

Bonfiglioli **Riduttori**

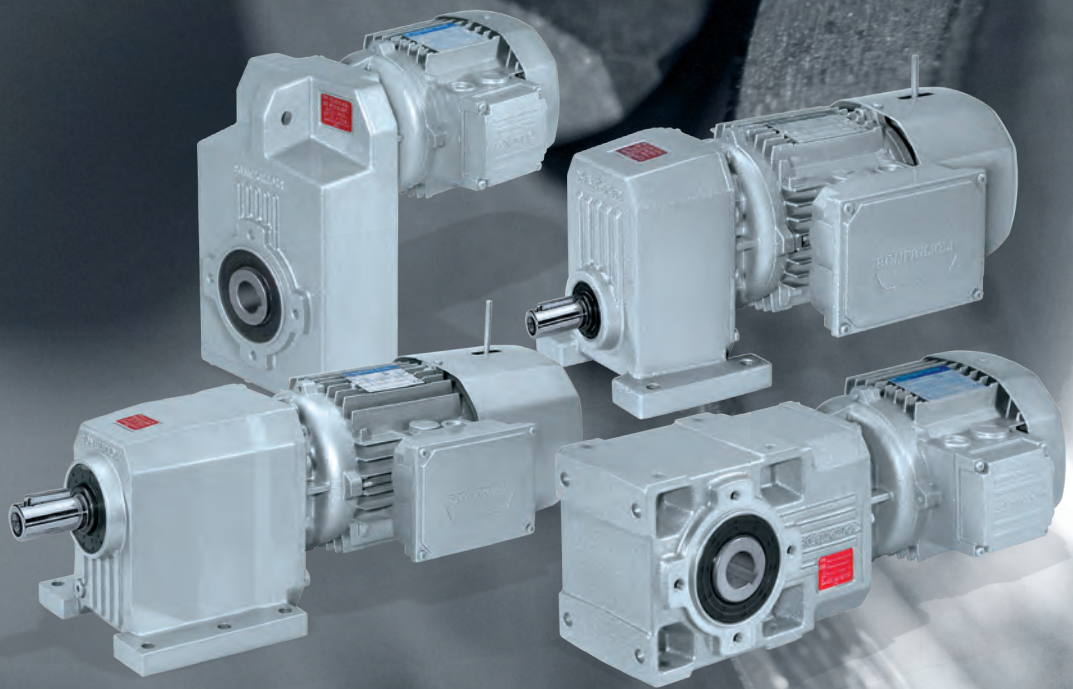
C-A-F-S series

Helical gear units C

Helical bevel gear units A

Shaft mounted gear units F

Single stage gearboxes S



PRODUCT

 **Bonfiglioli**
Forever Forward

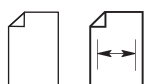


GENERAL INFORMATION

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 ²]	Mass moment of inertia to be driven	t_a	[°C]	Ambient temperature
J_M	[Kgm ²]	Motor mass moment of inertia	t_s	[°C]	Surface temperature
J_R	[Kgm ²]	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	η_d	–	Dynamic efficiency
$M_{c1,2}$	[Nm]	Calculated torque	η_s	–	Static efficiency
$M_{n1,2}$	[Nm]	Rated torque	φ	[']	Output shaft angular backlash (with locked input shaft)
$M_{r1,2}$	[Nm]	Torque demand			
$n_{1,2}$	[min ⁻¹]	Speed			

₁ value applies to input shaft
₂ 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.



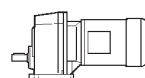
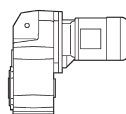
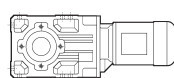
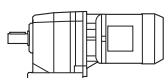
Apply to equipment complying with "ATEX" Directive.

Series C

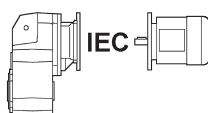
Series A

Series F

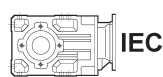
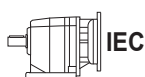
Series S



Gearmotor with compact motor.



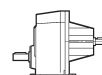
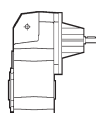
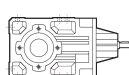
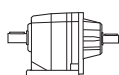
Gearmotor with IEC motor.



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

(*) = 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°C to 95°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		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
C 05 2	—	—
C 12 2	—	—
C 22 2	—	—
C 32 2	—	4.5
C 36 2	6.5	5.0
C 41 2	8.0	6.0
C 51 2	11.0	7.8
C 61 2	14.0	10.0
C 70 2	21	16.0
C 80 2	32	24
C 90 2	43	32
C 100 2	59	42

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

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

P_t [kW] 20 °C		
	$n_1 = 1400 \text{ min}^{-1}$	$n_1 = 2800 \text{ min}^{-1}$
S 10 1	5.5	4.9
S 20 1	7.8	7.2
S 30 1	10.0	9.1
S 40 1	15.6	14.3
S 50 1	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 η_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 
η_d	95%	93%	90%	η_d	94%	91%	89%
	2 x 	3 x 	4 x 		1 x 		
η_d	95%	93%	90%	η_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^{-1}]

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^{-1} , 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^{-1}]

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^2]

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

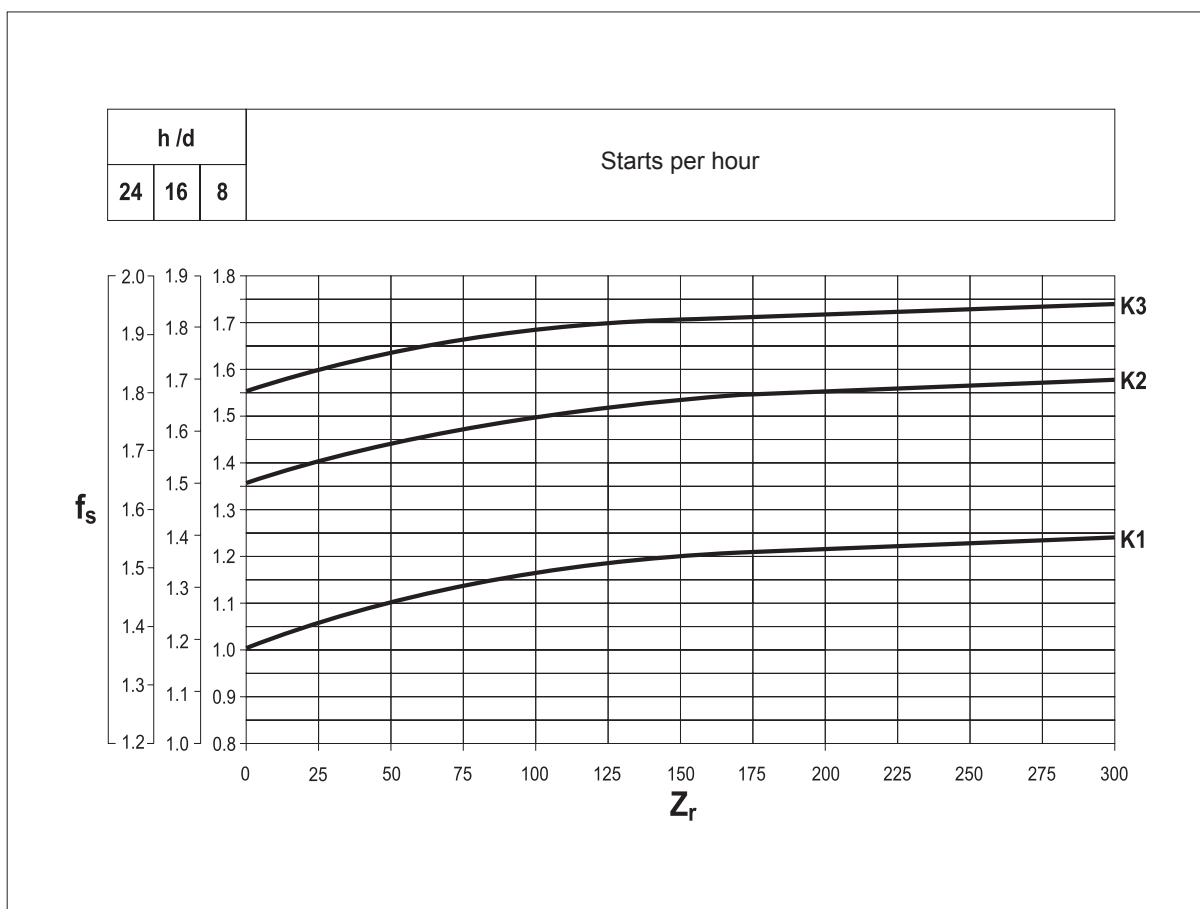
They are therefore related to motor speed, in the case of direct motor mounting.



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	$K \leq 0,25$ → K1 Uniform load
	→	$J_m =$ Motor moment of inertia	$0,25 < K \leq 3$ → K2 Moderate shock load
			$3 < K \leq 10$ → K3 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 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).

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 ¹⁾	A 60 2 ²⁾	A 60 3 ¹⁾	A 60 4 ¹⁾	A 70 ¹⁾	A 80 ¹⁾	A 90 ¹⁾
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 Gearbox pre-filled with a synthetic “for life” lubricant

 Gearbox pre-filled with a synthetic lubricant

⁽¹⁾ Without lubricant for mounting positions B6 and B7

⁽²⁾ 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.)

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 (A7) 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	A_{c1} Thrust load on input shaft (+/-)(***)	N
P_{r2} Output power at n_2 max	J_c Moment of inertia of the load	Kgm ²
P_{r2'} Output power at n_2 min	t_a Ambient temperature	C°
M_{r2} Output torque at n_2 max	Altitude above sea level	m
n₂ Max.output speed	Duty type to IEC norms S...../.....%	
n_{2'} Min.output speed	Z Starting frequency	1/h
n₁ Max.input speed	Motor voltage	V
n_{1'} Min.input speed	Brake voltage	V
R_{c2} Radial load on output shaft	Frequency	Hz
x₂ Load application distance (*)	M_b Brake torque	Nm
Load orientation at output	Motor protection degree IP.....	
Output shaft rotation direction (CW-CCW) (**)	Insulation class	
R_{c1} Radial load on input shaft		
x₁ Load application distance (*)		
Load orientation at input		
Input shaft rotation direction (CW-CCW) (**)		
A_{c2} Thrust load on output shaft (+/-)(***)		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 η_d the required input power can be calculated from the equation:

Value of η_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⁻¹, 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 permittend 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).

