 BN71B2</b>	503
1977	2.6	3.1	1.4	390	<b>S101_1.4 S1 M1SD2</b>	502	<b>S101_1.4 P71 BN71B2</b>	503

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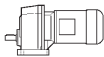


<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
71	98.3	1.0	12.9	6170	<b>S501_12.9 S2 M2SB6</b>	510	<b>S501_12.9 P90 BN90S6</b>	511
88	79.8	1.4	10.5	5810	<b>S501_10.5 S2 M2SB6</b>	510	<b>S501_10.5 P90 BN90S6</b>	511
105	66.9	1.9	8.8	5520	<b>S501_8.8 S2 M2SB6</b>	510	<b>S501_8.8 P90 BN90S6</b>	511
107	65.9	1.1	8.6	3800	<b>S401_8.6 S2 M2SB6</b>	508	<b>S401_8.6 P90 BN90S6</b>	509
109	64.6	1.5	12.9	5460	<b>S501_12.9 S2 M2SA4</b>	510	<b>S501_12.9 P80 BN80B4</b>	511
124	56.5	2.5	7.4	5240	<b>S501_7.4 S2 M2SB6</b>	510	<b>S501_7.4 P90 BN90S6</b>	511
129	54.6	1.6	7.2	3700	<b>S401_7.2 S2 M2SB6</b>	508	<b>S401_7.2 P90 BN90S6</b>	509
130	54.1	1.1	7.1	2040	<b>S301_7.1 S2 M2SB6</b>	506	<b>S301_7.1 P90 BN90S6</b>	507
131	53.5	0.9	10.7	3670	<b>S401_10.7 S2 M2SA4</b>	508	<b>S401_10.7 P80 BN80B4</b>	509
134	52.4	2.1	10.5	5130	<b>S501_10.5 S2 M2SA4</b>	510	<b>S501_10.5 P80 BN80B4</b>	511
152	46.3	2.3	6.1	3530	<b>S401_6.1 S2 M2SB6</b>	508	<b>S401_6.1 P90 BN90S6</b>	509
152	46.2	3.2	6.1	4940	<b>S501_6.1 S2 M2SB6</b>	510	<b>S501_6.1 P90 BN90S6</b>	511
157	44.6	1.3	5.8	1960	<b>S301_5.8 S2 M2SB6</b>	506	<b>S301_5.8 P90 BN90S6</b>	507
160	44.0	2.5	8.8	4870	<b>S501_8.8 S2 M2SA4</b>	510	<b>S501_8.8 P80 BN80B4</b>	511
162	43.3	1.4	8.6	3460	<b>S401_8.6 S2 M2SA4</b>	508	<b>S401_8.6 P80 BN80B4</b>	509
186	37.6	1.5	4.9	1880	<b>S301_4.9 S2 M2SB6</b>	506	<b>S301_4.9 P90 BN90S6</b>	507
190	36.9	2.8	4.8	3300	<b>S401_4.8 S2 M2SB6</b>	508	<b>S401_4.8 P90 BN90S6</b>	509
196	35.9	2.2	7.2	3280	<b>S401_7.2 S2 M2SA4</b>	508	<b>S401_7.2 P80 BN80B4</b>	509
197	35.6	1.4	7.1	1860	<b>S301_7.1 S2 M2SA4</b>	506	<b>S301_7.1 P80 BN80B4</b>	507
217	32.3	2.5	12.9	4420	<b>S501_12.9 S1 M1LA2</b>	510	<b>S501_12.9 P80 BN80A2</b>	511
226	31.1	1.3	12.4	3150	<b>S401_12.4 S1 M1LA2</b>	508	<b>S401_12.4 P80 BN80A2</b>	509
231	30.4	3.0	6.1	3120	<b>S401_6.1 S2 M2SA4</b>	508	<b>S401_6.1 P80 BN80B4</b>	509
233	30.1	1.9	3.9	1780	<b>S301_3.9 S2 M2SB6</b>	506	<b>S301_3.9 P90 BN90S6</b>	507
234	30.0	1.0	3.9	1220	<b>S201_3.9 S2 M2SB6</b>	504	<b>S201_3.9 P90 BN90S6</b>	505
239	29.3	1.7	5.8	1780	<b>S301_5.8 S2 M2SA4</b>	506	<b>S301_5.8 P80 BN80B4</b>	507
263	26.7	1.5	10.7	3000	<b>S401_10.7 S1 M1LA2</b>	508	<b>S401_10.7 P80 BN80A2</b>	509
268	26.2	3.2	10.5	4140	<b>S501_10.5 S1 M1LA2</b>	510	<b>S501_10.5 P80 BN80A2</b>	511
272	25.8	0.9	10.3	1730	<b>S301_10.3 S1 M1LA2</b>	506	<b>S301_10.3 P80 BN80A2</b>	507
284	24.7	2.0	4.9	1700	<b>S301_4.9 S2 M2SA4</b>	506	<b>S301_4.9 P80 BN80B4</b>	507
294	23.9	1.1	4.8	1180	<b>S201_4.8 S2 M2SA4</b>	504	<b>S201_4.8 P80 BN80B4</b>	505
296	23.7	1.3	3.1	1160	<b>S201_3.1 S2 M2SB6</b>	504	<b>S201_3.1 P90 BN90S6</b>	505
300	23.4	2.5	3.1	1670	<b>S301_3.1 S2 M2SB6</b>	506	<b>S301_3.1 P90 BN90S6</b>	507
315	22.3	1.1	8.9	1660	<b>S301_8.9 S1 M1LA2</b>	506	<b>S301_8.9 P80 BN80A2</b>	507

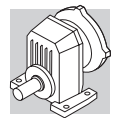


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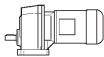



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
324	21.7	2.2	8.6	2820	S401_8.6 S1 M1LA2	508	S401_8.6 P80 BN80A2	509
355	19.8	2.5	3.9	1600	S301_3.9 S2 M2SA4	506	S301_3.9 P80 BN80B4	507
356	19.7	1.3	3.9	1130	S201_3.9 S2 M2SA4	504	S201_3.9 P80 BN80B4	505
377	18.6	1.6	2.4	1110	S201_2.4 S2 M2SB6	504	S201_2.4 P90 BN90S6	505
380	18.5	3.1	2.4	1560	S301_2.4 S2 M2SB6	506	S301_2.4 P90 BN90S6	507
388	18.1	1.2	7.2	1120	S201_7.2 S1 M1LA2	504	S201_7.2 P80 BN80A2	505
395	17.8	2.3	7.1	1560	S301_7.1 S1 M1LA2	506	S301_7.1 P80 BN80A2	507
450	15.6	1.7	3.1	1070	S201_3.1 S2 M2SA4	504	S201_3.1 P80 BN80B4	505
457	15.4	3.3	3.1	1490	S301_3.1 S2 M2SA4	506	S301_3.1 P80 BN80B4	507
479	14.7	2.7	5.8	1480	S301_5.8 S1 M1LA2	506	S301_5.8 P80 BN80A2	507
481	14.6	1.4	5.8	1060	S201_5.8 S1 M1LA2	504	S201_5.8 P80 BN80A2	505
486	14.5	1.4	1.9	1040	S201_1.9 S2 M2SB6	504	S201_1.9 P90 BN90S6	505
504	13.9	2.5	1.8	1440	S301_1.8 S2 M2SB6	506	S301_1.8 P90 BN90S6	507
568	12.4	3.2	4.9	1410	S301_4.9 S1 M1LA2	506	S301_4.9 P80 BN80A2	507
574	12.2	2.1	2.4	1010	S201_2.4 S2 M2SA4	504	S201_2.4 P80 BN80B4	505
587	12.0	1.8	4.8	1010	S201_4.8 S1 M1LA2	504	S201_4.8 P80 BN80A2	505
647	10.8	1.1	1.4	460	S101_1.4 S2 M2SB6	502	S101_1.4 P90 BN90S6	503
654	10.7	3.3	1.4	1330	S301_1.4 S2 M2SB6	506	S301_1.4 P90 BN90S6	507
661	10.6	1.9	1.4	960	S201_1.4 S2 M2SB6	504	S201_1.4 P90 BN90S6	505
712	9.9	2.1	3.9	960	S201_3.9 S1 M1LA2	504	S201_3.9 P80 BN80A2	505
728	9.6	1.0	3.8	480	S101_3.8 S1 M1LA2	502	S101_3.8 P80 BN80A2	503
739	9.5	1.8	1.9	940	S201_1.9 S2 M2SA4	504	S201_1.9 P80 BN80B4	505
747	9.4	1.1	1.9	460	S101_1.9 S2 M2SA4	502	S101_1.9 P80 BN80B4	503
767	9.2	3.3	1.8	1280	S301_1.8 S2 M2SA4	506	S301_1.8 P80 BN80B4	507
875	8.0	1.2	3.2	460	S101_3.2 S1 M1LA2	502	S101_3.2 P80 BN80A2	503
900	7.8	2.7	3.1	900	S201_3.1 S1 M1LA2	504	S201_3.1 P80 BN80A2	505
985	7.1	1.4	1.4	440	S101_1.4 S2 M2SA4	502	S101_1.4 P80 BN80B4	503
1006	7.0	2.4	1.4	860	S201_1.4 S2 M2SA4	504	S201_1.4 P80 BN80B4	505
1120	6.3	1.3	2.5	440	S101_2.5 S1 M1LA2	502	S101_2.5 P80 BN80A2	503
1149	6.1	3.4	2.4	840	S201_2.4 S1 M1LA2	504	S201_2.4 P80 BN80A2	505
1478	4.7	2.7	1.9	780	S201_1.9 S1 M1LA2	504	S201_1.9 P80 BN80A2	505
1493	4.7	1.7	1.9	410	S101_1.9 S1 M1LA2	502	S101_1.9 P80 BN80A2	503
1970	3.6	2.2	1.4	380	S101_1.4 S1 M1LA2	502	S101_1.4 P80 BN80A2	503

## 1.1 kW

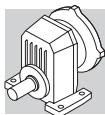
<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
88	117.0	1.0	10.5	5650	S501_10.5 S3 M3SA6	510	S501_10.5 P90 BN90L6	511
105	98.1	1.3	8.8	5380	S501_8.8 S3 M3SA6	510	S501_8.8 P90 BN90L6	511
109	94.8	1.1	12.9	5320	S501_12.9 S2 M2SB4	510	S501_12.9 P90 BN90S4	511
124	82.8	1.7	7.4	5120	S501_7.4 S3 M3SA6	510	S501_7.4 P90 BN90L6	511
129	80.1	1.1	7.2	3550	S401_7.2 S3 M3SA6	508	S401_7.2 P90 BN90L6	509
134	76.9	1.4	10.5	5020	S501_10.5 S2 M2SB4	510	S501_10.5 P90 BN90S4	511
152	67.9	1.5	6.1	3400	S401_6.1 S3 M3SA6	508	S401_6.1 P90 BN90L6	509
152	67.8	2.2	6.1	4840	S501_6.1 S3 M3SA6	510	S501_6.1 P90 BN90L6	511
160	64.5	1.7	8.8	4770	S501_8.8 S2 M2SB4	510	S501_8.8 P90 BN90S4	511
162	63.5	0.9	8.6	3350	S401_8.6 S2 M2SB4	508	S401_8.6 P90 BN90S4	509
186	55.2	1.1	4.9	1740	S301_4.9 S3 M3SA6	506	S301_4.9 P90 BN90L6	507



## 1.1 kW

n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
189	54.4	2.4	7.4	4530	S501_7.4 S2 M2SB4	510	S501_7.4 P90 BN90S4	511
190	54.1	1.9	4.8	3200	S401_4.8 S3 M3SA6	508	S401_4.8 P90 BN90L6	509
194	53.2	3.3	4.8	4500	S501_4.8 S3 M3SA6	510	S501_4.8 P90 BN90L6	511
196	52.6	1.5	7.2	3180	S401_7.2 S2 M2SB4	508	S401_7.2 P90 BN90S4	509
197	52.1	1.0	7.1	1730	S301_7.1 S2 M2SB4	506	S301_7.1 P90 BN90S4	507
217	47.4	1.7	12.9	4350	S501_12.9 S2 M2SA2	510	S501_12.9 P80 BN80B2	511
231	44.6	2.0	6.1	3040	S401_6.1 S2 M2SB4	508	S401_6.1 P90 BN90S4	509
231	44.5	2.9	6.1	4270	S501_6.1 S2 M2SB4	510	S501_6.1 P90 BN90S4	511
233	44.1	1.3	3.9	1670	S301_3.9 S3 M3SA6	506	S301_3.9 P90 BN90L6	507
239	43.0	1.2	5.8	1670	S301_5.8 S2 M2SB4	506	S301_5.8 P90 BN90S4	507
241	42.7	2.5	3.8	2990	S401_3.8 S3 M3SA6	508	S401_3.8 P90 BN90L6	509
263	39.2	1.0	10.7	2930	S401_10.7 S2 M2SA2	508	S401_10.7 P80 BN80B2	509
268	38.4	2.2	10.5	4090	S501_10.5 S2 M2SA2	510	S501_10.5 P80 BN80B2	511
284	36.3	1.4	4.9	1610	S301_4.9 S2 M2SB4	506	S301_4.9 P90 BN90S4	507
290	35.5	2.5	4.8	2850	S401_4.8 S2 M2SB4	508	S401_4.8 P90 BN90S4	509
300	34.3	1.7	3.1	1580	S301_3.1 S3 M3SA6	506	S301_3.1 P90 BN90L6	507
301	34.2	3.1	3.1	2810	S401_3.1 S3 M3SA6	508	S401_3.1 P90 BN90L6	509
319	32.2	2.6	8.8	3870	S501_8.8 S2 M2SA2	510	S501_8.8 P80 BN80B2	511
324	31.8	1.5	8.6	2760	S401_8.6 S2 M2SA2	508	S401_8.6 P80 BN80B2	509
355	29.0	1.7	3.9	1530	S301_3.9 S2 M2SB4	506	S301_3.9 P90 BN90S4	507
367	28.0	3.2	3.8	2650	S401_3.8 S2 M2SB4	508	S401_3.8 P90 BN90S4	509
377	27.3	1.1	2.4	1010	S201_2.4 S3 M3SA6	504	S201_2.4 P90 BN90L6	505
380	27.1	2.1	2.4	1490	S301_2.4 S3 M3SA6	506	S301_2.4 P90 BN90L6	507
391	26.3	2.4	7.2	2610	S401_7.2 S2 M2SA2	508	S401_7.2 P80 BN80B2	509
395	26.1	1.5	7.1	1500	S301_7.1 S2 M2SA2	506	S301_7.1 P80 BN80B2	507
450	22.9	1.1	3.1	990	S201_3.1 S2 M2SB4	504	S201_3.1 P90 BN90S4	505
457	22.5	2.2	3.1	1430	S301_3.1 S2 M2SB4	506	S301_3.1 P90 BN90S4	507
462	22.3	3.1	6.1	2490	S401_6.1 S2 M2SA2	508	S401_6.1 P80 BN80B2	509
479	21.5	1.9	5.8	1420	S301_5.8 S2 M2SA2	506	S301_5.8 P80 BN80B2	507
481	21.4	1.0	5.8	990	S201_5.8 S2 M2SA2	504	S201_5.8 P80 BN80B2	505
486	21.2	0.9	1.9	960	S201_1.9 S3 M3SA6	504	S201_1.9 P90 BN90L6	505
497	20.7	3.4	1.9	2420	S401_1.9 S3 M3SA6	508	S401_1.9 P90 BN90L6	509
504	20.4	1.7	1.8	1380	S301_1.8 S3 M3SA6	506	S301_1.8 P90 BN90L6	507
568	18.1	2.2	4.9	1360	S301_4.9 S2 M2SA2	506	S301_4.9 P80 BN80B2	507
574	17.9	1.5	2.4	940	S201_2.4 S2 M2SB4	504	S201_2.4 P90 BN90S4	505
578	17.8	2.8	2.4	1340	S301_2.4 S2 M2SB4	506	S301_2.4 P90 BN90S4	507
587	17.5	1.2	4.8	950	S201_4.8 S2 M2SA2	504	S201_4.8 P80 BN80B2	505
654	15.7	2.2	1.4	1290	S301_1.4 S3 M3SA6	506	S301_1.4 P90 BN90L6	507
661	15.6	1.3	1.4	900	S201_1.4 S3 M3SA6	504	S201_1.4 P90 BN90L6	505
710	14.5	2.8	3.9	1280	S301_3.9 S2 M2SA2	506	S301_3.9 P80 BN80B2	507
712	14.5	1.5	3.9	910	S201_3.9 S2 M2SA2	504	S201_3.9 P80 BN80B2	505
739	13.9	1.2	1.9	890	S201_1.9 S2 M2SB4	504	S201_1.9 P90 BN90S4	505
767	13.4	2.2	1.8	1240	S301_1.8 S2 M2SB4	506	S301_1.8 P90 BN90S4	507
900	11.4	1.8	3.1	860	S201_3.1 S2 M2SA2	504	S201_3.1 P80 BN80B2	505
985	10.4	1.0	1.4	390	S101_1.4 S2 M2SB4	502	S101_1.4 P90 BN90S4	503
995	10.3	2.9	1.4	1150	S301_1.4 S2 M2SB4	506	S301_1.4 P90 BN90S4	507
1006	10.2	1.7	1.4	820	S201_1.4 S2 M2SB4	504	S201_1.4 P90 BN90S4	505
1149	9.0	2.3	2.4	810	S201_2.4 S2 M2SA2	504	S201_2.4 P80 BN80B2	505
1478	7.0	1.9	1.9	750	S201_1.9 S2 M2SA2	504	S201_1.9 P80 BN80B2	505
1493	6.9	1.2	1.9	380	S101_1.9 S2 M2SA2	502	S101_1.9 P80 BN80B2	503
1970	5.2	1.5	1.4	350	S101_1.4 S2 M2SA2	502	S101_1.4 P80 BN80B2	503



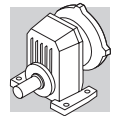


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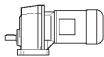



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
<b>2013</b>	5.1	2.5	1.4	690	<b>S201_1.4 S2 M2SA2</b>	504	<b>S201_1.4 P80 BN80B2</b>	505

## 1.5 kW

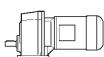



n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
<b>88</b>	117.0	1.0	10.5	5650	<b>S501_10.5 S3 M3SA6</b>	510	<b>S501_10.5 P90 BN90L6</b>	511
<b>105</b>	98.1	1.3	8.8	5380	<b>S501_8.8 S3 M3SA6</b>	510	<b>S501_8.8 P90 BN90L6</b>	511
<b>109</b>	94.8	1.1	12.9	5320	<b>S501_12.9 S3 M3SA4</b>	510	<b>S501_12.9 P90 BN90S4</b>	511
<b>124</b>	82.8	1.7	7.4	5120	<b>S501_7.4 S3 M3SA6</b>	510	<b>S501_7.4 P90 BN90L6</b>	511
<b>129</b>	80.1	1.1	7.2	3550	<b>S401_7.2 S3 M3SA6</b>	508	<b>S401_7.2 P90 BN90L6</b>	509
<b>134</b>	76.9	1.4	10.5	5020	<b>S501_10.5 S3 M3SA4</b>	510	<b>S501_10.5 P90 BN90S4</b>	511
<b>152</b>	67.9	1.5	6.1	3400	<b>S401_6.1 S3 M3SA6</b>	508	<b>S401_6.1 P90 BN90L6</b>	509
<b>152</b>	67.8	2.2	6.1	4840	<b>S501_6.1 S3 M3SA6</b>	510	<b>S501_6.1 P90 BN90L6</b>	511
<b>160</b>	64.5	1.7	8.8	4770	<b>S501_8.8 S3 M3SA4</b>	510	<b>S501_8.8 P90 BN90S4</b>	511
<b>162</b>	63.5	0.9	8.6	3350	<b>S401_8.6 S3 M3SA4</b>	508	<b>S401_8.6 P90 BN90S4</b>	509
<b>186</b>	55.2	1.1	4.9	1740	<b>S301_4.9 S3 M3SA6</b>	506	<b>S301_4.9 P90 BN90L6</b>	507
<b>189</b>	54.4	2.4	7.4	4530	<b>S501_7.4 S3 M3SA4</b>	510	<b>S501_7.4 P90 BN90S4</b>	511
<b>190</b>	54.1	1.9	4.8	3200	<b>S401_4.8 S3 M3SA6</b>	508	<b>S401_4.8 P90 BN90L6</b>	509
<b>194</b>	53.2	3.3	4.8	4500	<b>S501_4.8 S3 M3SA6</b>	510	<b>S501_4.8 P90 BN90L6</b>	511
<b>196</b>	52.6	1.5	7.2	3180	<b>S401_7.2 S3 M3SA4</b>	508	<b>S401_7.2 P90 BN90S4</b>	509
<b>197</b>	52.1	1.0	7.1	1730	<b>S301_7.1 S3 M3SA4</b>	506	<b>S301_7.1 P90 BN90S4</b>	507
<b>217</b>	47.4	1.7	12.9	4350	<b>S501_12.9 S2 M2SA2</b>	510	<b>S501_12.9 P80 BN80B2</b>	511
<b>231</b>	44.6	2.0	6.1	3040	<b>S401_6.1 S3 M3SA4</b>	508	<b>S401_6.1 P90 BN90S4</b>	509
<b>231</b>	44.5	2.9	6.1	4270	<b>S501_6.1 S3 M3SA4</b>	510	<b>S501_6.1 P90 BN90S4</b>	511
<b>233</b>	44.1	1.3	3.9	1670	<b>S301_3.9 S3 M3SA6</b>	506	<b>S301_3.9 P90 BN90L6</b>	507
<b>239</b>	43.0	1.2	5.8	1670	<b>S301_5.8 S3 M3SA4</b>	506	<b>S301_5.8 P90 BN90S4</b>	507
<b>241</b>	42.7	2.5	3.8	2990	<b>S401_3.8 S3 M3SA6</b>	508	<b>S401_3.8 P90 BN90L6</b>	509
<b>263</b>	39.2	1.0	10.7	2930	<b>S401_10.7 S2 M2SA2</b>	508	<b>S401_10.7 P80 BN80B2</b>	509
<b>268</b>	38.4	2.2	10.5	4090	<b>S501_10.5 S2 M2SA2</b>	510	<b>S501_10.5 P80 BN80B2</b>	511
<b>284</b>	36.3	1.4	4.9	1610	<b>S301_4.9 S3 M3SA4</b>	506	<b>S301_4.9 P90 BN90S4</b>	507
<b>290</b>	35.5	2.5	4.8	2850	<b>S401_4.8 S3 M3SA4</b>	508	<b>S401_4.8 P90 BN90S4</b>	509
<b>300</b>	34.3	1.7	3.1	1580	<b>S301_3.1 S3 M3SA6</b>	506	<b>S301_3.1 P90 BN90L6</b>	507
<b>301</b>	34.2	3.1	3.1	2810	<b>S401_3.1 S3 M3SA6</b>	508	<b>S401_3.1 P90 BN90L6</b>	509
<b>319</b>	32.2	2.6	8.8	3870	<b>S501_8.8 S2 M2SA2</b>	510	<b>S501_8.8 P80 BN80B2</b>	511
<b>324</b>	31.8	1.5	8.6	2760	<b>S401_8.6 S2 M2SA2</b>	508	<b>S401_8.6 P80 BN80B2</b>	509
<b>355</b>	29.0	1.7	3.9	1530	<b>S301_3.9 S3 M3SA4</b>	506	<b>S301_3.9 P90 BN90S4</b>	507
<b>367</b>	28.0	3.2	3.8	2650	<b>S401_3.8 S3 M3SA4</b>	508	<b>S401_3.8 P90 BN90S4</b>	509
<b>377</b>	27.3	1.1	2.4	1010	<b>S201_2.4 S3 M3SA6</b>	504	<b>S201_2.4 P90 BN90L6</b>	505
<b>380</b>	27.1	2.1	2.4	1490	<b>S301_2.4 S3 M3SA6</b>	506	<b>S301_2.4 P90 BN90L6</b>	507
<b>391</b>	26.3	2.4	7.2	2610	<b>S401_7.2 S2 M2SA2</b>	508	<b>S401_7.2 P80 BN80B2</b>	509
<b>395</b>	26.1	1.5	7.1	1500	<b>S301_7.1 S2 M2SA2</b>	506	<b>S301_7.1 P80 BN80B2</b>	507
<b>450</b>	22.9	1.1	3.1	990	<b>S201_3.1 S3 M3SA4</b>	504	<b>S201_3.1 P90 BN90S4</b>	505
<b>457</b>	22.5	2.2	3.1	1430	<b>S301_3.1 S3 M3SA4</b>	506	<b>S301_3.1 P90 BN90S4</b>	507
<b>462</b>	22.3	3.1	6.1	2490	<b>S401_6.1 S2 M2SA2</b>	508	<b>S401_6.1 P80 BN80B2</b>	509
<b>479</b>	21.5	1.9	5.8	1420	<b>S301_5.8 S2 M2SA2</b>	506	<b>S301_5.8 P80 BN80B2</b>	507
<b>481</b>	21.4	1.0	5.8	990	<b>S201_5.8 S2 M2SA2</b>	504	<b>S201_5.8 P80 BN80B2</b>	505
<b>486</b>	21.2	0.9	1.9	960	<b>S201_1.9 S3 M3SA6</b>	504	<b>S201_1.9 P90 BN90L6</b>	505
<b>497</b>	20.7	3.4	1.9	2420	<b>S401_1.9 S3 M3SA6</b>	508	<b>S401_1.9 P90 BN90L6</b>	509



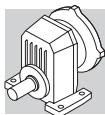
## 1.5 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>504</b>	20.4	1.7	1.8	1380	<b>S301_1.8 S3 M3SA6</b>	506	<b>S301_1.8 P90 BN90L6</b>	507
<b>568</b>	18.1	2.2	4.9	1360	<b>S301_4.9 S2 M2SA2</b>	506	<b>S301_4.9 P80 BN80B2</b>	507
<b>574</b>	17.9	1.5	2.4	940	<b>S201_2.4 S3 M3SA4</b>	504	<b>S201_2.4 P90 BN90S4</b>	505
<b>578</b>	17.8	2.8	2.4	1340	<b>S301_2.4 S3 M3SA4</b>	506	<b>S301_2.4 P90 BN90S4</b>	507
<b>587</b>	17.5	1.2	4.8	950	<b>S201_4.8 S2 M2SA2</b>	504	<b>S201_4.8 P80 BN80B2</b>	505
<b>654</b>	15.7	2.2	1.4	1290	<b>S301_1.4 S3 M3SA6</b>	506	<b>S301_1.4 P90 BN90L6</b>	507
<b>661</b>	15.6	1.3	1.4	900	<b>S201_1.4 S3 M3SA6</b>	504	<b>S201_1.4 P90 BN90L6</b>	505
<b>710</b>	14.5	2.8	3.9	1280	<b>S301_3.9 S2 M2SA2</b>	506	<b>S301_3.9 P80 BN80B2</b>	507
<b>712</b>	14.5	1.5	3.9	910	<b>S201_3.9 S2 M2SA2</b>	504	<b>S201_3.9 P80 BN80B2</b>	505
<b>739</b>	13.9	1.2	1.9	890	<b>S201_1.9 S3 M3SA4</b>	504	<b>S201_1.9 P90 BN90S4</b>	505
<b>767</b>	13.4	2.2	1.8	1240	<b>S301_1.8 S3 M3SA4</b>	506	<b>S301_1.8 P90 BN90S4</b>	507
<b>900</b>	11.4	1.8	3.1	860	<b>S201_3.1 S2 M2SA2</b>	504	<b>S201_3.1 P80 BN80B2</b>	505
<b>985</b>	10.4	1.0	1.4	390	<b>S101_1.4 S3 M3SA4</b>	502	<b>S101_1.4 P90 BN90S4</b>	503
<b>995</b>	10.3	2.9	1.4	1150	<b>S301_1.4 S3 M3SA4</b>	506	<b>S301_1.4 P90 BN90S4</b>	507
<b>1006</b>	10.2	1.7	1.4	820	<b>S201_1.4 S3 M3SA4</b>	504	<b>S201_1.4 P90 BN90S4</b>	505
<b>1149</b>	9.0	2.3	2.4	810	<b>S201_2.4 S2 M2SA2</b>	504	<b>S201_2.4 P80 BN80B2</b>	505
<b>1478</b>	7.0	1.9	1.9	750	<b>S201_1.9 S2 M2SA2</b>	504	<b>S201_1.9 P80 BN80B2</b>	505
<b>1493</b>	6.9	1.2	1.9	380	<b>S101_1.9 S2 M2SA2</b>	502	<b>S101_1.9 P80 BN80B2</b>	503
<b>1970</b>	5.2	1.5	1.4	350	<b>S101_1.4 S2 M2SA2</b>	502	<b>S101_1.4 P80 BN80B2</b>	503
<b>2013</b>	5.1	2.5	1.4	690	<b>S201_1.4 S2 M2SA2</b>	504	<b>S201_1.4 P80 BN80B2</b>	505

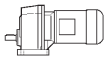



## 2.2 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>154</b>	134.1	1.1	6.1	4520	<b>S501_6.1 S3 M3LC6</b>	510	<b>S501_6.1 P112 BN112M6</b>	511
<b>191</b>	108.1	1.2	7.4	4280	<b>S501_7.4 S3 M3LA4</b>	510	<b>S501_7.4 P100 BN100LA4</b>	511
<b>192</b>	107.0	1.0	4.8	2880	<b>S401_4.8 S3 M3LC6</b>	508	<b>S401_4.8 P112 BN112M6</b>	509
<b>196</b>	105.2	1.7	4.8	4230	<b>S501_4.8 S3 M3LC6</b>	510	<b>S501_4.8 P112 BN112M6</b>	511
<b>232</b>	88.6	1.0	6.1	2790	<b>S401_6.1 S3 M3LA4</b>	508	<b>S401_6.1 P100 BN100LA4</b>	509
<b>233</b>	88.4	1.5	6.1	4060	<b>S501_6.1 S3 M3LA4</b>	510	<b>S501_6.1 P100 BN100LA4</b>	511
<b>242</b>	85.1	2.1	3.8	4000	<b>S501_3.8 S3 M3LC6</b>	510	<b>S501_3.8 P112 BN112M6</b>	511
<b>244</b>	84.4	1.2	3.8	2730	<b>S401_3.8 S3 M3LC6</b>	508	<b>S401_3.8 P112 BN112M6</b>	509
<b>269</b>	76.6	1.1	10.5	3910	<b>S501_10.5 S3 M3SA2</b>	510	<b>S501_10.5 P90 BN90L2</b>	511
<b>292</b>	70.6	1.3	4.8	2640	<b>S401_4.8 S3 M3LA4</b>	508	<b>S401_4.8 P100 BN100LA4</b>	509
<b>297</b>	69.4	2.2	4.8	3790	<b>S501_4.8 S3 M3LA4</b>	510	<b>S501_4.8 P100 BN100LA4</b>	511
<b>305</b>	67.6	1.6	3.1	2590	<b>S401_3.1 S3 M3LC6</b>	508	<b>S401_3.1 P112 BN112M6</b>	509
<b>306</b>	67.4	2.4	3.0	3750	<b>S501_3.0 S3 M3LC6</b>	510	<b>S501_3.0 P112 BN112M6</b>	511
<b>320</b>	64.3	1.3	8.8	3730	<b>S501_8.8 S3 M3SA2</b>	510	<b>S501_8.8 P90 BN90L2</b>	511
<b>367</b>	56.1	2.7	3.8	3570	<b>S501_3.8 S3 M3LA4</b>	510	<b>S501_3.8 P100 BN100LA4</b>	511
<b>370</b>	55.7	1.6	3.8	2490	<b>S401_3.8 S3 M3LA4</b>	508	<b>S401_3.8 P100 BN100LA4</b>	509
<b>380</b>	54.2	1.8	7.4	3540	<b>S501_7.4 S3 M3SA2</b>	510	<b>S501_7.4 P90 BN90L2</b>	511
<b>384</b>	53.6	1.1	2.4	1260	<b>S301_2.4 S3 M3LC6</b>	506	<b>S301_2.4 P112 BN112M6</b>	507
<b>386</b>	53.3	2.8	2.4	3500	<b>S501_2.4 S3 M3LC6</b>	510	<b>S501_2.4 P112 BN112M6</b>	511
<b>389</b>	52.9	2.0	2.4	2450	<b>S401_2.4 S3 M3LC6</b>	508	<b>S401_2.4 P112 BN112M6</b>	509
<b>393</b>	52.4	1.2	7.2	2460	<b>S401_7.2 S3 M3SA2</b>	508	<b>S401_7.2 P90 BN90L2</b>	509
<b>460</b>	44.7	1.1	3.1	1240	<b>S301_3.1 S3 M3LA4</b>	506	<b>S301_3.1 P100 BN100LA4</b>	507
<b>462</b>	44.6	2.0	3.1	2340	<b>S401_3.1 S3 M3LA4</b>	508	<b>S401_3.1 P100 BN100LA4</b>	509
<b>463</b>	44.5	1.6	6.1	2360	<b>S401_6.1 S3 M3SA2</b>	508	<b>S401_6.1 P90 BN90L2</b>	509



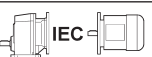



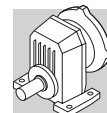


## 2.2 kW

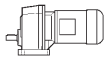



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
463	44.4	3.2	3.0	3340	S501_3.0 S3 M3LA4	510	S501_3.0 P100 BN100LA4	511
464	44.4	2.3	6.1	3340	S501_6.1 S3 M3SA2	510	S501_6.1 P90 BN90L2	511
481	42.8	0.9	5.8	1250	S301_5.8 S3 M3SA2	506	S301_5.8 P90 BN90L2	507
502	41.0	1.7	1.9	2280	S401_1.9 S3 M3LC6	508	S401_1.9 P112 BN112M6	509
520	39.6	3.2	1.8	3210	S501_1.8 S3 M3LC6	510	S501_1.8 P112 BN112M6	511
570	36.1	1.1	4.9	1220	S301_4.9 S3 M3SA2	506	S301_4.9 P90 BN90L2	507
581	35.4	2.0	4.8	2210	S401_4.8 S3 M3SA2	508	S401_4.8 P90 BN90L2	509
582	35.4	1.4	2.4	1190	S301_2.4 S3 M3LA4	506	S301_2.4 P100 BN100LA4	507
590	34.9	2.6	2.4	2200	S401_2.4 S3 M3LA4	508	S401_2.4 P100 BN100LA4	509
592	34.8	3.4	4.8	3110	S501_4.8 S3 M3SA2	510	S501_4.8 P90 BN90L2	511
661	31.2	1.1	1.4	1140	S301_1.4 S3 M3LC6	506	S301_1.4 P112 BN112M6	507
682	30.2	2.3	1.4	2090	S401_1.4 S3 M3LC6	508	S401_1.4 P112 BN112M6	509
712	28.9	1.4	3.9	1160	S301_3.9 S3 M3SA2	506	S301_3.9 P90 BN90L2	507
737	27.9	2.5	3.8	2070	S401_3.8 S3 M3SA2	508	S401_3.8 P90 BN90L2	509
761	27.0	2.2	1.9	2040	S401_1.9 S3 M3LA4	508	S401_1.9 P100 BN100LA4	509
772	26.7	1.1	1.8	1120	S301_1.8 S3 M3LA4	506	S301_1.8 P100 BN100LA4	507
903	22.8	0.9	3.1	730	S201_3.1 S3 M3SA2	504	S201_3.1 P90 BN90L2	505
918	22.4	1.8	3.1	1100	S301_3.1 S3 M3SA2	506	S301_3.1 P90 BN90L2	507
921	22.4	3.1	3.1	1940	S401_3.1 S3 M3SA2	508	S401_3.1 P90 BN90L2	509
1002	20.6	1.5	1.4	1050	S301_1.4 S3 M3LA4	506	S301_1.4 P100 BN100LA4	507
1034	19.9	3.0	1.4	1860	S401_1.4 S3 M3LA4	508	S401_1.4 P100 BN100LA4	509
1153	17.9	1.2	2.4	710	S201_2.4 S3 M3SA2	504	S201_2.4 P90 BN90L2	505
1161	17.7	2.3	2.4	1030	S301_2.4 S3 M3SA2	506	S301_2.4 P90 BN90L2	507
1483	13.9	0.9	1.9	670	S201_1.9 S3 M3SA2	504	S201_1.9 P90 BN90L2	505
1539	13.4	1.8	1.8	960	S301_1.8 S3 M3SA2	506	S301_1.8 P90 BN90L2	507
1997	10.3	2.3	1.4	890	S301_1.4 S3 M3SA2	506	S301_1.4 P90 BN90L2	507
2020	10.2	1.3	1.4	630	S201_1.4 S3 M3SA2	504	S201_1.4 P90 BN90L2	505