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



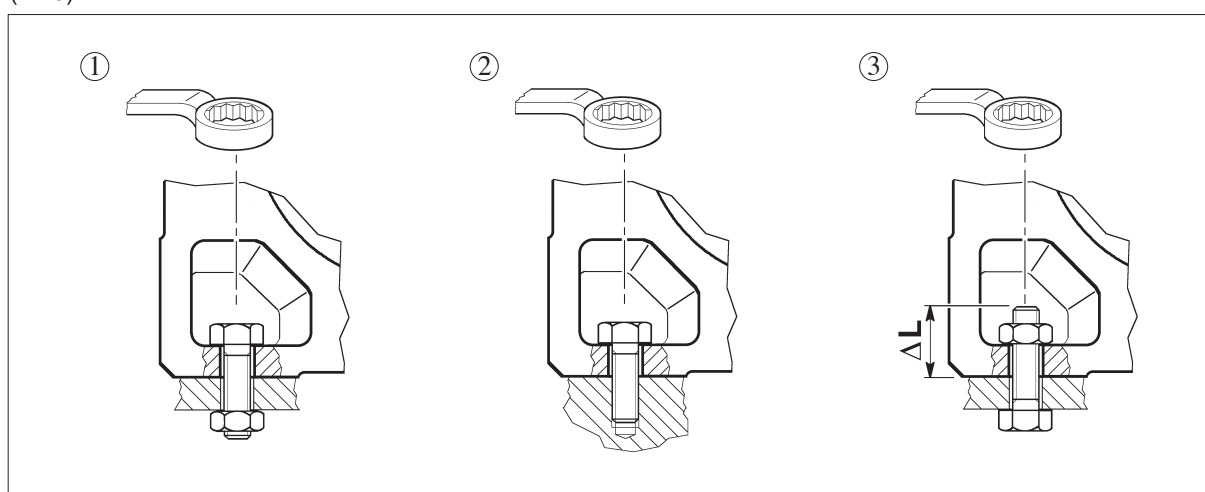
14.1 Fitting servomotors to gear heads featuring a clamping device (adapter type SC)

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	ΔL (mm)
A 05	M8x22	M8x20	M8x ...	22
A 10	M8x25	M8x20	M8x ...	20
A 20	M8x25	M8x20	M8x ...	20
A 30	M10x30	M10x25	M10x ...	25
A 35	M10x30	M10x25	M10x ...	25
A 41	M12x35	M12x30	M12x ...	30

	Bolt type			
	①	②	③	ΔL (mm)
A 50	M14x45	M14x40	M14x ...	35
A 55	M14x40	M14x40	M14x ...	35
A 60	M16x50	M16x45	M16x ...	40
A 70	M20x60	M20x55	M20x ...	45
A 80	M24x70	M24x65	M24x ...	55
A 90	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).

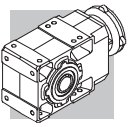
17 CONDITIONS OF SUPPLY

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.



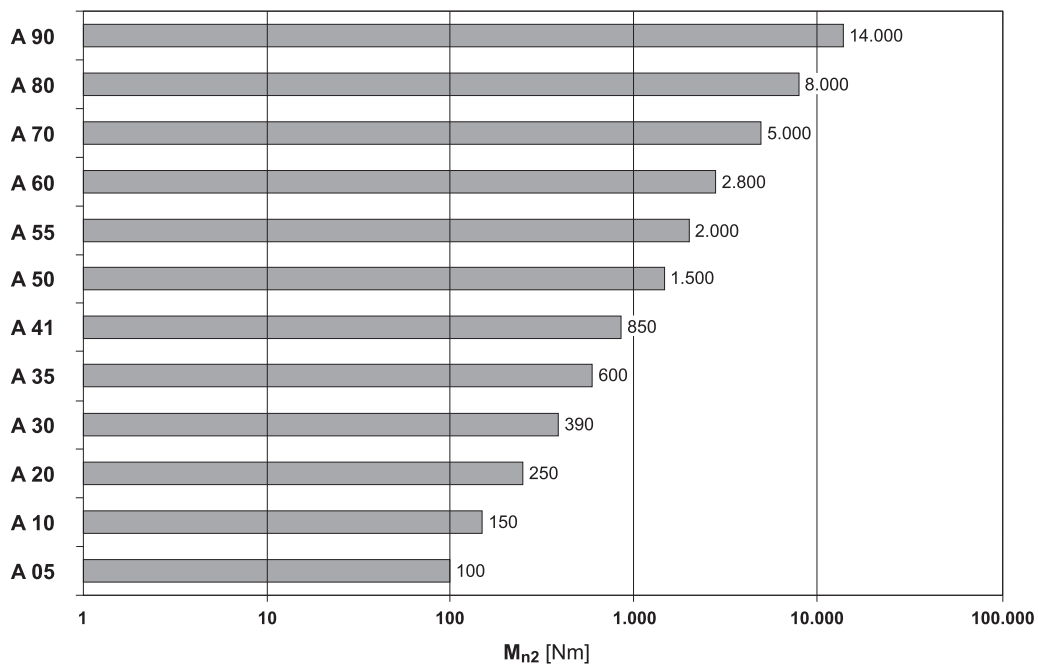
HELICAL BEVEL GEAR UNITS SERIES A

31 DESIGN FEATURES

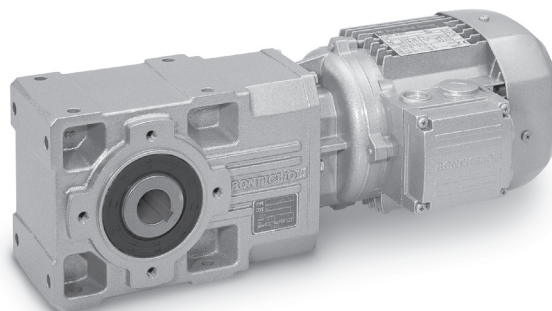
The main design characteristics are:

- 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)

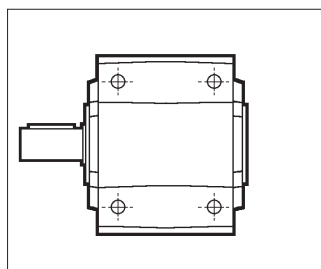


* For any limitations regarding construction type QF see the "VERSIONS" chapter.



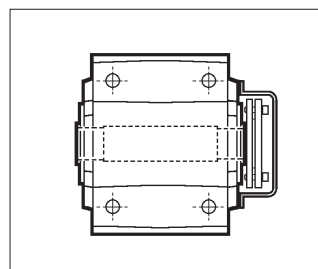


32 VERSIONS



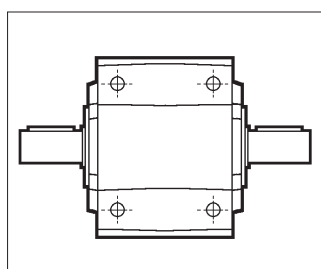
UR
Single extension
output shaft

A 05 ... A 90



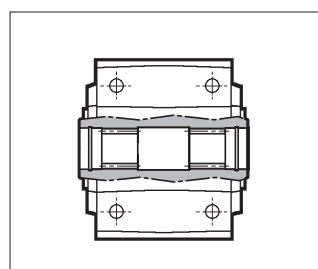
US
Hollow output shaft
and shrink disc

A 05 ... A 90



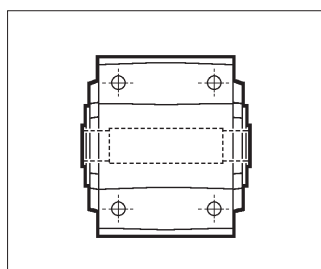
UD
Double extended
output shaft

A 05 ... A 90



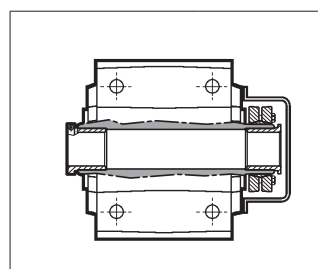
UV
Splined hollow shaft
DIN 5480

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...

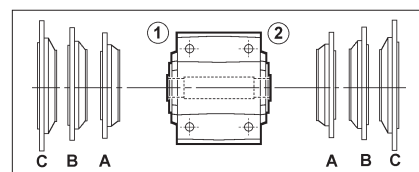
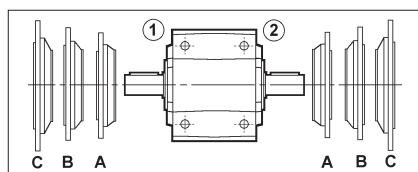
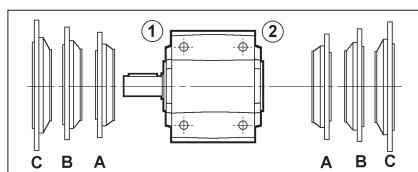
UR F2...

UD F1...

UD F2...

UH... F1...

UH... F2...



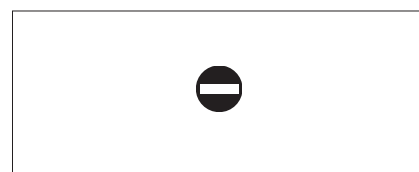
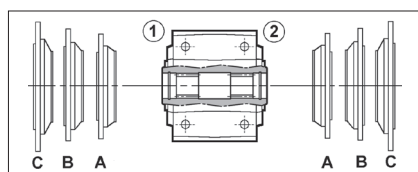
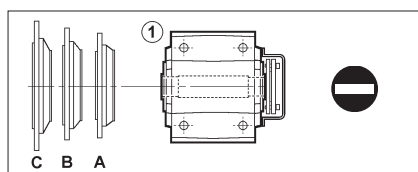
US F1...

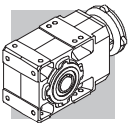
US F2...

UV F1...

UV F2...

QF...





33 DESIGNATION

GEAR UNIT

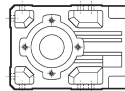
A 35 2 UH40 F1A 33.2 S3 VA

OPTIONS

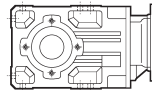
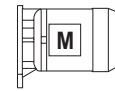
MOUNTING POSITION

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

INPUT CONFIGURATION

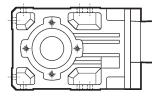
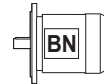


S05 ... S5



IEC_

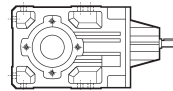
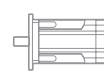
P63 ... P250



SK_



SC_



HS

GEAR RATIO

OUTPUT FLANGE SIZE AND POSITION

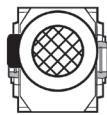
(specify only if requested)

F = Flanged version

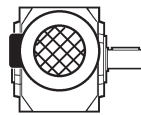
1, 2 = Flange position

A, B, C = Flange size

VERSION

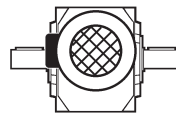


UH_



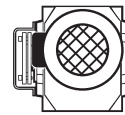
UR

(A 05...A 90)



UD

(A 05...A 90)



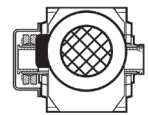
US

(A 05...A 90)



UV

(A 20...A 60)



QF

(A 10...A 60)

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

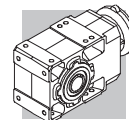
REDUCTIONS

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

GEAR FRAME SIZE

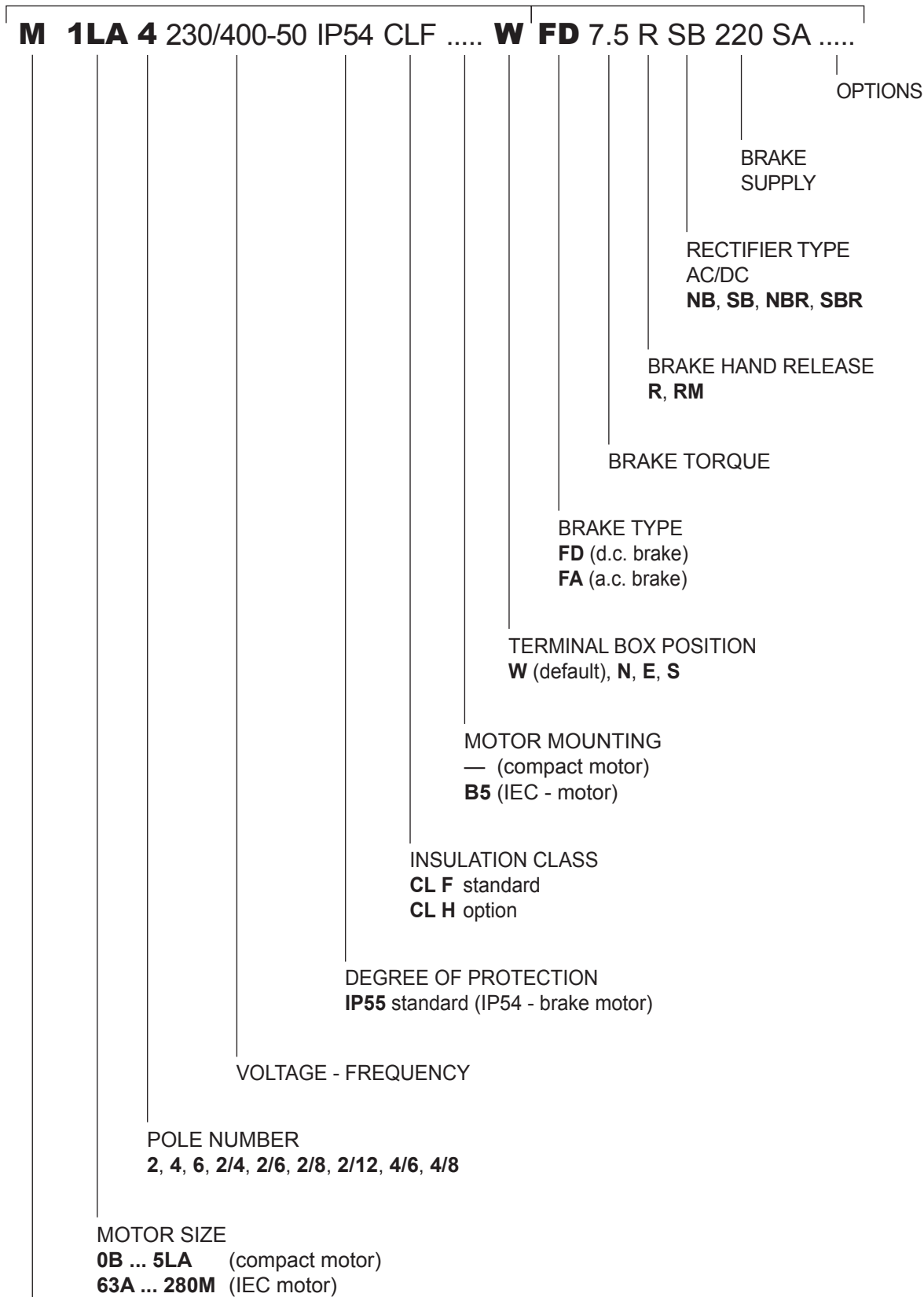
05, 10, 20, 30, 35, 41, 50, 55, 60, 70, 80, 90

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

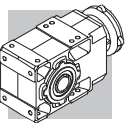


MOTOR

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)

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

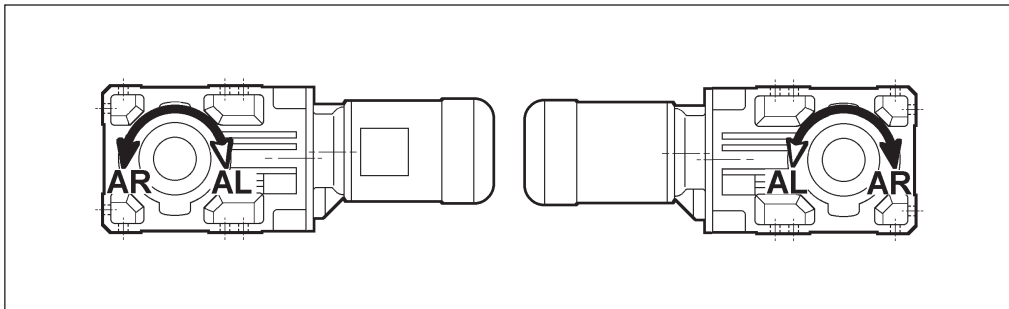
* The supply of the backstop will ban the configuration of servomotor adapters type S_60A, S_60B, S_80A.

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

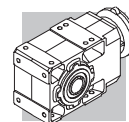
Dual oil seals on input shaft. (Only available for integral gearmotors).

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's 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)	—	
	φ [°]	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)
	φ [°]	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)
	φ [°]	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)
	φ [°]	22	15	10	7
A35	i =	5.4_11.8	13.1_393.2	5.4_11.8	13.1_393.2
	φ [°]	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)
	φ [°]	19	13	9	6
A50	i =	7.7_778.2		7.7_778.2	
	φ [°]	16		7	
A55	i =	4.9_19.2	23.8_793	4.9_19.2	23.8_793
	φ [°]	17	11	8	6
A60	i =	7.9_20.6	25.7_755.4	7.9_20.6	25.7_755.4
	φ [°]	12	9	5	4
A70	i =	9.4_21.3	23.5_1715	—	
	φ [°]	14	12	—	
A80	i =	9.8_20.9	22.6_1558	—	
	φ [°]	13	11	—	
A90	i =	9.7_21	22.3_1632	—	
	φ [°]	12	10	—	

For the delivery timeframe contact the Bonfiglioli's sales network

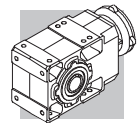
SURFACE PROTECTION

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
C3	Urban and industrial environments with up to 100% relative humidity (medium air pollution)	120°C	C3
C4	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
RAL7042*	Traffic Grey A	7042
RAL5010	Gentian Blue	5010
RAL9005	Jet Black	9005
RAL9006	White Aluminium	9006
RAL9010	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

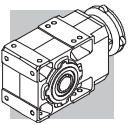
The document certifies the compliance of the product with the purchase order and the construction in conformity with the applicable procedures of the Bonfiglioli Quality System.

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.

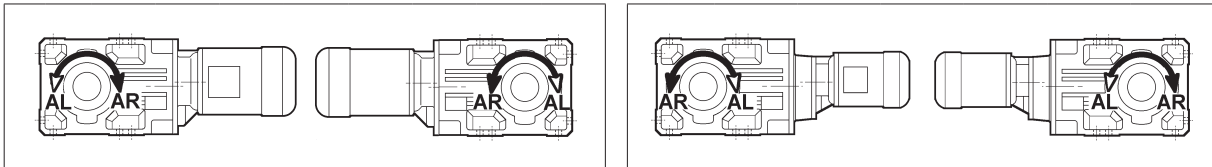


33.3 Motor options

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.

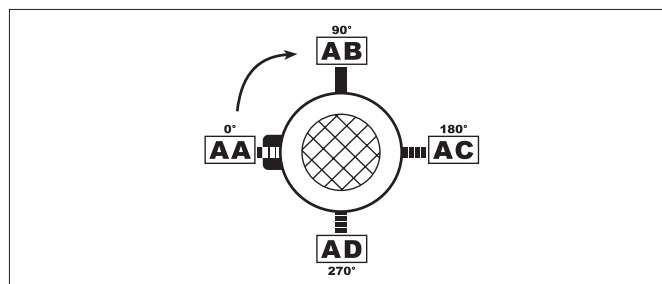
34 MOUNTING POSITION AND TERMINAL BOX ANGULAR LOCATION

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.

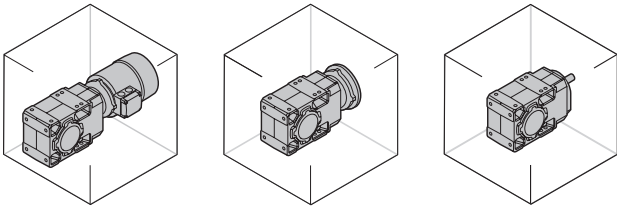
(C 33)



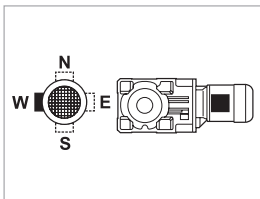


A ...