## 3.0 kW





<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
198	141.9	1.2	4.8	4040	S501_4.8 S4 M4SA6	510	S501_4.8 P132 BN132S6	511
233	120.6	1.1	6.1	3910	S501_6.1 S3 M3LB4	510	S501_6.1 P100 BN100LB4	511
245	114.8	1.5	3.8	3840	S501_3.8 S4 M4SA6	510	S501_3.8 P132 BN132S6	511
247	113.9	0.9	3.8	2550	S401_3.8 S4 M4SA6	508	S401_3.8 P132 BN132S6	509
292	96.2	0.9	4.8	2490	S401_4.8 S3 M3LB4	508	S401_4.8 P100 BN100LB4	509
297	94.6	1.6	4.8	3670	S501_4.8 S3 M3LB4	510	S501_4.8 P100 BN100LB4	511
308	91.2	1.2	3.1	2440	S401_3.1 S4 M4SA6	508	S401_3.1 P132 BN132S6	509
309	90.9	1.8	3.0	3630	S501_3.0 S4 M4SA6	510	S501_3.0 P132 BN132S6	511
326	86.1	1.0	8.8	3600	S501_8.8 S3 M3LA2	510	S501_8.8 P100 BN100L2	511
367	76.5	2.0	3.8	3470	S501_3.8 S3 M3LB4	510	S501_3.8 P100 BN100LB4	511
370	75.9	1.2	3.8	2370	S401_3.8 S3 M3LB4	508	S401_3.8 P100 BN100LB4	509
386	72.6	1.4	7.4	3440	S501_7.4 S3 M3LA2	510	S501_7.4 P100 BN100L2	511
390	71.9	2.1	2.4	3390	S501_2.4 S4 M4SA6	510	S501_2.4 P132 BN132S6	511
393	71.4	1.5	2.4	2320	S401_2.4 S4 M4SA6	508	S401_2.4 P132 BN132S6	509
462	60.8	1.5	3.1	2250	S401_3.1 S3 M3LB4	508	S401_3.1 P100 BN100LB4	509
463	60.6	2.3	3.0	3260	S501_3.0 S3 M3LB4	510	S501_3.0 P100 BN100LB4	511
471	59.6	1.2	6.1	2260	S401_6.1 S3 M3LA2	508	S401_6.1 P100 BN100L2	509

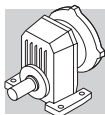


## 3.0 kW

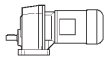


n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
472	59.4	1.7	6.1	3260	S501_6.1 S3 M3LA2	510	S501_6.1 P100 BN100L2	511
508	55.3	1.3	1.9	2170	S401_1.9 S4 M4SA6	508	S401_1.9 P132 BN132S6	509
526	53.4	2.3	1.8	3120	S501_1.8 S4 M4SA6	510	S501_1.8 P132 BN132S6	511
582	48.2	1.0	2.4	1080	S301_2.4 S3 M3LB4	506	S301_2.4 P100 BN100LB4	507
586	47.9	2.7	2.4	3040	S501_2.4 S3 M3LB4	510	S501_2.4 P100 BN100LB4	511
590	47.6	1.9	2.4	2120	S401_2.4 S3 M3LB4	508	S401_2.4 P100 BN100LB4	509
592	47.4	1.5	4.8	2130	S401_4.8 S3 M3LA2	508	S401_4.8 P100 BN100L2	509
602	46.6	2.6	4.8	3030	S501_4.8 S3 M3LA2	510	S501_4.8 P100 BN100L2	511
661	42.4	2.9	1.4	2920	S501_1.4 S4 M4SA6	510	S501_1.4 P132 BN132S6	511
689	40.7	1.7	1.4	2010	S401_1.4 S4 M4SA6	508	S401_1.4 P132 BN132S6	509
725	38.7	1.0	3.9	1070	S301_3.9 S3 M3LA2	506	S301_3.9 P100 BN100L2	507
744	37.7	3.2	3.8	2850	S501_3.8 S3 M3LA2	510	S501_3.8 P100 BN100L2	511
750	37.4	1.9	3.8	2000	S401_3.8 S3 M3LA2	508	S401_3.8 P100 BN100L2	509
761	36.9	1.6	1.9	1970	S401_1.9 S3 M3LB4	508	S401_1.9 P100 BN100LB4	509
789	35.6	3.1	1.8	2780	S501_1.8 S3 M3LB4	510	S501_1.8 P100 BN100LB4	511
934	30.1	1.3	3.1	1020	S301_3.1 S3 M3LA2	506	S301_3.1 P100 BN100L2	507
937	30.0	2.3	3.1	1880	S401_3.1 S3 M3LA2	508	S401_3.1 P100 BN100L2	509
1002	28.0	1.1	1.4	980	S301_1.4 S3 M3LB4	506	S301_1.4 P100 BN100LB4	507
1034	27.2	2.2	1.4	1820	S401_1.4 S3 M3LB4	508	S401_1.4 P100 BN100LB4	509
1181	23.8	1.7	2.4	980	S301_2.4 S3 M3LA2	506	S301_2.4 P100 BN100L2	507
1196	23.5	3.0	2.4	1760	S401_2.4 S3 M3LA2	508	S401_2.4 P100 BN100L2	509
1544	18.2	2.6	1.9	1630	S401_1.9 S3 M3LA2	508	S401_1.9 P100 BN100L2	509
1566	17.9	1.3	1.8	910	S301_1.8 S3 M3LA2	506	S301_1.8 P100 BN100L2	507
2032	13.8	1.7	1.4	850	S301_1.4 S3 M3LA2	506	S301_1.4 P100 BN100L2	507
2056	13.7	1.0	1.4	580	S201_1.4 S3 M3LA2	504	S201_1.4 P100 BN100L2	505

## 4.0 kW




n <sub>2</sub> min <sup>-1</sup>	M <sub>2</sub> Nm	S	i	R <sub>n2</sub> N				
200	187.2	0.9	4.8	3810	S501_4.8 S4 M4LA6	510	S501_4.8 P132 BN132MA6	511
247	151.4	1.2	3.8	3650	S501_3.8 S4 M4LA6	510	S501_3.8 P132 BN132MA6	511
293	127.9	1.2	4.8	3530	S501_4.8 S3 M3LC4	510	S501_4.8 P112 BN112M4	511
312	119.9	1.3	3.0	3470	S501_3.0 S4 M4LA6	510	S501_3.0 P132 BN132MA6	511
362	103.5	1.4	3.8	3360	S501_3.8 S3 M3LC4	510	S501_3.8 P112 BN112M4	511
388	96.5	1.0	7.4	3320	S501_7.4 S3 M3LB2	510	S501_7.4 P112 BN112M2	511
395	94.9	1.6	2.4	3270	S501_2.4 S4 M4LA6	510	S501_2.4 P132 BN132MA6	511
397	94.2	1.1	2.4	2180	S401_2.4 S4 M4LA6	508	S401_2.4 P132 BN132MA6	509
455	82.2	1.1	3.1	2130	S401_3.1 S3 M3LC4	508	S401_3.1 P112 BN112M4	509
457	82.0	1.7	3.0	3170	S501_3.0 S3 M3LC4	510	S501_3.0 P112 BN112M4	511
474	79.0	1.3	6.1	3160	S501_6.1 S3 M3LB2	510	S501_6.1 P112 BN112M2	511
513	73.0	1.0	1.9	2050	S401_1.9 S4 M4LA6	508	S401_1.9 P132 BN132MA6	509
531	70.5	1.8	1.8	3020	S501_1.8 S4 M4LA6	510	S501_1.8 P132 BN132MA6	511
577	64.8	2.0	2.4	2970	S501_2.4 S3 M3LC4	510	S501_2.4 P112 BN112M4	511
581	64.4	1.4	2.4	2030	S401_2.4 S3 M3LC4	508	S401_2.4 P112 BN112M4	509
594	63.0	1.1	4.8	2040	S401_4.8 S3 M3LB2	508	S401_4.8 P112 BN112M2	509
604	62.0	1.9	4.8	2960	S501_4.8 S3 M3LB2	510	S501_4.8 P112 BN112M2	511
669	56.0	2.2	1.4	2830	S501_1.4 S4 M4LA6	510	S501_1.4 P132 BN132MA6	511
697	53.7	1.3	1.4	1920	S401_1.4 S4 M4LA6	508	S401_1.4 P132 BN132MA6	509

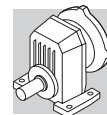


## 4.0 kW

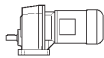



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
747	50.1	2.4	3.8	2790	S501_3.8 S3 M3LB2	510	S501_3.8 P112 BN112M2	511
751	49.9	1.2	1.9	1900	S401_1.9 S3 M3LC4	508	S401_1.9 P112 BN112M4	509
753	49.7	1.4	3.8	1930	S401_3.8 S3 M3LB2	508	S401_3.8 P112 BN112M2	509
777	48.2	2.3	1.8	2730	S501_1.8 S3 M3LC4	510	S501_1.8 P112 BN112M4	511
937	39.9	1.0	3.1	940	S301_3.1 S3 M3LB2	506	S301_3.1 P112 BN112M2	507
940	39.8	1.8	3.1	1820	S401_3.1 S3 M3LB2	508	S401_3.1 P112 BN112M2	509
943	39.7	2.8	3.0	2610	S501_3.0 S3 M3LB2	510	S501_3.0 P112 BN112M2	511
978	38.3	2.9	1.4	2560	S501_1.4 S3 M3LC4	510	S501_1.4 P112 BN112M4	511
1019	36.7	1.6	1.4	1760	S401_1.4 S3 M3LC4	508	S401_1.4 P112 BN112M4	509
1185	31.6	1.3	2.4	910	S301_2.4 S3 M3LB2	506	S301_2.4 P112 BN112M2	507
1192	31.4	3.2	2.4	2430	S501_2.4 S3 M3LB2	510	S501_2.4 P112 BN112M2	511
1200	31.2	2.2	2.4	1710	S401_2.4 S3 M3LB2	508	S401_2.4 P112 BN112M2	509
1550	24.2	2.0	1.9	1590	S401_1.9 S3 M3LB2	508	S401_1.9 P112 BN112M2	509
1572	23.8	1.0	1.8	860	S301_1.8 S3 M3LB2	506	S301_1.8 P112 BN112M2	507
2039	18.4	1.3	1.4	810	S301_1.4 S3 M3LB2	506	S301_1.4 P112 BN112M2	507
2105	17.8	2.7	1.4	1460	S401_1.4 S3 M3LB2	508	S401_1.4 P112 BN112M2	509

## 5.5 kW





<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
311	165.8	1.0	3.0	3260	S501_3.0 S4 M4LB6	510	S501_3.0 P132 BN132MB6	511
375	137.3	1.1	3.8	3150	S501_3.8 S4 M4SA4	510	S501_3.8 P132 BN132S4	511
393	131.1	1.1	2.4	3090	S501_2.4 S4 M4LB6	510	S501_2.4 P132 BN132MB6	511
473	108.8	1.3	3.0	3000	S501_3.0 S4 M4SA4	510	S501_3.0 P132 BN132S4	511
477	107.9	0.9	6.1	3020	S501_6.1 S4 M4SA2	510	S501_6.1 P132 BN132SA2	511
529	97.4	1.3	1.8	2880	S501_1.8 S4 M4LB6	510	S501_1.8 P132 BN132MB6	511
598	86.1	1.5	2.4	2830	S501_2.4 S4 M4SA4	510	S501_2.4 P132 BN132S4	511
602	85.5	1.1	2.4	1870	S401_2.4 S4 M4SA4	508	S401_2.4 P132 BN132S4	509
608	84.6	1.4	4.8	2840	S501_4.8 S4 M4SA2	510	S501_4.8 P132 BN132SA2	511
665	77.4	1.6	1.4	2720	S501_1.4 S4 M4LB6	510	S501_1.4 P132 BN132MB6	511
693	74.3	0.9	1.4	1780	S401_1.4 S4 M4LB6	508	S401_1.4 P132 BN132MB6	509
752	68.4	1.8	3.8	2690	S501_3.8 S4 M4SA2	510	S501_3.8 P132 BN132SA2	511
758	67.9	1.0	3.8	1810	S401_3.8 S4 M4SA2	508	S401_3.8 P132 BN132SA2	509
778	66.2	0.9	1.9	1770	S401_1.9 S4 M4SA4	508	S401_1.9 P132 BN132S4	509
805	63.9	1.7	1.8	2610	S501_1.8 S4 M4SA4	510	S501_1.8 P132 BN132S4	511
947	54.4	1.3	3.1	1730	S401_3.1 S4 M4SA2	508	S401_3.1 P132 BN132SA2	509
950	54.2	2.0	3.0	2530	S501_3.0 S4 M4SA2	510	S501_3.0 P132 BN132SA2	511
1013	50.8	2.2	1.4	2450	S501_1.4 S4 M4SA4	510	S501_1.4 P132 BN132S4	511
1056	48.7	1.2	1.4	1660	S401_1.4 S4 M4SA4	508	S401_1.4 P132 BN132S4	509
1200	42.9	2.3	2.4	2370	S501_2.4 S4 M4SA2	510	S501_2.4 P132 BN132SA2	511
1209	42.6	1.6	2.4	1640	S401_2.4 S4 M4SA2	508	S401_2.4 P132 BN132SA2	509
1561	33.0	1.5	1.9	1530	S401_1.9 S4 M4SA2	508	S401_1.9 P132 BN132SA2	509
1616	31.8	2.7	1.8	2170	S501_1.8 S4 M4SA2	510	S501_1.8 P132 BN132SA2	511
2034	25.3	3.4	1.4	2030	S501_1.4 S4 M4SA2	510	S501_1.4 P132 BN132SA2	511
2119	24.3	2.0	1.4	1410	S401_1.4 S4 M4SA2	508	S401_1.4 P132 BN132SA2	509

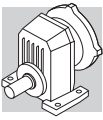


## 7.5 kW

<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>473</b>	148.4	0.9	3.0	2810	<b>S501_3.0 S4 M4LA4</b>	510	<b>S501_3.0 P132 BN132MA4</b>	511
<b>534</b>	131.4	1.0	1.8	2690			<b>S501_1.8 P160 BN160M6</b>	511
<b>598</b>	117.3	1.1	2.4	2670	<b>S501_2.4 S4 M4LA4</b>	510	<b>S501_2.4 P132 BN132MA4</b>	511
<b>611</b>	115.0	1.0	4.8	2690	<b>S501_4.8 S4 M4SB2</b>	510	<b>S501_4.8 P132 BN132SB2</b>	511
<b>672</b>	104.4	1.2	1.4	2560			<b>S501_1.4 P160 BN160M6</b>	511
<b>755</b>	93.0	1.3	3.8	2570	<b>S501_3.8 S4 M4SB2</b>	510	<b>S501_3.8 P132 BN132SB2</b>	511
<b>805</b>	87.1	1.3	1.8	2490	<b>S501_1.8 S4 M4LA4</b>	510	<b>S501_1.8 P132 BN132MA4</b>	511
<b>950</b>	73.9	0.9	3.1	1610	<b>S401_3.1 S4 M4SB2</b>	508	<b>S401_3.1 P132 BN132SB2</b>	509
<b>953</b>	73.7	1.5	3.0	2440	<b>S501_3.0 S4 M4SB2</b>	510	<b>S501_3.0 P132 BN132SB2</b>	511
<b>1013</b>	69.3	1.6	1.4	2350	<b>S501_1.4 S4 M4LA4</b>	510	<b>S501_1.4 P132 BN132MA4</b>	511
<b>1056</b>	66.5	0.9	1.4	1540	<b>S401_1.4 S4 M4LA4</b>	508	<b>S401_1.4 P132 BN132MA4</b>	509
<b>1205</b>	58.3	1.7	2.4	2290	<b>S501_2.4 S4 M4SB2</b>	510	<b>S501_2.4 P132 BN132SB2</b>	511
<b>1213</b>	57.9	1.2	2.4	1540	<b>S401_2.4 S4 M4SB2</b>	508	<b>S401_2.4 P132 BN132SB2</b>	509
<b>1566</b>	44.8	1.1	1.9	1450	<b>S401_1.9 S4 M4SB2</b>	508	<b>S401_1.9 P132 BN132SB2</b>	509
<b>1622</b>	43.3	2.0	1.8	2110	<b>S501_1.8 S4 M4SB2</b>	510	<b>S501_1.8 P132 BN132SB2</b>	511
<b>2041</b>	34.4	2.5	1.4	1980	<b>S501_1.4 S4 M4SB2</b>	510	<b>S501_1.4 P132 BN132SB2</b>	511
<b>2127</b>	33.0	1.5	1.4	1350	<b>S401_1.4 S4 M4SB2</b>	508	<b>S401_1.4 P132 BN132SB2</b>	509



## 9.2 kW



<b>n<sub>2</sub></b> min <sup>-1</sup>	<b>M<sub>2</sub></b> Nm	<b>S</b>	<b>i</b>	<b>R<sub>n2</sub></b> N				
<b>598</b>	143.9	0.9	2.4	2530	<b>S501_2.4 S4 M4LB4</b>	510	<b>S501_2.4 P132 BN132MB4</b>	511
<b>755</b>	114.1	1.1	3.8	2470	<b>S501_3.8 S4 M4LA2</b>	510	<b>S501_3.8 P132 BN132M2</b>	511
<b>805</b>	106.9	1.0	1.8	2390	<b>S501_1.8 S4 M4LB4</b>	510	<b>S501_1.8 P132 BN132MB4</b>	511
<b>953</b>	90.4	1.2	3.0	2360	<b>S501_3.0 S4 M4LA2</b>	510	<b>S501_3.0 P132 BN132M2</b>	511
<b>1013</b>	85.0	1.3	1.4	2270	<b>S501_1.4 S4 M4LB4</b>	510	<b>S501_1.4 P132 BN132MB4</b>	511
<b>1205</b>	71.5	1.4	2.4	2220	<b>S501_2.4 S4 M4LA2</b>	510	<b>S501_2.4 P132 BN132M2</b>	511
<b>1213</b>	71.0	1.0	2.4	1460	<b>S401_2.4 S4 M4LA2</b>	508	<b>S401_2.4 P132 BN132M2</b>	509
<b>1622</b>	53.1	1.6	1.8	2060	<b>S501_1.8 S4 M4LA2</b>	510	<b>S501_1.8 P132 BN132M2</b>	511
<b>2041</b>	42.2	2.0	1.4	1930	<b>S501_1.4 S4 M4LA2</b>	510	<b>S501_1.4 P132 BN132M2</b>	511
<b>2127</b>	40.5	1.2	1.4	1300	<b>S401_1.4 S4 M4LA2</b>	508	<b>S401_1.4 P132 BN132M2</b>	509

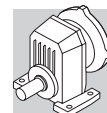


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**S 10** **21 Nm**

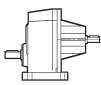

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 10 1_1.4	1.4	1972	8.0	1.7	800	310	986	10.0	1.1	800	390	503
S 10 1_1.9	1.9	1489	8.0	1.3	800	360	745	10.0	0.80	800	460	
S 10 1_2.5	2.5	1120	8.0	0.96	800	420	560	10.0	0.60	800	520	
S 10 1_3.2	3.2	875	10.0	0.93	800	440	438	12.0	0.56	800	560	
S 10 1_3.8	3.8	727	10.0	0.78	800	480	364	12.0	0.47	800	610	
S 10 1_4.7	4.7	592	10.0	0.63	800	520	296	12.0	0.38	800	660	
S 10 1_6.1	6.1	458	12.0	0.59	800	560	229	15.0	0.37	800	710	
S 10 1_6.9	6.9	406	12.0	0.52	800	580	203	15.0	0.33	800	740	
S 10 1_8.9	8.9	315	8.0	0.27	800	700	158	10.0	0.17	800	880	
S 10 1_10.3	10.3	272	8.0	0.23	800	740	136	10.0	0.15	800	930	
S 10 1_12.3	12.3	227	8.0	0.19	800	800	114	10.0	0.12	800	1000	

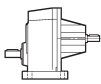

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 10 1_1.4	1.4	634	12.0	0.81	800	450	352	14.0	0.53	800	560	503
S 10 1_1.9	1.9	479	12.0	0.61	800	520	266	14.0	0.40	800	640	
S 10 1_2.5	2.5	360	12.0	0.46	800	600	200	14.0	0.30	800	740	
S 10 1_3.2	3.2	281	14.0	0.42	800	650	156	17.0	0.28	800	790	
S 10 1_3.8	3.8	234	14.0	0.35	800	700	130	17.0	0.24	800	850	
S 10 1_4.7	4.7	190	14.0	0.28	800	770	106	17.0	0.19	800	930	
S 10 1_6.1	6.1	147	17.0	0.27	800	820	82	21	0.18	800	1000	
S 10 1_6.9	6.9	130	17.0	0.24	800	860	72	21	0.16	800	1040	
S 10 1_8.9	8.9	101	12.0	0.13	800	1020	56	14.0	0.08	800	1200	
S 10 1_10.3	10.3	87	12.0	0.11	800	1080	49	14.0	0.07	800	1200	
S 10 1_12.3	12.3	73	12.0	0.09	800	1160	41	14.0	0.06	800	1200	

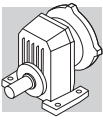


# S 20

# 37 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 20 1_1.4	1.4	2014	13.0	2.8	1000	590	1007	17.0	1.8	1000	740	505
S 20 1_1.9	1.9	1481	13.0	2.1	1000	680	741	17.0	1.3	1000	860	
S 20 1_2.4	2.4	1148	21	2.6	640	680	574	26	1.6	850	860	
S 20 1_3.1	3.1	900	21	2.0	730	750	450	26	1.3	960	950	
S 20 1_3.9	3.9	712	21	1.6	820	840	356	26	0.99	1000	1060	
S 20 1_4.8	4.8	587	21	1.3	910	920	294	26	0.82	1000	1160	
S 20 1_5.8	5.8	481	21	1.1	960	1000	241	26	0.67	1000	1260	
S 20 1_7.2	7.2	388	21	0.87	980	1090	194	26	0.54	1000	1370	
S 20 1_8.5	8.5	329	13.0	0.46	1000	1240	165	17.0	0.30	1000	1500	
S 20 1_10.8	10.8	260	13.0	0.36	1000	1350	130	17.0	0.24	1000	1500	
S 20 1_12.4	12.4	225	13.0	0.31	1000	1430	113	17.0	0.20	1000	1500	



	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 20 1_1.4	1.4	647	20	1.4	1000	850	360	24	0.92	1000	1040	505
S 20 1_1.9	1.9	476	20	1.0	1000	990	265	24	0.68	1000	1210	
S 20 1_2.4	2.4	369	30	1.2	990	990	205	37	0.81	1000	1200	
S 20 1_3.1	3.1	289	30	0.93	1000	1110	161	37	0.64	1000	1340	
S 20 1_3.9	3.9	229	30	0.73	1000	1230	127	37	0.50	1000	1490	
S 20 1_4.8	4.8	189	30	0.60	1000	1350	105	37	0.41	1000	1500	
S 20 1_5.8	5.8	155	30	0.50	1000	1460	86	37	0.34	1000	1500	
S 20 1_7.2	7.2	125	30	0.40	1000	1500	69	37	0.27	1000	1500	
S 20 1_8.5	8.5	106	20	0.23	1000	1500	59	24	0.15	1000	1500	
S 20 1_10.8	10.8	84	20	0.18	1000	1500	47	24	0.12	1000	1500	
S 20 1_12.4	12.4	72	20	0.15	1000	1500	40	24	0.10	1000	1500	



# S 30

# 70 Nm

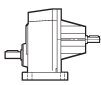

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 30 1_1.4	1.4	1986	24	5.1	1500	770	993	30	3.2	1500	970	507
S 30 1_1.8	1.8	1530	24	3.9	1500	870	765	30	2.5	1500	1090	
S 30 1_2.4	2.4	1157	40	4.9	1270	850	579	50	3.1	1500	1070	
S 30 1_3.1	3.1	915	40	3.9	1470	950	458	50	2.4	1500	1200	
S 30 1_3.9	3.9	711	40	3.0	1500	1070	355	50	1.9	1500	1360	
S 30 1_4.9	4.9	568	40	2.4	1500	1190	284	50	1.5	1500	1500	
S 30 1_5.8	5.8	479	40	2.0	1500	1280	239	50	1.3	1500	1610	
S 30 1_7.1	7.1	395	40	1.7	1500	1390	197	50	1.1	1500	1750	
S 30 1_8.9	8.9	315	24	0.81	1500	1650	157	30	0.50	1500	2080	
S 30 1_10.3	10.3	272	24	0.70	1500	1740	136	30	0.44	1500	2190	
S 30 1_13.1	13.1	213	24	0.55	1500	1900	107	30	0.34	1500	2400	

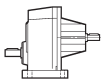

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 30 1_1.4	1.4	638	35	2.4	1500	1120	355	42	1.6	1500	1360	507
S 30 1_1.8	1.8	492	35	1.8	1500	1260	273	42	1.2	1500	1540	
S 30 1_2.4	2.4	372	58	2.3	1500	1240	207	70	1.5	1500	1510	
S 30 1_3.1	3.1	294	58	1.8	1500	1390	163	70	1.2	1500	1700	
S 30 1_3.9	3.9	228	58	1.4	1500	1570	127	70	0.95	1500	1920	
S 30 1_4.9	4.9	183	58	1.1	1500	1740	101	70	0.76	1500	2120	
S 30 1_5.8	5.8	154	58	0.95	1500	1870	85	70	0.64	1500	2280	
S 30 1_7.1	7.1	127	58	0.79	1500	2030	71	62	0.47	1500	2400	
S 30 1_8.9	8.9	101	35	0.38	1500	2400	56	42	0.25	1500	2400	
S 30 1_10.3	10.3	87	35	0.33	1500	2400	49	42	0.22	1500	2400	
S 30 1_13.1	13.1	69	35	0.26	1500	2400	38	37	0.15	1500	2400	

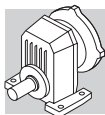






# S 40 125 Nm



	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 40 1_1.4	1.4	2059	48	10.6	2000	1270	1029	60	6.6	2000	1600	509
S 40 1_1.9	1.9	1514	48	7.8	2000	1450	757	60	4.9	2000	1830	
S 40 1_2.4	2.4	1172	70	8.8	1860	1490	586	90	5.6	2000	1870	
S 40 1_3.1	3.1	918	70	6.9	2000	1660	459	90	4.4	2000	2080	
S 40 1_3.8	3.8	735	70	5.5	2000	1830	367	90	3.5	2000	2290	
S 40 1_4.8	4.8	580	70	4.3	2000	2020	290	90	2.8	2000	2530	
S 40 1_6.1	6.1	461	70	3.5	2000	2220	231	90	2.2	2000	2790	
S 40 1_7.2	7.2	392	63	2.6	2000	2410	196	80	1.7	2000	3030	
S 40 1_8.6	8.6	324	48	1.7	2000	2670	162	60	1.0	2000	3370	
S 40 1_10.7	10.7	262	40	1.1	2000	2930	131	50	0.70	2000	3690	
S 40 1_12.4	12.4	226	40	1.0	2000	3100	113	50	0.60	2000	3800	

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 40 1_1.4	1.4	662	70	4.9	2000	1850	368	85	3.3	2000	2250	509
S 40 1_1.9	1.9	486	70	3.6	2000	2120	270	85	2.5	2000	2580	
S 40 1_2.4	2.4	377	105	4.2	2000	2160	209	125	2.8	2000	2650	
S 40 1_3.1	3.1	295	105	3.3	2000	2400	164	125	2.2	2000	2940	
S 40 1_3.8	3.8	236	105	2.7	2000	2650	131	125	1.8	2000	3240	
S 40 1_4.8	4.8	186	105	2.1	2000	2930	104	125	1.4	2000	3580	
S 40 1_6.1	6.1	148	105	1.7	2000	3220	82	110	1.0	2000	3800	
S 40 1_7.2	7.2	126	90	1.2	2000	3530	70	90	0.67	2000	3800	
S 40 1_8.6	8.6	104	70	0.78	2000	3800	58	85	0.53	2000	3800	
S 40 1_10.7	10.7	84	58	0.52	2000	3800	47	70	0.35	2000	3800	
S 40 1_12.4	12.4	73	58	0.45	2000	3800	40	70	0.30	2000	3800	



# S 50 200 Nm

	i	n <sub>1</sub> = 2800 min <sup>-1</sup>					n <sub>1</sub> = 1400 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 50 1_1.4	1.4	1972	85	17.9	730	1720	986	110	11.6	730	2150	511
S 50 1_1.8	1.8	1564	85	14.2	1220	1920	782	110	9.2	1370	2400	
S 50 1_2.4	2.4	1162	100	12.4	930	2110	581	130	8.1	970	2640	
S 50 1_3.0	3.0	921	110	10.8	860	2300	461	140	6.9	1020	2880	
S 50 1_3.8	3.8	729	120	9.3	640	2480	365	150	5.8	860	3130	
S 50 1_4.8	4.8	589	120	7.6	880	2710	295	150	4.7	1160	3420	
S 50 1_6.1	6.1	462	100	4.9	1980	3100	231	130	3.2	2330	3880	
S 50 1_7.4	7.4	378	100	4.0	2060	3340	189	130	2.6	2400	4190	
S 50 1_8.8	8.8	319	85	2.9	2400	3640	160	110	1.9	2400	4570	
S 50 1_10.5	10.5	268	85	2.4	2400	3880	134	110	1.6	2400	4870	
S 50 1_12.9	12.9	217	80	1.9	2400	4200	109	100	1.2	2400	5300	

	i	n <sub>1</sub> = 900 min <sup>-1</sup>					n <sub>1</sub> = 500 min <sup>-1</sup>					
		n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	n <sub>2</sub> min <sup>-1</sup>	M <sub>n2</sub> Nm	P <sub>n1</sub> kW	R <sub>n1</sub> N	R <sub>n2</sub> N	
S 50 1_1.4	1.4	634	125	8.5	1010	2510	352	155	5.8	1040	3040	511
S 50 1_1.8	1.8	503	125	6.7	1730	2790	279	155	4.6	1940	3380	
S 50 1_2.4	2.4	373	150	6.0	1160	3060	207	180	4.0	1530	3730	
S 50 1_3.0	3.0	296	160	5.1	1290	3350	164	200	3.5	1310	4050	
S 50 1_3.8	3.8	234	175	4.4	940	3620	130	200	2.8	1740	4460	
S 50 1_4.8	4.8	189	175	3.5	1290	3960	105	180	2.0	2400	4970	
S 50 1_6.1	6.1	149	150	2.4	2400	4500	83	150	1.3	2400	5620	
S 50 1_7.4	7.4	122	140	1.8	2400	4900	68	140	1.0	2400	6100	
S 50 1_8.8	8.8	103	125	1.4	2400	5310	57	125	0.80	2400	6580	
S 50 1_10.5	10.5	86	115	1.1	2400	5700	48	115	0.60	2400	7050	
S 50 1_12.9	12.9	70	100	0.70	2400	6210	39	100	0.40	2400	7200	

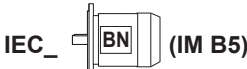


## 75 MOTOR AVAILABILITY

Please be aware that motor-gearbox combinations resulting from the following charts are purely based on geometrical compatibility.


**When selecting a gearmotor, refer to procedure specified at paragraph 12 and observe particularly the condition  $S \geq f_s$ .**

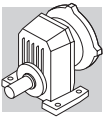
(E 69)

		 <b>BN</b>								
$P_{n1}^{(\#)}$ [kW]	2p	0.37	0.75	1.5	2.2	4	4	9.2	18.5	22
	4p	0.25	0.55	1.1	1.85	3	4	9.2	15	22
	6p	0.12	0.37	0.75	1.1	1.85	2.2	5.5	11	15
		P63	P71	P80	P90	P100	P112	P132	P160	P180
<b>S 10 1</b>	i =	1.4_12.3	1.4_12.3	1.4_8.9	1.4_8.9	1.4_8.9	1.4_8.9			
<b>S 20 1</b>		1.9_12.4	1.9_12.4	1.4_10.8	1.4_10.8	1.4_10.8	1.4_10.8			
<b>S 30 1</b>		2.4_13.1	2.4_13.1	1.4_13.1	1.4_13.1	1.4_13.1	1.4_13.1	1.4_4.9		
<b>S 40 1</b>		3.1_12.4	3.1_12.4	1.4_12.4	1.4_12.4	1.4_12.4	1.4_12.4	1.4_6.1		
<b>S 50 1</b>		3.8_12.9	3.8_12.9	1.4_12.9	1.4_12.9	1.4_12.9	1.4_12.9	1.4_7.4	1.4_7.4	1.4_7.4

(#)  $P_{n1}$  = maximum installable power on input  $P_{-}$

(E 70)

							
		M05	M1	M2	M3	M4	M5
<b>S 10 1</b>	i =	1.4_12.3	1.4_6.9	1.4_8.9	1.4_8.9		
<b>S 20 1</b>		1.9_12.4	1.9_8.5	1.4_10.8	1.4_10.8		
<b>S 30 1</b>			2.4_10.3	1.4_13.1	1.4_13.1	1.4_4.9	
<b>S 40 1</b>			3.1_12.4	1.4_12.4	1.4_12.4	1.4_6.1	
<b>S 50 1</b>			3.8_12.9	1.4_12.9	1.4_12.9	1.4_7.4	1.4_7.4



## 76 MOMENT OF INERTIA

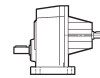
The following charts indicate moment of inertia values  $J_r$  [kgm<sup>2</sup>] referred to the gear unit high speed shaft. A key to the symbols used follows:



Values under this icon refer to compact gear units, without motor. To obtain the overall moment of inertia for the gearmotor just add the value of the inertia for the specific compact motor, given in the relevant rating chart.




**IEC** Values under this symbol refer to gearboxes with IEC motor adaptor (IEC size...).






This symbol refers to gearbox values.