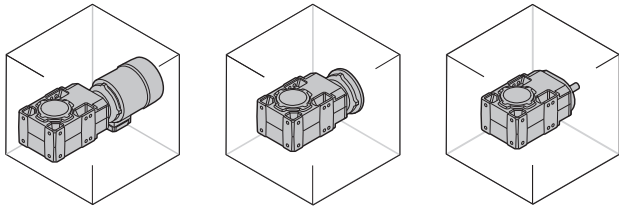
B3



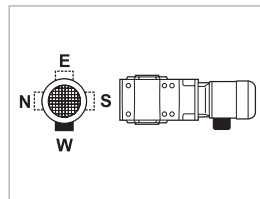
_S **_P(IEC) _SK / _SC** **_HS**



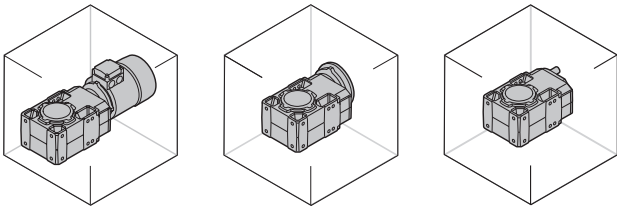
B6



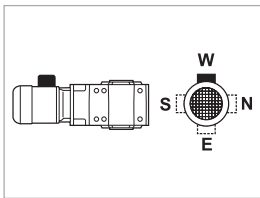
_S **_P(IEC) _SK / _SC** **_HS**



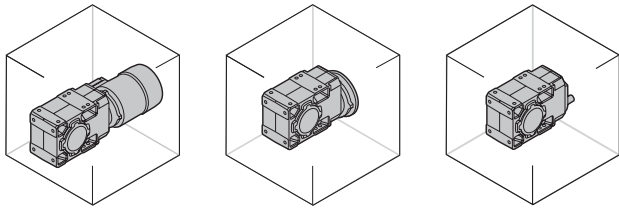
B7



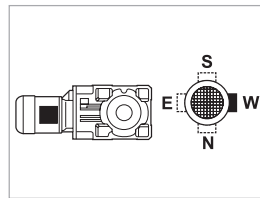
_S **_P(IEC) _SK / _SC** **_HS**



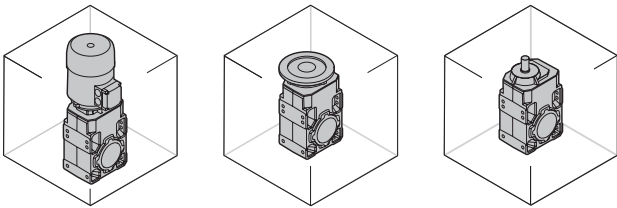
B8



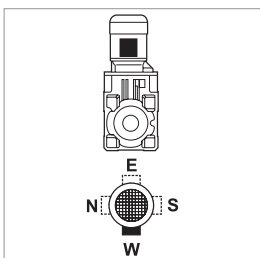
_S **_P(IEC) _SK / _SC** **_HS**



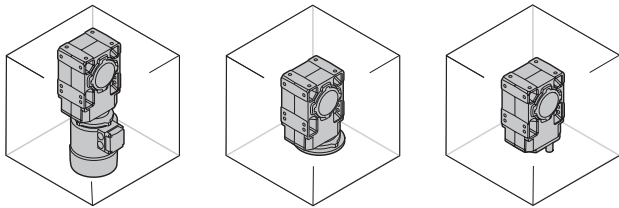
VA



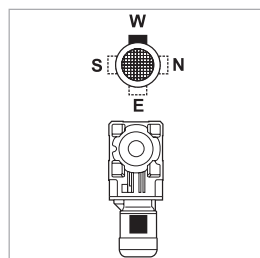
_S **_P(IEC) _SK / _SC** **_HS**



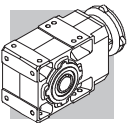
VB



_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:

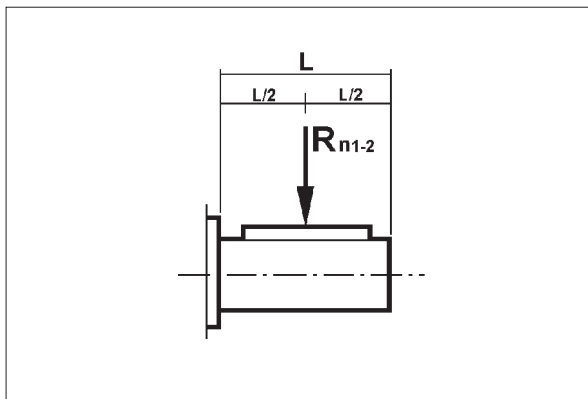
$$R_{c1} [N] = \frac{2000 \cdot M_1 [Nm] \cdot K_r}{d [mm]} \quad ; \quad R_{c2} [N] = \frac{2000 \cdot M_2 [Nm] \cdot K_r}{d [mm]} \quad (26)$$

(C 35)

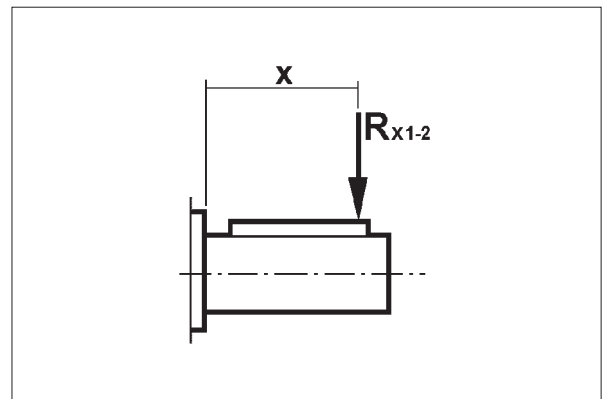
M_1 [Nm]	Torque applied to input shaft	$K_r = 1,25$	Gear transmission
M_2 [Nm]	Torque drawn at output shaft	$K_r = 1,5$	V-belt transmission
d [mm]	Pitch diameter of element keyed onto shaft	$K_r = 2,0$	Flat belt transmission
$K_r = 1$	Chain transmission		

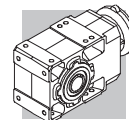
Verification of OHL capability varies depending on whether load applies at midpoint of shaft or it is shifted further out:

(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)

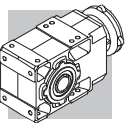
When load is shifted at an “x” distance from shaft shoulder, permissible load must be calculated for that distance.

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

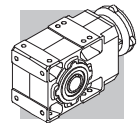
$$R_{x2} = R_{n2} \cdot \frac{a}{b+x} \quad (31)$$

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.

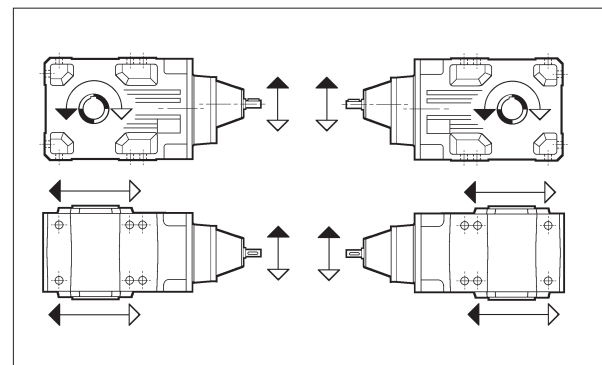
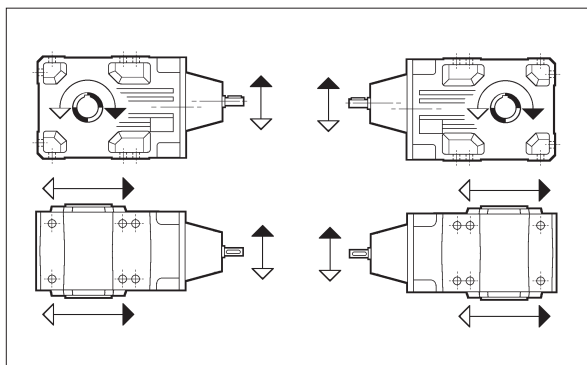
In the only case that no overhung load acts on the shaft the value of the admissible thrust load [A_n] amounts to 50% of rated OHL [R_n] on same shaft.

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)



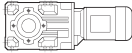
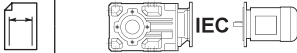

2x	A 05	A 10	A 20	A 30	A 35	A 41	A 50	A 60
3x	A 60	A 70	A 80	A 90				
4x	A 50	A 55						

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			

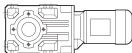
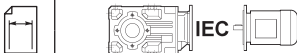



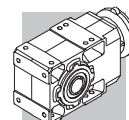
38 GEARMOTOR RATING CHARTS

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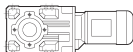




n ₂ min ⁻¹	M ₂ Nm	S	i	R _{N2} N			
0.51	1492	3.4	1715	50000			A704_1715 P63 BN63A6 309
1.1	677	2.2	778.2	20000			A504_778.2 P63 BN63A6 297
1.2	616	2.4	707.9	20000			A504_707.9 P63 BN63A6 297
1.4	549	2.7	631.2	20000			A504_631.2 P63 BN63A6 297
1.5	499	3.0	574.2	20000			A504_574.2 P63 BN63A6 297
1.7	461	3.3	529.5	20000			A504_529.5 P63 BN63A6 297
2.2	356	1.0	400.8	9600	A303_400.8 S05 M05A6 284		A303_400.8 P63 BN63A6 285
2.6	302	1.7	339.3	12000	A353_339.3 S05 M05A6 288		A353_339.3 P63 BN63A6 289
3.0	259	3.3	291.7	15000	A413_291.7 S05 M05A6 292		A413_291.7 P63 BN63A6 293
3.5	221	2.7	248.1	12000	A353_248.1 S05 M05A6 288		A353_248.1 P63 BN63A6 289
4.1	193	2.1	216.6	9600	A303_216.6 S05 M05A6 284		A303_216.6 P63 BN63A6 285
4.9	159	1.6	178.3	6200	A203_178.3 S05 M05A6 280		A203_178.3 P63 BN63A6 281
5.8	134	2.8	150.7	9600	A303_150.7 S05 M05A6 284		A303_150.7 P63 BN63A6 285
6.8	115	2.2	129.1	6200	A203_129.1 S05 M05A6 280		A203_129.1 P63 BN63A6 281
8.1	97	2.5	109.2	6200	A203_109.2 S05 M05A6 280		A203_109.2 P63 BN63A6 281
9.6	84	1.5	91.6	5500	A102_91.6 S05 M05A6 276		A102_91.6 P63 BN63A6 277
11.5	70	2.1	76.4	5500	A102_76.4 S05 M05A6 276		A102_76.4 P63 BN63A6 277
13.3	61	2.5	65.9	5500	A102_65.9 S05 M05A6 276		A102_65.9 P63 BN63A6 277
15.0	54	2.8	58.6	5500	A102_58.6 S05 M05A6 276		A102_58.6 P63 BN63A6 277
17.2	47	3.2	51.3	5500	A102_51.3 S05 M05A6 276		A102_51.3 P63 BN63A6 277
19.4	42	2.4	45.4	4250	A052_45.4 S05 M05A6 273		A052_45.4 P63 BN63A6 273
21.5	38	2.7	40.9	4120	A052_40.9 S05 M05A6 273		A052_40.9 P63 BN63A6 273
25.1	32	3.1	35.1	3950	A052_35.1 S05 M05A6 273		A052_35.1 P63 BN63A6 273
27.3	30	3.4	32.2	3850	A052_32.2 S05 M05A6 273		A052_32.2 P63 BN63A6 273
31	26	3.8	28.6	3720	A052_28.6 S05 M05A6 273		A052_28.6 P63 BN63A6 273
35	23	4.4	25.5	3590	A052_25.5 S05 M05A6 273		A052_25.5 P63 BN63A6 273
37	22	4.6	23.8	3520	A052_23.8 S05 M05A6 273		A052_23.8 P63 BN63A6 273
41	19.6	5.3	21.4	3410	A052_21.4 S05 M05A6 273		A052_21.4 P63 BN63A6 273
47	17.1	5.9	18.6	3270	A052_18.6 S05 M05A6 273		A052_18.6 P63 BN63A6 273
53	15.1	6.8	16.4	3150	A052_16.4 S05 M05A6 273		A052_16.4 P63 BN63A6 273
63	12.8	7.8	13.9	2990	A052_13.9 S05 M05A6 273		A052_13.9 P63 BN63A6 273
72	11.3	8.8	12.3	2880	A052_12.3 S05 M05A6 273		A052_12.3 P63 BN63A6 273
83	9.7	10.3	10.6	2740	A052_10.6 S05 M05A6 273		A052_10.6 P63 BN63A6 273
92	8.8	11.3	9.6	2670	A052_9.6 S05 M05A6 273		A052_9.6 P63 BN63A6 273
103	7.8	13.2	8.5	2570	A052_8.5 S05 M05A6 273		A052_8.5 P63 BN63A6 273
122	6.6	15.1	7.2	2440	A052_7.2 S05 M05A6 273		A052_7.2 P63 BN63A6 273
139	5.8	17.8	6.3	2340	A052_6.3 S05 M05A6 273		A052_6.3 P63 BN63A6 273
161	5.0	19.9	5.5	2230	A052_5.5 S05 M05A6 273		A052_5.5 P63 BN63A6 273