## S 10




	i	J (•10 <sup>-4</sup> ) [kgm <sup>2</sup> ]							
			63	71	80	90	100	112	
<b>S 10 1_1.4</b>	1.4	0.33	1.8	1.8	3.2	3.1	4.4	4.4	1.2
<b>S 10 1_1.9</b>	1.9	0.22	1.7	1.7	3.1	3.0	4.3	4.3	1.1
<b>S 10 1_2.5</b>	2.5	0.16	1.6	1.6	3.0	2.9	4.2	4.2	1.0
<b>S 10 1_3.2</b>	3.2	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.97
<b>S 10 1_3.8</b>	3.8	0.08	1.5	1.5	2.9	2.9	4.2	4.2	0.95
<b>S 10 1_4.7</b>	4.7	0.06	1.5	1.5	2.9	2.8	4.1	4.1	0.93
<b>S 10 1_6.1</b>	6.1	0.04	1.5	1.5	2.9	2.8	4.1	4.1	0.92
<b>S 10 1_6.9</b>	6.9	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.91
<b>S 10 1_8.9</b>	8.9	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
<b>S 10 1_10.3</b>	10.3	0.02	1.5	1.5	—	—	—	—	0.89
<b>S 10 1_12.3</b>	12.3	0.01	1.5	1.5	—	—	—	—	0.89



## S 20



	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]							
			IEC 						
			63	71	80	90	100	112	
S 20 1_1.4	1.4	0.73	—	—	3.6	3.5	4.8	4.8	2.7
S 20 1_1.9	1.9	0.48	1.9	1.9	3.3	3.3	4.6	4.6	2.4
S 20 1_2.4	2.4	0.34	1.8	1.8	3.2	3.1	4.4	4.4	2.3
S 20 1_3.1	3.1	0.20	1.7	1.7	3.0	3.0	4.3	4.3	2.1
S 20 1_3.9	3.9	0.14	1.6	1.6	3.0	2.9	4.2	4.2	2.1
S 20 1_4.8	4.8	0.12	1.6	1.6	3.0	2.9	4.2	4.2	2.0
S 20 1_5.8	5.8	0.08	1.6	1.5	2.9	2.9	4.2	4.2	2.0
S 20 1_7.2	7.2	0.06	1.5	1.5	2.9	2.8	4.1	4.1	2.0
S 20 1_8.5	8.5	0.05	1.5	1.5	2.9	2.8	4.1	4.1	2.0
S 20 1_10.8	10.8	0.03	1.5	1.5	2.9	2.8	4.1	4.1	1.9
S 20 1_12.4	12.4	0.02	1.5	1.5	—	—	—	—	1.9

## S 30



	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			IEC 							
			63	71	80	90	100	112	132	
S 30 1_1.4	1.4	1.5	—	—	4.3	4.3	5.6	5.6	18	3.8
S 30 1_1.8	1.8	1.1	—	—	3.9	3.8	5.1	5.1	18	3.4
S 30 1_2.4	2.4	0.59	2.1	2.0	3.4	3.4	4.7	4.7	17	2.9
S 30 1_3.1	3.1	0.45	1.9	1.9	3.3	3.2	4.5	4.5	17	2.8
S 30 1_3.9	3.9	0.33	1.8	1.8	3.2	3.1	4.4	4.4	17	2.7
S 30 1_4.9	4.9	0.24	1.7	1.7	3.1	3.0	4.3	4.3	17	2.6
S 30 1_5.8	5.8	0.19	1.7	1.7	3.0	3.0	4.3	4.3	—	2.6
S 30 1_7.1	7.1	0.14	1.6	1.6	3.0	2.9	4.2	4.2	—	2.5
S 30 1_8.9	8.9	0.10	1.6	1.6	2.9	2.9	4.2	4.2	—	2.5
S 30 1_10.3	10.3	0.08	1.5	1.5	2.9	2.9	4.2	4.2	—	2.4
S 30 1_13.1	13.1	0.05	1.5	1.5	2.9	2.8	4.1	4.1	—	2.4

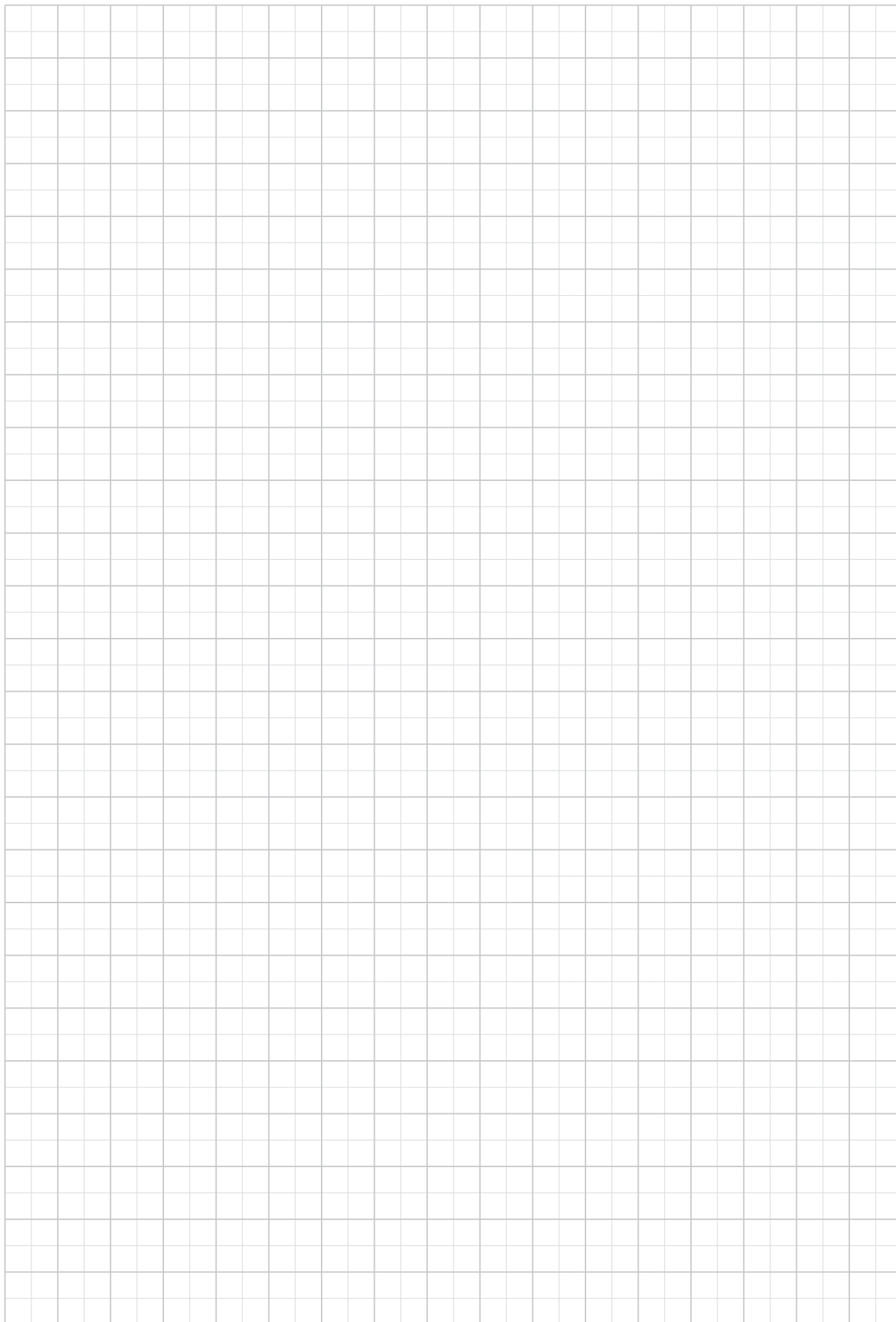
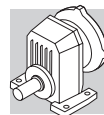


## S 40

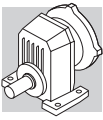
	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]								
			IEC							
			63	71	80	90	100	112	132	
<b>S 40 1_1.4</b>	1.4	3.7	—	—	6.5	6.5	7.8	7.8	23	14
<b>S 40 1_1.9</b>	1.9	2.4	—	—	5.2	5.2	6.5	6.5	21	13
<b>S 40 1_2.4</b>	2.4	1.6	—	—	4.4	4.4	5.7	5.7	21	12
<b>S 40 1_3.1</b>	3.1	1.1	2.6	2.6	4.0	3.9	5.2	5.2	20	12
<b>S 40 1_3.8</b>	3.8	0.82	2.3	2.3	3.7	3.6	4.9	4.9	18	11
<b>S 40 1_4.8</b>	4.8	0.50	2.0	2.0	3.3	3.3	4.6	4.6	18	11
<b>S 40 1_6.1</b>	6.1	0.39	1.8	1.8	3.2	3.2	4.5	4.5	18	11
<b>S 40 1_7.2</b>	7.2	0.30	1.8	1.8	3.1	3.1	4.4	4.4	—	11
<b>S 40 1_8.6</b>	8.6	0.22	1.7	1.7	3.1	3.0	4.3	4.3	—	11
<b>S 40 1_10.7</b>	10.7	0.15	1.6	1.6	3.0	2.9	4.2	4.2	—	11
<b>S 40 1_12.4</b>	12.4	0.12	1.6	1.6	3.0	2.8	4.2	4.2	—	11

## S 50

	i	J ( $\cdot 10^{-4}$ ) [kgm <sup>2</sup> ]										
			IEC									
			63	71	80	90	100	112	132	160	180	
<b>S 50 1_1.4</b>	1.4	8.2	—	—	11	11	12	12	27	86	84	19
<b>S 50 1_1.8</b>	1.8	5.9	—	—	8.8	8.7	10	10	25	84	82	16
<b>S 50 1_2.4</b>	2.4	3.9	—	—	6.8	6.7	8.0	8.0	23	82	80	14
<b>S 50 1_3.0</b>	3.0	2.7	—	—	5.5	5.5	6.8	6.8	22	81	79	13
<b>S 50 1_3.8</b>	3.8	1.9	3.3	3.3	4.7	4.6	5.9	5.9	21	80	78	12
<b>S 50 1_4.8</b>	4.8	1.4	2.8	2.8	4.2	4.1	5.4	5.4	21	79	77	12
<b>S 50 1_6.1</b>	6.1	0.89	2.4	2.4	3.7	3.7	5.0	5.0	21	79	77	11
<b>S 50 1_7.4</b>	7.4	0.63	2.1	2.1	3.5	3.4	4.7	4.7	20	79	77	11
<b>S 50 1_8.8</b>	8.8	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	11
<b>S 50 1_10.5</b>	10.5	0.36	1.8	1.8	3.2	3.1	4.4	4.4	—	—	—	11
<b>S 50 1_12.9</b>	12.9	0.25	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	11

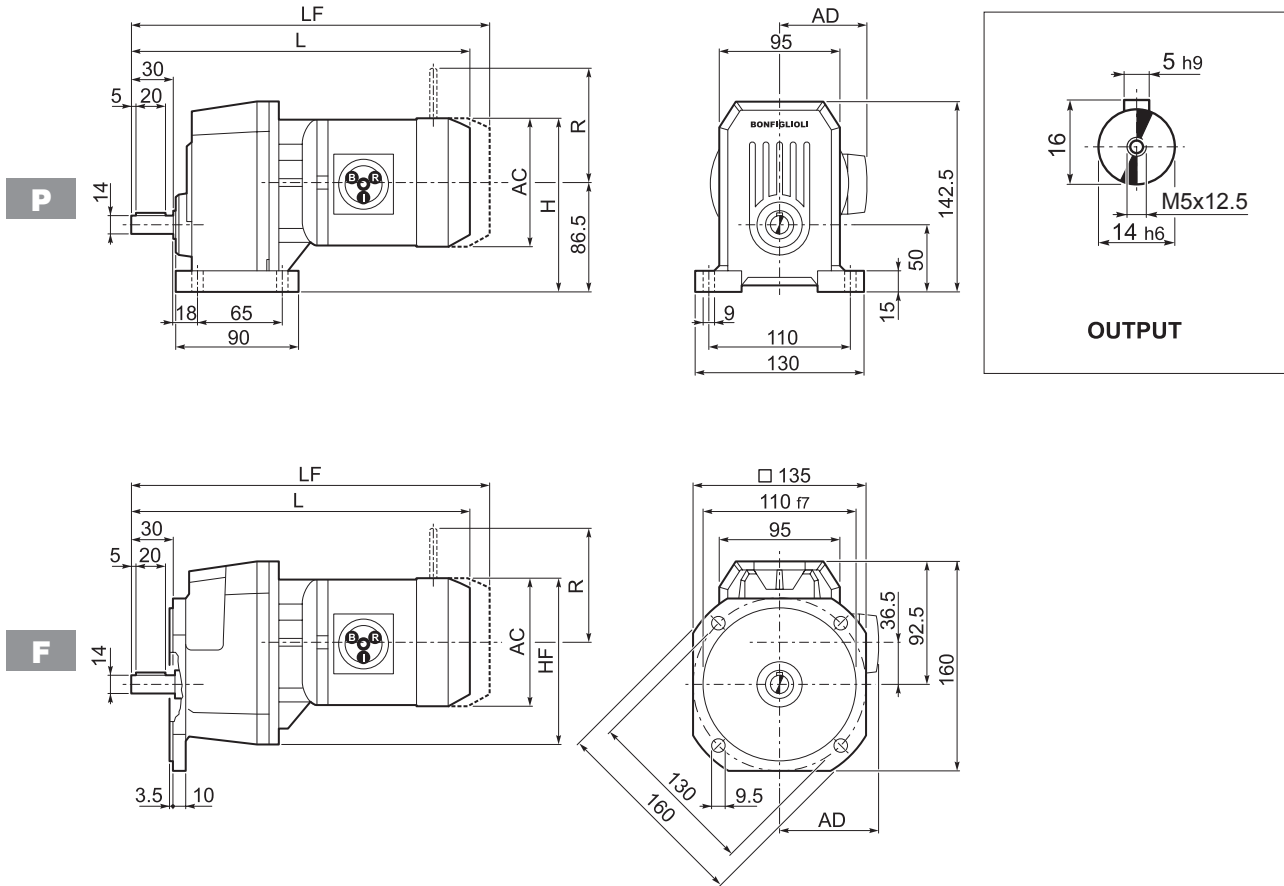




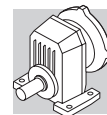


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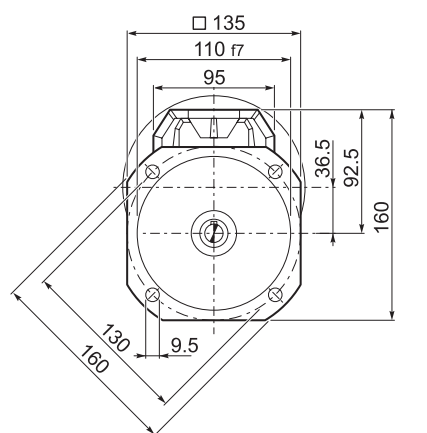
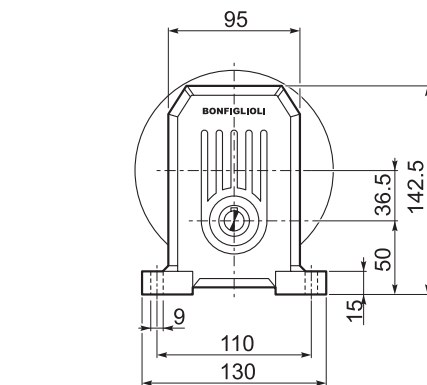
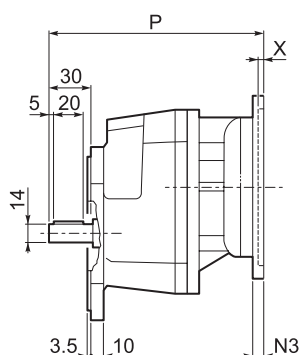
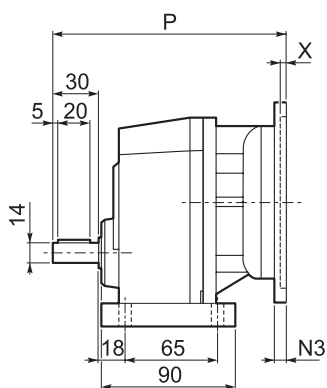
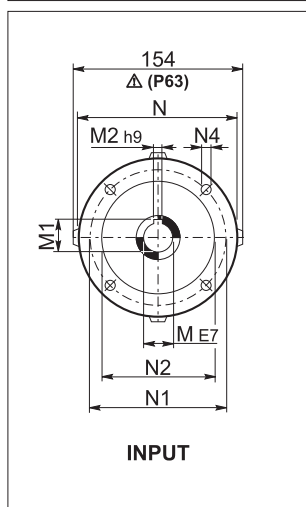
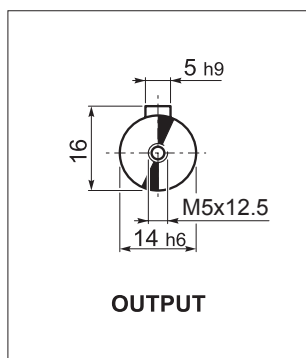
S 10...M



Motor Icon	Pump Icon	Motor Code	AC	H	HF	L	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
S 10 1	S05	M05	121	147	143	315	95	8	381	11	96	122	116	95
S 10 1	S1	M1	137	155	151	344	102	10	405	13	103	135	124	108
S 10 1	S2	M2S	156	164	160	367	111	13	443	17	129	146	134	119
S 10 1	S3	M3S	195	184	180	416	135	19	512	24	160	158	160	142
S 10 1	S3	M3L	195	184	180	448	135	21	539	26	160	158	160	142

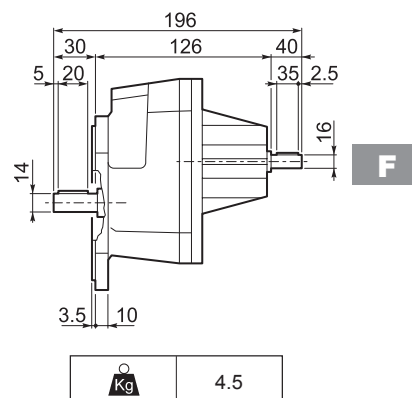
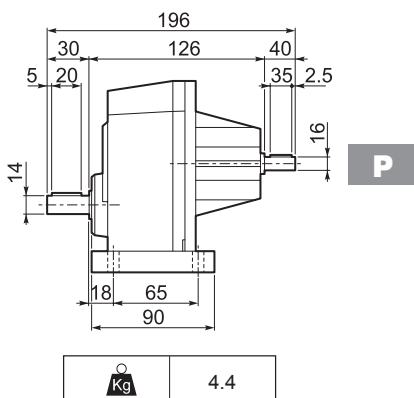
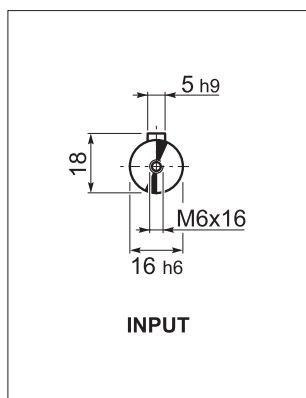


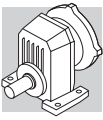
## S 10...P (IEC)



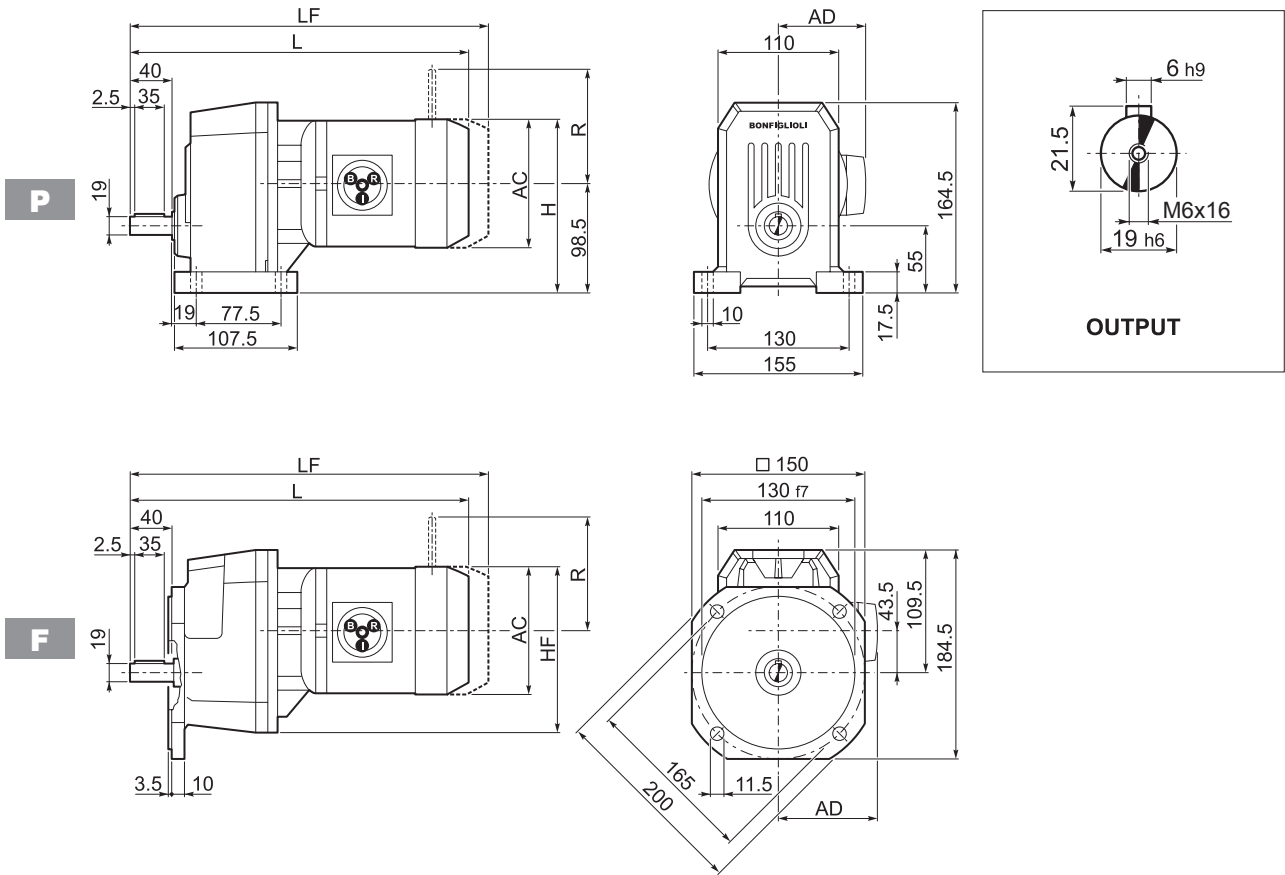
		M	M1	M2	N	N1	N2	N3	N4	P	X	Kg
S 10 1	P63	11	12.8	4	140	115	95	—	M8x10	189	4	5
S 10 1	P71	14	16.3	5	160	130	110	—	M8x10	189	4.5	5
S 10 1	P80	19	21.8	6	200	165	130	—	M10x14.5	208	4	6
S 10 1	P90	24	27.3	8	200	165	130	—	M10x14.5	208	4	6
S 10 1	P100	28	31.3	8	250	215	180	—	M12x16	218	4.5	10
S 10 1	P112	28	31.3	8	250	215	180	—	M12x16	218	4.5	10

## S 10...HS

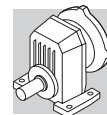




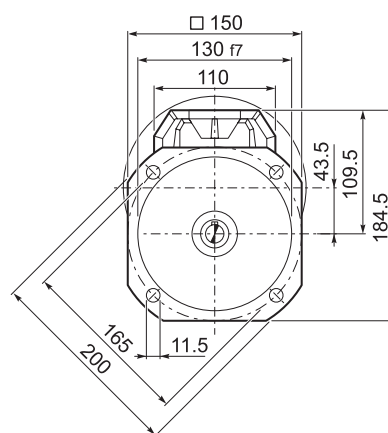
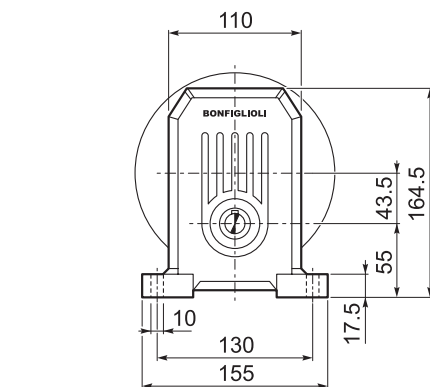
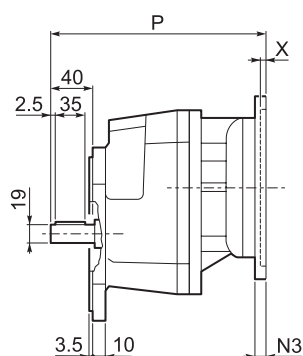
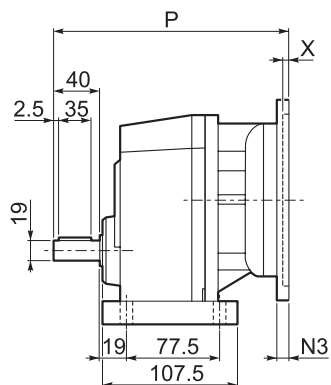
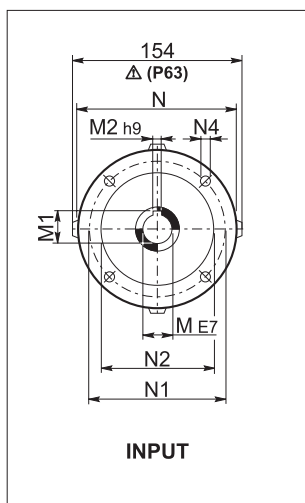
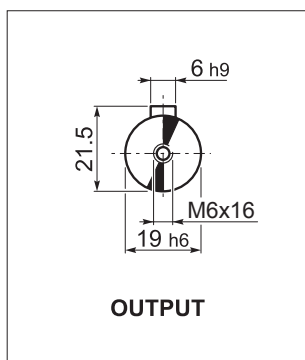
## S 20...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	HF	L	AD		LF		R	AD	R	AD			
			S 20 1	S05	M05	121	159	153	333.5	95	10	399.5	12	96	122	116	95
			S 20 1	S1	M1	137	167	161	362.5	102	12	423.5	14	103	135	124	108
			S 20 1	S2	M2S	156	176	170	385.5	111	16	461.5	19	129	146	134	119
			S 20 1	S3	M3S	195	196	190	434.5	135	20	530.5	25	160	158	160	142
			S 20 1	S3	M3L	195	196	190	466.5	135	26	557.5	31	160	158	160	142

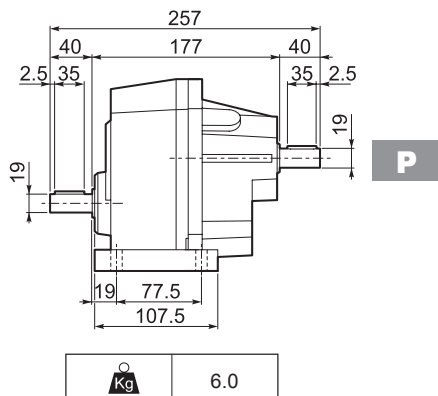
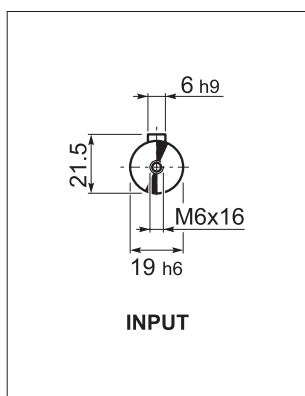


## S 20...P(IEC)

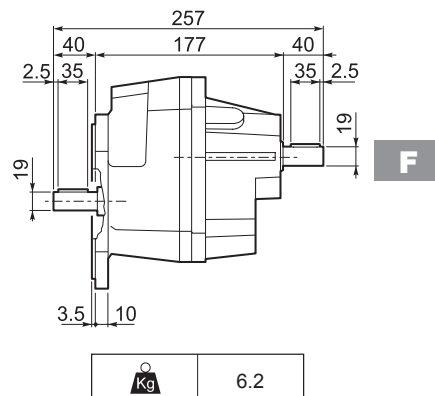


		M	M1	M2	N	N1	N2	N3	N4	P	X	Kg
S 20 1	P63	11	12.8	4	140	115	95	—	M8x10	207	4	6
S 20 1	P71	14	16.3	5	160	130	110	—	M8x10	207	4.5	6
S 20 1	P80	19	21.8	6	200	165	130	—	M10x14.5	227	4	7
S 20 1	P90	24	27.3	8	200	165	130	—	M10x14.5	227	4	7
S 20 1	P100	28	31.3	8	250	215	180	—	M12x16	237	4.5	11
S 20 1	P112	28	31.3	8	250	215	180	—	M12x16	237	4.5	11

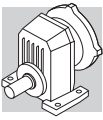
## S 20...HS



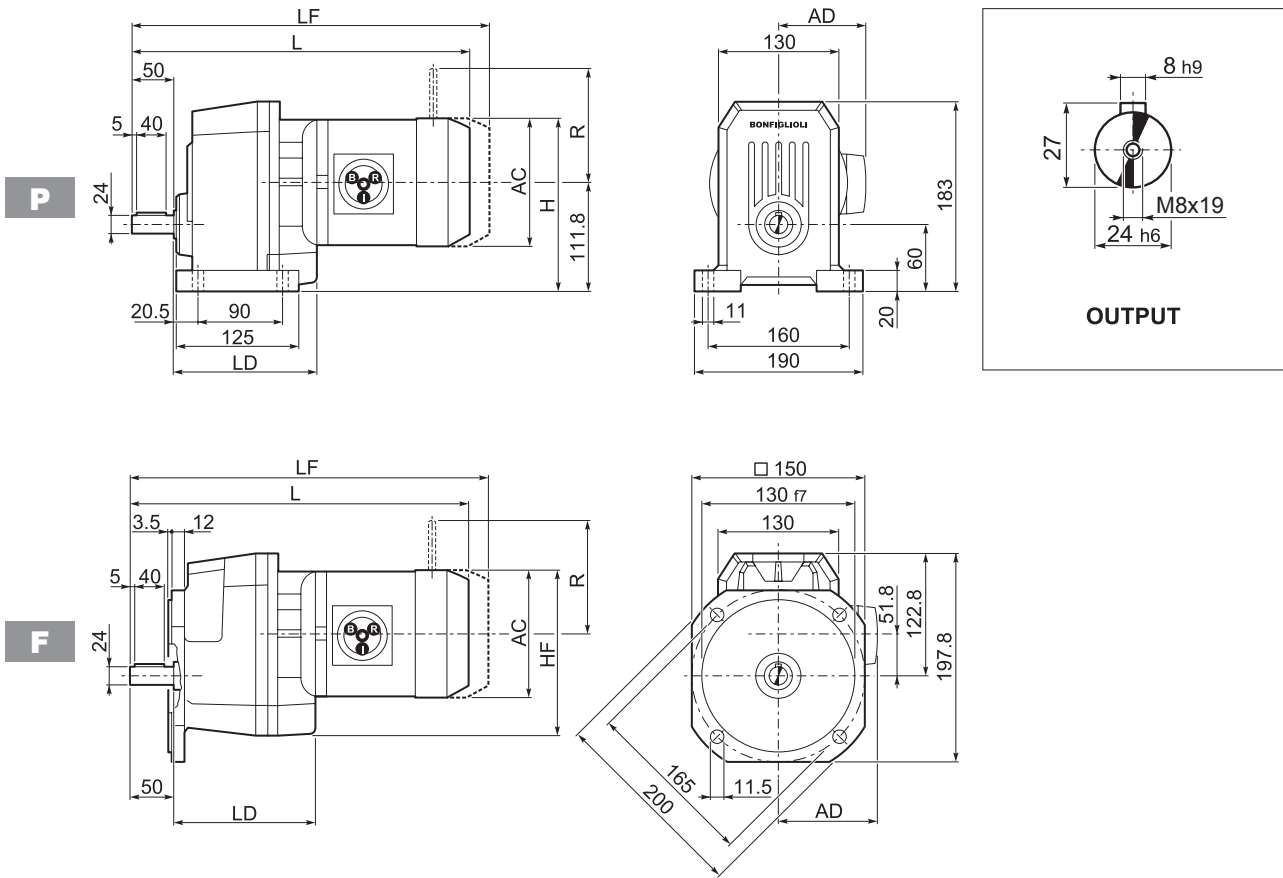
Kg	6.0
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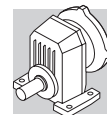
Kg	6.2
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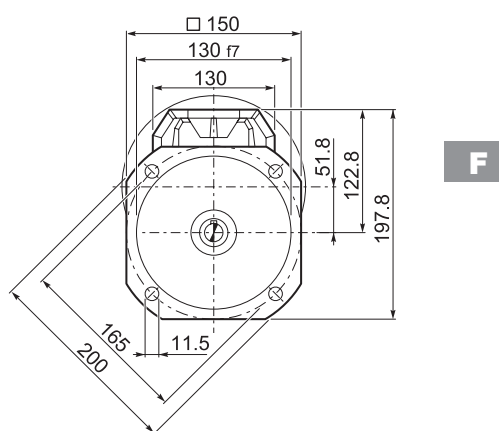
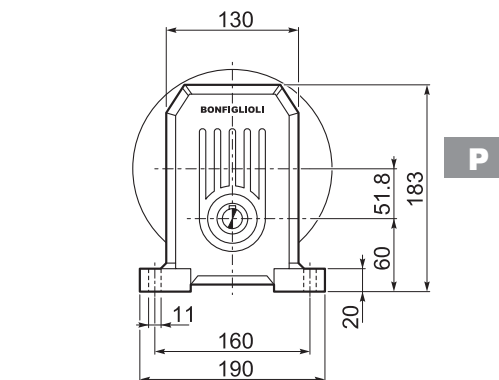
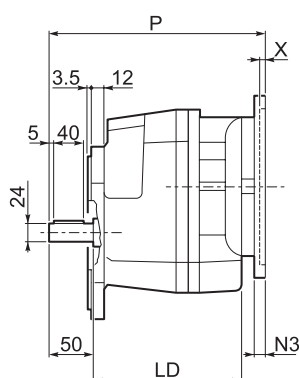
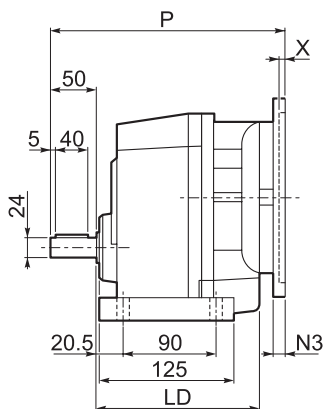
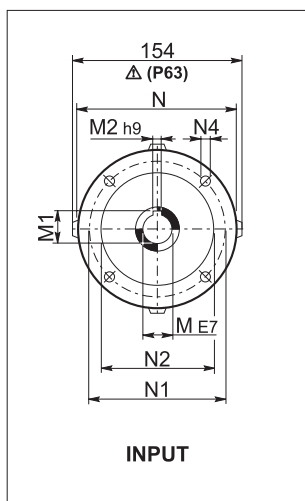
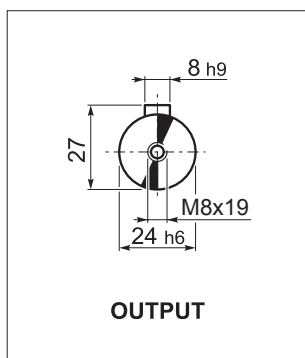
## S 30...M



										M...FD M...FA		M...FD		M...FA	
			AC	H	HF	L	LD	AD		LF		R	AD	R	AD
S 30 1	S1	M1	137	180	177	387.5	140.5	102	14	448.5	16	103	135	124	108
S 30 1	S2	M2S	156	190	186	410.5	152.5	111	18	486.5	21	129	146	134	119
S 30 1	S3	M3S	195	209	206	459.5	162.5	135	23	555.5	28	160	158	160	142
S 30 1	S3	M3L	195	209	206	491.5	162.5	135	32	582.5	37	160	158	160	142
S 30 1	S4	M4	258	240.8	237	599.5	—	193	71	708.5	87	226	210	217	193
S 30 1	S4	M4LC	258	240.8	237	634.5	—	193	79	733.5	95	226	210	217	193

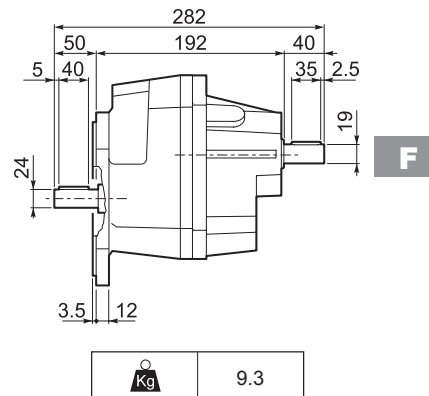
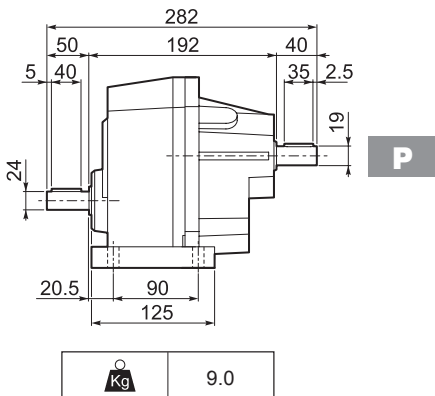
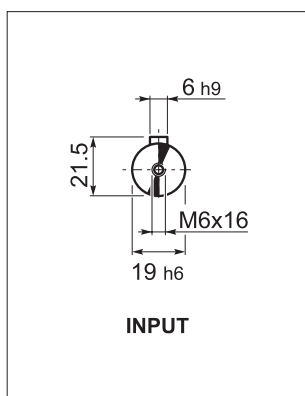


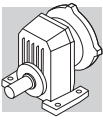
## S 30...P(IEC)



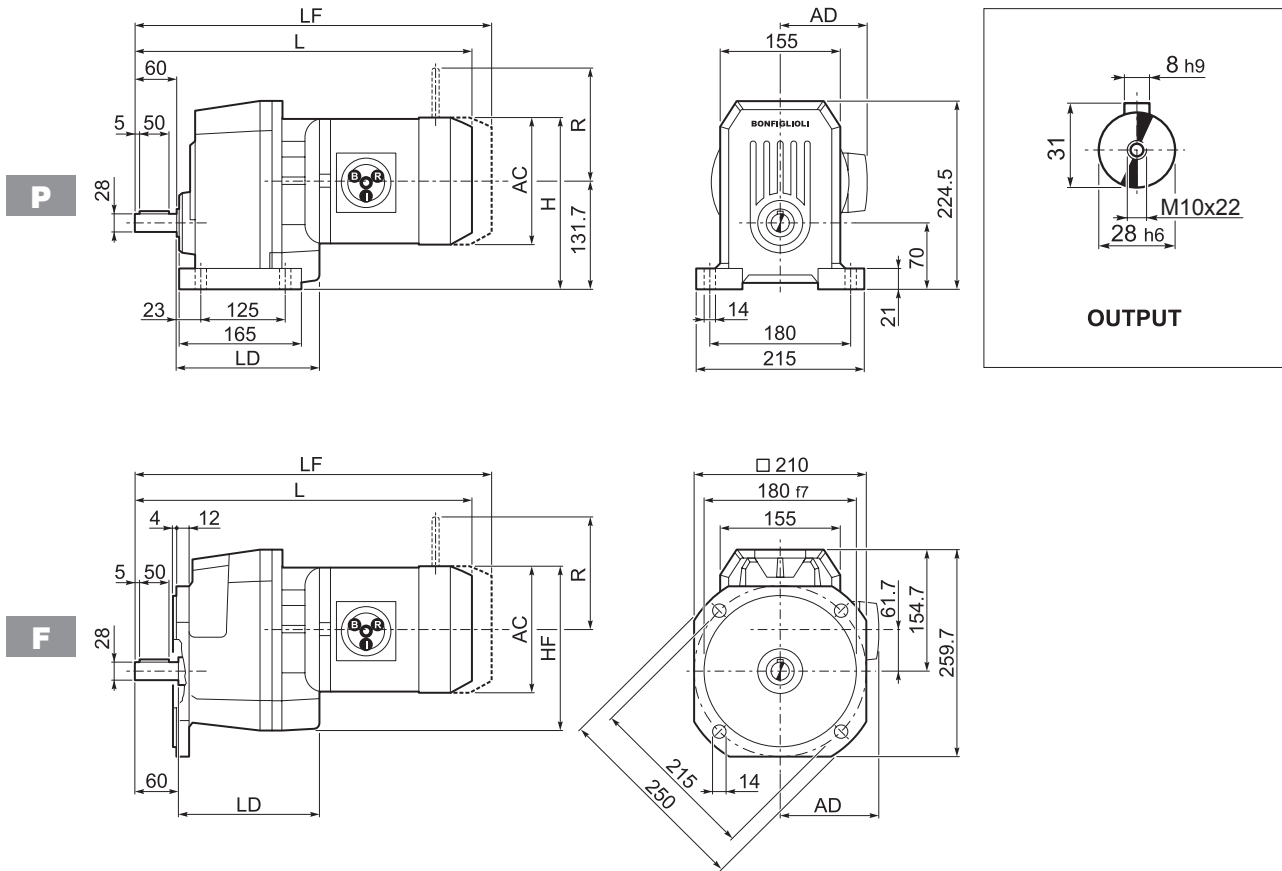
		LD	M	M1	M2	N	N1	N2	N3	N4	P	X	kg
S 30 1	P63	152.5	11	12.8	4	140	115	95	—	M8x10	232	4	8
S 30 1	P71	152.5	14	16.3	5	160	130	110	—	M8x10	232	4.5	8
S 30 1	P80	162.5	19	21.8	6	200	165	130	—	M10x14.5	252	4	9
S 30 1	P90	162.5	24	27.3	8	200	165	130	—	M10x14.5	252	4	9
S 30 1	P100	162.5	28	31.3	8	250	215	180	—	M12x16	262	4.5	13
S 30 1	P112	162.5	28	31.3	8	250	215	180	—	M12x16	262	4.5	13
S 30 1	P132	—	38	41.3	10	300	265	230	16	14	298.5	5	21