0.12 kW

n ₂ min ⁻¹	M ₂ Nm	S	i	R _{N2} N			
0.51	2012	2.5	1715	50000			A704_1715 P63 BN63B6 309
0.55	1857	2.7	1583	50000			A704_1583 P63 BN63B6 309
0.65	1579	3.2	1346	50000			A704_1346 P63 BN63B6 309
0.70	1457	3.4	1242	50000			A704_1242 P63 BN63B6 309

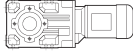




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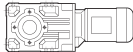


n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
1.1	913	1.6	778.2	20000			A504_778.2 P63 BN63B6	297
1.2	818	3.4	697.3	30000			A604_697.3 P63 BN63B6	305
1.4	740	2.0	631.2	20000			A504_631.2 P63 BN63B6	297
1.6	621	2.4	529.5	20000			A504_529.5 P63 BN63B6	297
1.7	588	2.5	778.2	20000			A504_778.2 P63 BN63A4	297
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

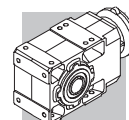


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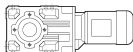



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
33	33	3.1	40.9	3570	A052_40.9 S05 M05A4	273	A052_40.9 P63 BN63A4	273
38	28	3.6	35.1	3420	A052_35.1 S05 M05A4	273	A052_35.1 P63 BN63A4	273
42	26	3.9	32.2	3340	A052_32.2 S05 M05A4	273	A052_32.2 P63 BN63A4	273
47	23	4.4	28.6	3220	A052_28.6 S05 M05A4	273	A052_28.6 P63 BN63A4	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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

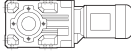





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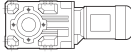



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
4.1	384	2.2	324.2	15000	A413_324.2 S05 M05B4	292	A413_324.2 P63 BN63B4	293
4.2	373	1.0	314.5	9600	A303_314.5 S05 M05B4	284	A303_314.5 P63 BN63B4	285
4.3	362	1.7	305.4	12000	A353_305.4 S05 M05B4	288	A353_305.4 P63 BN63B4	289
4.5	346	2.5	291.7	15000	A413_291.7 S05 M05B4	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

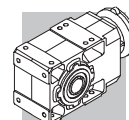


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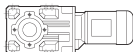




n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
32	50	3.0	40.9	5500	A102_40.9 S05 M05B4	276	A102_40.9 P63 BN63B4	277
38	43	2.3	35.1	3310	A052_35.1 S05 M05B4	273	A052_35.1 P63 BN63B4	273
38	43	3.5	35.1	5380	A102_35.1 S05 M05B4	276	A102_35.1 P63 BN63B4	277
41	39	2.5	32.2	3240	A052_32.2 S05 M05B4	273	A052_32.2 P63 BN63B4	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

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n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

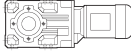





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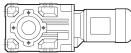



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
2.6	816	1.8	529.5	20000			A504_529.5 P71 BN71A4	297
2.9	742	2.0	481.6	20000			A504_481.6 P71 BN71A4	297
3.1	688	2.2	446.8	20000			A504_446.8 P71 BN71A4	297
3.4	626	2.4	406.4	20000			A504_406.4 P71 BN71A4	297
3.6	611	1.4	376.8	15000	A413_376.8 S05 M05C4	292	A413_376.8 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

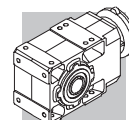


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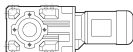



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
20.3	110	1.4	65.9	5500	A102_65.9 S05 M05C4	276	A102_65.9 P71 BN71A4	277
21.2	106	2.3	63.1	6200	A202_63.1 S05 M05C4	280	A202_63.1 P71 BN71A4	281
22.9	98	1.0	58.6	3540	A052_58.6 S05 M05C4	273	A052_58.6 P71 BN71A4	273
23.5	95	1.6	58.6	5500	A102_58.6 S05 M05C4	276	A102_58.6 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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n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

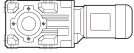





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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
1.0	3077	2.6	1340	65000	A804_1340 S1 M1SD4	311	A804_1340 P71 BN71B4	312
1.1	2853	1.8	1242	50000	A704_1242 S1 M1SD4	308	A704_1242 P71 BN71B4	309
1.1	2841	2.8	1237	65000	A804_1237 S1 M1SD4	311	A804_1237 P71 BN71B4	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

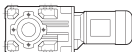





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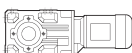



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
9.3	345	2.5	146.9	15000	A413_146.9 S1 M1SD4	292	A413_146.9 P71 BN71B4	293
10.0	323	1.0	137.4	9600	A303_137.4 S1 M1SD4	284	A303_137.4 P71 BN71B4	285
10.0	320	1.8	136.3	12000	A353_136.3 S1 M1SD4	288	A353_136.3 P71 BN71B4	289
11.4	283	1.1	120.5	9600	A303_120.5 S1 M1SD4	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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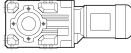



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
111	30	3.3	12.3	2350	A052_12.3 S1 M1SD4	273	A052_12.3 P71 BN71B4	273
130	26	3.9	10.6	2240	A052_10.6 S1 M1SD4	273	A052_10.6 P71 BN71B4	273
142	23	4.3	9.6	2190	A052_9.6 S1 M1SD4	273	A052_9.6 P71 BN71B4	273
161	21	4.8	8.5	2120	A052_8.5 S1 M1SD4	273	A052_8.5 P71 BN71B4	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

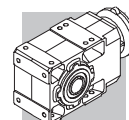
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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
0.56	8299	1.7	1632	75000	A904_1632 S2 M2SA6	314	A904_1632 P80 BN80B6	315
0.64	7310	1.1	1438	65000	A804_1438 S2 M2SA6	311	A804_1438 P80 BN80B6	312
0.75	6213	2.3	1222	75000	A904_1222 S2 M2SA6	314	A904_1222 P80 BN80B6	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

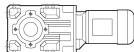





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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
2.2	2151	1.3	634.6	30000	A604_634.6 S1 M1LA4	304	A604_634.6 P80 BN80A4	305
2.3	2017	2.5	595.0	50000	A704_595.0 S1 M1LA4	308	A704_595.0 P80 BN80A4	309
2.4	1985	1.4	585.8	30000	A604_585.8 S1 M1LA4	304	A604_585.8 P80 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

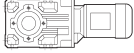




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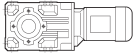


n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
20.9	236	1.6	66.0	8880	A302_66.0 S1 M1LA4	284	A302_66.0 P80 BN80A4	285
21.0	236	2.5	65.8	12000	A352_65.8 S1 M1LA4	288	A352_65.8 P80 BN80A4	289
21.9	226	1.1	63.1	5840	A202_63.1 S1 M1LA4	280	A202_63.1 P80 BN80A4	281
22.9	216	2.8	60.4	12000	A352_60.4 S1 M1LA4	288	A352_60.4 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

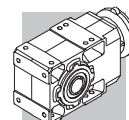


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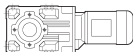



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
267	18.5	4.3	10.6	1780	A052_10.6 S1 M1SD2	273	A052_10.6 P71 BN71B2	273
293	16.8	5.6	9.6	1740	A052_9.6 S1 M1SD2	273	A052_9.6 P71 BN71B2	273
331	14.9	6.0	8.5	1680	A052_8.5 S1 M1SD2	273	A052_8.5 P71 BN71B2	273
391	12.6	6.7	7.2	1600	A052_7.2 S1 M1SD2	273	A052_7.2 P71 BN71B2	273
445	11.1	7.2	6.3	1540	A052_6.3 S1 M1SD2	273	A052_6.3 P71 BN71B2	273
516	9.6	7.8	5.5	1480	A052_5.5 S1 M1SD2	273	A052_5.5 P71 BN71B2	273

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n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
0.56	11316	1.2	1632	75000	A904_1632 S2 M2SB6	314	A904_1632 P90 BN90S6	315
0.61	10446	1.3	1507	75000	A904_1507 S2 M2SB6	314	A904_1507 P90 BN90S6	315
0.69	9179	1.5	1324	75000	A904_1324 S2 M2SB6	314	A904_1324 P90 BN90S6	315
0.75	8473	1.7	1222	75000	A904_1222 S2 M2SB6	314	A904_1222 P90 BN90S6	315
0.86	7436	1.9	1632	75000	A904_1632 S2 M2SA4	314	A904_1632 P80 BN80B4	315
0.90	7096	1.1	1558	65000	A804_1558 S2 M2SA4	311	A804_1558 P80 BN80B4	312
0.93	6864	2.0	1507	75000	A904_1507 S2 M2SA4	314	A904_1507 P80 BN80B4	315
0.97	6550	1.2	1438	65000	A804_1438 S2 M2SA4	311	A804_1438 P80 BN80B4	312
1.0	6104	1.3	1340	65000	A804_1340 S2 M2SA4	311	A804_1340 P80 BN80B4	312
1.1	6032	2.3	1324	75000	A904_1324 S2 M2SA4	314	A904_1324 P80 BN80B4	315
1.1	5660	0.9	1242	50000	A704_1242 S2 M2SA4	308	A704_1242 P80 BN80B4	309
1.1	5635	1.4	1237	65000	A804_1237 S2 M2SA4	311	A804_1237 P80 BN80B4	312
1.1	5568	2.5	1222	75000	A904_1222 S2 M2SA4	314	A904_1222 P80 BN80B4	315
1.2	5291	0.9	1161	50000	A704_1161 S2 M2SA4	308	A704_1161 P80 BN80B4	309
1.3	5060	2.8	1111	75000	A904_1111 S2 M2SA4	314	A904_1111 P80 BN80B4	315
1.3	4942	1.6	1085	65000	A804_1085 S2 M2SA4	311	A804_1085 P80 BN80B4	312
1.3	4884	1.0	1072	50000	A704_1072 S2 M2SA4	308	A704_1072 P80 BN80B4	309
1.4	4670	3.0	1025	75000	A904_1025 S2 M2SA4	314	A904_1025 P80 BN80B4	315
1.4	4562	1.8	1001	65000	A804_1001 S2 M2SA4	311	A804_1001 P80 BN80B4	312
1.5	4270	3.3	937.2	75000	A904_937.2 S2 M2SA4	314	A904_937.2 P80 BN80B4	315
1.5	4221	1.2	926.5	50000	A704_926.5 S2 M2SA4	308	A704_926.5 P80 BN80B4	309
1.6	4094	2.0	898.7	65000	A804_898.7 S2 M2SA4	311	A804_898.7 P80 BN80B4	312
1.6	3896	1.3	855.3	50000	A704_855.3 S2 M2SA4	308	A704_855.3 P80 BN80B4	309
1.7	3779	2.1	829.5	65000	A804_829.5 S2 M2SA4	311	A804_829.5 P80 BN80B4	312
1.8	3480	1.4	763.9	50000	A704_763.9 S2 M2SA4	308	A704_763.9 P80 BN80B4	309
1.8	3472	2.3	762.1	65000	A804_762.1 S2 M2SA4	311	A804_762.1 P80 BN80B4	312
2.0	3212	1.6	705.1	50000	A704_705.1 S2 M2SA4	308	A704_705.1 P80 BN80B4	309
2.0	3205	2.5	703.5	65000	A804_703.5 S2 M2SA4	311	A804_703.5 P80 BN80B4	312
2.0	3177	0.9	697.3	30000	A604_697.3 S2 M2SA4	304	A604_697.3 P80 BN80B4	305
2.2	2937	1.7	644.6	50000	A704_644.6 S2 M2SA4	308	A704_644.6 P80 BN80B4	309
2.2	2891	1.0	634.6	30000	A604_634.6 S2 M2SA4	304	A604_634.6 P80 BN80B4	305
2.3	2766	2.9	607.2	65000	A804_607.2 S2 M2SA4	311	A804_607.2 P80 BN80B4	312
2.4	2711	1.8	595.0	50000	A704_595.0 S2 M2SA4	308	A704_595.0 P80 BN80B4	309
2.4	2669	1.0	585.8	30000	A604_585.8 S2 M2SA4	304	A604_585.8 P80 BN80B4	305
2.5	2553	3.1	560.5	65000	A804_560.5 S2 M2SA4	311	A804_560.5 P80 BN80B4	312
2.6	2469	1.1	542.0	30000	A604_542.0 S2 M2SA4	304	A604_542.0 P80 BN80B4	305
2.7	2348	2.1	515.4	50000	A704_515.4 S2 M2SA4	308	A704_515.4 P80 BN80B4	309
2.8	2279	1.2	500.3	30000	A604_500.3 S2 M2SA4	304	A604_500.3 P80 BN80B4	305

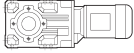





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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC	
2.9	2167	2.3	475.8	50000	A704_475.8 S2 M2SA4	308	A704_475.8 P80 BN80B4	309
3.2	1997	1.4	438.4	30000	A604_438.4 S2 M2SA4	304	A604_438.4 P80 BN80B4	305
3.5	1844	1.5	404.7	30000	A604_404.7 S2 M2SA4	304	A604_404.7 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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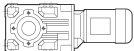




n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
23.2	290	2.1	60.4	12000	A352_60.4 S2 M2SA4	288	A352_60.4 P80 BN80B4	289
23.6	286	1.4	59.4	8190	A302_59.4 S2 M2SA4	284	A302_59.4 P80 BN80B4	285
23.8	283	3.0	58.8	15000	A412_58.8 S2 M2SA4	292	A412_58.8 P80 BN80B4	293
25.8	261	2.3	54.3	12000	A352_54.3 S2 M2SA4	288	A352_54.3 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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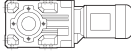



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
221	30	3.3	6.3	1810	A052_6.3 S2 M2SA4	273	A052_6.3 P80 BN80B4	273
256	26	3.6	5.5	1750	A052_5.5 S2 M2SA4	273	A052_5.5 P80 BN80B4	273
266	25	3.2	10.6	1720	A052_10.6 S1 M1LA2	273	A052_10.6 P80 BN80A2	273
292	23	4.1	9.6	1690	A052_9.6 S1 M1LA2	273	A052_9.6 P80 BN80A2	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

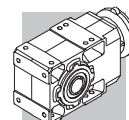
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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
0.61	15320	0.9	1507	75000	A904_1507 S3 M3SA6	314	A904_1507 P90 BN90L6	315
0.69	13462	1.0	1324	75000	A904_1324 S3 M3SA6	314	A904_1324 P90 BN90L6	315
0.75	12427	1.1	1222	75000	A904_1222 S3 M3SA6	314	A904_1222 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

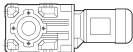





1.1 kW

n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} 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

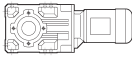




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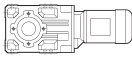


n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
23.8	415	2.0	58.8	15000	A412_58.8 S2 M2SB4	292	A412_58.8 P90 BN90S4	293
25.8	383	1.6	54.3	12000	A352_54.3 S2 M2SB4	288	A352_54.3 P90 BN90S4	289
26.3	375	2.3	53.1	15000	A412_53.1 S2 M2SB4	292	A412_53.1 P90 BN90S4	293
26.6	372	1.1	52.7	7310	A302_52.7 S2 M2SB4	284	A302_52.7 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

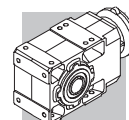


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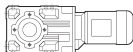




n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
194	51	2.0	7.2	1730	A052_7.2 S2 M2SB4	273		
194	51	2.8	7.2	2940	A102_7.2 S2 M2SB4	276	A102_7.2 P90 BN90S4	277
221	45	2.2	6.3	1690	A052_6.3 S2 M2SB4	273		
221	45	3.1	6.3	3390	A102_6.3 S2 M2SB4	276	A102_6.3 P90 BN90S4	277
228	43	3.2	12.3	2830	A102_12.3 S2 M2SA2	276	A102_12.3 P80 BN80B2	277
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	273
329	30	3.0	8.5	1560	A052_8.5 S2 M2SA2	273	A052_8.5 P80 BN80B2	273
388	25	3.3	7.2	1500	A052_7.2 S2 M2SA2	273	A052_7.2 P80 BN80B2	273
442	22	3.6	6.3	1450	A052_6.3 S2 M2SA2	273	A052_6.3 P80 BN80B2	273
512	19.3	3.9	5.5	1400	A052_5.5 S2 M2SA2	273	A052_5.5 P80 BN80B2	273

1.5 kW

n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
0.86	14767	0.9	1632	75000	A904_1632 S3 M3SA4	314	A904_1632 P90 BN90LA4	315
0.94	13631	1.0	1507	75000	A904_1507 S3 M3SA4	314	A904_1507 P90 BN90LA4	315
1.1	11978	1.2	1324	75000	A904_1324 S3 M3SA4	314	A904_1324 P90 BN90LA4	315
1.2	11057	1.3	1222	75000	A904_1222 S3 M3SA4	314	A904_1222 P90 BN90LA4	315
1.3	10047	1.4	1111	75000	A904_1111 S3 M3SA4	314	A904_1111 P90 BN90LA4	315
1.4	9274	1.5	1025	75000	A904_1025 S3 M3SA4	314	A904_1025 P90 BN90LA4	315
1.4	9060	0.9	1001	65000	A804_1001 S3 M3SA4	311	A804_1001 P90 BN90LA4	312
1.5	8478	1.7	937.2	75000	A904_937.2 S3 M3SA4	314	A904_937.2 P90 BN90LA4	315
1.6	8130	1.0	898.7	65000	A804_898.7 S3 M3SA4	311	A804_898.7 P90 BN90LA4	312
1.6	7826	1.8	865.1	75000	A904_865.1 S3 M3SA4	314	A904_865.1 P90 BN90LA4	315
1.7	7505	1.1	829.5	65000	A804_829.5 S3 M3SA4	311	A804_829.5 P90 BN90LA4	312
1.8	6938	2.0	766.9	75000	A904_766.9 S3 M3SA4	314	A904_766.9 P90 BN90LA4	315
1.9	6894	1.2	762.1	65000	A804_762.1 S3 M3SA4	311	A804_762.1 P90 BN90LA4	312
2.0	6404	2.2	707.9	75000	A904_707.9 S3 M3SA4	314	A904_707.9 P90 BN90LA4	315
2.0	6364	1.3	703.5	65000	A804_703.5 S3 M3SA4	311	A804_703.5 P90 BN90LA4	312
2.2	5832	0.9	644.6	50000	A704_644.6 S3 M3SA4	308	A704_644.6 P90 BN90LA4	309
2.3	5493	1.5	607.2	65000	A804_607.2 S3 M3SA4	311	A804_607.2 P90 BN90LA4	312
2.3	5442	2.6	601.6	75000	A904_601.6 S3 M3SA4	314	A904_601.6 P90 BN90LA4	315
2.4	5383	0.9	595.0	50000	A704_595.0 S3 M3SA4	308	A704_595.0 P90 BN90LA4	309
2.5	5070	1.6	560.5	65000	A804_560.5 S3 M3SA4	311	A804_560.5 P90 BN90LA4	312
2.5	5024	2.8	555.3	75000	A904_555.3 S3 M3SA4	314	A904_555.3 P90 BN90LA4	315
2.7	4663	1.1	515.4	50000	A704_515.4 S3 M3SA4	308	A704_515.4 P90 BN90LA4	309
2.9	4402	3.2	486.6	75000	A904_486.6 S3 M3SA4	314	A904_486.6 P90 BN90LA4	315
2.9	4333	1.8	478.9	65000	A804_478.9 S3 M3SA4	311	A804_478.9 P90 BN90LA4	312
3.0	4304	1.2	475.8	50000	A704_475.8 S3 M3SA4	308	A704_475.8 P90 BN90LA4	309
3.1	4063	3.4	449.2	75000	A904_449.2 S3 M3SA4	314	A904_449.2 P90 BN90LA4	315
3.2	3999	2.0	442.1	65000	A804_442.1 S3 M3SA4	311	A804_442.1 P90 BN90LA4	312
3.5	3620	1.4	400.2	50000	A704_400.2 S3 M3SA4	308	A704_400.2 P90 BN90LA4	309
3.7	3469	2.3	383.5	65000	A804_383.5 S3 M3SA4	311	A804_383.5 P90 BN90LA4	312
3.8	3342	1.5	369.4	50000	A704_369.4 S3 M3SA4	308	A704_369.4 P90 BN90LA4	309
4.0	3202	2.5	354.0	65000	A804_354.0 S3 M3SA4	311	A804_354.0 P90 BN90LA4	312
4.0	3177	0.9	351.2	30000	A604_351.2 S3 M3SA4	304	A604_351.2 P90 BN90LA4	305
4.3	2933	1.0	324.2	30000	A604_324.2 S3 M3SA4	304	A604_324.2 P90 BN90LA4	305

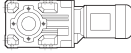





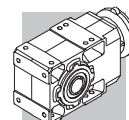
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n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
4.5	2862	1.7	316.4	50000	A704_316.4 S3 M3SA4	308	A704_316.4 P90 BN90LA4	309
4.7	2718	2.9	300.4	65000	A804_300.4 S3 M3SA4	311	A804_300.4 P90 BN90LA4	312
4.8	2642	1.9	292.0	50000	A704_292.0 S3 M3SA4	308	A704_292.0 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