## S 30...HS





## S 40...M

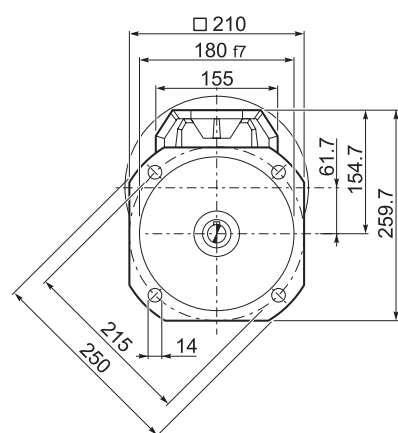
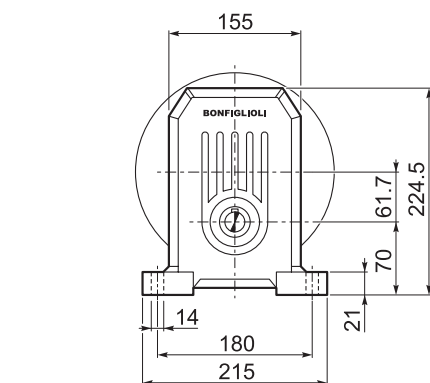
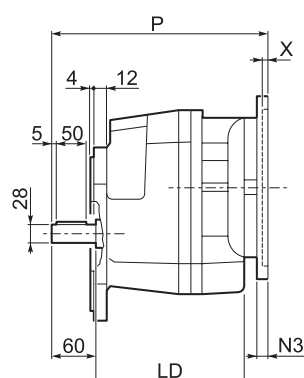
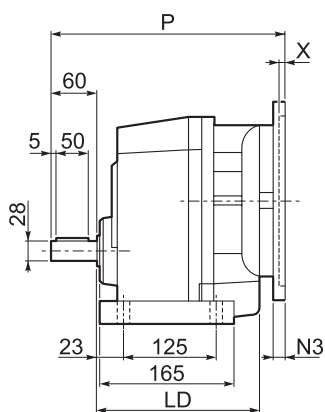
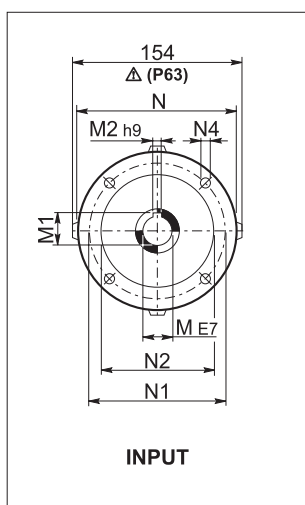
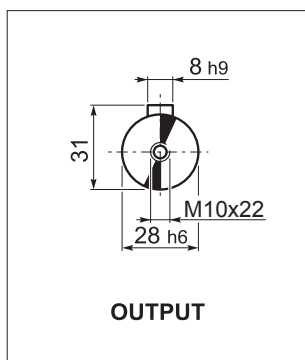


										M...FD M...FA		M...FD		M...FA	
			AC	H	HF	L	LD	AD	Kg	LF	Kg	R	AD	R	AD
S 40 1	S1	M1	137	200	197	429.5	168	102	28	490.5	31	103	135	124	108
S 40 1	S2	M2S	156	210	206	452.5	183.5	111	34	528.5	37	129	146	134	119
S 40 1	S3	M3S	195	229	226	501.5	199.5	135	39	597.5	44	160	158	160	142
S 40 1	S3	M3L	195	229	226	533.5	199.5	135	48	624.5	53	160	158	160	142
S 40 1	S4	M4	258	261	257	641.5	—	193	74	750.5	86	226	210	217	193
S 40 1	S4	M4LC	258	261	257	676.5	—	193	90	775.5	106	226	210	217	193





## S 40...P(IEC)

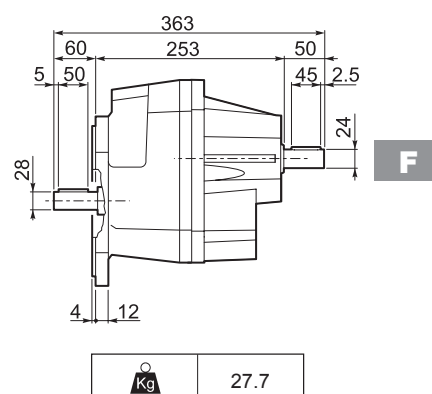
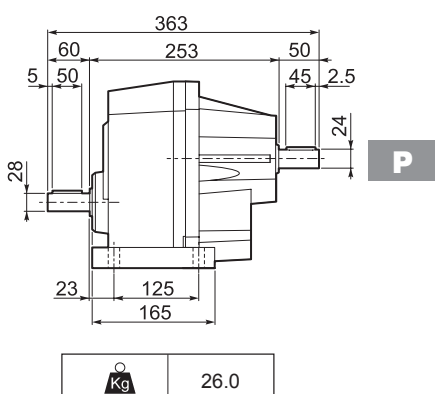
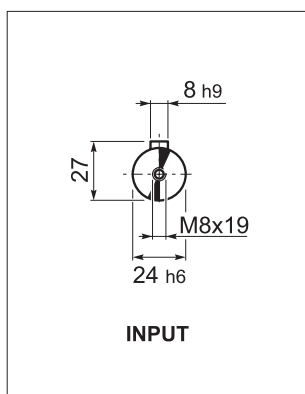


**P**

**F**

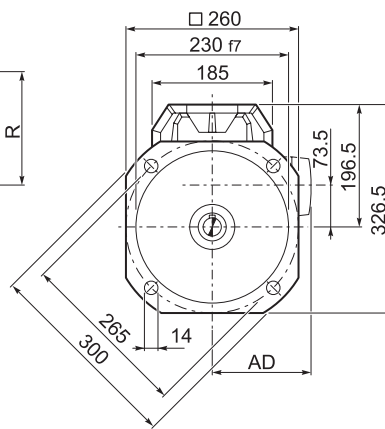
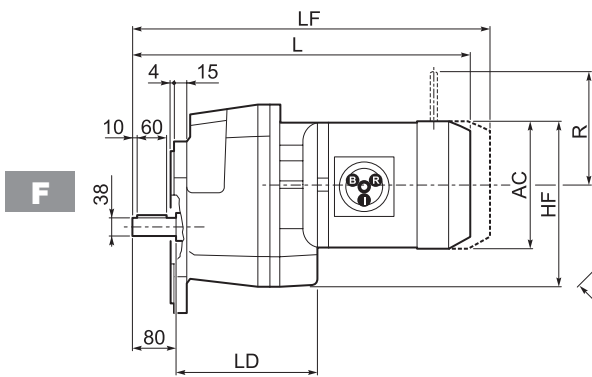
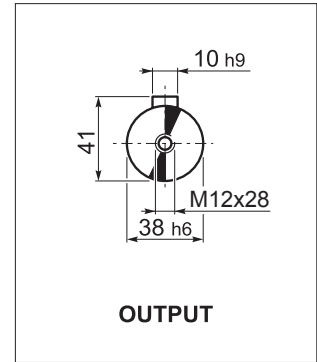
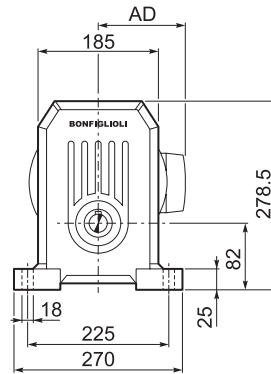
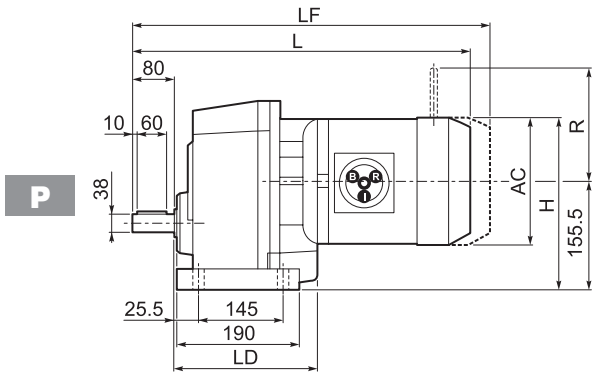
		LD	M	M1	M2	N	N1	N2	N3	N4	P	X	Kg
S 40 1	P63	183.5	11	12.8	4	140	115	95	—	M8x10	274	4	25
S 40 1	P71	183.5	14	16.3	5	160	130	110	—	M8x10	274	4.5	26
S 40 1	P80	199.5	19	21.8	6	200	165	130	—	M10x14.5	294	4	26
S 40 1	P90	199.5	24	27.3	8	200	165	130	—	M10x14.5	294	4	30
S 40 1	P100	—	28	31.3	8	250	215	180	—	M12x16	304	4.5	30
S 40 1	P112	—	28	31.3	8	250	215	180	—	M12x16	304	4.5	30
S 40 1	P132	—	38	41.3	10	300	265	230	16	14	340	5	32

## S 40...HS





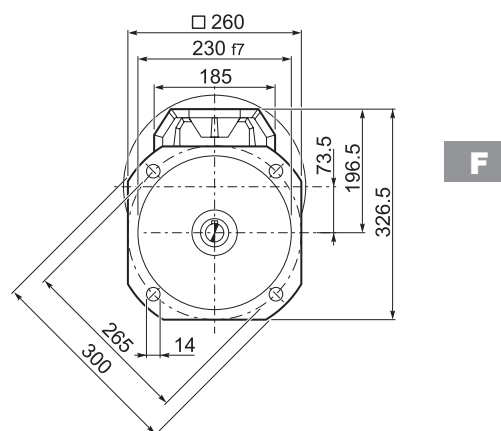
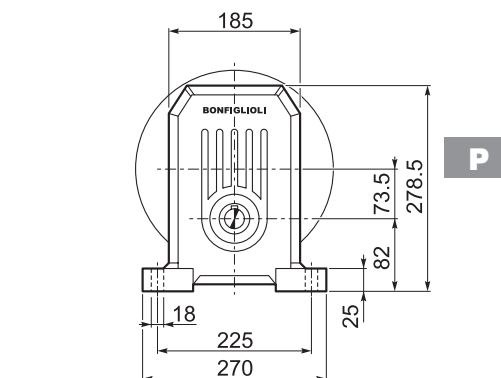
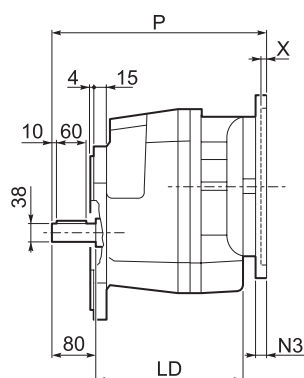
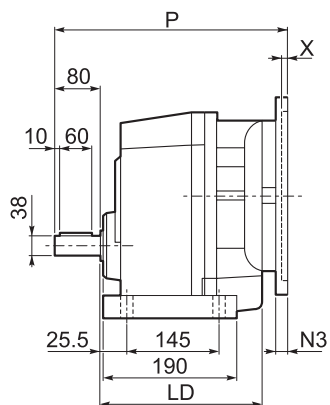
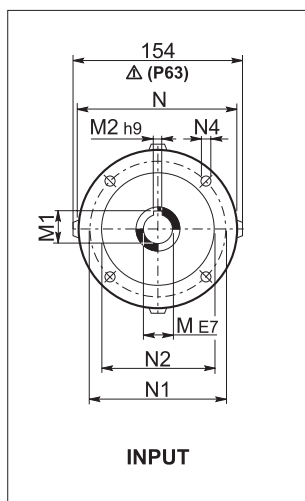
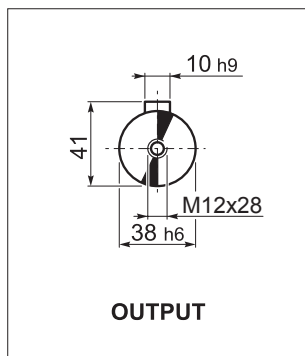
## S 50...M



S 50 1	S1	M1	AC	H	HF	L	LD	AD	Kg	M...FD M...FA		M...FD		M...FA	
										LF	Kg	R	AD	R	AD
S 50 1	S1	M1	137	225	222	469	—	102	40	530	42	103	135	124	108
S 50 1	S2	M2S	156	233	230	492.5	204.5	111	44	568.5	47	129	146	134	119
S 50 1	S3	M3S	195	253	250	541.5	219.5	135	51	637.5	56	160	158	160	142
S 50 1	S3	M3L	195	253	250	573.5	219.5	135	60	664.5	65	160	158	160	142
S 50 1	S4	M4	258	284	281	681.5	204.5	193	86	790.5	98	226	210	217	193
S 50 1	S4	M4LC	258	284	281	716.5	204.5	193	94	815.5	106	226	210	217	193
S 50 1	S5	M5S	310	310.5	307	768	—	245	114	908	138	266	245	247	245
S 50 1	S5	M5L	310	310.5	307	812	—	245	130	952	154	266	245	247	245

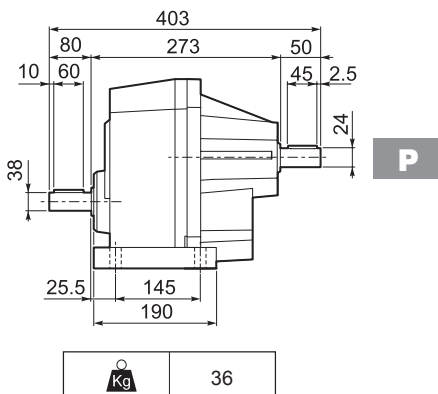
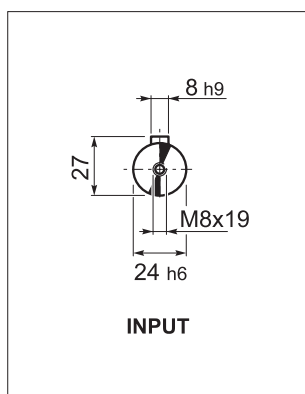


## S 50...P(IEC)

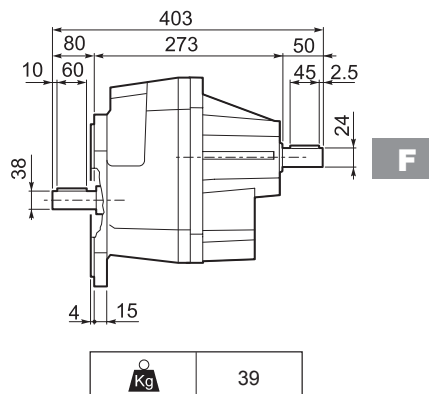


		LD	M	M1	M2	N	N1	N2	N3	N4	P	X	kg
S 50 1	P63	204.5	11	12.8	4	140	115	95	—	M8x10	314	4	35
S 50 1	P71	204.5	14	12.8	4	160	130	110	—	M8x10	314	4.5	35
S 50 1	P80	219.5	19	16.3	5	200	165	130	—	M10x14.5	314	4	37
S 50 1	P90	219.5	24	21.8	6	200	165	130	—	M10x14.5	334	4	37
S 50 1	P100	204.5	28	27.3	8	250	215	180	—	M12x16	344	4.5	41
S 50 1	P112	204.5	28	31.3	8	250	215	180	—	M12x16	344	4.5	41
S 50 1	P132	204.5	38	41.3	10	300	265	230	16	14	380	5	44
S 50 1	P160	—	42	45.3	12	350	300	250	23	18	431	5.5	48
S 50 1	P180	—	48	51.8	14	350	300	250	23	18	431	5.5	48

## S 50...HS



kg	36
----	----



kg	39
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## ELECTRIC MOTORS

### M1 SYMBOLS AND UNITS OF MEASUREMENT

Symbols	Units of Measure	Description	Symbols	Units of Measure	Description
$\cos\varphi$	–	Power factor	$n$	[min <sup>-1</sup> ]	Rated speed
$\eta$	–	Efficiency	$P_B$	[W]	Power drawn by the brake at 20°C
$f_m$	–	Power adjusting factor	$P_n$	[kW]	Motor rated power
$I$	–	Cyclic duration factor	$P_r$	[kW]	Required power
$I_N$	[A]	Rated current	$t_1$	[ms]	Brake response time with one-way rectifier
$I_S$	[A]	Locked rotor current	$t_{1s}$	[ms]	Brake response time with electronic-controlled rectifier
$J_C$	[Kgm <sup>2</sup> ]	Load moment of inertia	$t_2$	[ms]	Brake reaction time with a.c. disconnect
$J_M$	[Kgm <sup>2</sup> ]	Moment of inertia	$t_{2c}$	[ms]	Brake reaction time with a.c. and d.c. disconnect
$K_C$	–	Torque factor	$t_a$	[°C]	Ambient temperature
$K_d$	–	Load factor	$t_f$	[min]	Work time at constant load
$K_J$	–	Inertia factor	$t_r$	[min]	Rest time
$M_A$	[Nm]	Mean breakaway torque	$W$	[J]	Braking work between service interval
$M_B$	[Nm]	Brake torque	$W_{max}$	[J]	Maximum brake work for each braking
$M_N$	[Nm]	Rated torque	$Z$	[1/h]	Permissible starting frequency, loaded
$M_L$	[Nm]	Counter-torque during acceleration	$Z_0$	[1/h]	Max. permissible unloaded starting frequency (I = 50%)
$M_S$	[Nm]	Starting torque			



## M2 GENERAL CHARACTERISTICS

### M2.1 Production range

The asynchronous three-phase electric motors of BONFIGLIOLI RIDUTTORI's production, are available in basic designs IMB5 and derived versions.

The technical characteristics of compact motors, M type, are also supplied in this manual.

### M2.2 Standards

The motors described in this catalogue are manufactured to the applicable standards shown in the following table.

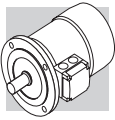
(F 1)

Title	CEI	IEC
General requirements for rotating electrical machines	CEI EN 60034-1	IEC 60034-1
Terminal markings and direction of rotation of rotating machines	CEI 2-8	IEC 60034-8
Methods of cooling for electrical machines	CEI EN 60034-6	IEC 60034-6
Dimensions and output ratings for rotating electrical machines	EN 50347	IEC 60072
Classification of degree of protection provided by enclosures for rotating machines	CEI EN 60034-5	IEC 60034-5
Noise limits	CEI EN 60034-9	IEC 60034-9
Classification of type of construction and mounting arrangements	CEI EN 60034-7	IEC 60034-7
Rated voltage for low voltage mains power	CEI 8-6	IEC 60038
Vibration level of electric machines	CEI EN 60034-14	IEC 60034-14

The motors also comply with foreign standards adapted to IEC 60034-1 as shown here below.

(F 2)

DIN VDE 0530	Germany
BS5000 / BS4999	Great Britain
AS 1359	Australia
NBNC 51 - 101	Belgium
NEK - IEC 34	Norway
NF C 51	France
OEVE M 10	Austria
SEV 3009	Switzerland
NEN 3173	Netherlands
SS 426 01 01	Sweden



## M2.3 Motors for USA and Canada

### CUS

CUS option is available in NEMA Design C execution for BN motors, and NEMA Design B for BX motors, with regards to the electrical features. Motors are certified in compliance with CSA (Canadian Standard) C22.2 N° 100 and UL (Underwriters Laboratory) UL 1004-1 standards, as stated on UL file E308649.

BN motors nameplates show the below marks:



#### NOTE:

Starting from **June, 1st 2016**, CUS motors whose efficiency is below IE3 (i.e. “Premium Efficiency”) cannot be any longer sold in the USA and Canada, unless one or more of the following conditions apply:

- Double speed motors;
- Motors plated for a non - continuous duty (<80%);
- Motors intended to be operated through variable frequency drive only (properly equipped with “Inverter Duty Only” label, or similar).

The CUS option does not apply to servo-ventilated motors.

US power mains voltages and the corresponding rated voltages to be specified for the motor are indicated in the following table:

(F 3)

Frequency	Mains voltage	V <sub>mot</sub>
60 Hz	208 V	<b>200 V</b>
	240 V	<b>230 V</b>
	480 V	<b>460 V</b>
	600 V	<b>575 V</b>

CUS option is applicable onto 50 Hz operating motors as well.

Motors with voltage in ratio 2 (e.g. 230/460-60; 220/440-60) feature, as standard, a 9-stud terminal board. For some executions, as well as for 575V-60Hz supply, the nominal rating is coincident with the correspondent 50Hz rating.

For DC brake motors type FD, the rectifier is connected to a single-phase 230 VAC supply voltage in the motor terminal box.

Brake power supply for brake motors is as follows:

(F 4)

BN_FD M_FD	BN_FA M_FA	Specify
Wired to terminal box 1~230V a.c.	Separate power supply 230V Δ	230SA
	Separate power supply 460V Y	460SA



## M2.4 China Compulsory Certification

**CCC**

Electric motors destined for sale in the People's Republic of China have to be certified under the CCC (China Compulsory Certification) system. BN motors of up to 7 Nm in rated torque are available with CCC certification and a special nameplate bearing the mark shown below:



CCC option is not currently available for servo - ventilated motors.

## M2.5 Directives 2006/95/EC (LVD) and 2004/108/EC (EMC)

BN and M motors meet the requirements of Directives 2006/95/EC (Low Voltage Directive) and 2004/108/EC (Electromagnetic Compatibility Directive) and their name plates bear the CE mark. As for the EMC Directive, construction is in accordance with standards CEI EN 60034-1, EN 61000-6-2, EN 61000-6-4.

Motors with FD brakes, when fitted with the suitable capacitive filter at rectifier input (option **CF**), meet the emission limits required by Standard EN 61000-6-3:2007 "Electromagnetic compatibility - Generic Emission Standard - Part 6-3 Residential, commercial and light industrial environment". Motors also meet the requirements of standard CEI EN 60204-1 "Electrical equipment of machines". The responsibility for final product safety and compliance with applicable directives rests with the manufacturer or the assembler who incorporate the motors as component parts.

## M2.6 Tolerances

As per the Norms applicable the tolerances here below apply to the following quantities.

(F 5)

-0.15 (1 - $\eta$ ) $P \leq 50kW$	Efficiency
$-(1 - \cos\phi)/6$ min 0.02 max 0.07	Power factor
$\pm 20\%$ *	Slip
+20%	Locked rotor current
-15% +25%	Locked rotor torque
-10%	Max. torque

\*  $\pm 30\%$  for motors with  $P_n < 1 kW$



### M3 MECHANICAL FEATURES

#### M3.1 Versions

EC-normalised BN motors are available in the design versions indicated in table (F6) as per Standards CEI EN 60034-14.

Mounting versions are:

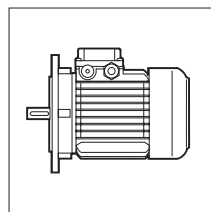
**IM B5** (basic)

IM V1, IM V3 (derived)

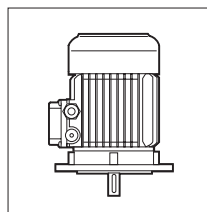
IM B5 design motors can be installed in positions IM V1 and IM V3; in such cases, the basic design IM B5 is indicated on the motor name plate.

In design versions with a vertically located motor and shaft downwards, it is recommended to request the drip cover (always necessary for brake motors). This facility, included in the option list should be specified when ordering as it does not come as a standard device

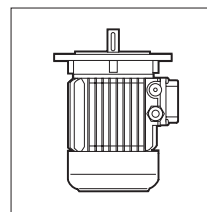
(F 6)



**IM B5**



**IM V1**



**IM V3**

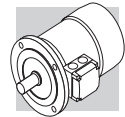
Flange output motors are also available with reduced coupling dimensions, as indicated in the table below - executions **B5R**. Their use in combination with gearboxes must be however coherent with the maximum installable power on gearboxes themselves (see chapters "Motors availability"). In case this condition is not met need to contact the Technical Service for the checking of the combination.

(F 7)

	<b>BN 71</b>	<b>BN 80</b>	<b>BN 90</b>	<b>BN 100</b>	<b>BN 112</b>	<b>BN 132</b>
	DxE - Ø					
<b>B5R</b> <sup>(1)</sup>	11x23 - 140	14x30 - 160	19x40 - 200	24x50 - 200	24x50 - 200	28x60 - 250

(1) flange with through holes











### M3.2 Degree of protection

#### IP..

The following chart provides an overview of the degrees of protection available.

In addition to the degree of protection specified when ordering, motors to be installed outdoors require protection against direct sunlight and also – when they are to be installed vertically down – a drip cover to prevent the ingress of water and solid particles (option **RC**).

(F 8)

		IP 54	IP 55	IP 56
<b>BN</b>	<b>M</b>		standard	 on request
<b>BN_FD</b> <b>BN_FA</b>	<b>M_FD</b> <b>M_FA</b>	standard	 on request	

### M3.3 Cooling

The motors are externally ventilated (IC 411 to CEI EN 60034-6) and are equipped with a plastic fan working in both directions. The motors must be installed allowing sufficient space between fan cowl and the nearest wall to ensure free air intake and allow access for maintenance purposes on motor and brake, if supplied.

Independent, forced air ventilation (IC 416) can be supplied on request (option U1).

This solution enables to increase the motor duty factor when driven by an inverter and operating at reduced speed.

### M3.4 Direction of rotation

Rotation is possible in both directions. If terminals U1, V1, and W1 are connected to line phases L1,L2 and L3, clockwise rotation (looking from drive end) is obtained. For counterclockwise rotation, switch two phases.

### M3.5 Noise

Noise levels, measured using the method prescribed by ISO 1680 Standards, are within the maximum levels specified by Standards CEI EN 60034-9.



### M3.6 Vibrations and balancing

Rotor shafts are balanced with half key fitted and fall within the vibration class N, as per Standard CEI EN 60034-14.

If a further reduced noise level is required improved balancing care required improved balancing can be optionally requested (class B).

Table below shows the value for the vibration velocity for standard (A) and improved (B) balancing.

(F 9)

Vibration class	Angular velocity  n [min <sup>-1</sup> ]	Limits of the vibration velocity
		[mm/s] <b>BN 56 ≤ H ≤ BN 200</b> <b>M05 ≤ H ≤ M5</b>
<b>A</b>	600 < n < 3600	1.6
<b>B</b>	600 < n < 3600	0.70

Values refer to measures with freely suspended motor in unloaded conditions.

### M3.7 Terminal box

Terminal board features 6 studs for eyelet terminal connection (9 studs execution for US voltage “Dual Voltage”).

A ground terminal is also supplied for earthing of the equipment.



Terminals number and type are shown in the following table.

For brake power supply, please read par. M6 (brake FD), M7 (brake FA).

Brakemotors house the a.c./d.c. rectifier (factory pre-wired) inside the terminal box.

Wiring instructions are provided either in the box or in the user manual.

(F 10)



		No. of terminals	Terminal threads	Wire max cross section area mm <sup>2</sup>
<b>BN 56 ... BN 71</b>	<b>M05, M1</b>	6	M4	2.5
<b>BN 80, BN 90</b>	<b>M2</b>	6	M4	2.5
<b>BN 100 ... BN 112</b>	<b>M3</b>	6	M5	6
<b>BN 132 ... BN 160MR</b>	<b>M4</b>	6	M5	6
<b>BN 160M ... BN 180M</b>	<b>M5</b>	6	M6	16
<b>BN 180L ... BN 200L</b>	–	6	M8	25
<b>BN 63 ... BN 160MR</b>	<b>M05 ... M4</b>	9	M4	6
<b>BN 160M ... BN 200L</b>	<b>M5</b>	9	M6	16



### M3.8 Cable entry

The holes used to bring cables to terminal boxes use metric threads in accordance with standard EN 50262 as indicated in the table here after.

(F 11)

		Cable entry	Max. cable diameter allowed [mm]
<b>BN 63</b>	<b>M05</b>	2 x M20 x 1.5	13
<b>BN 71</b>	<b>M1</b>	2 x M25 x 1.5	17
<b>BN 80 - BN 90</b>	<b>M2</b>	2 x M25 x 1.5	17
<b>BN 100</b>	<b>M3</b>	2 x M32 x 1.5	21
		2 x M25 x 1.5	17
<b>BN 112</b>	—	2 x M32 x 1.5	21
		2 x M25 x 1.5	17
<b>BN 132...BN 160MR</b>	<b>M4</b>	4 x M32 x 1.5	21
<b>BN 160M...BN 200L</b>	<b>M5</b>	2 x M40 x 1.5	28


### M3.9 Bearings

Life lubricated preloaded radial ball bearings are used, types are shown in the chart here under. Calculated endurance lifetime  $L_{10h}$ , as per ISO 281, in unloaded condition, exceeds 40000 hrs.


**DE** = drive end

**NDE** = non drive end

(F 12)

	<b>DE</b>	<b>NDE</b>	
	<b>M, M_FD, M_FA</b>	<b>M</b>	<b>M_FD, M_FA</b>
<b>M05</b>	6004 2Z C3	6201 2Z C3	6201 2RS C3
<b>M1</b>	6004 2Z C3	6202 2Z C3	6202 2RS C3
<b>M2</b>	6007 2Z C3	6204 2Z C3	6204 2RS C3
<b>M3</b>	6207 2Z C3	6206 2Z C3	6206 2RS C3
<b>M4</b>	6309 2Z C3	6308 2Z C3	6308 2RS C3
<b>M5</b>	6309 2Z C3	6309 2Z C3	6309 2RS C3

(F 13)

	<b>DE</b>	<b>NDE</b>	
	<b>BN</b>	<b>BN</b>	<b>BN_FD BN_FA</b>
<b>BN 56</b>	6201 2Z C3	6201 2Z C3	—
<b>BN 63</b>	6201 2Z C3	6201 2Z C3	6201 2RS C3
<b>BN 71</b>	6202 2Z C3	6202 2Z C3	6202 2RS C3
<b>BN 80</b>	6204 2Z C3	6204 2Z C3	6204 2RS C3
<b>BN 90</b>	6205 2Z C3	6205 2Z C3	6305 2RS C3
<b>BN 100</b>	6206 2Z C3	6206 2Z C3	6206 2RS C3
<b>BN 112</b>	6306 2Z C3	6306 2Z C3	6306 2RS C3
<b>BN 132</b>	6308 2Z C3	6308 2Z C3	6308 2RS C3
<b>BN 160MR</b>	6309 2Z C3	6308 2Z C3	6308 2RS C3
<b>BN 160M/L</b>	6309 2Z C3	6309 2Z C3	6309 2RS C3
<b>BN 180M</b>	6310 2Z C3	6309 2Z C3	6309 2RS C3
<b>BN 180L</b>	6310 2Z C3	6310 2Z C3	6310 2RS C3
<b>BN 200L</b>	6312 2Z C3	6310 2Z C3	6310 2RS C3



## M4 ELECTRICAL CHARACTERISTICS

### M4.1 Voltage



Single speed motors are provided in standard execution either for nominal voltage 230 / 400 V  $\Delta/Y$ , 50 Hz, or 400 / 690 V  $\Delta/Y$ , 50 Hz, with a voltage tolerance of  $\pm 10\%$ , according to what is specified on the below table.

On all the motors BN and M, for which the voltage / frequency configuration is not included on the below table, the voltage tolerance is reduced down to  $\pm 5\%$ .

For the operation out of the tolerance boundaries, the temperature may exceed by 10 K the limit provided by the adopted insulation class.

The motors are suitable for operation on distribution European grid with voltage complying with the publication IEC 60038.

(F 14)


			$V_{mot}$ $\pm 10\%$ 3 ~	Configuration
IE1	BN 56 ... BN 132	M0 ... M4	230 / 400 V - $\Delta/Y$ - 50 Hz	Standard
			400 / 690 V - $\Delta/Y$ - 50 Hz	On request at no extra charge
			460 V Y - 60 Hz	Standard
	BN 160 ... 200	M5	400 / 690 V - $\Delta/Y$ - 50 Hz	Standard
			460 V $\Delta$ - 60 Hz	Standard

<sup>1</sup> 4 pole motor only

The only rated voltage for motors type 50Hz and all double speed motors is 400V.  
Applicable tolerances as per CEI EN 60034-1.

The table below shows the wiring options available.

(F 15)

Pole		Wiring options
2	BN 63 ... BN 200	$\Delta / Y^{(2)}$
4	BN 56 ... BN 200	
6	BN 63 ... BN 200	
8	BN 71 ... BN 132	
2/4	BN 63 ... BN 132	$\Delta / YY$ (Dahlander)
2/6	BN 71 ... BN 132	Y / Y (Two windings)
2/8	BN 71 ... BN 132	
2/12	BN 80 ... BN 132	
4/6	BN 71 ... BN 132	
4/8	BN 80 ... BN 132	$\Delta / YY$ (Dahlander)





<sup>(2)</sup> Motors with voltage in ratio 2 (ex. 230/460 - 60) will be equipped with a 9 pin terminal box with winding connection either  $\Delta\Delta / \Delta$  or  $YY / Y$  (except 6 pole BN 63  $\Delta / Y$ )



## M4.2 Frequency

Rated output power BN / M for 60 Hz operation is shown in the following diagram.

(F 16)

			P <sub>n</sub> [kW]							P <sub>n</sub> [kW]			
			2P	4P	6P	8P (*)				2P	4P	6P	8P (*)
BN 56A	–	–	0.07	–	–	–	BN 100L	M3LA	3.5	–	–	–	
BN 56B	M0B	–	0.1	–	–	–	BN 100LA	–	–	2.5	1.8	0.9	
BN 63A	M05A	0.21	0.14	0.1	–	–	BN 100LB	M3LB	4.7	3.5	2.2	1.3	
BN 63B	M05B	0.3	0.21	0.14	–	–	BN 112M	–	4.7	4.7	2.5	1.8	
BN 63C	M05C	0.45	0.3	–	–	–	–	M3LC	–	4.7	2.5	–	
BN 71A	–	0.45	0.3	0.21	0.1	–	BN 132S	M4SA	–	6.5	3.5	2.5	
–	M1SC	–	–	0.21	–	–	BN 132SA	–	6.5	–	–	–	
BN 71B	M05SD	0.65	0.45	0.3	0.14	–	BN 132SB	M4SB	8.7	–	–	–	
BN 71C	M1LA	0.9	0.65	0.45	–	–	BN 132M	–	11	–	–	3.5	
BN 80A	–	0.9	0.65	0.45	0.21	–	BN 132MA	M4LA	–	8.7	4.6	–	
BN 80B	M2SA	1.3	0.9	0.65	0.30	–	BN 132MB	M4LB	–	11	6.5	–	
BN 80C	M2SB	1.8	1.3	0.9	–	–	BN 160MR	M4LC	12.5	12.5	–	–	
BN 90S	–	–	1.3	0.9	0.45	–	BN 160M	M5SA	–	–	8.6	–	
BN 90SA	–	1.8	–	–	–	–	BN 160MB	–	17.5	–	–	–	
BN 90SB	–	2.2	–	–	–	–	–	M5SB	17.5	17.5	–	–	
BN 90L	M3SA	2.5	–	1.3	0.65	–	BN 160L	–	21.5	17.5	12.6	–	
BN 90LA	–	–	1.8	–	–	–	–	M5SC	21.5	–	–	–	
BN 90LB	–	–	2.2	–	–	–	BN 180M	M5LA	24.5	21.5	–	–	
						–	BN 180L	–	–	25.3	17.5	–	
						–	BN 200L	–	–	34	–	–	
						–	BN 200LA	–	34	–	22	–	

(\*) Excluded M<sub>u</sub> motors

Double speed BN / M motors supplied at 60 Hz will have an increase of nominal power, referred to 50 Hz, equal to 15%.

If a nominal power rating, equal to the normalised nominal power rating at 50 Hz, was requested to be on a nameplate of a motor meant to be voltage supplied at 60 Hz, the PN option shall be specified on the motor designation.

Motors normally designed for a 50 Hz frequency may be used on a 60 Hz operating grid, but the related data shall be updated according to the following table.

Motors designated for 50 Hz operation show on the nameplate also the values for 60 Hz operation (excluding motors in CUS execution and brake motors). See the following table.

(F 17)

50 Hz	60 Hz			
	V - 60 Hz	P <sub>n</sub> - 60 Hz	M <sub>n</sub> , M <sub>a</sub> /M <sub>n</sub> - 60 Hz	n [min <sup>-1</sup> ] - 60 Hz
230/400 Δ/Y	220 - 240 Δ	1	0.83	1.2
	380 - 415 Y			
400/690 Δ/Y	380 - 415 Δ			
230/400 Δ/Y	265 - 280 Δ	1.15	1	1.2
	440 - 480 Y			
400/690 Δ/Y	440 - 480 Δ			



### M4.3 Ambient temperature

Catalogue rating values are calculated for 50 Hz operation and for standard ambient conditions (temperature 40 °C; elevation <1000 m a.s.l.) as per the CEI EN 60034-1 Standards.

The motors can be used within the 40 - 60 °C temperature range with rated power output adjusted by factors given in the following charts.

(F 18)

Ambient temperature (°C)	40°	45°	50°	55°	60°
Permitted power as a % of rated power	100%	95%	90%	85%	80%

Should a derating factor higher than 15% apply please consult factory.

### M4.4 Insulation class

#### CL F

Bonfiglioli motors use class **F** insulating materials (enamelled wire, insulators, impregnation resins) as compare to the standard motor.

#### CL H

Motors manufactured in insulation class **H** are available at request.