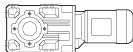






1.5 kW

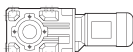




n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
26.5	508	1.7	53.1	15000	A412_53.1 S3 M3SA4	292	A412_53.1 P90 BN90LA4	293
27.3	478	3.1	51.7	19700	A503_51.7 S3 M3SA4	296	A503_51.7 P90 BN90LA4	297
28.7	469	1.3	49.1	11100	A352_49.1 S3 M3SA4	288	A352_49.1 P90 BN90LA4	289
29.2	461	1.8	48.3	14900	A412_48.3 S3 M3SA4	292	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

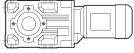



n_2 min ⁻¹	M_2 Nm	S	i	R_{n2} N			 IEC 	
258	52	2.7	5.5	2630	A102_5.5 S3 M3SA4	276	A102_5.5 P90 BN90LA4	277
291	46	3.0	9.6	2560	A102_9.6 S2 M2SB2	276	A102_9.6 P90 BN90SA2	277
329	41	3.4	8.5	2950	A102_8.5 S2 M2SB2	276	A102_8.5 P90 BN90SA2	277
388	35	2.4	7.2	1420	A052_7.2 S2 M2SB2	273		
442	30	2.6	6.3	1380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

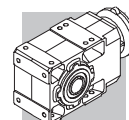
2.2 kW

n_2 min ⁻¹	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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

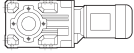





2.2 kW

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

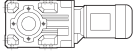





3.0 kW

n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
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

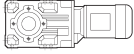





3.0 kW

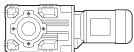



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
20.0	1303	2.1	70.4	30000	A603_70.4 S3 M3LB4	304	A603_70.4 P100 BN100LB4	305
20.1	1299	1.2	70.2	17200	A503_70.2 S3 M3LB4	296	A503_70.2 P100 BN100LB4	297
21.7	1202	2.3	65.0	30000	A603_65.0 S3 M3LB4	304	A603_65.0 P100 BN100LB4	305
21.9	1190	1.7	64.3	30000	A553_64.3 S3 M3LB4	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



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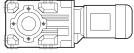




n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
150	179	1.2	9.4	2670	A202_9.4 S3 M3LB4	280	A202_9.4 P100 BN100LB4	281
151	178	1.7	9.3	4240	A302_9.3 S3 M3LB4	284	A302_9.3 P100 BN100LB4	285
151	178	2.2	9.3	7000	A352_9.3 S3 M3LB4	288	A352_9.3 P100 BN100LB4	289
153	176	3.1	9.2	8980	A412_9.2 S3 M3LB4	292	A412_9.2 P100 BN100LB4	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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
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

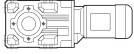






4.0 kW

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
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

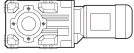






4.0 kW

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

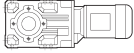






5.5 kW

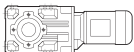




n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
3.0	15805	0.9	486.6	75000	A904_486.6 S4 M4SA4	314	A904_486.6 P132 BN132S4	315
3.2	14589	1.0	449.2	75000	A904_449.2 S4 M4SA4	314	A904_449.2 P132 BN132S4	315
3.7	12519	1.1	385.4	75000	A904_385.4 S4 M4SA4	314	A904_385.4 P132 BN132S4	315
4.0	11556	1.2	355.8	75000	A904_355.8 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




n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

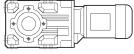






7.5 kW

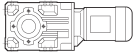




n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
8.0	7971	1.8	180.0	75000	A904_180.0 S4 M4LA4	314	A904_180.0 P132 BN132MA4	315
8.4	7587	1.1	171.3	65000	A804_171.3 S4 M4LA4	311	A804_171.3 P132 BN132MA4	312
8.7	7358	1.9	166.1	75000	A904_166.1 S4 M4LA4	314	A904_166.1 P132 BN132MA4	315
9.2	7101	1.1	156.8	65000	A803_156.8 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






n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
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

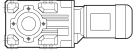





9.2 kW

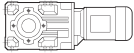



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
15.0	5345	0.9	96.2	50000	A703_96.2 S4 M4LB4	308	A703_96.2 P132 BN132MB4	309
15.0	5335	1.5	96.0	65000	A803_96.0 S4 M4LB4	311	A803_96.0 P132 BN132MB4	312
16.1	4954	1.6	89.2	65000	A803_89.2 S4 M4LB4	311	A803_89.2 P132 BN132MB4	312
16.5	4837	2.9	87.1	75000	A903_87.1 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

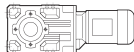



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
157	528	1.0	9.2	7250	A412_9.2 S4 M4LB4	292	A412_9.2 P132 BN132MB4	293
173	478	1.2	8.3	7170	A412_8.3 S4 M4LB4	292	A412_8.3 P132 BN132MB4	293
186	444	2.1	7.7	10600	A502_7.7 S4 M4LB4	296	A502_7.7 P132 BN132MB4	297
202	409	1.3	7.1	7020	A412_7.1 S4 M4LB4	292	A412_7.1 P132 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

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
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

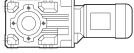






11 kW

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

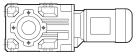

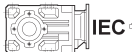




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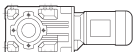




n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
8.1	15724	0.9	180.0	75000			A904_180.0 P160 BN160L4	315
8.8	14514	1.0	166.1	75000			A904_166.1 P160 BN160L4	315
9.7	13490	1.0	151.0	75000	A903_151.0 S5 M5SB4	314	A903_151.0 P160 BN160L4	315
10.5	12452	1.0	139.4	75000	A903_139.4 S5 M5SB4	314	A903_139.4 P160 BN160L4	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

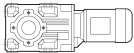



n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
93	1447	1.2	15.7	25700	A552_15.7 S5 M5SB4	300	A552_15.7 P160 BN160L4	301
95	1376	2.7	15.4	40800	A703_15.4 S5 M5SB4	308	A703_15.4 P160 BN160L4	309
111	1209	0.9	13.1	10500			A502_13.1 P160 BN160L4	297
112	1207	1.5	13.1	24700	A552_13.1 S5 M5SB4	300	A552_13.1 P160 BN160L4	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





n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N			 IEC 	
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

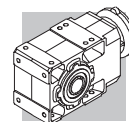


18.5 kW

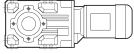




n_2 min ⁻¹	M_2 Nm	S	i	R_{n2} N						
41	3904	1.2	35.4	47300	A703_35.4 S5 M5LA4	308	A703_35.4 P180 BN180M4	309		
48	3369	1.9	30.6	49300			A803_30.6 P180 BN180M4	312		
49	3316	1.4	30.1	46100			A703_30.1 P180 BN180M4	309		
52	3110	2.1	28.2	48500			A803_28.2 P180 BN180M4	312		
52	3069	0.9	27.9	30000			A603_27.9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

22 kW

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

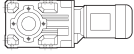






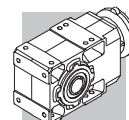
22 kW

n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N			 IEC 	
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

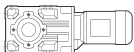





30 kW





n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} 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

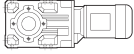



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
21.5	14945	0.9	68.8	63900			A903_68.8 P225 BN225S4	315
24.8	12959	1.1	59.6	63900			A903_59.6 P225 BN225S4	315
26.9	11962	1.2	55.0	63600			A903_55.0 P225 BN225S4	315
31	10499	1.3	48.3	63100			A903_48.3 P225 BN225S4	315
33	9692	1.4	44.6	62500			A903_44.6 P225 BN225S4	315
38	8436	1.7	38.8	61700			A903_38.8 P225 BN225S4	315
38	8369	0.9	38.5	41700			A803_38.5 P225 BN225S4	312
41	7787	1.8	35.8	61000			A903_35.8 P225 BN225S4	315
42	7725	0.9	35.5	41600			A803_35.5 P225 BN225S4	312
47	6847	2.0	31.5	59900			A903_31.5 P225 BN225S4	315
48	6647	1.0	30.6	41600			A803_30.6 P225 BN225S4	312
51	6321	2.1	29.1	59100			A903_29.1 P225 BN225S4	315
52	6135	1.1	28.2	41300			A803_28.2 P225 BN225S4	312
60	5326	1.3	24.5	40900			A803_24.5 P225 BN225S4	312
61	5241	2.5	24.1	57300			A903_24.1 P225 BN225S4	315
65	4916	1.3	22.6	40500			A803_22.6 P225 BN225S4	312
67	4837	2.5	22.3	56400			A903_22.3 P225 BN225S4	315
70	4565	2.7	21.0	55900			A903_21.0 P225 BN225S4	315
71	4554	1.4	20.9	40300			A803_20.9 P225 BN225S4	312
76	4214	2.7	19.4	54900			A903_19.4 P225 BN225S4	315
77	4204	1.4	19.3	39800			A803_19.3 P225 BN225S4	312
88	3668	3.2	16.9	53400			A903_16.9 P225 BN225S4	315
88	3639	1.8	16.7	39100			A803_16.7 P225 BN225S4	312
95	3386	3.2	15.6	52500			A903_15.6 P225 BN225S4	315
96	3359	1.8	15.5	38500			A803_15.5 P225 BN225S4	312
111	2890	2.3	13.3	37600			A803_13.3 P225 BN225S4	312
121	2667	2.3	12.3	37000			A803_12.3 P225 BN225S4	312
139	2316	2.8	10.7	36100			A803_10.7 P225 BN225S4	312
151	2137	2.8	9.8	35500			A803_9.8 P225 BN225S4	312

45 kW

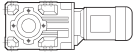



n ₂ min ⁻¹	M ₂ Nm	S	i	R _{n2} N				
26.9	14549	1.0	55.0	58700			A903_55.0 P225 BN225M4	315
31	12769	1.1	48.3	58900			A903_48.3 P225 BN225M4	315
33	11787	1.2	44.6	58600			A903_44.6 P225 BN225M4	315
38	10260	1.4	38.8	58300			A903_38.8 P225 BN225M4	315
41	9471	1.5	35.8	57800			A903_35.8 P225 BN225M4	315
47	8328	1.7	31.5	57200			A903_31.5 P225 BN225M4	315
51	7687	1.7	29.1	56600			A903_29.1 P225 BN225M4	315
60	6477	1.0	24.5	38300			A803_24.5 P225 BN225M4	312
61	6374	2.1	24.1	55200			A903_24.1 P225 BN225M4	315
65	5979	1.0	22.6	38100			A803_22.6 P225 BN225M4	312
67	5883	2.1	22.3	54500			A903_22.3 P225 BN225M4	315
70	5552	2.2	21.0	54000			A903_21.0 P225 BN225M4	315
71	5539	1.2	20.9	38000			A803_20.9 P225 BN225M4	312
76	5125	2.3	19.4	53200			A903_19.4 P225 BN225M4	315
77	5112	1.2	19.3	37700			A803_19.3 P225 BN225M4	312