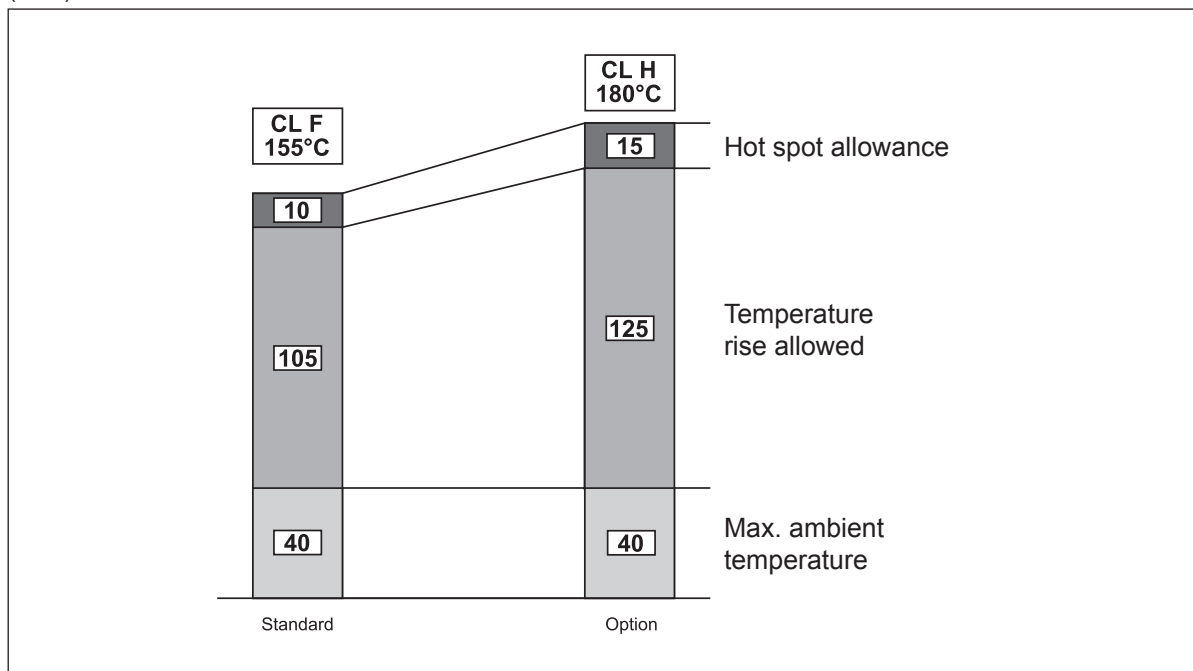
In standard motors, stator windings over temperature normally stays below the 80 K limit corresponding to class B over temperature.

A careful selection of insulating components makes the motors compatible with tropical climates and normal vibration.

For applications involving the presence of aggressive chemicals or high humidity, contact Bonfiglioli Engineering for assistance with product selection.

Not available for motors in compliance with CSA e UL standards (CUS option).

(F 19)





## M4.5 Type of duty

Unless otherwise specified, catalogue motor power refers to continuous duty S1.

Any operating conditions other than S1 duty must be identified in accordance with duty cycle definitions laid down in standards CEI EN 60034-1.

For duty cycles S2 and S3, the power increase co-efficient reported in the following table may be used. Please note that the table provided below applies to single-speed motors.

As an alternative to S1 continuous duty, one of the following values can be specified at the product configuration stage: S2, S3 or S9. The motor nameplate will be marked with an increased power rating to suit the type of duty, and with specific electrical data and a duty type of S2-30 min, S3-70% or S9 respectively.

For further details, contact Bonfiglioli's Technical Service.

Please contact Bonfiglioli Engineering for the power increase coefficients applicable to switch-pole motors.

(F 20)

	Duty						Consult factory
	S2			S3 *			
	Cycle duration (min)			Cyclic duration factor ( I )			
	10	30 (*)	60	25%	40%	70% (*)	
$f_m$	1.35	1.15	1.05	1.25	1.15	1.1	

\* Cycle duration must, in any event, be equal to or less than 10 minutes; if this time is exceeded, please contact our Technical Service.

(\*) Default values from options.

### M4.5.1 Cyclic duration factor:

$$I = \frac{t_f}{t_f + t_r} \cdot 100 \quad (23)$$

$t_f$  = work time under constant load

$t_r$  = rest time

### M4.5.2 Limited duration duty S2

This type of duty is characterized by operation at constant load for a limited time, which is shorter than the time required to reach thermal equilibrium, followed by a rest period of sufficient duration to restore ambient temperature in the motor.

### M4.5.3 Periodical intermittent duty S3:

This type of duty is characterized by a sequence of identical operation cycles, each including a constant load operation period and a rest period.

For this type of duty, the starting current does not significantly influence overtemperature.



## M4.6 Inverter-controlled motors

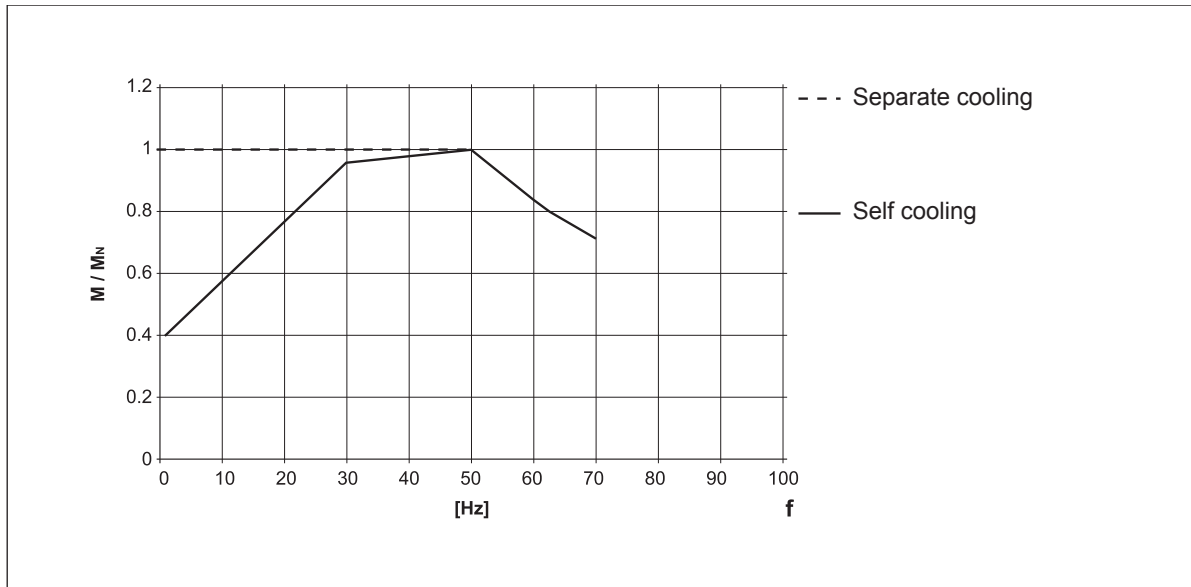
The electric motors of series BN and M may be used in combination with PWM inverters with rated voltage at transformer input up to 500 V. Standard motors use a phase insulating system with separators, class 2 enamelled wire and class H impregnation resins (1600V peak-to-peak voltage pulse capacity and rise edge  $t_s > 0.1 \mu s$  at motor terminals). The following table shows the typical torque/speed curves referred to S1 duty for motors with base frequency  $f_b = 50$  Hz.

Because ventilation is somewhat impaired in operation at lower frequencies (about 30 Hz), standard motors with incorporated fan (IC411) require adequate torque derating or - alternately - the addition of a separate supply fan cooling.

Above base frequency, upon reaching the maximum output voltage of the inverter, the motor enters a steady-power field of operation, and shaft torque drops with ratio  $(f/f_b)$ .



As motor maximum torque decreases with  $(f/f_b)^2$ , the allowed overloading must be reduced progressively.

(F 21)



The following table reports the mechanical limit speed for motor operation above rated frequency:

(F 22)

		n [min <sup>-1</sup> ]		
		2p	4p	6p
				
≤ BN 112	M05...M3	5200	4000	3000
≥ BN 132	M4, M5	4500	4000	3000

Above rated speed, motors generate increased mechanical vibration and fan noise. Class B rotor balancing is highly recommended in these applications. Installing a separate supply fan cooling may also be advisable.

Remote-controlled fan and brake (if fitted) must always be connected direct to mains power supply.





#### M4.7 Permissible starts per hour, Z

The rating charts of brakemotors lend the permitted number of starts  $Z_0$ , based on 50% intermittence and for unloaded operation.

The catalogue value represents the maximum number of starts per hour for the motor without exceeding the rated temperature for the insulation class F.

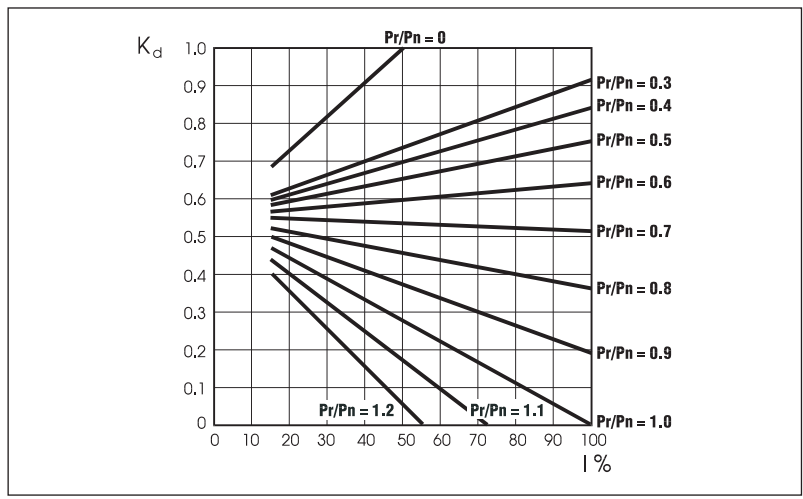
To give a practical example for an application characterized by inertia  $J_c$ , drawing power  $P_r$  and requiring mean torque at start-up  $M_L$  the actual number of starts per hour for the motor can be calculated approximately through the following equation:

$$Z = \frac{Z_0 \cdot K_c \cdot K_d}{K_J} \quad (24)$$

where:

$K_J = \frac{J_m + J_c}{J_m}$	inertia factor
$K_c = \frac{M_a - M_L}{M_a}$	torque factor
$K_d =$	load factor see table (F23)

(F 23)



If actual starts per hour is within permitted value ( $Z$ ) it may be worth checking that braking work is compatible with brake (thermal) capacity  $W_{max}$  also given in tables (F30), (F38) and dependent on the number of switches (c/h).

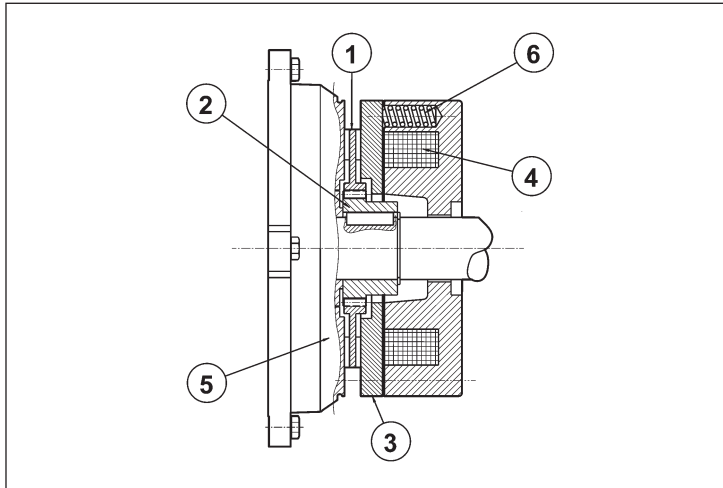


## M5 ASYNCHRONOUS BRAKE MOTORS

### M5.1 Operation

Versions with incorporated brake use spring-applied DC (FD option) or AC (FA options) brakes. All brakes are designed to provide fail-safe operation, meaning that they are applied by spring-action in the event of power failure.

(F 24)



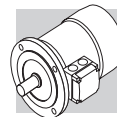
Key:

- ① brake disc
- ② disc carrier
- ③ pressure plate
- ④ brake coil
- ⑤ motor rear shield
- ⑥ brake springs

When voltage is interrupted, pressure springs push the armature plate against the brake disc. The disc becomes trapped between the armature plate and motor shield and stops the shaft from rotation. When the coil is energized, a magnetic field strong enough to overcome spring action attracts the armature plate, so that the brake disc – which is integral with the motor shaft – is released.

### M5.2 Most significant features

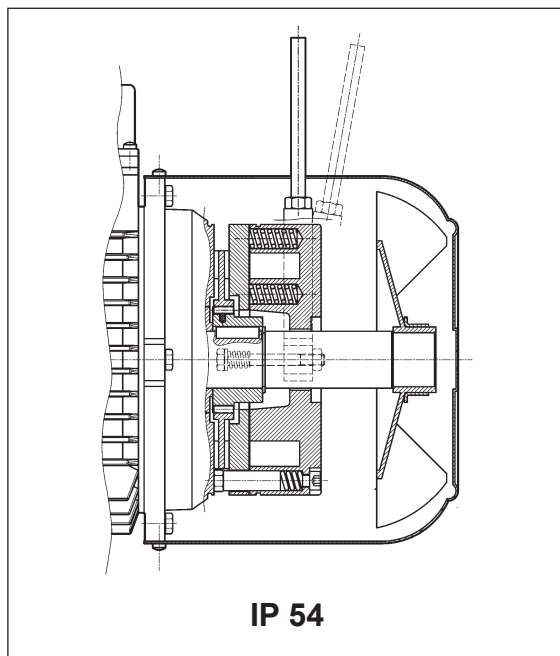
- High braking torques (normally  $M_b \approx 2 M_n$ ), braking torque adjustment.
- Steel brake disc with double friction lining (low-wear, asbestos-free lining).
- Hexagonal seat on motor shaft fan end (N.D.E.) for manual rotation (not compatible with options PS, RC, TC, U1, U2, EN1, EN2, EN3, EN4, EN5, EN6).
- Manual release lever (options **R** and **RM** for BN/M\_FD; option **R** for BN/M\_FA).
- Corrosion-proof treatment on all brake surfaces.
- Insulation class F.



## M6 DC BRAKE MOTORS TYPE BN\_FD and M\_FD

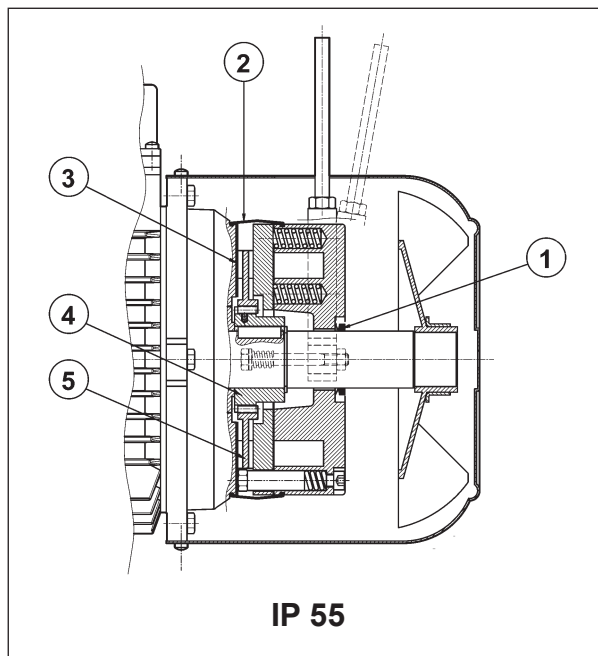
Frame sizes: BN 63 ... BN 200L / M05 ... M5

(F 25)



IP 54

(F 26)



IP 55

**Direct current** toroidal-coil electromagnetic brake bolted onto motor shield. Preloading springs provide axial positioning of magnet body.

Brake disc slides axially on steel hub shrunk onto motor shaft with anti-vibration device.

Brake torque factory setting is indicated in the corresponding motor rating charts. Braking torque may be modified by changing the type and/or number of springs.

At request, motors may be equipped with manual release lever with automatic return (**R**) or system for holding brake in the released position (**RM**).

See variant at paragraph "BRAKE RELEASE SYSTEMS" for available release lever locations.

FD brakes ensure excellent dynamic performance with low noise. DC brake operating characteristics may be optimized to meet application requirements by choosing from the various rectifier/power supply and wiring connection options available.

**For applications involving lifting and/or high hourly energy dissipation, contact Bonfiglioli's Technical Service.**

### M6.1 Degree of protection

Standard protection class is IP54.

Brake motor FD is also available in protection class **IP55**, which mandates the following variants:

- ① V-ring at N.D.E. of motor shaft
- ② dust and water-proof rubber boot
- ③ stainless steel ring placed between motor shield and brake disc
- ④ stainless steel hub
- ⑤ stainless steel brake disc



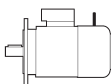

## M6.2 FD brake power supply

A rectifier accommodated inside the terminal box feeds the DC brake coil. Wiring connection across rectifier and brake coil is performed at the factory.

On all single-pole motors, rectifier is connected to the motor terminal board.

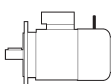


Rectifier standard power supply voltage  $V_B$  is as indicated in the following table, regardless of mains frequency:

(F 27)

2, 4, 6 P				1 speed	
		<b>BN_FD / M_FD</b> $V_{mot} \pm 10\%$ 3 ~	$V_B \pm 10\%$ 1 ~	brake connected to terminal board power supply	separate power supply
<b>BN 63...BN 132</b>	<b>M05...M4LB</b>	230/400 V – 50 Hz	230 V	standard	specify $V_B$ SA o $V_B$ SD
<b>BN 160...BN 200</b>	<b>M4LC...M5</b>	400/690 V – 50 Hz	400 V	standard	specify $V_B$ SA o $V_B$ SD

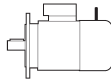
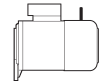
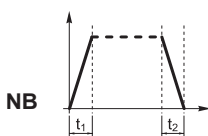
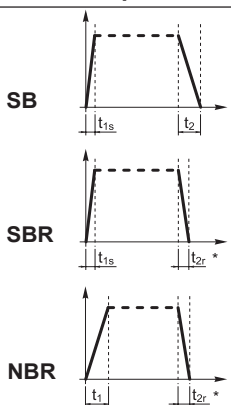
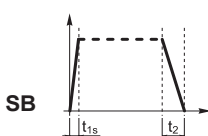
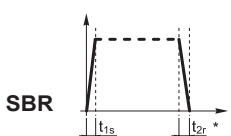
Switch-pole motors feature a separate power supply line for the brake with rectifier input voltage  $V_B$  as indicated in the table below:

(F 28)

2/4, 2/6, 2/8, 2/12, 4/6, 4/8 P				2 speed	
		<b>BN_FD / M_FD</b> $V_{mot} \pm 10\%$ 3 ~	$V_B \pm 10\%$ 1 ~	brake connected to terminal board power supply	separate power supply
<b>BN 63...BN 132</b>	<b>M05...M4LB</b>	400 V – 50 Hz	230 V		specify $V_B$ SA o $V_B$ SD

The diode half-wave rectifier ( $V_{DC} \approx 0,45 \times V_{AC}$ ) is available in versions **NB**, **SB**, **NBR** e **SBR**, as detailed in the table below:

(F 29)

		brake	standard	at request
<b>BN 63</b>	<b>M05</b>	<b>FD 02</b>		
<b>BN 71</b>	<b>M1</b>	<b>FD 03</b> <b>FD 53</b>		
<b>BN 80</b>	<b>M2</b>	<b>FD 04</b>		
<b>BN 90S</b>	—	<b>FD 14</b>		
<b>BN 90L</b>	—	<b>FD 05</b>		
<b>BN 100</b>	<b>M3</b>	<b>FD 15</b>		
—		<b>FD 55</b>		
<b>BN 112</b>	—	<b>FD 06S</b>		
<b>BN 132 - BN 160MR</b>	<b>M4</b>	<b>FD 56</b> <b>FD 06</b> <b>FD 07</b>		
<b>BN 160L - BN 180M</b>	<b>M5</b>	<b>FD 08</b>		
<b>BN 180L - BN 200M</b>	—	<b>FD 09</b>		

(\*)  $t_{2c} < t_{2r} < t_2$



Rectifier **SB** with electronic energizing control over-energizes the electromagnet upon power-up to cut brake release response time and then switches to normal half-wave operation once the brake has been released.

Use of the **SB** rectifier is mandatory in the event of:

- high number of operations per hour
- reduced brake release response time
- brake is exposed to extreme thermal stress

Rectifiers **NBR** or **SBR** are available for applications requiring quick brake intervention (braking condition reinstatement) response.

These rectifiers complement the **NB** and **SB** types as their electronic circuit incorporates a static switch that de-energizes the brake quickly in the event voltage is missing.

This arrangement ensures short brake release response time with no need for additional external wiring and contacts.

Optimum performance of rectifiers **NBR** and **SBR** is achieved with separate brake power supply.

**Versions available: 230Vac ±10%, 400Vac ± 10%, 50/60 Hz (with power supply); 100Vdc ±10%, 180Vdc ± 10% (with SD option).**

### M6.3 FD brake technical specifications

The table below reports the technical specifications of DC brakes FD.

(F 30)

Brake	Brake torque $M_b$ [Nm]			Release		Braking		$W_{max}$ per brake operation			W	P
	springs			$t_1$	$t_{1s}$	$t_2$	$t_{2c}$	[ J ]				
	6	4	2	[ms]	[ms]	[ms]	[ms]	10 s/h	100 s/h	1000 s/h		
FD02	–	3.5	1.75	30	15	80	9	4500	1400	180	15	17
FD03	5	3.5	1.75	50	20	100	12	7000	1900	230	25	24
FD53	7.5	5	2.5	60	30	100	12					
FD04	15	10	5	80	35	140	15	10000	3100	350	30	33
FD14												
FD05	40	26	13	130	65	170	20	18000	4500	500	50	45
FD15	40	26	13	130	65	170	20					
FD55	55	37	18	–	65	170	20					
FD06S	60	40	20	–	80	220	25	20000	4800	550	70	55
FD56	–	75	37	–	90	250	20	29000	7400	800	80	65
FD06		100	50		100	250	20					
FD07	150	100	50	–	120	200	25	40000	9300	1000	130	65
FD08*	250	200	170	–	140	350	30	60000	14000	1500	230	100
FD09**	400	300	200	–	200	450	40	70000	15000	1700	230	120

\* brake torque values obtained with 9, 7 and 6 springs, respectively

\*\* brake torque values obtained with 12, 9 and 6 springs, respectively

- $t_1$  = brake release time with half-wave rectifier
- $t_{1s}$  = brake release time with over-energizing rectifier
- $t_2$  = brake engagement time with AC line interruption and separate power supply
- $t_{2c}$  = brake engagement time with AC and DC line interruption – Values for  $t_1$ ,  $t_{1s}$ ,  $t_2$ ,  $t_{2c}$  indicated in the tab. (F30) are referred to brake set at maximum torque, medium air gap and rated voltage
- $W_{max}$  = max energy per brake operation
- W = braking energy between two successive air gap adjustments
- $P_b$  = brake power absorption at 20 °C
- $M_b$  = static braking torque (±15%)
- s/h = starts per hour



The brake pad wear depends on the operating/ambient conditions (temperature, humidity, angular speed, specific pressure); Therefore the declared wear rate must be considered as indicative.

#### M6.4 FD brake connections

On standard single-pole motors, the rectifier is connected to the motor terminal board at the factory. For switch-pole motors and where a separate brake power supply is required, connection to rectifier must comply with brake voltage  $V_B$  stated in motor name plate.

**Because the load is of the inductive type, brake control and DC line interruption must use contacts from the usage class AC-3 to IEC 60947-4-1.**

Table (F31) – Brake power supply from motor terminals and AC line interruption  
Delayed stop time  $t_2$  and function of motor time constants.

Mandatory when soft-start/stops are required.

Table (F32) – Brake coil with separate power supply and AC line interruption  
Normal stop time independent of motor.

Achieved stop times  $t_2$  are indicated in the table (F30).

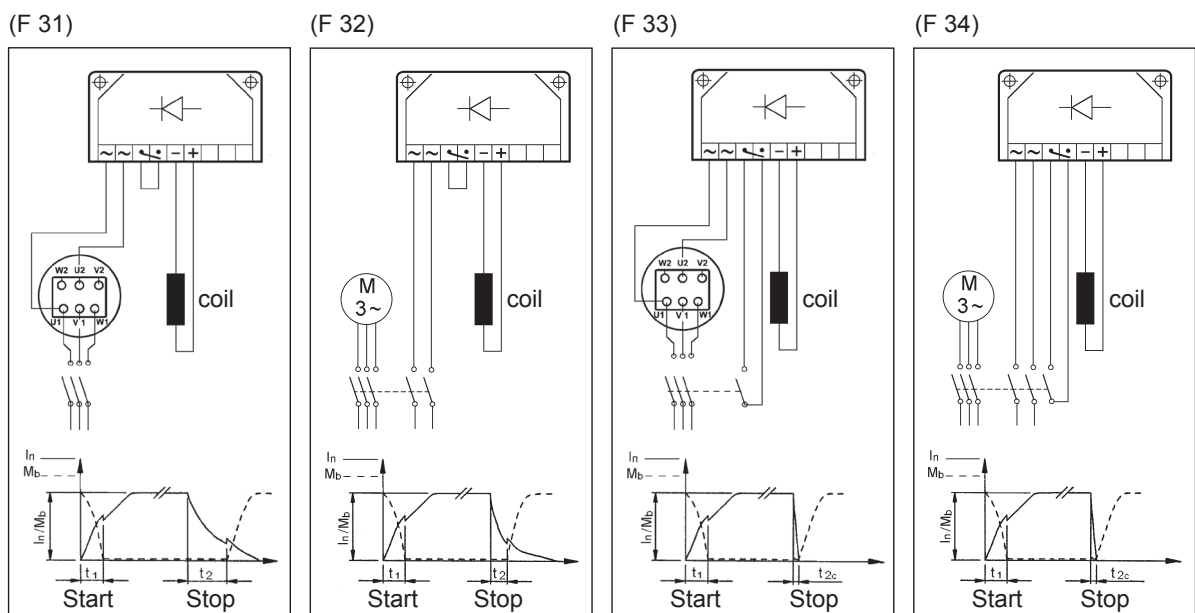
Table (F33) – Brake coil power supply from motor terminals and AC/DC line interruption.

Quick stop with operation times  $t_{2c}$  as per table (F30).

Table (F34) – Brake coil with separate power supply and AC/DC line interruption.

Stop time decreases by values  $t_{2c}$  indicated in the table (F30).

The brake may be voltage supplied directly from the motor terminal box (from tab. F31 to tab. F34) only if the nominal voltage of the brake is the same as the smaller voltage of the motor.

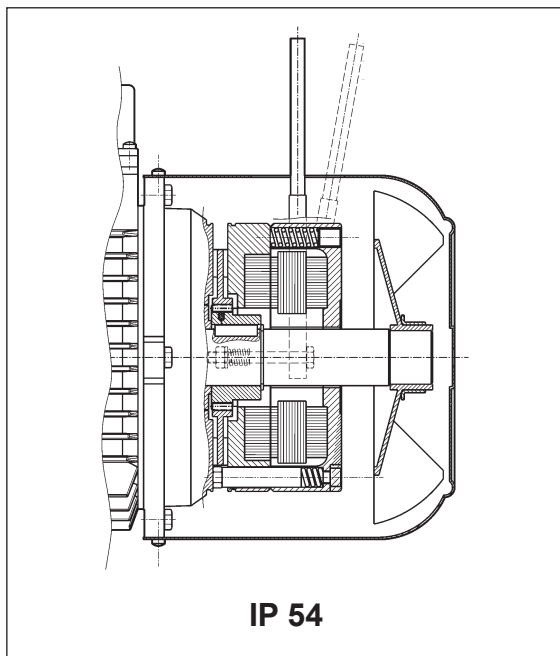




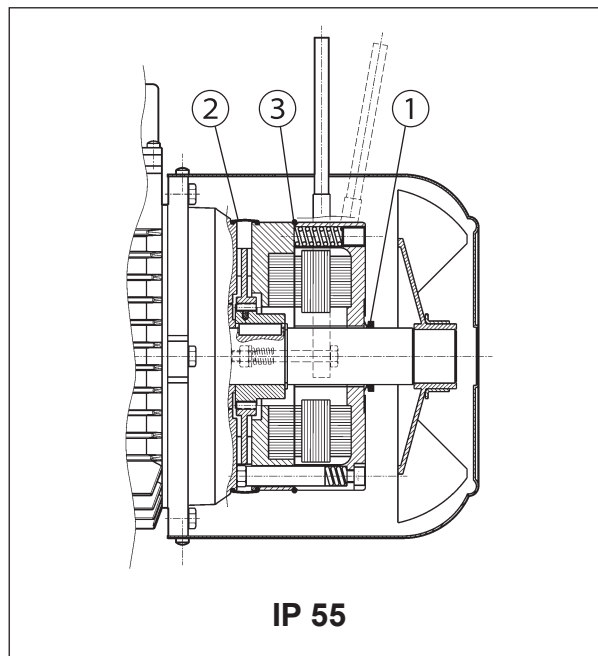
## M7 AC BRAKE MOTORS TYPE BN\_FA and M\_FA

Frame sizes: BN 63 ... BN 180M / M05 ... M5

(F 35)



(F 36)



Electromagnetic brake operates from three-phase **alternated current** power supply and is bolted onto conveyor shield. Preloading springs provide axial positioning of magnet body. Steel brake disc slides axially on steel hub shrunk onto motor shaft with anti-vibration device. Brake torque factory setting is indicated in the corresponding motor rating charts. Spring preloading screws provide stepless braking torque adjustment. Torque adjustment range is  $30\% M_{bMAX} < M_b < M_{bMAX}$  (where  $M_{bMAX}$  is maximum braking torque as shown in tab. (F38).

Thanks to their high dynamic characteristics, FA brakes are ideal for heavy-duty applications as well as applications requiring frequent stop/starts and very fast response time.

Motors may be equipped with manual release lever with automatic return (**R**) at request. See variant at paragraph "BRAKE RELEASE SYSTEMS" for available release lever locations.

**For applications involving lifting and/or high hourly energy dissipation, contact Bonfiglioli's Technical Service.**

### M7.1 Degree of protection

Standard protection class is IP54.

Brake motor FA is also available in protection class **IP55**, which mandates the following variants:

- ① V-ring at N.D.E. of motor shaft
- ② dust and water-proof rubber boot
- ③ O-ring



## M7.2 FA brake power supply

In single speed motors, power supply is brought to the brake coil direct from the motor terminal box. As a result, brake voltage and motor voltage are the same. In this case, brake voltage indication may be omitted in the designation.

Switch-pole motors and motors with separate brake power supply feature an auxiliary terminal board with 6 terminals for connection to brake line. In both cases, brake voltage indication in the designation is mandatory.

The following table reports standard AC brake power supply ratings for single- and switch-pole motors:

(F 37)

<b>single-pole motor</b>	<b>BN 63...BN 132</b>	<b>BN 160...BN 180</b>
	<b>M05...M4LB</b>	<b>M4LC...M5</b>
	230Δ / 400Y V ±10% – 50 Hz	400Δ/ 690Y V ±10% – 50 Hz
	265Δ / 460Y ±10% - 60 Hz	460Y – 60 Hz
<b>switch-pole motors</b> (separate power supply line)	<b>BN 63...BN 132</b>	
	<b>M05...M4</b>	
	230Δ / 400Y V ±10% – 50 Hz	
	460Y - 60 Hz	

Unless otherwise specified, standard brake power supply is 230Δ /400Y V - 50 Hz.

Special voltages in the 24...690 V, 50-60 Hz range are available at request.

## M7.3 Technical specifications of FA brakes

(F 38)

Brake	Brake torque $M_b$ [Nm]	Release $t_1$ [ms]	Braking $t_2$ [ms]	$W_{max}$ [ J ]			W [MJ]	P [VA]
				10 s/h	100 s/h	1000 s/h		
FA 02	3.5	4	20	4500	1400	180	15	60
FA 03	7.5	4	40	7000	1900	230	25	80
FA 04	15	6	60	10000	3100	350	30	110
FA 14								
FA 05	40	8	90	18000	4500	500	50	250
FA 15								
FA 06S	60	16	120	20000	4800	550	70	470
FA 06	75	16	140	29000	7400	800	80	550
FA 07	150	16	180	40000	9300	1000	130	600
FA 08	250	20	200	60000	14000	1500	230	1200

$M_b$  = max static braking torque (±15%)

$t_1$  = brake release time

$t_2$  = brake engagement time

$W_{max}$  = max energy per brake operation (brake thermal capacity)

W = braking energy between two successive air gap adjustments

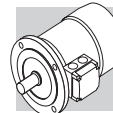
$P_b$  = power drawn by brake at 20° (50 Hz)

s/h = starts per hour

### NOTE

Values  $t_1$  and  $t_2$  in the table refer to a brake set at rated torque, medium air gap and rated voltage.



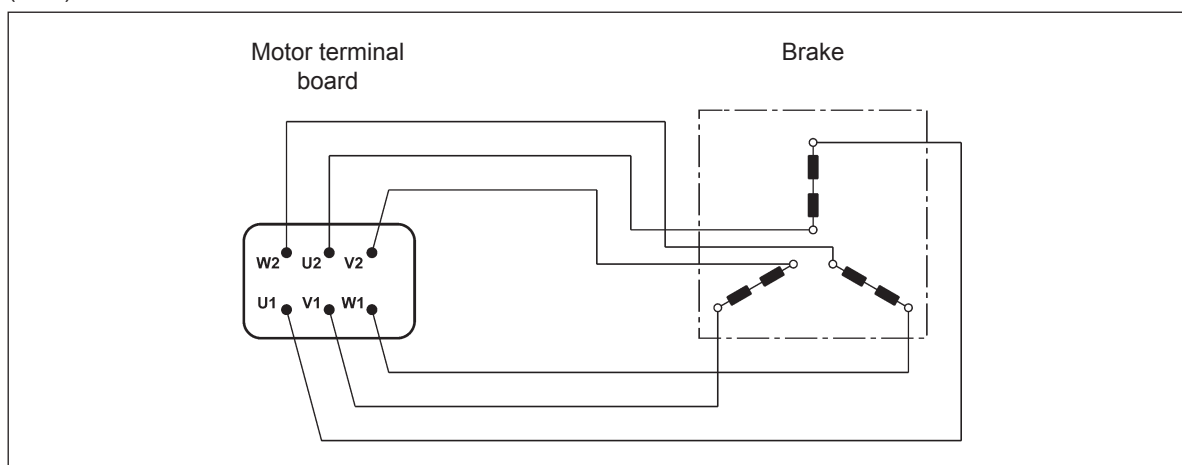


The brake pad wear depends on the operating/ambient conditions (temperature, humidity, angular speed, specific pressure); Therefore the declared wear rate must be considered as indicative.

#### M7.4 FA brake connections

The diagram below shows the wiring when brake is connected directly to same power supply of the motor:

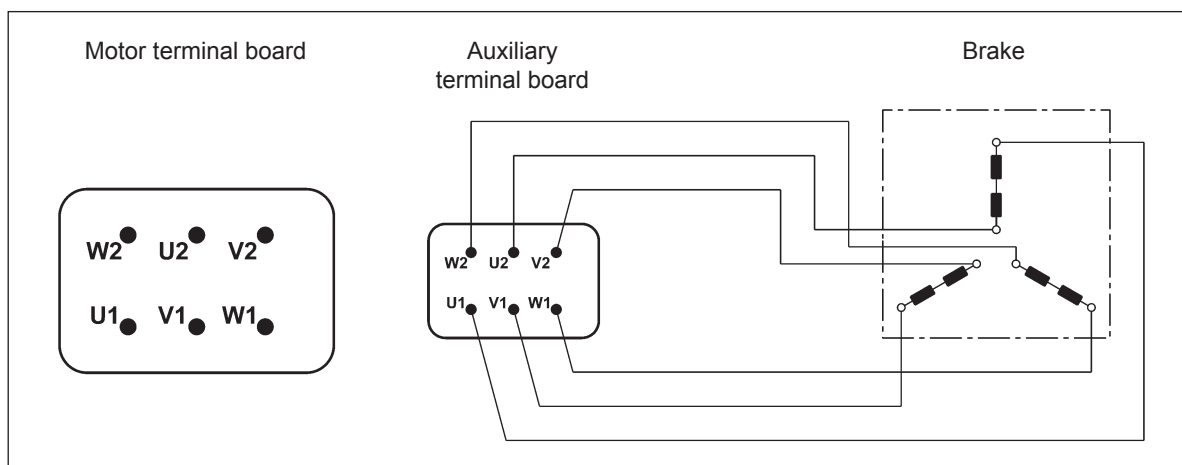
(F 39)



Switch-pole motors and, at request, single-pole motors with separate power supply are equipped with an auxiliary terminal board with 6 terminals for brake connection.

In this version, motors feature a larger terminal box. See diagram below:

(F 40)



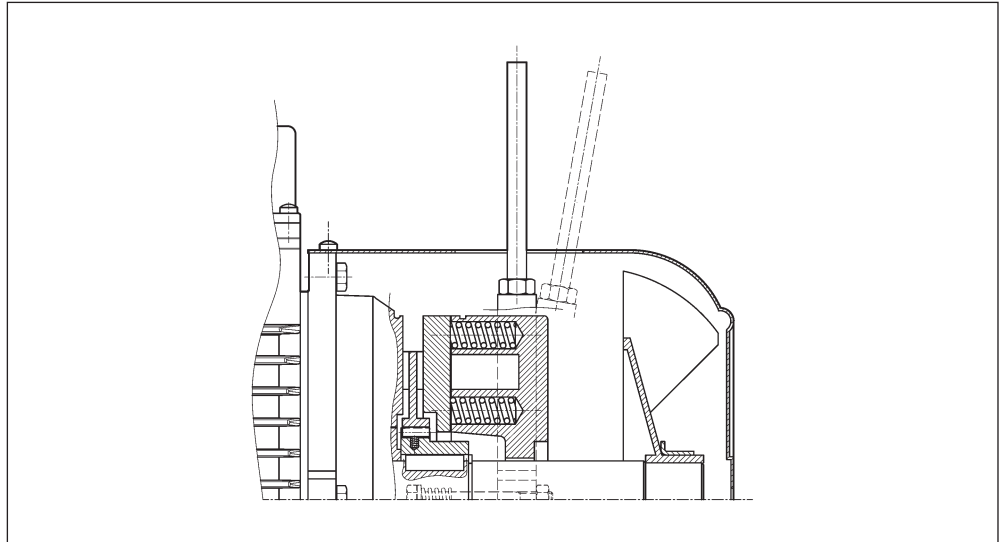


## M8 BRAKE RELEASE SYSTEMS

Spring-applied brakes type FD and FA may be equipped with optional manual release devices. These are typically used for manually releasing the brake before servicing any machine or plant parts operated by the motor.

**R**

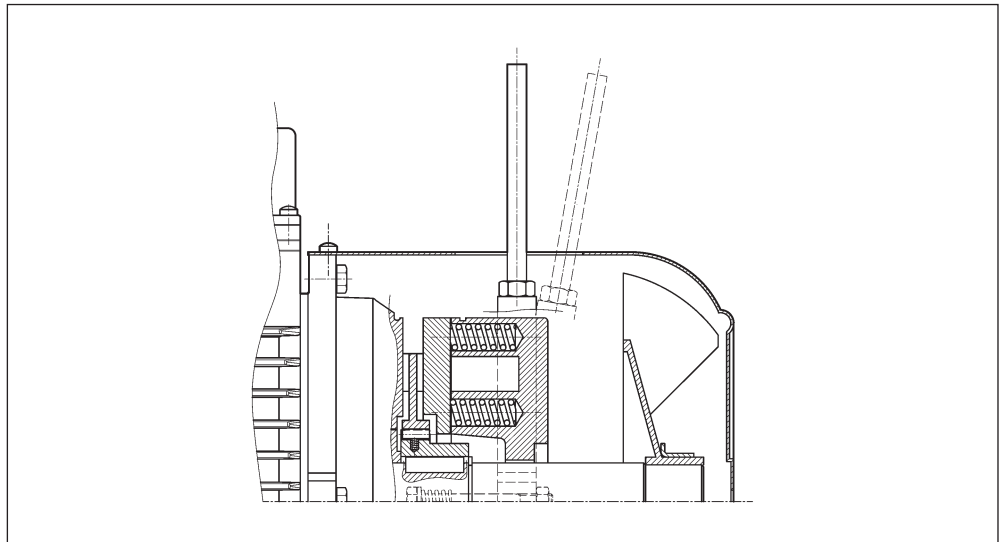
(F 41)



A return spring brings the release lever back in the original position.

**RM**

(F 42)



On brake motors type FD, if the option RM is specified, the release device may be locked in the "release" position by tightening the lever until its end becomes engaged with a brake housing projection. The availability for the various disengagement devices is charted here below:



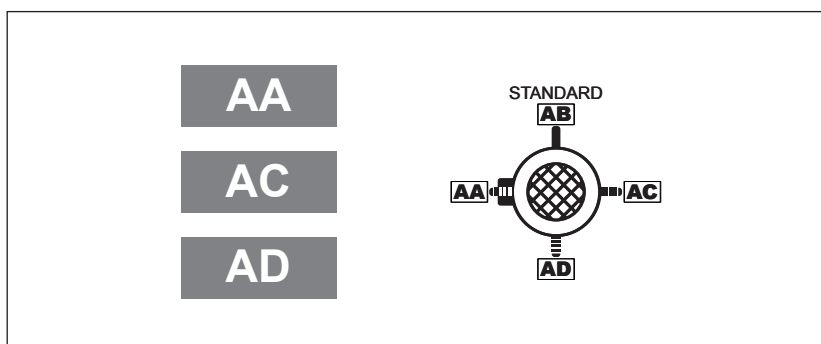
(F 43)

	R	RM
BN_FD	BN 63...BN 200	2p 63A2 ≤ H ≤ 132M2 4p 63A4 ≤ H ≤ 132MA4 6p 63A6 ≤ H ≤ 132MA6
M_FD	M 05...M 5	M 05...M 4LA
BN_FA	BN 63...BN 180M	●
M_FA	M 05...M 5	

### M8.1 Release lever orientation

Unless otherwise specified, the release lever is located 90° away from the terminal box – identified by letters [AB] in the diagram below – in a clockwise direction on both options **R** and **RM**. Alternative lever positions [AA], [AC] and [AD] are also possible when the corresponding option is specified:

(F 44)



### M8.2 Separate brake supply

**...SA**

The brake coil is directly fed through an independent line, separately from the motor. In this case the rated voltage for the coil must be specified, e.g. 230SA. The option is applicable to all motors with brake type FD and FA.

**...SD**



The brake coil is directly fed with DC current and the rectifier is out of the scope for supply. The rated voltage for the coil must be specified, e.g. 24SD.

### M8.3 Fly-wheel data (F1)

The table below shows values of weight and inertia of flywheel (option F1). Overall dimensions of motors remain unchanged.



(F 45)

Main data for flywheel of motore type: BN_FD, M_FD			
		Fly-wheel weight [Kg]	Fly-wheel inertia [Kgm <sup>2</sup> ]
<b>BN 63</b>	<b>M05</b>	0.69	0.00063
<b>BN 71</b>	<b>M1</b>	1.13	0.00135
<b>BN 80</b>	<b>M2</b>	1.67	0.00270
<b>BN 90 S - BN 90 L</b>	–	2.51	0.00530
<b>BN 100</b>	<b>M3</b>	3.48	0.00840
<b>BN 112</b>	–	4.82	0.01483
<b>BN 132 S - BN 132 M</b>	<b>M4</b>	6.19	0.02580

## M9 OPTIONS

### M9.1 Thermal protective devices

In addition to the standard protection provided by the magneto-thermal device, motors can be supplied with built-in thermal probes to protect the winding against overheating caused, by insufficient ventilation or by an intermittent duty.

This additional protection should always be specified for servoverventilated motors (IC416).

### M9.2 Capacitive filter

#### CF

An optional capacitive filter is available for brake motors type FD only. When the suitable capacitive filter is installed upstream of the rectifier (option CF), motors comply with the emission limits required by standard EN61000-6-3:2007“ Electromagnetic Compatibility – Generic Emission Standard – Part 6-3: Residential, commercial and light industrial environment”.

### M9.3 Thermistors

#### E3

These are semi-conductors having rapid resistance variation when they are close to the rated switch off temperature (150 °C).

Variations of the  $R = f(T)$  characteristic are specified under DIN 44081, IEC 34-11 Standards.

Positive temperature coefficient thermistors are normally used (also known as PTC “cold conductor resistors”).

Thermistors cannot control relays directly and must be connected to a suitable disconnect device.

Thus protected, three PTCs connected in series are installed in the winding, the terminals of which are located on the auxiliary terminal-board.

#### K1

The design characteristics of this sub-group of PTC thermistors allow them to be used as positive temperature coefficient sensors with variable resistance.

Functioning temperature range: 0°C ... +260°C.

Thermistors cannot control relays directly and must be connected to a suitable disconnect device.

Terminals (polarised) for 1 x KTY 84-130 are provided on an auxiliary terminal strip.



## M9.4 Bimetallic thermostates

### D3

These types of protective devices house a bimetal disk. When the rated switch off temperature (150 °C) is reached, the disk switches the contacts from their initial rest position.

As temperature falls, the disk and the contacts automatically return to rest position.

Three bimetallic thermostates connected in series are usually employed, with normally closed contacts. The terminals are located on an auxiliary terminal-board.

## M9.5 Plug connector

### CON

Three types of connectors (CON 1, CON 2, CON 3) are provided; they can be mounted in two different positions: right side of terminal box cover (C1D, C2D, C3D); left side of terminal box cover (C1S, C2S, C3S).

The option CON is applicable to single speed BN and M motors (2, 4, 6, 8 poles), and it is not applicable to switch-pole motors. More details about the motor sizes are available in the next table.

The connectors CON 1 / CON 2 are available for BN and M motors without brake and for brakemotors equipped with DC brake type FD, for the motor sizes listed below.

**The male connector (with pins) is mounted on the motor, the female connector is not provided. With CON option, the winding connection is always Y.**

With option U1 “forced ventilation”, the fan unit supply is available inside the separate terminal box fixed to fan cover.

With options EN1...EN6, the encoder connection is made by a cable not connected to the motor plug connector.

The CON option is not applicable to brakemotors equipped with AC brake type FA. The CON option is not available when at least one of the next options are selected: the U2, CUS, IC.

## Specifications

(F 46)

Option	CON 1
Motor size	BN63...BN112 / M05...M3
Connector view	
Type of connector	Harting Han 10ES
Housing	Han EMC 10B with 2 levers
Numbers of pins - nominal current	10 x 16A
Voltage	500 Vac
Contact connection	Screw terminals



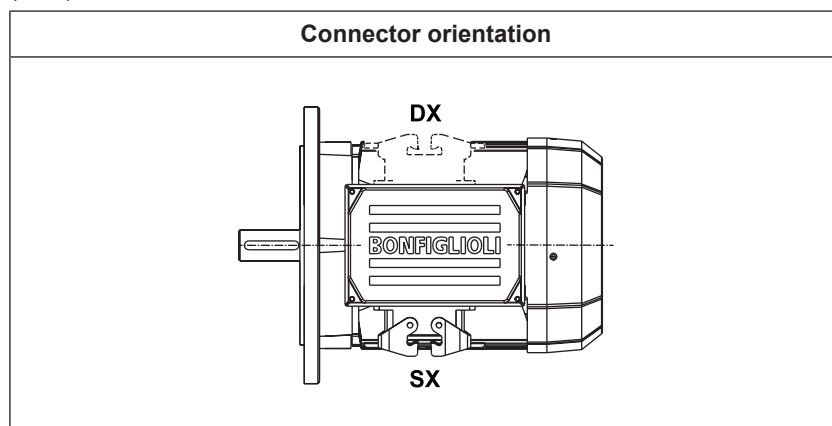
(F 47)

Option	CON 2
Motor size	BN63...BN160MR / M05...M4L
Connector view	
Type of connector	Harting Han Modular
Housing	Han EMC 10B with 2 levers
Module type	Module C + Empty module + Module E
Numbers of pins - nominal current	3 x 36A / 6 x 16A
Voltage	500 Vac
Contact connection	Crimping contacts

(F 48)

Option	CON 3
Motor size	BN63...BN160M / M05...M4L
Connector view	
Type of connector	Harting Han Modular
Housing	Han EMC 10B with 2 levers
Module type	Module C + Module E + Module E
Numbers of pins - nominal current	3 x 36A / 6 + 6 x 16A
Voltage	500 Vac
Contact connection	Crimping contacts

(F 49)





(F 50)

Motors without brake dimensions						
		AD (mm)	AF (mm)	AH (mm)	LL (mm)	V <sup>(*)</sup> (mm)
<b>BN63</b>	<b>M05</b>	136	110	45	165	4.5
<b>BN71</b>	<b>M1</b>	149	110	45	165	15.5
<b>BN80</b>	<b>M2</b>	160	110	45	165	16.5
<b>BN90</b>	—	162	110	45	165	31.5
<b>BN100</b>	<b>M3</b>	171	110	45	165	37.5
<b>BN112</b>	—	186	110	45	165	39
<b>BN132</b>	<b>M4</b>	210	140	45	188	45.5
<b>BN160MR</b>	—	210	140	45	188	161

(\*) Dimension valid only for motors BN.

(F 51)

Motors with FD brake dimensions						
		AD (mm)	AF (mm)	AH (mm)	LL (mm)	V <sup>(*)</sup> (mm)
<b>BN63</b>	<b>M05</b>	136	110	45	165	4.5
<b>BN71</b>	<b>M1</b>	149	110	45	165	1.5
<b>BN80</b>	<b>M2</b>	160	110	45	165	18.5
<b>BN90</b>	—	162	110	45	165	39.5
<b>BN100</b>	<b>M3</b>	171	110	45	165	63.5
<b>BN112</b>	—	186	110	45	165	75
<b>BN132</b>	<b>M4</b>	210	140	45	188	122
<b>BN160MR</b>	—	210	140	45	188	161

(\*) Dimension valid only for motors BN.



## M9.6 Control of brake operation

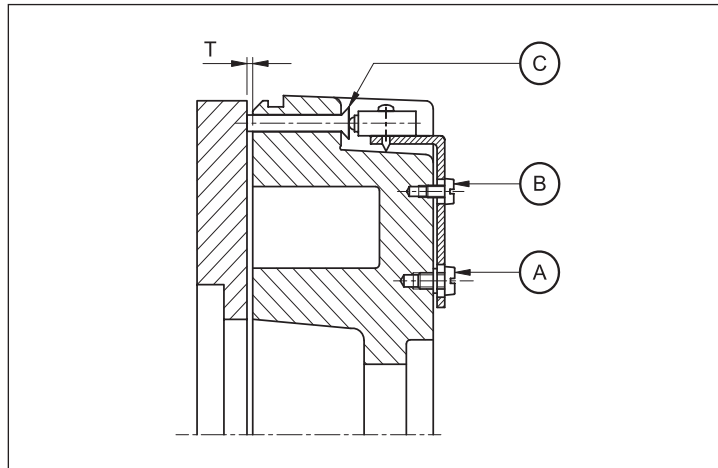
### MSW

The microswitch can be set in order to obtain from it a signal related to the attraction/release of an anchor plate, or it can be set in order to give feedback when the air gap reaches the maximum value.

**MSW option is available for brakes FD03...FD09.**

The microswitch is provided with three lead wires (NC, NO, COM). The next figure shown the main components of the brake equipped with microswitch.

(F 52)



- A: Plate fixing screws
- B: Setting screws
- C: Actuator control pin

## M9.7 Additional cable entry for brakemotors

### IC

The terminal box cover of brakemotors BN63...BN160MR / M05...M4 is provided with two additional cable entry M16 x 1.5 (one cable entry per side).

The terminal box cover of brakemotors BN160...BN200 / M5 is provided with an additional cable entry M16 x 1.5 next to the cable entry used for the brake.

## M9.8 Anti-condensation heaters

### H1

### NH1

Where an application involves high humidity or extreme temperature fluctuation, motors may be equipped with an anti-condensate heater.

A single-phase power supply is available in the auxiliary terminal board inside the main terminal box. Values for the absorbed power are listed here below:





(F 53)

		H1	NH1
		1~ 230V ± 10% P [W]	1~ 115V ± 10% P [W]
BN 56...BN 80	M0...M2	10	10
BN 90...BN 160MR	M3 - M4	25	25
BN 160M...BN 180M	M5	50	50
BN 180L...BN 200L	—		

**Warning!**

**Always remove power supply to the anti-condensante heater before operating the motor.**

**M9.9 Tropicalization**

**TP**

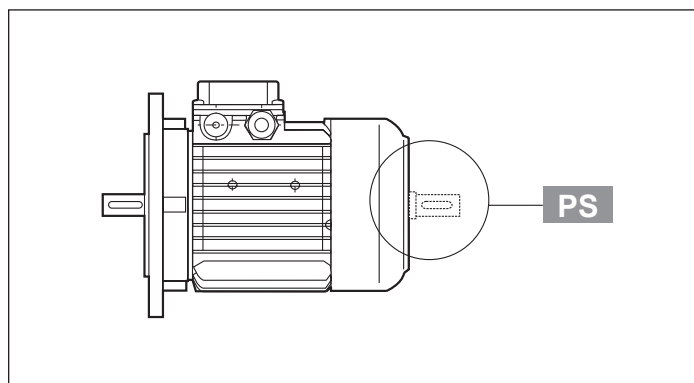
When option **TP** is specified, motor windings receive additional protection for operation in high humidity and temperature conditions.

**M9.10 Second shaft extension**

**PS**

This option is not compatible with variants RC, TC, U1, U2, EN1, EN2, EN3, EN4, EN5, EN6. For shaft dimensions please see motor dimensions tables.

(F 54)



**M9.11 Backstop device**


**AL AR**

For applications where backdriving must be avoided, motors equipped with an anti run-back device can be used (available for the M series only). While allowing rotation in the direction required, this device operates instantaneously in case of a power failure, preventing the shaft from running back. The anti run-back device is life lubricated with special grease for this specific application. When ordering, customers should indicate the required rotation direction, AL or AR.

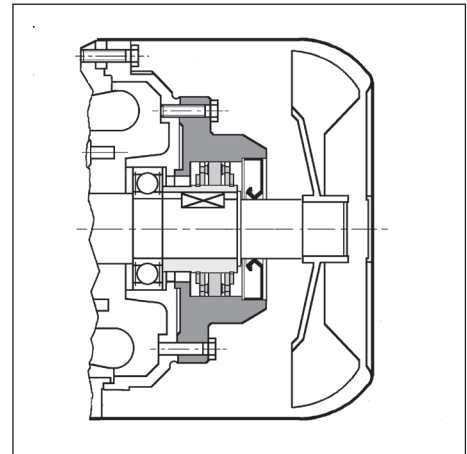
Never use the anti run-back device to prevent reverse rotation caused by faulty electrical connection. Table (F55) shows rated and maximum locking torques for the anti run-back devices. A diagram of the device can be seen in Table (F56). Overall dimensions are same as the corresponding brake motor. The direction of free rotation is described in the "MOTOR OPTIONS" section of specifically dedicated sections to gear units.



(F 55)

	Rated locking torque	Max. locking torque	Release speed
	[Nm]	[Nm]	[min <sup>-1</sup> ]
<b>M1</b>	6	10	750
<b>M2</b>	16	27	650
<b>M3</b>	54	92	520
<b>M4</b>	110	205	430

(F 56)



## M9.12 Ventilation

Motors are cooled through outer air blow (IC 411 according to CEI EN 60034-6) and are equipped with a plastic radial fan, which operates in both directions.

Ensure that fan cover is installed at a suitable distance from the closest wall so to allow air circulation and servicing of motor and brake, if fitted.



On request, motors can be supplied with independently power-supplied forced ventilation system starting from BN 71 or M1 size.

Motor is cooled by an axial fan with independent power supply and fitted on the fan cover (IC 416 cooling system).

This version is used in case of motor driven by inverter so that steady torque operation is possible even at low speed or when high starting frequencies are needed.

Brake all motors with rear shaft projection (PS option) are excluded.



(F 57)

Power supply					
		V a.c. ± 10%	Hz	P [W]	I [A]
<b>BN 71</b>	<b>M1</b>	1~ 230	50 / 60	22	0.12
<b>BN 80</b>	<b>M2</b>			22	0.12
<b>BN 90</b>	—			40	0.30
<b>BN 100 (*)</b>	<b>M3</b>			50	0.25
<b>BN 112</b>	—			50	0.26 / 0.15
<b>BN 132S</b>	<b>M4S</b>	3~ 230 Δ / 400Y	50	110	0.38 / 0.22
<b>BN 132M...BN 160MR</b>	<b>M4L</b>				
<b>BN 160...BN 180M</b>	<b>M5</b>				
			50	180	1.25 / 0.72

This variant has two different models, called **U1** and **U2**, having the same longitudinal size. Longer side of fan cover (**DL**) is specified for both models in the table below. Overall dimension can be reckoned from motor size table.



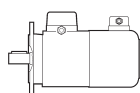
(F 58)

Extra length for servoventilated motors			
		$\Delta L_1$	$\Delta L_2$
<b>BN 71</b>	<b>M1</b>	93	32
<b>BN 80</b>	<b>M2</b>	127	55
<b>BN 90</b>	—	131	48
<b>BN 100</b>	<b>M3</b>	119	28
<b>BN 112</b>	—	130	31
<b>BN 132S</b>	<b>M4S</b>	161	51
<b>BN 132M</b>	<b>M4L</b>	161	51

$\Delta L_1$  = extra length to LB value of corresponding standard motor

$\Delta L_2$  = extra length to LB value of corresponding brake motor

**U1**

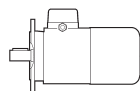


Fan wiring terminals are housed in a separate terminal box.

In brake motors of size BN 71...BN 160MR, M1...M4L, with **U1** model, the release lever cannot be positioned to AA.

The option is not applicable to motors compliant with the CSA and UL norms (option CUS).



**U2**



Fan terminals are wired in the motor terminal box.

The **U2** option does not apply to motors BN 160 through BN 200L, M5, with the only exception of motor BN 160MR for which the option is available instead and to motors with option CUS (compliant to norms CSA and UL).

(F 59)

		V a.c. $\pm 10\%$	Hz	P [W]	I [A]
<b>BN 71</b>	<b>M1</b>	1 ~ 230	50 / 60	22	0.12
<b>BN 80</b>	<b>M2</b>			22	0.12
<b>BN 90</b>	—			40	0.30
<b>BN 100</b>	<b>M3</b>	3 ~ 230 $\Delta$ / 400Y		40	0.26 / 0.09
<b>BN 112</b>	—			50	0.26 / 0.15
<b>BN 132 ... BN 160MR</b>	<b>M4L</b>			110	0.38 / 0.22

### M9.13 Rain canopy

**RC**



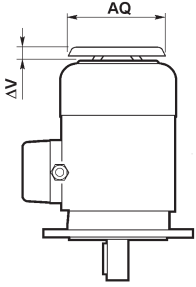
The rain canopy protects the motor from dripping and avoids the ingress of solid bodies. It is recommended when motor is installed in a vertical position with the shaft downwards.

Relevant dimensions are indicated in the table below.

The drip cover is not compatible with variants PS, EN1, EN2, EN3, EN4, EN5, EN6.



(F 60)

		AQ	$\Delta V$	
BN 63	M05	118	24	
BN 71	M1	134	27	
BN 80	M2	152	25	
BN 90	—	168	30	
BN 100	M3	190	28	
BN 112	—	211	32	
BN 132...BN 160MR	M4	254	32	
BN 160M...BN 180M	M5	302	36	
BN 180L...BN 200L	—	340	36	

### M9.14 Textile canopy

#### TC

Option TC is a cover variant for textile industry environments, where lint may obstruct the fan grid and prevent a regular flow of cooling air.

This option is not compatible with variants EN1, EN2, EN3, EN4, EN5, EN6.

Overall dimensions are the same as drip cover type RC.

### M9.15 Feedback units

Motors may be combined with six different types of encoders to achieve feedback circuits.

Configurations with double-extended shaft (PS) and rain canopy (RC, TC) are not compatible with encoder installation.

#### EN1

Incremental encoder,  $V_{IN} = 5\text{ V}$ , line-driver output RS 422.

#### EN2

Incremental encoder,  $V_{IN} = 10\text{-}30\text{ V}$ , line-driver output RS 422.

#### EN3

Incremental encoder,  $V_{IN} = 12\text{-}30\text{ V}$ , push-pull output 12-30 V



## EN4

Encoder sin/cos,  $V_{IN} = 4.5-5.5$  V, output Sinus  $0.5V_{PP}$ .

## EN5

Absolute encoder singleturn, HIPERFACE® interface,  $V_{IN} = 7-12$  V.

## EN6

Absolute encoder multiturn, HIPERFACE® interface,  $V_{IN} = 7-12$  V.

(F 61)

	EN1	EN2	EN3	EN4	EN5	EN6
Interface	TTL/RS 422	TTL/RS 422	HTL/push-pull	Sinus 0.5 VPP	HIPERFACE®	HIPERFACE®
Power supply voltage [V]	4...6	10...30	12...30	4.4...5.5	7...12	7...12
Output voltage [V]	5	5	12...30	—	—	—
No-load operating current [mA]	120	100	100	40	80	80
No. of pulses per revolution	1024					
Steps per revolution	—	—	—	—	15 bit	15 bit
Revolutions	—	—	—	—	—	12 bit
No. of signals	6 (A, B, Z + inverted signals)			6 (cos-, cos+, sin-, sin+, Z, $\bar{Z}$ )	—	—
Max. output frequency [kHz]	600			200		
Max. speed [min <sup>-1</sup> ]	6000 (9000 min <sup>-1</sup> for 10 s )					
Working temperature range [°C]	-30 ... +100					
Protection class	IP 65					



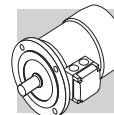
(F 63)

EN1, EN2, EN3, EN4, EN5, EN6	
BN 63...BN 200L	M05...M5
BN 63_FD...BN 200L_FD	M05_FD...M5_FD
BN 63_FA...BN 200L_FA	M05_FA...M5_FA

(F 62)

EN_ + U1		
BN 160M...BN 180M	M5	<b>L3</b> 72
BN 180L...BN 200L	-	82
BN 160M_FD...BN 180M_FD	M5_FD	35
BN 180L_FD...BN 200L_FD	-	41

If the encoder device (option EN\_) is specified on motors BN71...BN160MR / M1...M4, along with the independent fan cooling (options U1, U2), the extra length of motor is coincident with that of the correspondent U1 and U2 execution.



## M9.16 Surface protection

**C**  
\_

When no specific protection class is requested, the painted (ferrous) surfaces of motors are protected to at least corrosivity class C2 (UNI EN ISO 12944-2). For improved resistance to atmospheric corrosion, motors can be delivered with C3 and C4 surface protection.

<b>SURFACE PROTECTION</b>	Typical environments	Maximum surface temperature	Corrosivity class according to UNI EN ISO 12944-2
<b>C3</b>	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
<b>C4</b>	Industrial areas, coastal areas, chemical plant, with up to 100% relative humidity (high air pollution)	120°C	C4

Motors with optional protection to class C3 or C4 are available in a choice of colours. If no specific colour is requested (see the “PAINTING” option) motors are finished in RAL 7042.

Motors can also be supplied with surface protection for corrosivity class C5 according to UNI EN ISO 12944-2. Contact our Technical Service for further details.

## M9.17 Painting

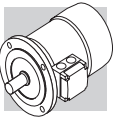
**RAL**  
\_

Gearboxes with optional protection to class C3 or C4 are available in the colours listed in the following table.

<b>PAINTING</b>	Colour	RAL number
<b>RAL7042*</b>	Traffic Grey A	7042
<b>RAL5010</b>	Gentian Blue	5010
<b>RAL9005</b>	Jet Black	9005
<b>RAL9006</b>	White Aluminium	9006
<b>RAL9010</b>	Pure White	9010

\* Gearboxes are supplied in this standard colour if no other colour is specified.

NOTE – “PAINTING” options can only be specified in conjunction with “SURFACE PROTECTION” options.



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## M9.18 Certificates

### ACM

#### **Certificate of compliance of motors**

The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

### CC

#### **Inspection certificate**

The document entails checking on order compliance, the visual inspection of external conditions and instrumental testing of the electrical characteristics in unloaded conditions. Units inspected are sampled within the shipping batch and marked individually.





M10 MOTOR RATING CHARTS

2P		3000 min <sup>-1</sup> - S1																	50 Hz																
		d.c. brake																	a.c. brake																
		P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 							
FD	FA																																		
0.18	BN 63A	2	2730	0.63	○	59.9	56.9	51.9	0.77	0.56	3.0	2.1	2.0	2.0	3.5	FD 02	1.75	3900	4800	—	2.6	5.2	FA 02	1.75	4800	2.6	5.0								
0.25	BN 63B	2	2740	0.87	○	66.0	64.8	64.8	0.76	0.72	3.3	2.3	2.3	2.3	3.9	FD 02	1.75	3900	4800	—	3.0	5.6	FA 02	1.75	4800	3.0	5.4								
0.37	BN 63C	2	2800	1.26	○	69.1	66.8	66.8	0.78	0.99	3.9	2.6	2.6	3.3	5.1	FD 02	3.5	3600	4500	—	3.9	6.8	FA 02	3.5	4500	3.9	6.6								
0.37	BN 71A	2	2820	1.25	○	73.8	73.0	70.6	0.76	0.95	4.8	2.8	2.6	3.5	5.4	FD 03	3.5	3000	4100	—	4.6	8.1	FA 03	3.5	4200	4.6	7.8								
0.55	BN 71B	2	2820	1.86	○	76.0	75.8	74.8	0.76	1.37	5.0	2.9	2.8	4.1	6.2	FD 03	5	2900	4200	—	5.3	8.9	FA 03	5	4200	5.3	8.6								
0.75	BN 71C	2	2810	2.6	○	76.6	76.2	76.2	0.76	1.86	5.1	3.1	2.8	5.0	7.3	FD 03	5	1900	3300	—	6.1	10.0	FA 03	5	3600	6.1	9.7								
0.75	BN 80A	2	2810	2.6	●	76.2	75.5	68.3	0.81	1.75	4.8	2.6	2.2	7.8	8.6	FD 04	5	1700	3200	—	9.4	12.5	FA 04	5	3200	9.4	12.4								
1.1	BN 80B	2	2800	3.8	●	76.4	76.2	75.0	0.81	2.57	4.8	2.8	2.4	9.0	9.5	FD 04	10	1500	3000	—	10.6	13.4	FA 04	10	3000	10.6	13.3								
1.5	BN 80C	2	2800	5.1	●	79.1	79.5	77.2	0.81	3.4	4.9	2.7	2.4	11.4	11.3	FD 04	15	1300	2600	—	13.0	15.2	FA 04	15	2600	13.0	15.1								
1.5	BN 90SA	2	2870	5.0	●	82.0	81.5	78.1	0.80	3.4	5.9	2.7	2.6	12.5	12.3	FD 14	15	900	2200	—	14.1	16.5	FA 14	15	2200	14.1	16.4								
1.85	BN 90SB	2	2880	6.1	●	82.5	82.0	75.4	0.80	4.0	6.2	2.9	2.6	16.7	14	FD 14	15	900	2200	—	18.3	18.2	FA 14	15	2200	18.3	18.1								
2.2	BN 90L	2	2880	7.3	●	82.7	82.1	80.8	0.80	4.8	6.3	2.9	2.7	16.7	14	FD 05	26	900	2200	—	21	20	FA 05	26	2200	21	20.7								
3	BN 100L	2	2860	10.0	●	81.5	81.3	77.4	0.79	6.7	5.6	2.6	2.2	31	20	FD 15	26	700	1600	—	35	26	FA 15	26	1600	35	27								
4	BN 100LB	2	2870	13.3	●	83.1	83.0	77.8	0.80	8.7	5.8	2.7	2.5	39	23	FD 15	40	450	900	—	43	29	FA 15	40	1000	43	30								
4	BN 112M	2	2900	13.2	●	85.5	84.5	83.0	0.82	8.2	6.9	3.0	2.9	57	28	FD 06S	40	—	950	—	66	39	FA 06S	40	950	66	40								
5.5	BN 132SA	2	2890	18.2	●	84.7	84.5	81.2	0.84	11.2	5.9	2.6	2.2	101	35	FD 06	50	—	600	—	112	48	FA 06	50	600	112	49								
7.5	BN 132SB	2	2900	25	●	86.5	86.3	84.4	0.85	14.7	6.4	2.6	2.2	145	42	FD 06	50	—	550	—	154	55	FA 06	50	550	154	56								
9.2	BN 132M	2	2930	30	●	87.0	86.5	83.6	0.86	17.7	6.7	2.8	2.3	178	53	FD 06	75	—	430	—	189	66	FA 06	75	430	189	67								
11	BN 160MR	2	2920	36	●	87.6	87.0	86.0	0.88	20.6	6.9	2.9	2.5	210	65	FD 06	—	—	—	—	210	65	FA 06	—	—	210	65	—							
15	BN 160MB	2	2930	49	●	89.6	89.4	88.0	0.86	28.1	7.1	2.6	2.3	340	84	FD 06	—	—	—	—	340	84	FA 06	—	—	340	84	—							
18.5	BN 160L	2	2930	60	●	90.4	90.1	89.0	0.86	34	7.6	2.7	2.3	420	97	FD 06	—	—	—	—	420	97	FA 06	—	—	420	97	—							
22	BN 180M	2	2930	72	●	89.9	89.7	89.5	0.88	40	7.8	2.6	2.4	490	109	FD 06	—	—	—	—	490	109	FA 06	—	—	490	109	—							
30	BN 200LA	2	2930	98	●	90.7	90.1	87.6	0.89	54	7.8	2.7	2.9	770	140	FD 06	—	—	—	—	770	140	FA 06	—	—	770	140	—							





○ = n.a. ● = IE1



50 Hz

1500 min<sup>-1</sup> - S1




4P

P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	I <sub>n</sub> 400V A	$\frac{I_s}{I_n}$	$\frac{M_s}{M_n}$	$\frac{M_a}{M_n}$	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	d.c. brake			a.c. brake							
															FD			FA							
															Mod	Mb Nm	Z <sub>0</sub> 1/h NB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	
0.06	BN 56A	4	0.43	○	46.8	44.2	41.3	0.65	0.28	2.6	2.3	2.0	1.5	3.1	FD 02	1.75	10000	13000	2.6	5.2	FA 02	1.75	13000	2.6	5.0
0.09	BN 56B	4	0.64	○	51.7	47.6	42.9	0.60	0.42	2.6	2.5	2.4	1.5	3.1	FD 02	3.5	10000	13000	3.0	5.6	FA 02	3.5	13000	3.0	5.4
0.12	BN 63A	4	0.85	○	59.8	56.2	47.0	0.62	0.47	2.6	1.9	1.8	2.0	3.5	FD 02	3.5	7800	10000	3.9	6.8	FA 02	3.5	10000	3.9	6.6
0.18	BN 63B	4	1.30	○	54.8	52.9	52.5	0.67	0.71	2.6	2.2	2.0	2.3	3.9	FD 03	5	6000	9400	8.0	8.6	FA 03	5	9400	8.0	8.3
0.25	BN 63C	4	1.78	○	65.3	65.0	57.9	0.69	0.80	2.7	2.1	1.9	3.3	5.1	FD 53	7.5	4300	8700	10.2	10.0	FA 03	7.5	8700	10.2	9.7
0.25	BN 71A	4	1.73	○	63.7	62.2	59.1	0.73	0.78	3.3	1.9	1.7	5.8	5.1	FD 03	3.5	7700	11000	6.9	7.8	FA 03	3.5	11000	6.9	7.5
0.37	BN 71B	4	2.6	○	66.8	66.7	63.0	0.76	1.05	3.7	2.0	1.9	6.9	5.9	FD 03	5	6000	9400	8.0	8.6	FA 03	5	9400	8.0	8.3
0.55	BN 71C	4	3.8	○	69.0	68.9	68.8	0.74	1.55	4.1	2.3	2.3	9.1	7.3	FD 53	7.5	4300	8700	10.2	10.0	FA 03	7.5	8700	10.2	9.7
0.55	BN 80A	4	3.8	○	72.0	71.3	69.7	0.77	1.43	4.1	2.3	2.0	15	8.2	FD 04	10	4100	8000	16.6	12.1	FA 04	10	8000	16.6	12.0
0.75	BN 80B	4	5.1	●	75.0	74.5	69.3	0.78	1.85	4.9	2.7	2.5	20	9.9	FD 04	15	4100	7800	22	13.8	FA 04	15	7800	22	13.7
1.1	BN 80C	4	7.5	●	75.5	76.2	70.4	0.78	2.7	5.1	2.8	2.5	25	11.3	FD 04	15	2600	5300	27	15.2	FA 04	15	5300	27	15.1
1.1	BN 90S	4	7.6	●	76.5	76.2	72.2	0.77	2.70	4.6	2.6	2.2	21	12.2	FD 14	15	4800	8000	23	16.4	FA 14	15	8000	23	16.3
1.5	BN 90LA	4	10.2	●	78.7	78.5	74.9	0.77	3.6	5.3	2.8	2.4	28	13.6	FD 05	26	3400	6000	32	19.6	FA 05	26	6000	32	20.3
1.85	BN 90LB	4	12.7	●	78.6	78.9	77.2	0.79	4.3	5.1	2.8	2.6	30	15.1	FD 05	26	3200	5900	34	21.1	FA 05	26	5900	34	21.8
2.2	BN 100LA	4	14.9	●	81.1	81.4	79.9	0.75	5.2	4.5	2.2	2.0	40	18	FD 15	40	2600	4700	44	25	FA 15	40	4700	44	25
3	BN 100LB	4	20	●	82.6	83.8	83.7	0.77	6.8	5.0	2.3	2.2	54	22	FD 15	40	2400	4400	58	28	FA 15	40	4400	58	29
4	BN 112M	4	27	●	84.4	84.2	81.6	0.81	8.4	5.6	2.7	2.5	98	30	FD 06S	60	—	1400	107	40	FA 06S	60	2100	107	42
5.5	BN 132S	4	36	●	84.7	84.8	82.5	0.81	11.6	5.5	2.3	2.2	213	44	FD 56	75	—	1050	223	57	FA 06	75	1200	223	58
7.5	BN 132MA	4	50	●	86.0	86.3	85.3	0.81	15.5	5.7	2.5	2.4	270	53	FD 06	100	—	950	280	66	FA 07	100	1000	280	71
9.2	BN 132MB	4	61	●	88.4	88.6	87.5	0.81	18.8	5.9	2.7	2.5	319	59	FD 07	150	—	900	342	75	FA 07	150	900	342	77
11	BN 160MR	4	73	●	87.6	87.8	86.0	0.81	22.4	6.0	2.7	2.5	360	70	FD 07	150	—	850	382	86	FA 07	150	850	382	88
15	BN 160L	4	98	●	88.7	88.5	88.4	0.81	30	6.0	2.3	2.1	650	99	FD 08	200	—	750	725	129	FA 08	200	750	710	128
18.5	BN 180M	4	121	●	89.3	89.5	89.2	0.81	37	6.2	2.6	2.5	790	115	FD 08	250	—	700	865	145	FA 08	250	700	850	144
22	BN 180L	4	144	●	89.9	90.0	90.0	0.80	44	6.4	2.5	2.5	1250	135	FD 09	300	—	400	1450	175	FA 08	250	700	850	144
30	BN 200L	4	196	●	91.4	91.7	91.0	0.80	59	7.1	2.7	2.8	1650	157	FD 09	400	—	300	1850	197	FA 08	250	700	850	144

○ = n.a.    ● = IE1







**6P** **1000 min<sup>-1</sup> - S1** **50 Hz**

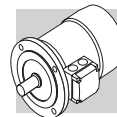
P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	In 400V A	Is In A	Ms Mn	Ma Mn	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	d.c. brake						a.c. brake					
															FD			FA			FD			FA		
															Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	Mod	Mb Nm	Z <sub>0</sub> 1/h	IM B5 	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	Mod	Mb Nm
0.09	BN 63A	6	0.98	○	41.0	41.0	32.9	0.53	0.60	2.1	2.1	1.8	3.4	4.6	FD 02	3.5	9000	14000	14000	FA 02	3.5	14000	6.3	4.0		
0.12	BN 63B	6	1.32	○	45.0	44.0	41.8	0.60	0.64	2.1	1.9	1.7	3.7	4.9	FD 02	3.5	9000	14000	14000	FA 02	3.5	14000	6.6	4.3		
0.18	BN 71A	6	1.91	○	55.0	55.5	51.0	0.69	0.68	2.6	1.9	1.7	8.4	5.5	FD 03	5	8100	13500	13500	FA 03	5	13500	8.2	9.5		
0.25	BN 71B	6	2.70	○	62.0	58.5	51.4	0.71	0.82	2.6	1.9	1.7	10.9	6.7	FD 03	5	7800	13000	13000	FA 03	5	13000	9.4	12		
0.37	BN 71C	6	3.9	○	66.0	60.0	53.3	0.69	1.17	3.0	2.4	2.0	12.9	7.7	FD 53	7.5	5100	9500	9500	FA 03	7.5	9500	10.4	14		
0.37	BN 80A	6	3.9	○	68.0	67.4	63.3	0.68	1.15	3.2	2.2	2.0	21	9.9	FD 04	10	5200	8500	8500	FA 04	10	8500	13.8	23		
0.55	BN 80B	6	5.7	○	70.0	69.8	64.3	0.68	1.67	3.9	2.6	2.2	25	11.3	FD 04	15	4800	7200	7200	FA 04	15	7200	15.2	27		
0.75	BN 80C	6	7.8	●	70.0	70.0	64.4	0.65	2.38	3.8	2.5	2.2	28	12.2	FD 04	15	3400	6400	6400	FA 04	15	6400	16.1	30		
0.75	BN 90S	6	7.8	●	70.0	69.0	64.2	0.68	2.27	3.8	2.4	2.2	26	12.6	FD 14	15	3400	6500	6500	FA 14	15	6500	16.8	28		
1.1	BN 90L	6	11.4	●	72.9	72.6	69.1	0.69	3.2	3.9	2.3	2.0	33	15	FD 05	26	2700	5000	5000	FA 05	26	5000	21	37		
1.5	BN 100LA	6	15.2	●	75.2	74.2	70.3	0.72	4.0	4.1	2.1	2.0	82	22	FD 15	40	1900	4100	4100	FA 15	40	4100	28	86		
1.85	BN 100LB	6	19.0	●	76.6	72.8	62.6	0.73	4.8	4.6	2.1	2.0	95	24	FD 15	40	1700	3600	3600	FA 15	40	3600	30	99		
2.2	BN 112M	6	22	●	78.5	79.0	76.5	0.73	5.5	4.8	2.2	2.0	168	32	FD 06S	60	—	2100	2100	FA 06S	60	2100	42	177		
3	BN 132S	6	30	●	79.7	77.0	75.1	0.76	7.1	5.1	1.9	1.8	216	36	FD 56	75	—	1400	1400	FA 06	75	1400	49	226		
4	BN 132MA	6	40	●	81.4	81.5	79.5	0.77	9.2	5.5	2.0	1.8	295	45	FD 06	100	—	1200	1200	FA 07	100	1200	58	318		
5.5	BN 132MB	6	56	●	83.1	80.9	79.1	0.78	12.2	6.1	2.1	1.9	383	56	FD 07	150	—	1050	1050	FA 07	150	1050	72	406		
7.5	BN 160M	6	75	●	85.0	85.0	84.8	0.81	15.7	5.9	2.2	2.0	740	83	FD 08	170	—	900	900	FA 08	170	900	112	815		
11	BN 160L	6	109	●	86.4	86.5	85.9	0.81	22.7	6.6	2.5	2.3	970	103	FD 08	200	—	800	800	FA 08	200	800	133	1045		
15	BN 180L	6	148	●	87.7	88.0	87.3	0.82	30	6.2	2.0	2.4	1550	130	FD 09	300	—	600	600	FA 08	200	800	170	1750		
18.5	BN 200LA	6	184	●	88.6	88.0	87.3	0.81	37	5.9	2.0	2.3	1700	145	FD 09	400	—	450	450	FA 08	200	800	185	1900		

○ = n.a. ● = IE1






**8P** **750 min-1 - S1** **50 Hz**





		d.c. brake											a.c. brake										
P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cosφ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	
																							NB
0.09	BN 71A	8	1.26	47	0.59	0.47	2.3	2.4	2.3	10.9	6.7	FD 03	3.5	9000	16000	12.0	9.4	FA 03	3.5	16000	12.0	12.0	9.1
0.12	BN 71B	8	1.69	51	0.59	0.58	2.1	2.3	2.2	12.9	7.7	FD 03	5.0	9000	16000	14.0	10.4	FA 03	5.0	16000	14.0	14.0	10.1
0.18	BN 80A	8	2.49	51	0.60	0.85	2.4	2.2	2.2	15	8.2	FD 04	5.0	6500	11000	16.6	12.1	FA 04	5.0	11000	16.6	16.6	12.0
0.25	BN 80B	8	3.51	54	0.63	1.06	2.4	2.0	1.9	20	9.9	FD 04	10.0	6000	10000	22	13.8	FA 04	10.0	10000	23	23	13.7
0.37	BN 90S	8	5.2	58	0.60	1.53	2.6	2.3	2.1	26	12.6	FD 14	15.0	4800	7500	28	16.8	FA 14	15.0	7500	28	28	16.7
0.55	BN 90L	8	7.8	62	0.60	2.13	2.6	2.2	2.0	33	15	FD 05	26	4000	6400	37	21	FA 05	26	6400	37	37	22
0.75	BN 100LA	8	10.2	68	0.63	2.53	3.4	1.9	1.7	82	22	FD 15	26	2800	4800	86	28	FA 15	26	4800	86	86	29
1.1	BN 100LB	8	15.0	68	0.64	3.65	3.2	1.7	1.7	95	24	FD 15	40	2500	4000	99	30	FA 15	40	4000	99	99	31
1.5	BN 112M	8	20.2	71	0.66	4.6	3.7	1.8	1.9	168	32	FD 06S	60	—	3000	177	42	FA 06S	60	3000	177	177	44
2.2	BN 132S	8	29.6	75	0.66	6.4	3.8	1.8	2.0	295	45	FD 56	75	—	2300	305	58	FA 06	75	2300	305	305	56
3	BN 132MA	8	40.4	76	0.69	8.3	3.9	1.6	1.8	370	53	FD 06	100	—	1900	394	69	FA 07	100	1900	406	406	74

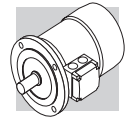


**2/4P** **3000/1500 min<sup>-1</sup> - S1** **50 HZ**




P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	d.c. brake						a.c. brake					
												FD			FA			FD			FA		
												Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm
0.20	<b>BN 63B</b>	2	2700	0.71	0.82	0.64	3.5	2.1	1.9	2.9	4.4	<b>FD 02</b>	3.5	2200	2600	6.1	<b>FA 02</b>	3.5	2600	3.5	5100	5.9	
0.15		4	1350	1.06	0.67	0.66	2.6	1.8	1.7				4000	5100									
0.28	<b>BN 71A</b>	2	2700	0.99	0.82	0.88	2.9	1.9	1.7	4.7	4.4	<b>FD 03</b>	3.5	2100	2400	7.1	<b>FA 03</b>	3.5	2400	5.8	4800	6.8	
0.20		4	1370	1.39	0.72	0.68	3.1	1.8	1.7				3800	4800									
0.37	<b>BN 71B</b>	2	2740	1.29	0.82	1.16	3.5	1.8	1.8	5.8	5.1	<b>FD 03</b>	5.0	1400	2100	7.8	<b>FA 03</b>	5.0	2100	6.9	4200	7.5	
0.25		4	1390	1.72	0.73	0.82	3.3	2.0	1.9				2900	4200									
0.45	<b>BN 71C</b>	2	2780	1.55	0.85	1.21	3.8	1.8	1.8	6.9	5.9	<b>FD 03</b>	5.0	1400	2100	8.6	<b>FA 03</b>	5.0	2100	8.0	4200	8.3	
0.30		4	1400	2.0	0.73	0.94	3.6	2.0	1.9				2800	4200									
0.55	<b>BN 80A</b>	2	2800	1.9	0.85	1.48	3.9	1.7	1.7	15	8.2	<b>FD 04</b>	5.0	1600	2300	12.1	<b>FA 04</b>	5.0	2300	17	4000	12.0	
0.37		4	1400	2.5	0.79	1.01	4.1	1.8	1.9				3000	4000									
0.75	<b>BN 80B</b>	2	2780	2.6	0.85	1.96	3.8	1.9	1.8	20	9.9	<b>FD 04</b>	10	1400	1600	13.8	<b>FA 04</b>	10	1600	22	3600	13.7	
0.55		4	1400	3.8	0.81	1.44	3.9	1.7	1.7				2700	3600									
1.1	<b>BN 90S</b>	2	2790	3.8	0.82	2.73	4.7	2.3	2.0	21	12.2	<b>FD 14</b>	10	1500	1600	16.4	<b>FA 14</b>	10	1600	23	2800	16.3	
0.75		4	1390	5.2	0.79	2.08	4.6	2.4	2.2				2300	2800									
1.5	<b>BN 90L</b>	2	2780	5.2	0.85	3.64	4.5	2.4	2.1	28	14.0	<b>FD 05</b>	26	1050	1200	20	<b>FA 05</b>	26	1200	32	2000	21	
1.1		4	1390	7.6	0.81	2.69	4.7	2.5	2.2				1600	2000									
2.2	<b>BN 100LA</b>	2	2800	7.5	0.85	5.2	4.5	2.0	1.9	40	18.3	<b>FD 15</b>	26	600	900	25	<b>FA 15</b>	26	900	44	2300	25	
1.5		4	1410	10.2	0.79	3.8	4.7	2.0	2.0				1300	2300									
3.5	<b>BN 100LB</b>	2	2850	11.7	0.84	7.5	5.4	2.2	2.1	61	25	<b>FD 15</b>	40	500	900	31	<b>FA 15</b>	40	900	65	2100	32	
2.5		4	1420	16.8	0.80	5.5	5.2	2.2	2.2				1000	2100									
4	<b>BN 112M</b>	2	2880	13.3	0.83	8.8	6.1	2.4	2.0	98	30	<b>FD 06S</b>	60	—	700	40	<b>FA 06S</b>	60	700	107	1200	42	
3.3		4	1420	22.2	0.80	7.4	5.1	2.1	2.0				—	1200									
5.5	<b>BN 132S</b>	2	2890	18.2	0.87	11.4	5.9	2.4	2.0	213	44	<b>FD 56</b>	75	—	350	57	<b>FA 06</b>	75	350	223	900	58	
4.4		4	1440	29	0.84	9.2	5.3	2.2	2.0				—	900									
7.5	<b>BN 132MA</b>	2	2900	25	0.87	15.2	6.5	2.4	2.0	270	53	<b>FD 06</b>	100	—	350	66	<b>FA 07</b>	100	350	280	900	71	
6		4	1430	40	0.85	12.1	5.8	2.3	2.1				—	900									
9.2	<b>BN 132MB</b>	2	2920	30	0.86	18.6	6.0	2.6	2.2	319	59	<b>FD 07</b>	150	—	300	75	<b>FA 07</b>	150	300	342	800	77	
7.3		4	1440	48	0.85	14.6	5.5	2.3	2.1				—	800									

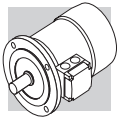


2/6P		3000/1000 min <sup>-1</sup> - S3 60/40%														50 HZ								
		d.c. brake														a.c. brake								
		FD							FA															
P <sub>n</sub>		n	M <sub>n</sub>	η	cosφ	I <sub>n</sub>	I <sub>s</sub>	$\frac{I_s}{I_n}$	$\frac{M_s}{M_n}$	$\frac{M_a}{M_n}$	J <sub>m</sub>	IM B5	Mod	Mb	Z <sub>0</sub>	1/h	SB	IM B5	Mod	Mb	Z <sub>0</sub>	1/h	J <sub>m</sub>	IM B5
kW		min <sup>-1</sup>	Nm	%		A					x 10 <sup>-4</sup> kgm <sup>2</sup>			Nm						Nm			x 10 <sup>-4</sup> kgm <sup>2</sup>	
0.25	BN 71A	2	0.84	60	0.82	0.73	4.3	1.9	1.8	1.8	6.9	5.9	FD 03	1.75	1500	1700	10000	8.0	8.6	2.5	1700	13000	8.0	8.3
0.08		6	0.84	43	0.70	0.38	2.1	1.4	1.5															
0.37	BN 71B	2	1.23	62	0.80	1.08	4.4	1.9	1.8	1.8	9.1	7.3	FD 03	3.5	1000	1300	9000	10.2	10.0	3.5	1300	11000	10.2	9.7
0.12		6	1.27	44	0.73	0.54	2.4	1.4	1.5															
0.55	BN 80A	2	1.88	63	0.86	1.47	4.5	1.9	1.7	1.7	20	9.9	FD 04	5.0	1500	1800	4100	22	13.8	5.0	1800	6300	22	13.7
0.18		6	1.85	52	0.65	0.77	3.3	2.0	1.9															
0.75	BN 80B	2	2.6	66	0.87	1.89	4.3	1.8	1.6	1.6	25	11.3	FD 04	5.0	1700	1900	3800	27	15.2	5.0	1900	6000	27	15.1
0.25		6	2.6	54	0.67	1.00	3.2	1.7	1.8															
1.10	BN 90L	2	3.7	67	0.84	2.82	4.7	2.1	1.9	1.6	28	14.0	FD 05	13	1400	1600	3400	32	20	13	1600	5200	32	21
0.37		6	3.8	59	0.71	1.27	3.3	1.6	1.6															
1.5	BN 100LA	2	5	73	0.84	3.53	5.1	1.9	2.0	1.8	40	18.3	FD 15	13	1000	1200	2900	44	24	13	1200	4000	44	25
0.55		6	5.6	64	0.67	1.85	3.5	1.7	1.8															
2.2	BN 100LB	2	7.2	77	0.85	4.9	5.9	2.0	2.0	1.8	61	25	FD 15	26	700	900	2100	65	31	26	900	3000	65	32
0.75		6	7.5	67	0.64	2.5	3.3	1.9	1.8															
3	BN 112M	2	9.9	78	0.87	6.4	6.3	2.0	2.1	1.8	98	30	FD 06S	40	—	1000	—	107	40	FA 06S	40	1000	107	32
1.1		6	11.1	72	0.64	3.4	3.9	1.8	1.8															
4.5	BN 132S	2	14.8	78	0.84	9.9	5.8	1.9	1.8	2.0	213	44	FD 66	37	—	500	—	223	57	FA 06	37	500	223	58
1.5		6	14.9	74	0.67	4.4	4.2	1.9	2.0															
5.5	BN 132M	2	18.0	78	0.87	11.7	6.2	2.1	1.9	2.0	270	53	FD 66	50	—	400	—	280	66	FA 06	50	400	280	67
2.2		6	22	77	0.71	5.8	4.3	2.1	2.0															






**2/8P** **3000/750 min-1 - S3 60/40%** **50 HZ**

P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η	cosφ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	d.c. brake						a.c. brake					
											FD						FA					
											Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	IM B5 	Mod
0.25	BN 71A	2	2790	0.86	0.87	0.68	3.9	1.8	1.9	10.9	6.7	FD 03	1.75	1300	1400	12	9.4	FA 03	2.5	1400	12	9.1
0.06		8	680	0.84	0.61	0.46	2.0	1.8	1.9					10000	13000							
0.37	BN 71B	2	2800	1.26	0.86	0.99	3.9	1.8	1.9	12.9	7.7	FD 03	3.5	1200	1300	14	10.4	FA 03	3.5	1300	14	10.1
0.09		8	670	1.28	0.75	0.51	1.8	1.4	1.5					9500	13000							
0.55	BN 80A	2	2830	1.86	0.86	1.40	4.4	2.1	2.0	20	9.9	FD 04	5.0	1500	1800	22	13.8	FA 04	5.0	1800	22	13.7
0.13		8	690	1.80	0.64	0.72	2.3	1.6	1.7					5600	8000							
0.75	BN 80B	2	2800	2.6	0.88	1.81	4.6	2.1	2.0	25	11.3	FD 04	10	1700	1900	27	15.2	FA 04	10	1900	27	15.1
0.18		8	690	2.5	0.66	0.92	2.3	1.6	1.7					4800	7300							
1.10	BN 90L	2	2830	3.7	0.84	3.00	4.5	2.1	1.9	28	14.0	FD 05	13	1400	1600	32	20	FA 05	13	1600	32	21
0.28		8	690	3.9	0.63	1.34	2.4	1.8	1.9					3400	5100							
1.5	BN 100LA	2	2880	5.0	0.85	3.69	4.7	1.9	1.8	40	18.3	FD 15	13	1000	1200	44	25	FA 15	13	1200	44	25
0.37		8	690	5.1	0.63	1.84	2.1	1.6	1.6					3300	5000							
2.4	BN 100LB	2	2900	7.9	0.82	5.6	5.4	2.1	2.0	61	25	FD 15	26	550	700	65	31	FA 15	26	700	65	32
0.55		8	700	7.5	0.58	2.5	2.6	1.8	1.8					2000	3500							
3	BN 112M	2	2900	9.9	0.87	6.5	6.3	2.1	1.9	98	30	FD 06S	40	—	900	107	40	FA 06S	40	900	107	42
0.75		8	690	10.4	0.65	2.8	2.5	1.6	1.6					—	2900							
4	BN 132S	2	2870	13.3	0.84	9.4	5.6	2.3	2.4	213	44	FD 66	37	—	500	223	57	FA 06	37	500	223	58
1		8	690	13.8	0.62	3.5	2.9	1.9	1.8					—	3500							
5.5	BN 132M	2	2870	18.3	0.84	12.6	6.1	2.4	2.5	270	53	FD 06	50	—	400	280	66	FA 06	50	400	280	67
1.5		8	690	21	0.63	5.1	2.9	1.9	1.9					—	2400							







**2/12P**      **3000/500 min-1 - S3 60/40%**      **50 Hz**




P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	d.c. brake						a.c. brake					
											FD						FA					
											Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 
0.55 0.09	<b>BN 80B</b>	2 12	1.86 2.0	64 30	0.89 0.63	1.39 0.69	4.2 1.8	1.6 1.9	1.7 1.8	25	<b>FD 04</b>	5.0	1000 8000	1300 12000	27	15.2	<b>FA 04</b>	5.0	1300 12000	27	15.1	
0.75 0.12	<b>BN 90L</b>	2 12	2.6 2.7	56 26	0.89 0.63	2.17 1.06	4.2 1.7	1.8 1.4	1.7 1.6	26	<b>FD 05</b>	13	1000 4600	1150 6300	30	18.6	<b>FA 05</b>	13	1150 6300	30	19.3	
1.10 0.18	<b>BN 100LA</b>	2 12	3.7 4.0	65 26	0.85 0.54	2.87 1.85	4.5 1.5	1.6 1.3	1.8 1.5	40	<b>FD 15</b>	13	700 4000	900 6000	44	25	<b>FA 15</b>	13	900 6000	44	25	
1.5 0.25	<b>BN 100LB</b>	2 12	4.9 5.4	67 36	0.86 0.46	3.76 2.18	5.6 1.8	1.9 1.7	1.9 1.8	54	<b>FD 15</b>	13	700 3800	900 5000	58	28	<b>FA 15</b>	13	900 5000	58	29	
2 0.3	<b>BN 112M</b>	2 12	6.6 6.2	74 46	0.88 0.43	4.43 2.19	6.5 2.0	2.1 2.1	2.0 2.0	98	<b>FD 06S</b>	20	— —	800 3400	107	40	<b>FA 06S</b>	20	800 3400	107	42	
3 0.5	<b>BN 132S</b>	2 12	9.8 10.2	74 51	0.87 0.43	6.7 3.3	6.8 2.0	2.3 1.7	1.9 1.6	213	<b>FD 56</b>	37	— —	450 3000	223	57	<b>FA 06</b>	37	450 3000	223	58	
4 0.7	<b>BN 132M</b>	2 12	13.1 14.5	75 53	0.89 0.44	8.6 4.3	5.9 1.9	2.4 1.7	2.3 1.6	270	<b>FD 56</b>	37	— —	400 2800	280	66	<b>FA 06</b>	37	400 2800	280	67	





4/6P		1500/1000 min <sup>-1</sup> - S1														50 HZ							
		d.c. brake														a.c. brake							
		FD							FA														
P <sub>n</sub>		n	M <sub>n</sub>	η	cosφ	I <sub>n</sub>	$\frac{I_s}{I_n}$	$\frac{M_s}{M_n}$	$\frac{M_a}{M_n}$	J <sub>m</sub>	IM B5	Mod	Mb	Z <sub>0</sub>	1/h	J <sub>m</sub>	IM B5	Mod	Mb	Z <sub>0</sub>	1/h	J <sub>m</sub>	IM B5
kW		min <sup>-1</sup>	Nm	%		A				kgm <sup>2</sup>			Nm			kgm <sup>2</sup>			Nm			kgm <sup>2</sup>	
0.22	BN 71B	4	1.5	64	0.74	0.67	3.9	1.8	1.9	9.1	7.3	FD 03	3.5	2500	3500	10.2	10.0	FA 03	3.5	3500	3500	10.2	9.7
0.13		6	1.4	43	0.67	0.65	2.3	1.6	1.7					5000	9000						9000		
0.30	BN 80A	4	2.0	61	0.82	0.87	3.5	1.3	1.5	15	8.2	FD 04	5.0	2500	3100	16.6	12.1	FA 04	5.0	3100	6000	16.6	12.0
0.20		6	2.1	54	0.66	0.81	3.2	1.9	2.0					4000	6000						6000		
0.40	BN 80B	4	2.7	63	0.75	1.22	3.9	1.8	1.8	20	9.9	FD 04	10	1800	2300	22	13.8	FA 04	10	2300	5500	22	13.7
0.26		6	2.7	55	0.70	0.97	2.7	1.5	1.6					3600	5500						5500		
0.55	BN 90S	4	3.7	70	0.78	1.45	4.5	2.0	1.9	21	12.2	FD 14	10	1500	2100	23	16.1	FA 14	10	2100	4100	23	16.3
0.33		6	3.4	62	0.70	1.10	3.7	2.3	2.0					2500	4100						4100		
0.75	BN 90L	4	5.0	74	0.78	1.88	4.3	1.9	1.8	28	14	FD 05	13	1400	2000	32	20	FA 05	13	2000	3600	32	21
0.45		6	4.7	66	0.71	1.39	3.3	2.0	1.9					2300	3600						3600		
1.1	BN 100LA	4	7.2	74	0.79	2.72	5.0	1.7	1.9	82	22	FD 15	26	1400	2000	86	28	FA 15	26	2000	3300	86	29
0.8		6	8.0	65	0.69	2.57	4.1	1.9	2.1					2100	3300						3300		
1.5	BN 100LB	4	9.9	75	0.79	3.65	5.1	1.7	1.9	95	25	FD 15	26	1300	1800	99	31	FA 15	26	1800	3000	99	32
1.1		6	11.1	72	0.68	3.24	4.3	2.0	2.1					2000	3000						3000		
2.3	BN 112M	4	15.2	75	0.78	5.7	5.2	1.8	1.9	168	32	FD 06S	40	—	1600	177	42	FA 06S	40	1600	2400	177	44
1.5		6	14.9	73	0.72	4.1	4.9	2.0	2.0					—	2400						2400		
3.1	BN 132S	4	20	83	0.83	6.5	5.9	2.1	2.0	213	44	FD 06	37	—	1200	223	57	FA 06	37	1200	223	223	58
2		6	20	77	0.75	4.9	4.5	2.1	2.1					—	1900						1900		
4.2	BN 132MA	4	27	84	0.82	8.8	5.9	2.1	2.2	270	53	FD 06	50	—	900	280	66	FA 06	50	900	280	280	67
2.6		6	26	79	0.72	6.6	4.3	2.0	2.0					—	1500						1500		



4/8P		1500/750 min <sup>-1</sup> - S1														50 HZ							
		d.c. brake														a.c. brake							
		P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	FD		J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>
NB	SB															Z <sub>0</sub> 1/h	SB						
0.37	BN 80A	4	1400	2.5	63	0.82	1.03	3.3	1.4	1.4	15	8.2	FD 04	10	2300	3500	16.6	12.1	FA 04	10	3500	16.6	12.0
0.18		8	690	2.5	44	0.60	0.98	2.2	1.5	1.6					4500	7000					7000		
0.55	BN 80B	4	1390	3.8	65	0.86	1.42	3.8	1.7	1.6	20	9.9	FD 04	10	2200	2900	22	13.8	FA 04	10	2900	22	13.7
0.30		8	670	4.3	49	0.65	1.36	2.3	1.7	1.8					4200	6500					6500		
0.65	BN 90S	4	1390	4.5	73	0.85	1.51	4.0	1.9	1.9	28	13.6	FD 14	15	2300	2800	30	17.8	FA 14	15	2800	30	17.7
0.35		8	690	4.8	49	0.57	1.81	2.5	2.1	2.2					3500	6000					6000		
0.9	BN 90L	4	1370	6.3	73	0.87	2.05	3.8	1.8	1.8	30	15.1	FD 05	26	1700	2100	34	21	FA 05	26	2100	34	22
0.5		8	670	7.1	57	0.62	2.04	2.4	2.1	2.0					2500	4200					4200		
1.30	BN 100LA	4	1420	8.7	72	0.83	3.14	4.3	1.7	1.8	82	22	FD 15	40	1300	1700	86	28	FA 15	40	1700	86	29
0.70		8	700	9.6	58	0.64	2.72	2.8	1.8	1.8					2000	3400					3400		
1.8	BN 100LB	4	1420	12.1	69	0.87	4.3	4.2	1.6	1.7	95	25	FD 15	40	1200	1700	99	31	FA 15	40	1700	99	32
0.9		8	700	12.3	62	0.63	3.3	3.2	1.7	1.8					1600	2600					2600		
2.2	BN 112M	4	1440	14.6	77	0.85	4.9	5.3	1.8	1.8	168	32	FD 06S	60	—	—	177	42	FA 06S	60	1200	177	43
1.2		8	710	16.1	70	0.63	3.9	3.3	1.9	1.8					—	—	—	—	—	—	2000	—	—
3.6	BN 132S	4	1440	24	80	0.82	7.9	6.5	2.1	1.9	295	45	FD 56	75	—	—	305	58	FA 06	75	1000	305	59
1.8		8	720	24	72	0.55	6.6	4.6	1.9	2.0					—	—	—	—	—		1400	—	—
4.6	BN 132M	4	1450	30	81	0.83	9.9	6.5	2.2	1.9	383	56	FD 06	100	—	—	393	69	FA 07	100	1000	393	74
2.3		8	720	31	73	0.54	8.4	4.4	2.3	2.0					—	—	—	—	—		1300	—	—







2P		3000 min <sup>-1</sup> - S1										50 Hz															
P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	d.c. brake					a.c. brake							
															FD					FA							
															Mod	Mb Nm	Z <sub>o</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>o</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	
0.18	M 05A	2	2730	0.63	○	59.9	56.9	51.9	0.77	0.56	3.0	2.1	2.0	3.2	FD 02	1.75	3900	4800	3900	4800	2.6	4.9	FA 02	1.75	4800	2.6	4.7
0.25	M 05B	2	2740	0.87	○	66.0	64.8	64.8	0.76	0.72	3.3	2.3	2.3	3.6	FD 02	1.75	3900	4800	3900	4800	3.0	5.3	FA 02	1.75	4800	3.0	5.1
0.37	M 05C	2	2800	1.26	○	69.1	66.8	66.8	0.78	0.99	3.9	2.6	2.6	4.8	FD 02	3.5	3600	4500	3600	4500	3.9	6.5	FA 02	3.5	4500	3.9	6.3
0.55	M 15D	2	2820	1.86	○	76.0	75.8	74.8	0.76	1.37	5.0	2.9	2.8	5.8	FD 03	5	2900	4200	2900	4200	5.3	8.5	FA 03	5	4200	5.3	8.2
0.75	M 15A	2	2810	2.6	○	76.6	76.2	76.2	0.76	1.86	5.1	3.1	2.8	6.9	FD 03	5	1900	3300	1900	3300	6.1	9.6	FA 03	5	3300	6.1	9.3
1.1	M 25A	2	2800	3.8	●	76.4	76.2	75.0	0.81	2.57	4.8	2.8	2.4	8.8	FD 04	10	1500	3000	1500	3000	10.6	11.9	FA 04	10	3000	10.6	12.6
1.5	M 25B	2	2800	5.1	●	79.1	79.5	77.2	0.81	3.4	4.9	2.7	2.4	10.6	FD 04	15	1300	2600	1300	2600	13.0	9.9	FA 04	15	2600	13.0	14.4
2.2	M 35A	2	2880	7.3	●	82.7	82.1	81.0	0.80	4.8	6.3	2.9	2.7	15.5	FD 15	26	1100	2400	1100	2400	28	22	FA 15	26	2400	28	23
3	M 35LA	2	2860	10.0	●	81.5	81.3	77.4	0.79	6.7	5.6	2.6	2.2	18.7	FD 15	26	700	1600	700	1600	35	25	FA 15	26	1600	35	26
4	M 35LB	2	2870	13.3	●	83.1	83.0	77.8	0.80	8.7	5.8	2.7	2.5	22	FD 15	40	450	900	450	900	43	28	FA 15	40	900	43	29
5.5	M 45A	2	2890	18.2	●	84.7	84.5	81.2	0.84	11.2	5.9	2.6	2.2	33	FD 06	50	—	600	—	600	112	46	FA 06	50	600	112	47
7.5	M 45B	2	2900	25	●	86.5	86.3	84.4	0.85	14.7	6.4	2.6	2.2	40	FD 06	50	—	550	—	550	154	53	FA 06	50	550	154	54
9.2	M 45LA	2	2930	30	●	87.0	86.5	83.6	0.86	17.7	6.7	2.8	2.3	51	FD 06	75	—	430	—	430	189	64	FA 06	75	430	189	65
11	M 45LC	2	2920	36	●	87.6	87.0	86.0	0.88	20.6	6.9	2.9	2.5	60	FD 06	75	—	—	—	—	189	64	FA 06	75	430	189	65
15	M 55B	2	2930	49	●	89.6	89.4	88.0	0.86	28.1	7.1	2.6	2.3	70	FD 06	75	—	—	—	—	189	64	FA 06	75	430	189	65
18.5	M 55C	2	2930	60	●	90.4	90.1	89.0	0.86	34	7.6	2.7	2.3	83	FD 06	75	—	—	—	—	189	64	FA 06	75	430	189	65
22	M 55LA	2	2930	72	●	89.9	89.7	89.5	0.88	40	7.8	2.6	2.4	95	FD 06	75	—	—	—	—	189	64	FA 06	75	430	189	65

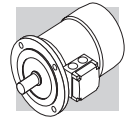
○ = n.a. ● = IE1






**4P** **1500 min<sup>-1</sup> - S1** **50 Hz**

P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	In 400V A	Is In %	Ms Mn %	Ma Mn %	d.c. brake										a.c. brake				
													FD					FA									
													Mod	Mb Nm	Z <sub>c</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>c</sub> 1/h	IM B5 	IM B5 			
0.09	M 0B	4	1350	0.64	51.7	47.6	42.9	0.60	0.42	2.6	2.5	2.4	1.5	2.9	IM B5	FD 02	1.75	10000	13000	2.6	4.9	FA 02	1.75	13000	2.6	4.7	
0.12	M 05A	4	1350	0.85	59.8	56.2	47.0	0.62	0.47	2.6	1.9	1.8	2.0	3.2	IM B5	FD 02	3.5	10000	13000	3.0	5.3	FA 02	3.5	13000	3.0	5.1	
0.18	M 05B	4	1320	1.30	54.8	52.9	52.5	0.67	0.71	2.6	2.2	2.0	2.3	3.6	IM B5	FD 02	3.5	7800	10000	3.9	6.5	FA 02	3.5	10000	3.9	6.3	
0.25	M 05C	4	1340	1.78	65.3	65.0	57.9	0.69	0.80	2.7	2.1	1.9	3.3	4.8	IM B5	FD 02	5	6000	9400	8.0	8.2	FA 03	5	9400	8.0	7.9	
0.37	M 15D	4	1370	2.6	66.8	66.7	63.0	0.76	1.05	3.7	2.0	1.9	6.9	5.5	IM B5	FD 03	7.5	4300	8700	10.2	9.6	FA 03	7.5	8700	10.2	9.3	
0.55	M 1LA	4	1380	3.8	69.0	68.9	68.8	0.74	1.55	4.1	2.3	2.3	9.1	6.9	IM B5	FD 53	15	4100	7800	22	13.1	FA 04	15	7800	22	13.0	
0.75	M 25A	4	1400	5.1	75.0	74.5	69.3	0.78	1.85	4.9	2.7	2.5	20	9.2	IM B5	FD 04	15	2600	5300	27	14.5	FA 04	15	5300	27	14.4	
1.1	M 25B	4	1400	7.5	76.4	76.2	70.4	0.78	2.66	5.1	2.8	2.5	25	10.6	IM B5	FD 04	26	2800	4900	38	22	FA 15	26	4900	38	23	
1.5	M 35A	4	1410	10.2	79.6	80.5	79.3	0.77	3.5	4.6	2.1	2.1	34	15.5	IM B5	FD 15	40	2600	4700	44	24	FA 15	40	4700	44	24	
2.2	M 3LA	4	1410	14.9	81.1	81.4	79.9	0.75	5.2	4.5	2.2	2.0	40	17	IM B5	FD 15	40	2400	4400	58	27	FA 15	40	4400	58	28	
3	M 3LB	4	1410	20	82.6	83.8	83.7	0.77	6.8	5.0	2.3	2.2	54	21	IM B5	FD 15	55	—	1300	65	29	FA 15	40	1300	65	30	
4	M 3LC	4	1400	27	82.7	83.1	80.5	0.78	9.0	4.7	2.3	2.2	61	23	IM B5	FD 55	75	—	1050	223	55	FA 06	75	1050	223	56	
5.5	M 45A	4	1440	36	84.7	84.8	82.5	0.81	11.6	5.5	2.3	2.2	213	42	IM B5	FD 56	100	—	950	280	64	FA 07	100	950	280	65	
7.5	M 4LA	4	1440	50	86.0	86.3	85.3	0.81	15.5	5.7	2.5	2.4	270	51	IM B5	FD 06	150	—	900	342	73	FA 07	150	900	342	75	
9.2	M 4LB	4	1440	61	88.4	88.6	87.5	0.81	18.8	5.9	2.7	2.5	319	57	IM B5	FD 07	150	—	850	382	81	FA 07	150	850	382	83	
11	M 4LC	4	1440	73	87.6	87.8	86.0	0.81	22.4	6.0	2.7	2.5	360	65	IM B5	FD 07	200	—	750	710	115	FA 08	200	750	710	114	
15	M 55B	4	1460	98	88.7	88.5	88.4	0.81	30.1	6.0	2.3	2.1	650	85	IM B5	FD 08	250	—	700	865	131	FA 08	250	700	850	130	
18.5	M 5LA	4	1460	121	89.3	89.5	89.2	0.81	37	6.2	2.6	2.5	790	101	IM B5	FD 08											

○ = n.a.      ● = IE1



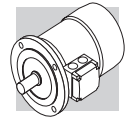
**6P**      **1000 min<sup>-1</sup> - S1**      **50 Hz**

P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	IE1	η (100%) %	η (75%) %	η (50%) %	cosφ	In 400V A	Is In %	Ms Mn %	Ma Mn %	d.c. brake					a.c. brake						
													FD					FA						
													Mod	Mb Nm	Z <sub>c</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>c</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 		
0.09	M 05A	6	0.98	○	41.0	41.0	32.9	0.53	0.60	2.1	2.1	1.8	4.3	FD 02	3.5	9000	14000	4.0	6.0	FA 02	3.5	14000	4.0	5.8
0.12	M 05B	6	1.32	○	45.0	44.0	41.8	0.60	0.64	2.1	1.9	1.7	4.6	FD 02	3.5	9000	14000	4.3	6.3	FA 02	3.5	14000	4.3	6.1
0.18	M 15C	6	1.91	○	55.0	55.5	51.0	0.69	0.68	2.6	1.9	1.7	5.1	FD 03	5	8100	13500	9.5	7.8	FA 03	5	13500	9.5	7.5
0.25	M 15D	6	2.7	○	62.0	58.5	51.4	0.71	0.82	2.6	1.9	1.7	6.3	FD 03	5	7800	13000	12	9.0	FA 03	5	13000	12	8.7
0.37	M 1LA	6	3.9	○	66.0	60.0	53.3	0.69	1.17	3.0	2.4	2.0	7.3	FD 53	7.5	5100	9500	14	10.0	FA 03	7.5	9500	14	9.7
0.55	M 25A	6	5.7	○	70.0	69.8	64.3	0.68	1.67	3.9	2.6	2.2	10.6	FD 04	15	4800	7200	27	14.5	FA 04	15	7200	27	14.4
0.75	M 25B	6	7.8	●	70.0	70.0	64.4	0.65	2.38	3.8	2.5	2.2	11.5	FD 04	15	3400	6400	30	15.4	FA 04	15	6400	30	15.3
1.1	M 35A	6	11.4	●	75.0	74.0	72.0	0.72	2.9	4.3	2.0	1.8	17	FD 15	26	2700	5000	37	23	FA 15	26	5000	37	24
1.5	M 3LA	6	15.2	●	75.2	74.2	70.3	0.72	4.0	4.1	2.1	2.0	21	FD 15	40	1900	4100	86	27	FA 15	40	4100	86	28
1.85	M 3LB	6	19.0	●	76.6	72.8	62.6	0.73	4.8	4.6	2.1	2.0	23	FD 15	40	1700	3600	99	29	FA 15	40	3600	99	30
2.2	M 3LC	6	23	●	77.7	76.8	72.4	0.71	5.8	4.7	2.3	2.1	23	FD 55	55	—	1900	99	29	FA 15	40	1900	99	30
3	M 45A	6	30	●	79.7	77.0	75.1	0.76	7.1	5.1	1.9	1.8	34	FD 56	75	—	1400	226	47	FA 06	75	1400	226	48
4	M 4LA	6	40	●	81.4	81.5	79.5	0.77	9.2	5.5	2.0	1.8	43	FD 06	100	—	1200	305	56	FA 07	100	1200	305	57
5.5	M 4LB	6	56	●	83.1	80.9	79.1	0.78	12.2	6.1	2.1	1.9	54	FD 07	150	—	1050	406	70	FA 07	150	1050	406	72
7.5	M 55A	6	75	●	85.0	85.0	84.8	0.81	15.7	5.9	2.2	2.0	69	FD 08	170	—	900	815	98	FA 08	170	900	800	98
11	M 55B	6	109	●	86.4	86.5	85.9	0.81	22.7	6.6	2.5	2.3	89	FD 08	200	—	800	1045	119	FA 08	200	800	1030	118





○ = n.a.      ● = IE1

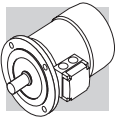






2/4P		3000/1500 min <sup>-1</sup> - S1														50 Hz							
		d.c. brake														a.c. brake							
		P <sub>n</sub> kW	IM B5	n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 Kg	Mod	Mb Nm	FD		FA					
Z <sub>0</sub> 1/h	NB															SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 Kg	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 Kg
0.20	M 05A	2	2700	0.71	55	0.82	0.64	3.5	2.1	1.9	2.9	4.1	FD 02	3.5	2200	2600	5100	FA 02	3.5	2600	5100	3.5	5.6
0.15		4	1350	1.06	49	0.67	0.66	2.6	1.8	1.7													
0.28	M 1SB	2	2700	0.99	56	0.82	0.88	2.9	1.9	1.7	4.7	4.0	FD 03	3.5	2100	2400	4800	FA 03	3.5	2400	4800	5.8	6.4
0.20		4	1370	1.39	59	0.68	1.02	3.1	1.8	1.7													
0.37	M 1SC	2	2740	1.29	56	0.82	1.16	3.5	1.8	1.8	5.8	4.7	FD 03	5	1400	2100	4200	FA 03	5	2100	4200	6.9	7.1
0.25		4	1390	1.72	60	0.73	0.82	3.3	2.0	1.9													
0.45	M 1SD	2	2780	1.55	63	0.85	1.21	3.8	1.8	1.8	6.9	5.5	FD 03	5	1400	2100	4200	FA 03	5	2100	4200	8.0	7.9
0.30		4	1400	2.0	63	0.74	0.93	3.8	2.1	1.9													
0.55	M 1LA	2	2800	1.9	73	0.79	1.38	4.2	2.0	1.8	9.1	6.9	FD 03	5	1600	2200	4600	FA 03	5	2200	4600	10.2	9.3
0.37		4	1400	2.5	68	0.72	1.09	3.9	2.2	2.0													
0.75	M 2SA	2	2780	2.6	65	0.85	1.96	3.8	1.9	1.8	20	9.2	FD 04	10	1400	1600	3600	FA 04	10	1600	3600	22	13.0
0.55		4	1400	3.8	68	0.81	1.44	3.9	1.7	1.7													
1.1	M 2SB	2	2730	3.9	65	0.86	2.84	3.9	2.0	1.9	25	10.7	FD 04	10	1200	1500	3100	FA 04	10	1500	3100	27	14.5
0.75		4	1410	5.1	75	0.81	1.78	4.5	2.1	2.0													
1.5	M 3SA	2	2830	5.1	74	0.83	3.5	4.7	2.1	2.0	34	15.5	FD 15	26	700	1000	2600	FA 15	26	1000	2600	38	23
1.1		4	1420	7.4	77	0.78	2.6	4.3	2.1	2.0													
2.2	M 3LA	2	2800	7.5	72	0.85	5.2	4.5	2.0	1.9	40	17	FD 15	26	600	900	2300	FA 15	26	900	2300	44	24
1.5		4	1410	10.2	73	0.79	3.8	4.7	2.0	2.0													
3.5	M 3LB	2	2850	11.7	80	0.84	7.5	5.4	2.2	2.1	61	23	FD 15	40	500	900	2100	FA 15	40	900	2100	65	30
2.5		4	1420	16.8	82	0.80	5.5	5.2	2.2	2.2													
4.8	M 4 SA	2	2900	15.8	81	0.88	9.7	6.0	2.0	1.9	213	42	FD 06	50	—	400	—	FA 06	50	400	—	233	56
3.8		4	1430	25.4	81	0.84	8.1	5.2	2.1	2.1													
5.5	M 4SB	2	2890	18.2	80	0.87	11.4	5.9	2.4	2.0	213	42	FD 06	75	—	350	—	FA 06	75	350	—	223	56
4.4		4	1440	29	82	0.84	9.2	5.3	2.2	2.0													
7.5	M 4LA	2	2900	25	82	0.87	15.2	6.5	2.4	2.0	270	51	FD 06	100	—	350	—	FA 07	100	350	—	280	65
6		4	1430	40	84	0.85	12.1	5.8	2.3	2.1													
9.2	M 4LB	2	2920	30	83	0.86	18.6	6.0	2.6	2.2	319	57	FD 07	150	—	300	—	FA 07	150	300	—	342	75
7.3		4	1440	48	85	0.85	14.6	5.5	2.3	2.1													



**2/6P**      **3000/1000 min<sup>-1</sup> - S3 60/40%**      **50 Hz**

P <sub>n</sub> kW			n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	d.c. brake						a.c. brake								
													FD						FA								
													Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	Nim	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 		
0.25	<b>M 1SA</b>	2	2850	0.84	60	0.82	0.73	4.3	1.9	1.8	6.9	5.5	<b>FD 03</b>	1.75	1500	1700	10000	9000	8.0	8.2	<b>FA 03</b>	1.75	1700	13000	11000	10.2	9.3
0.08	<b>6</b>	<b>6</b>	910	0.84	43	0.70	0.38	2.1	1.4	1.5					10000	13000											
0.37	<b>M 1LA</b>	2	2880	1.23	62	0.80	1.08	4.4	1.9	1.8	9.1	6.9	<b>FD 03</b>	3.5	1000	1300	10000	9000	10.2	9.6	<b>FA 03</b>	3.5	1300	10200	11000	10.2	9.3
0.12	<b>6</b>	<b>6</b>	900	1.27	44	0.73	0.54	2.4	1.4	1.5					9000	11000											
0.55	<b>M 2SA</b>	2	2800	1.88	63	0.86	1.47	4.5	1.9	1.7	20	9.2	<b>FD 04</b>	5	1500	1800	3800	2100	22	13.1	<b>FA 04</b>	5	1800	6300	6000	22	13.0
0.18	<b>6</b>	<b>6</b>	930	1.85	52	0.65	0.77	3.3	2.0	1.9					4100	6300											
0.75	<b>M 2SB</b>	2	2800	2.6	66	0.87	1.89	4.3	1.8	1.6	25	10.6	<b>FD 04</b>	5	1700	1900	6000	3800	27	14.5	<b>FA 04</b>	5	1900	6000	6000	27	14.4
0.25	<b>6</b>	<b>6</b>	930	2.6	54	0.67	1.00	3.2	1.7	1.8					3800	6000											
1.1	<b>M 3SA</b>	2	2870	3.7	71	0.82	2.73	4.9	1.8	1.9	34	15.5	<b>FD 15</b>	13	1000	1300	5000	2100	38	22	<b>FA 15</b>	13	1300	5000	3000	38	23
0.37	<b>6</b>	<b>6</b>	930	3.8	63	0.70	1.21	3.1	1.5	1.8					3500	5000											
1.5	<b>M 3LA</b>	2	2880	5.0	73	0.84	3.53	5.1	1.9	2.0	40	17	<b>FD 15</b>	13	1000	1200	4000	2900	44	24	<b>FA 15</b>	13	1200	4000	4000	44	24
0.55	<b>6</b>	<b>6</b>	940	5.6	64	0.67	1.85	3.5	1.7	1.8					2900	4000											
2.2	<b>M 3LB</b>	2	2900	7.2	77	0.85	4.9	5.9	2.0	2.0	61	23	<b>FD 15</b>	26	700	900	3000	2100	65	29	<b>FA 15</b>	26	900	3000	3000	65	30
0.75	<b>6</b>	<b>6</b>	950	7.5	67	0.64	2.5	3.3	1.9	1.8					2100	3000											
3	<b>M 4SA</b>	2	2910	9.9	74	0.88	6.6	5.6	2.0	2.1	170	36	<b>FD 56</b>	37	—	600	2200	—	182	48	<b>FA 06</b>	37	600	2200	1900	182	50
1.1	<b>6</b>	<b>6</b>	960	10.9	73	0.68	3.2	4.5	2.2	2.0					—	2200											
4.5	<b>M 4SB</b>	2	2910	14.8	78	0.84	9.9	5.8	1.9	1.8	213	42	<b>FD 56</b>	37	—	500	2100	—	223	55	<b>FA 06</b>	37	500	2100	2100	223	56
1.5	<b>6</b>	<b>6</b>	960	14.9	74	0.67	4.4	4.2	1.9	2.0					—	2100											
5.5	<b>M 4LA</b>	2	2920	18.0	78	0.87	11.7	6.2	2.1	1.9	270	51	<b>FD 06</b>	50	—	400	1900	—	280	64	<b>FA 06</b>	50	400	1900	1900	280	65
2.2	<b>6</b>	<b>6</b>	960	22	77	0.71	5.8	4.3	2.1	2.0					—	1900											






2/8P		3000/750 min <sup>-1</sup> - S3 60/40%														50 Hz									
		d.c. brake														a.c. brake									
		P <sub>n</sub> kW	IM B5 	n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 	Mod	Mb Nm	FD		IM B5 	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5 		
NB	SB															Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>							Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>
0.37	M 1LA	2	2800	1.26	63	0.86	0.99	3.9	1.8	1.9	12.9	7.3	FD 03	3.5	1200	1300	14	FA 03	3.5	1300	14	1300	14	9.7	
0.09		8	670	1.28	34	0.75	0.51	1.8	1.4	1.5					9500	13000									
0.55	M 2SA	2	2830	1.86	66	0.86	1.40	4.4	2.1	2.0	20	9.2	FD 04	5	1500	1800	22	FA 04	5	1800	22	1800	22	13.0	
0.13		8	690	1.80	41	0.64	0.72	2.3	1.6	1.7					5600	8000									
0.75	M 2SB	2	2800	2.6	68	0.88	1.81	4.6	2.1	2.0	25	10.6	FD 04	10	1700	1900	27	FA 04	10	1900	27	1900	27	14.4	
0.18		8	690	2.5	43	0.66	0.92	2.3	1.6	1.7					4800	7300									
1.1	M 3SA	2	2870	3.7	69	0.84	2.74	4.6	1.8	1.7	34	15.5	FD 15	13	1000	1300	38	FA 15	13	1300	38	1300	38	23	
0.28		8	690	3.9	44	0.56	1.64	2.3	1.4	1.7					3400	5000									
1.5	M 3LA	2	2880	5.0	69	0.85	3.69	4.7	1.9	1.8	40	17	FD 15	13	1000	1200	44	FA 15	13	1200	44	1200	44	24	
0.37		8	690	5.1	46	0.63	1.84	2.1	1.6	1.6					3300	5000									
2.4	M 3LB	2	2900	7.9	75	0.82	5.6	5.4	2.1	2.0	61	23	FD 15	26	550	700	65	FA 15	26	700	65	700	65	30	
0.55		8	700	7.5	54	0.58	2.5	2.6	1.8	1.8					2000	3500									
3	M 4SA	2	2920	9.8	72	0.85	7.1	5.6	2.0	1.8	162	36	FD 56	37	—	600	182	48	FA 06	37	600	182	600	182	50
0.75		8	710	10.1	61	0.64	2.8	3.0	1.7	1.8					—	3400									
4	M 4SB	2	2870	13.3	73	0.84	9.4	5.6	2.3	2.4	213	42	FD 56	37	—	500	223	55	FA 06	37	500	223	500	223	56
1		8	690	13.8	66	0.62	3.5	2.9	1.9	1.8					—	3500									
5.5	M 4LA	2	2870	18.3	75	0.84	12.6	6.1	2.4	2.5	270	51	FD 06	50	—	400	280	64	FA 06	50	400	280	400	280	65
1.5		8	690	21	68	0.63	5.1	2.9	1.9	1.9					—	2400									





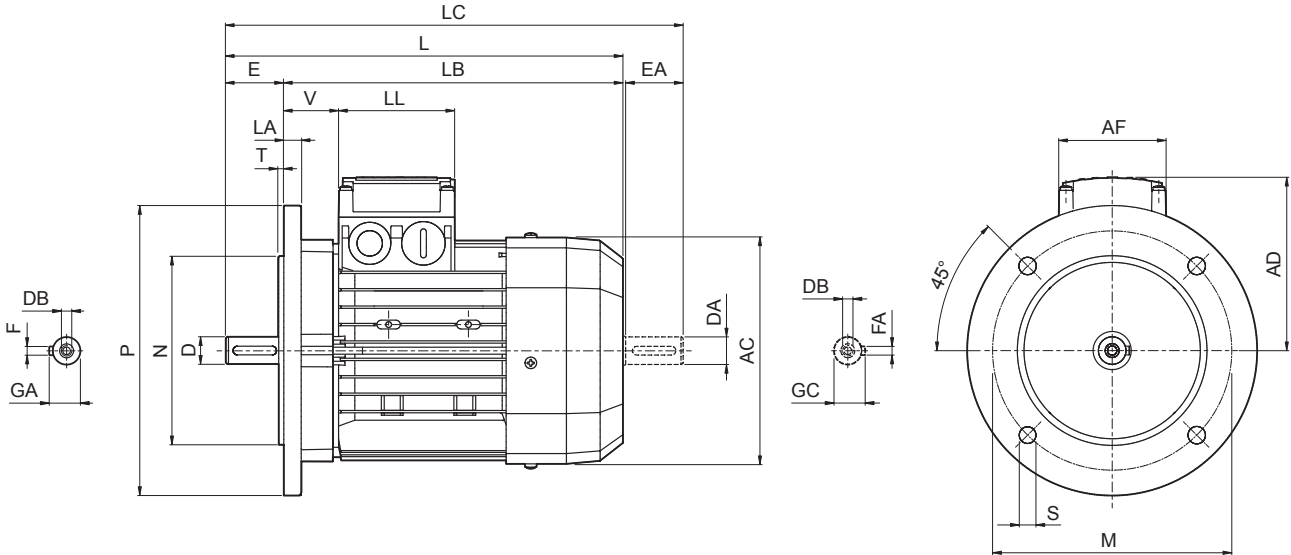
**2/12P**      **3000/500 min<sup>-1</sup> - S3 60/40%**      **50 Hz**

P <sub>n</sub> kW		n min <sup>-1</sup>	M <sub>n</sub> Nm	η %	cos φ	I <sub>n</sub> 400V A	I <sub>s</sub> I <sub>n</sub>	M <sub>s</sub> M <sub>n</sub>	M <sub>a</sub> M <sub>n</sub>	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5  Kg	d.c. brake						a.c. brake					
												FD			FA			FD			FA		
												Mod	Mb Nm	Z <sub>0</sub> 1/h	NB	SB	Mod	Mb Nm	Z <sub>0</sub> 1/h	J <sub>m</sub> x 10 <sup>-4</sup> kgm <sup>2</sup>	IM B5  Kg	Mod	Mb Nm
0.55	<b>M 2SA</b>	2820	1.86	64	0.89	1.39	4.2	1.6	1.7	25	10.6	<b>FD 04</b>	5	1000	1300	27	14.5	<b>FA 04</b>	5	1300	27	14.4	
0.09	<b>12</b>	430	2.0	30	0.63	0.69	1.8	1.9	1.8					8000	12000								
0.75	<b>M 3SA</b>	2900	2.5	65	0.81	2.06	5.2	1.9	2.1	34	15.5	<b>FD 15</b>	13	700	900	38	22	<b>FA 15</b>	13	900	38	23	
0.12	<b>12</b>	460	2.5	33	0.43	1.22	1.9	1.3	1.6					5000	7000								
1.1	<b>M 3LA</b>	2850	3.7	65	0.85	2.87	4.5	1.6	1.8	40	17	<b>FD 15</b>	13	700	900	44	24	<b>FA 15</b>	13	900	44	24	
0.18	<b>12</b>	430	4.0	26	0.54	1.85	1.5	1.3	1.5					4000	6000								
1.5	<b>M 3LB</b>	2900	4.9	67	0.86	3.76	5.6	1.9	1.9	54	21	<b>FD 15</b>	13	700	900	58	27	<b>FA 15</b>	13	900	58	28	
0.25	<b>12</b>	440	5.4	36	0.46	2.18	1.8	1.7	1.8					3800	5000								
2	<b>M 3LC</b>	2850	6.7	70	0.84	4.9	4.9	1.8	1.7	61	23	<b>FD 55</b>	18	—	700	65	29	<b>FA 15</b>	18	700	65	30	
0.3	<b>12</b>	450	6.4	38	0.47	2.4	1.7	1.6	1.7					—	3500								
3	<b>M 4SA</b>	2920	9.8	74	0.87	6.7	6.8	2.3	1.9	213	42	<b>FD 56</b>	37	—	450	223	55	<b>FA 06</b>	37	450	223	56	
0.5	<b>12</b>	470	10.2	51	0.43	3.3	2.0	1.7	1.6					—	3000								
4	<b>M 4LA</b>	2920	13.1	75	0.89	8.6	5.9	2.4	2.3	270	51	<b>FD 56</b>	37	—	400	280	64	<b>FA 06</b>	37	400	280	65	
0.7	<b>12</b>	460	14.5	53	0.44	4.3	1.9	1.7	1.6					—	2800								



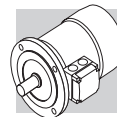
**M11 MOTORS DIMENSIONS**

**BN - IM B5**

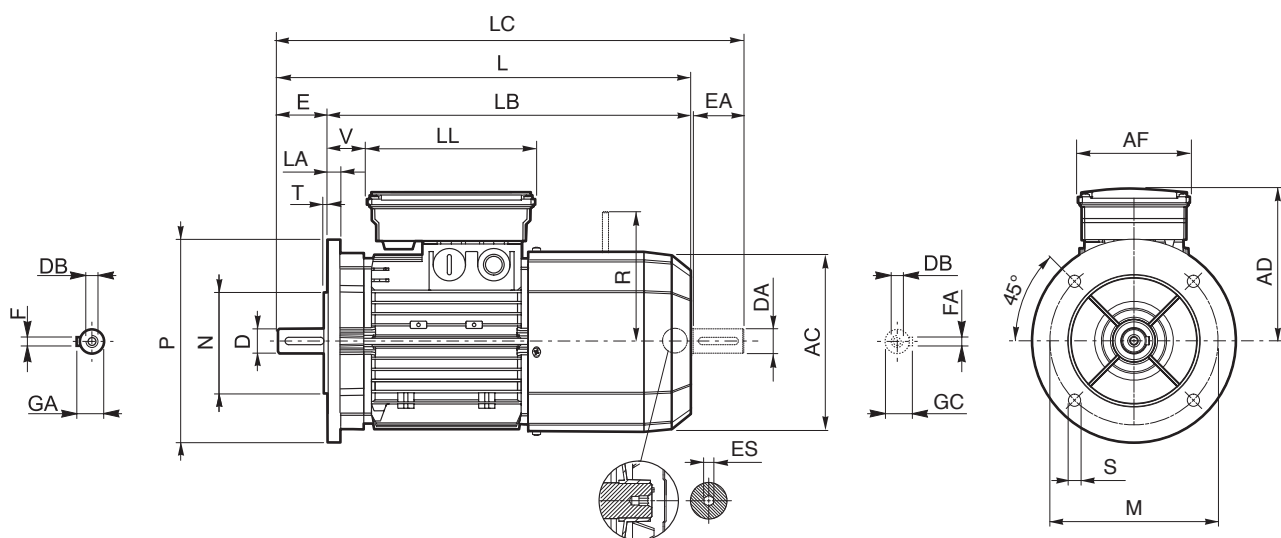


	Shaft					Flange					Motor								
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V
<b>BN 56</b>	9	20	M3	10.2	3	100	80	120	7	3	8	110	185	165	207	91	74	80	34
<b>BN 63</b>	11	23	M4	12.5	4	115	95	140	9.5		10	121	207	184	232	95			26
<b>BN 71</b>	14	30	M5	16	5	130	110	160			11.5	11.5	138	249	219	281			108
<b>BN 80</b>	19	40	M6	21.5	6	165	130	200	11.5	3.5	14	156	274	234	315	119	98	98	38
<b>BN 90</b>	24	50	M8	27	8							176	326	276	378	133			44
<b>BN 100</b>	28	60	M10	31	8	215	180	250	14	4	15	195	367	307	429	142	118	118	50
<b>BN 112</b>											20	219	385	325	448	157			52
<b>BN 132</b>	38	80	M12	41	10	265	230	300	18.5	5	20	258	493	413	576	193	187	187	58
<b>BN 160 MR</b>	42 38 <sup>(1)</sup>	110 80 <sup>(1)</sup>	M16 M12 <sup>(1)</sup>	45 41 <sup>(1)</sup>	12 10 <sup>(1)</sup>	300	250	350			15		310	596	486				680
<b>BN 160 M</b>									18	310	640	530	724	261	51				
<b>BN 160 L</b>	48 38 <sup>(1)</sup>	110 110 <sup>(1)</sup>	M16 M16 <sup>(1)</sup>	51.5 41 <sup>(1)</sup>	14 10 <sup>(1)</sup>	350	300	400	18	348	708	598	823	261	52				
<b>BN 180 M</b>									18	348	722	612	837	66					
<b>BN 180 L</b>	48 42 <sup>(1)</sup>	110 110 <sup>(1)</sup>	M16 M16 <sup>(1)</sup>	51.5 45 <sup>(1)</sup>	14 12 <sup>(1)</sup>	350	300	400	18	348	708	598	823	261	52				
<b>BN 200 L</b>									18	348	722	612	837	66					

NOTE:  
1) These values refer to the rear shaft end.



# BN\_FD ; IM B5



	Shaft					Flange					Motor										
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
<b>BN 63</b>	11	23	M4	12.5	4	115	95	140	9.5	3		121	272	249	297	122			14	96	
<b>BN 71</b>	14	30	M5	16	5	130	110	160	9.5		10	138	310	280	342	135	98	133	25	103	5
<b>BN 80</b>	19	40	M6	21.5	6					3.5		156	346	306	388	146			41		
<b>BN 90 S</b>	24	50	M8	27	8	165	130	200	11.5	4	11.5	176	409	359	461	149	110	165	39	129	6
<b>BN 90 L</b>																146					
<b>BN 100</b>	28	60	M10	31	8	215	180	250	14	4	14	195	458	398	521	158	110	165	62	160	6
<b>BN 112</b>												219	484	424	547	173					
<b>BN 132</b>	38	80	M12	41	10	265	230	300			20		603	523	686		140	188	46	204 <sup>(2)</sup>	
<b>BN 160 MR</b>	42	110	M16	45	12	300	250	350	18.5	5	15	258	672	562	755	210	140	188	161	226	—
<b>BN 160 M</b>	38 <sup>(1)</sup>																				
<b>BN 160 L</b>	42	80 <sup>(1)</sup>	M12 <sup>(1)</sup>									310	736	626	820	245			51	266	
<b>BN 180 M</b>	48	110	M16	51.5	14	350	300	400	18.5	5	18	348	780	670	864	187	187	187	52	305	—
<b>BN 180 L</b>	38 <sup>(1)</sup>			41 <sup>(1)</sup>	10 <sup>(1)</sup>																
<b>BN 200 L</b>	55	110 <sup>(1)</sup>	M20	59	16	350	300	400	18.5		18	348	878	768	993	261			64		

NOTE:

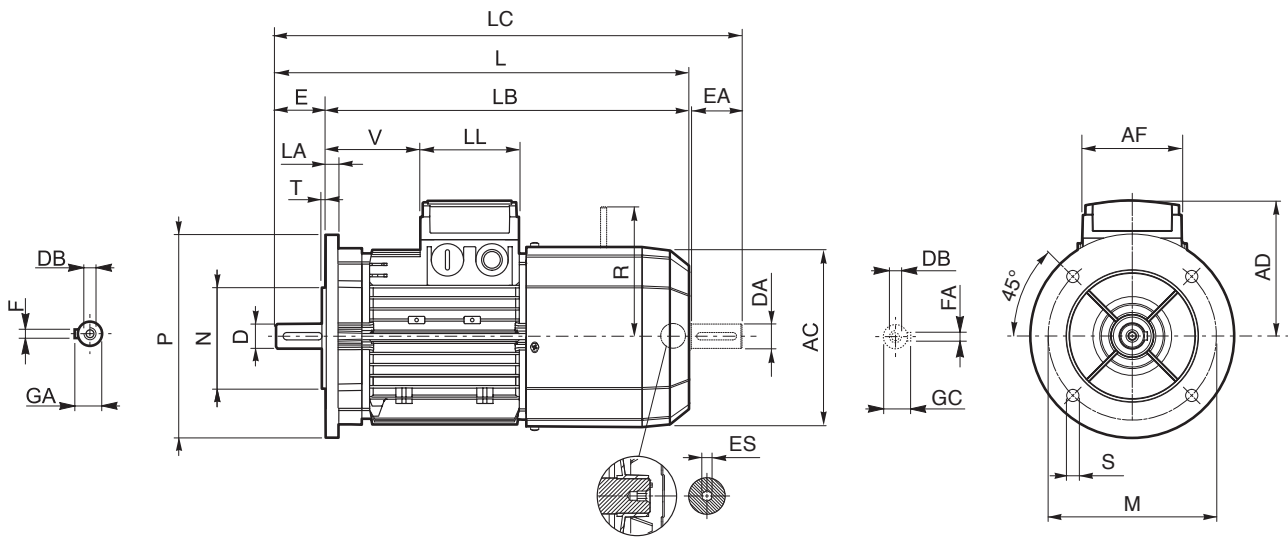
1) These values refer to the rear shaft end.

2) For FD07 brake value R=226.

ES hexagon is not supplied with PS option.



## BN\_FA - IM B5



	Shaft					Flange						Motor									
	D DA	E EA	DB	GA GC	F FA	M	N	P	S	T	LA	AC	L	LB	LC	AD	AF	LL	V	R	ES
<b>BN 63</b>	11	23	M4	12.5	4	115	95	140	9.5	3	10	121	272	249	297	95	74	80	26	116	5
<b>BN 71</b>	14	30	M5	16	5	130	110	160				138	310	280	342	108			68	124	
<b>BN 80</b>	19	40	M6	21.5	6	165	130	200	11.5	3.5	11.5	156	346	306	388	119	98	98	83	134	6
<b>BN 90</b>	24	50	M8	27	176							409	359	461	133	95			160		
<b>BN 100</b>	28	60	M10	31	8	215	180	250	14	4	14	195	458	398	521	142	119	128	198	200 <sup>(2)</sup>	
<b>BN 112</b>												15	219	484	424	547					157
<b>BN 132</b>	38	80	M12	41	10	265	230	300	18.5	5	15	20	603	523	686	210	140	188	46	217	
<b>BN 160 MR</b>	42 38 <sup>(1)</sup>	110 80 <sup>(1)</sup>	M16 M12 <sup>(1)</sup>	45 41 <sup>(1)</sup>	12 10 <sup>(1)</sup>	300	250	350				18.5									5
<b>BN 160 M</b>									310	736	626		820	245	187	187	51	247	—		
<b>BN 160 L</b>									780	670	864		—	—	—	—	—	—	—		
<b>BN 180 M</b>	48 38 <sup>(1)</sup>	—	—	51.5 41 <sup>(1)</sup>	14 10 <sup>(1)</sup>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### NOTE:

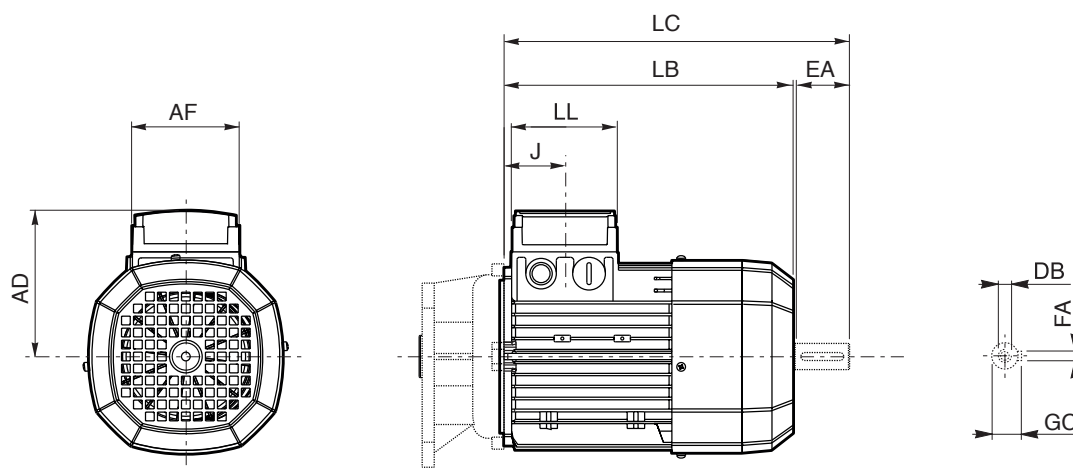
- 1) These values refer to the rear shaft end.
- 2) For FA07 brake value R=217.

Dimensions AD, AF, LL and V, relevant to terminal box of motors BN...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size BN...FD motors

ES hexagon is not supplied with PS option.



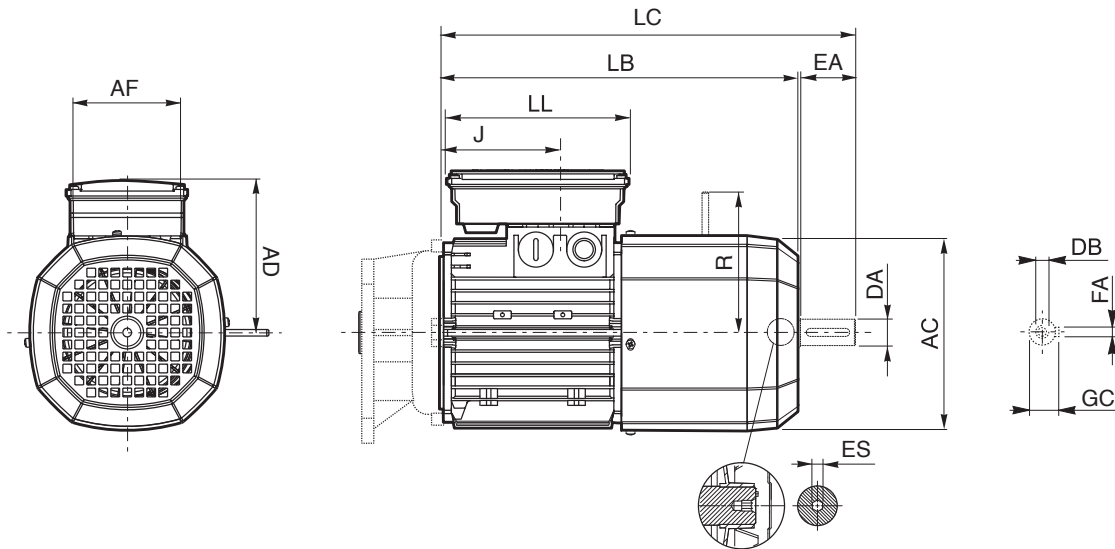
# M



	Rear shaft end					Motor						
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD
<b>M 0</b>	9	20	M3	3	10.2	110	133	155	74	80	42	91
<b>M 05</b>	11	23	M4	4	12.5	121	165	191			48	95
<b>M 1</b>	14	30	M5	5	16	138	187	219			45	108
<b>M 2 S</b>	19	40	M6	6	21.5	156	202	245			44	119
<b>M 3 S</b>	28	60	M10	8	31	195	230	293	98	98	53.5	142
<b>M 3 L</b>							262	325				
<b>M 4</b>	38	80	M12	10	41	258	361	444	118	118	64.5	193
<b>M 4 LC</b>							396	479				
<b>M 5 S</b>						310	418	502	187	187	77	245
<b>M 5 L</b>							462	546				



# M\_FD



	Rear shaft end					Motor								
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES
<b>M 05</b>	11	23	M4	4	12.5	121	231	256	98	133	48	122	96	5
<b>M 1</b>	14	30	M5	5	16	138	248	280			73	135	103	
<b>M 2 S</b>	19	40	M6	6	21.5	156	272	314			88	146	129	
<b>M 3 S</b>	28	60	M10	8	31	195	326	389	110	165	124.5	158	160	6
<b>M 3 L</b>							353	416						
<b>M 4</b>	38	80	M12	10	41	258	470	553	140	188	185.5	210	204 (1)	
<b>M 4 LC</b>							495	578			64.5		226	
<b>M 5 S</b>						310	558	642	187	187	77	245	266	—
<b>M 5 L</b>	602	686												

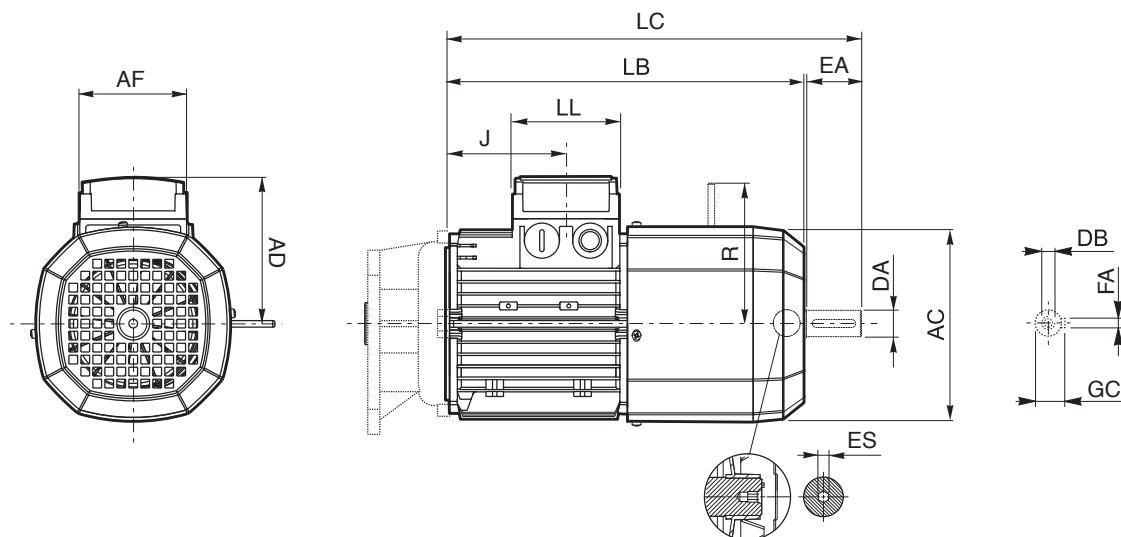
NOTE:

1) For FD07 brake value R=226.

ES hexagon is not supplied with PS option.



# M\_FA



	Rear shaft end					Motor								
	DA	EA	DB	FA	GC	AC	LB	LC	AF	LL	J	AD	R	ES
<b>M 05</b>	11	23	M4	4	12.5	121	231	256	74	80	48	95	116	5
<b>M 1</b>	14	30	M5	5	16	138	248	280			73	108	124	
<b>M 2 S</b>	19	40	M6	6	21.5	156	272	314			88	119	134	
<b>M 3 S</b>	28	60	M10	8	31	195	326	389	98	98	124.5	142	160	6
<b>M 3 L</b>							353	416						
<b>M 4</b>	38	80	M14	10	41	258	470	553	140	188	185.5	210	200 (1)	
<b>M 4 LC</b>							495	578			64.5		217	
<b>M 5 S</b>			M12			310	558	642	187	187	77	245	247	—
<b>M 5 L</b>														

NOTE:


1) For FA07 brake value R=217.

Dimensions AD, AF, LL and V, relevant to terminal box of motors M...FA featuring the separate brake supply (option SA), are coincident with corresponding dimensions of same-size M...FD motors

ES hexagon is not supplied with PS option.



## INDEX OF REVISIONS

BR_CAT_CAFS_STD_ENG_R10_0	
	Description
100, 246, 402	Updated IEC motor availability tables.
322...324	Updated chapter "Introduction to the Atex directives".
424...433	Updated FL option for gearboxes F10 ... F25 and related dimensional drawings.
454	Corrected size of flanges for gearboxes F70...F.
477...500	Corrected gearbox ratio from S101_3.9 to S101_3.8.
502...511	Corrected output shaft bore size for gearboxes S10 ... S50.

2020.06.30

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