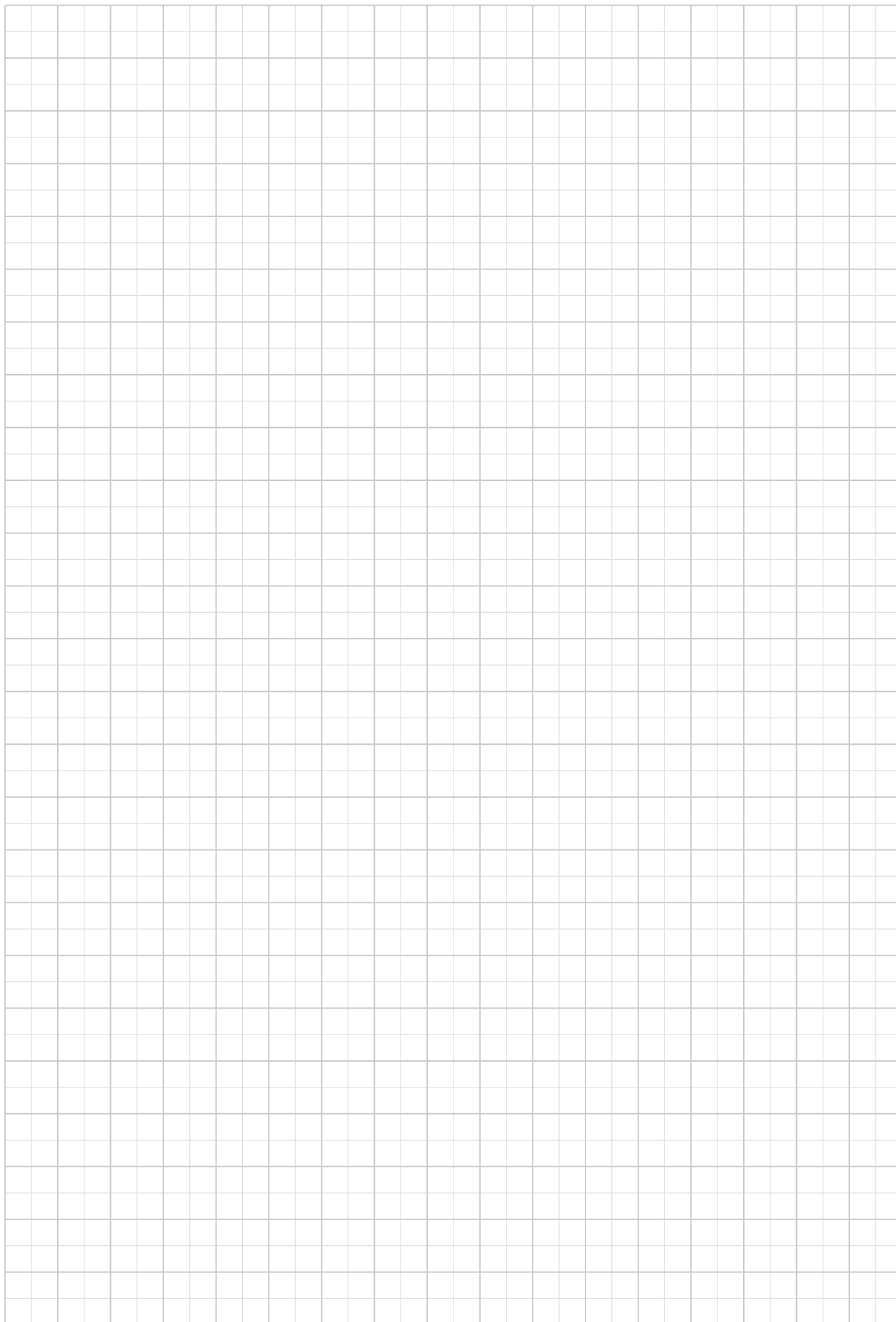
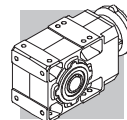


45 kW

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
88	4461	2.7	16.9	52000			A903_16.9 P225 BN225M4	315
88	4425	1.5	16.7	37300			A803_16.7 P225 BN225M4	312
95	4118	2.7	15.6	51100			A903_15.6 P225 BN225M4	315
96	4085	1.5	15.5	36900			A803_15.5 P225 BN225M4	312
108	3621	3.1	13.7	49900			A903_13.7 P225 BN225M4	315
111	3515	1.9	13.3	36200			A803_13.3 P225 BN225M4	312
117	3342	3.1	12.6	49000			A903_12.6 P225 BN225M4	315
121	3244	1.9	12.3	35700			A803_12.3 P225 BN225M4	312
139	2816	2.3	10.7	34900			A803_10.7 P225 BN225M4	312
141	2771	3.5	10.5	47100			A903_10.5 P225 BN225M4	315
151	2600	2.3	9.8	34400			A803_9.8 P225 BN225M4	312
153	2558	3.5	9.7	46200			A903_9.7 P225 BN225M4	315

55 kW

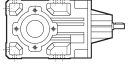

n₂ min ⁻¹	M₂ Nm	S	i	R_{n2} N				
33	14406	1.0	44.6	53900			A903_44.6 P250 BN250M4	315
38	12540	1.1	38.8	54100			A903_38.8 P250 BN250M4	315
41	11575	1.2	35.8	54000			A903_35.8 P250 BN250M4	315
47	10179	1.4	31.5	53800			A903_31.5 P250 BN250M4	315
51	9396	1.4	29.1	53400			A903_29.1 P250 BN250M4	315
61	7790	1.7	24.1	52600			A903_24.1 P250 BN250M4	315
67	7191	1.7	22.3	52000			A903_22.3 P250 BN250M4	315
70	6786	1.8	21.0	51700			A903_21.0 P250 BN250M4	315
76	6264	1.8	19.4	51100			A903_19.4 P250 BN250M4	315
88	5452	2.2	16.9	50100			A903_16.9 P250 BN250M4	315
95	5033	2.2	15.6	49400			A903_15.6 P250 BN250M4	315
108	4425	2.5	13.7	48400			A903_13.7 P250 BN250M4	315
117	4085	2.6	12.6	47600			A903_12.6 P250 BN250M4	315
141	3387	2.9	10.5	45900			A903_10.5 P250 BN250M4	315
153	3126	2.9	9.7	45100			A903_9.7 P250 BN250M4	315



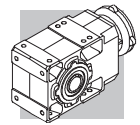


39 GEARBOX RATING CHARTS

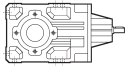

A 10 150 Nm

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



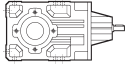

A 10 150 Nm

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	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	



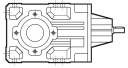

A 20

250 Nm

	i	n ₁ = 2800 min ⁻¹					n ₁ = 1400 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	

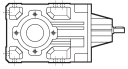



A 20 250 Nm

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	

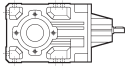



A 30 410 Nm

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



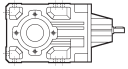

A 30 410 Nm

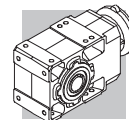
	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	
A 30 2_5.4	5.4	166	255	4.7	1660	3630	92	300	3.1	2200	4470	285
A 30 2_6.4	6.4	140	270	4.2	1630	3830	78	300	2.6	2200	4830	
A 30 2_7.0	7.0	128	284	4.1	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

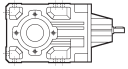

600 Nm

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



A 35

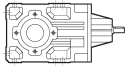

600 Nm

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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

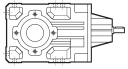

850 Nm

	i	n ₁ = 2800 min ⁻¹					n ₁ = 1400 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	



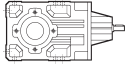

A 41

850 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		n_2 min ⁻¹	M_{n2} Nm	P_{n1} kW	R_{n1} N	R_{n2} N	n_2 min ⁻¹	M_{n2} Nm	P_{n1} kW	R_{n1} N	R_{n2} 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	

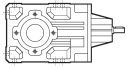



A 50 1500 Nm

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



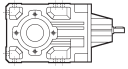

A 50 1500 Nm

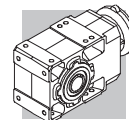
	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	
A 50 2_7.7	7.7	116	770	10.0	3430	11700	65	900	6.5	3500	14300	297
A 50 2_9.7	9.7	92	830	8.5	3490	12600	51	1000	5.7	3500	15300	
A 50 2_13.1	13.1	69	830	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

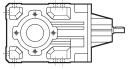

2000 Nm

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



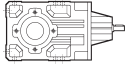

A 55

2000 Nm

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	

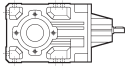



A 60 2800 Nm

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



A 60 2800 Nm

	i	$n_1 = 900 \text{ min}^{-1}$					$n_1 = 500 \text{ min}^{-1}$					
		n_2 min ⁻¹	M_{n2} Nm	P_{n1} kW	R_{n1} N	R_{n2} N	n_2 min ⁻¹	M_{n2} Nm	P_{n1} kW	R_{n1} N	R_{n2} N	
A 60 2_7.9	7.9	114	1300	16.6	4190	30000	64	1550	11.0	4700	30000	305
A 60 2_10.3	10.3	87	1300	12.6	4470	30000	48	1550	8.4	4700	30000	
A 60 2_12.7	12.7	71	1400	11.0	4490	30000	39	1700	7.5	4700	30000	
A 60 2_16.7	16.7	54	1450	8.7	4610	30000	29.9	1700	5.7	4700	30000	
A 60 2_20.6	20.6	44	1550	7.5	4600	30000	24.3	1800	4.9	4700	30000	
A 60 3_25.7	25.7	35	2800	11.3	4680	30000	19.4	2800	6.3	4700	30000	
A 60 3_27.9	27.9	32	2800	10.4	4700	30000	18.0	2800	5.8	4700	30000	
A 60 3_31.7	31.7	28.4	2800	9.2	4700	30000	15.8	2800	5.1	4700	30000	
A 60 3_34.3	34.3	26.2	2800	8.5	4700	30000	14.6	2800	4.7	4700	30000	
A 60 3_41.7	41.7	21.6	2800	7.0	4700	30000	12.0	2800	3.9	4700	30000	
A 60 3_45.2	45.2	19.9	2800	6.4	4700	30000	11.1	2800	3.6	4700	30000	
A 60 3_51.3	51.3	17.5	2800	5.6	4700	30000	9.7	2800	3.1	4700	30000	
A 60 3_55.6	55.6	16.2	2800	5.2	4700	30000	9.0	2800	2.9	4700	30000	
A 60 3_65.0	65.0	13.8	2800	4.5	4700	30000	7.7	2800	2.5	4700	30000	
A 60 3_70.4	70.4	12.8	2800	4.1	4700	30000	7.1	2800	2.3	4700	30000	
A 60 3_79.7	79.7	11.3	2800	3.6	4700	30000	6.3	2800	2.0	4700	30000	
A 60 3_86.4	86.4	10.4	2800	3.4	4700	30000	5.8	2800	1.9	4700	30000	
A 60 3_99.5	99.5	9.0	2800	2.9	4700	30000	5.0	2800	1.6	4700	30000	
A 60 3_107.8	107.8	8.3	2800	2.7	4700	30000	4.6	2800	1.5	4700	30000	
A 60 3_123.0	123.0	7.3	2800	2.4	4700	30000	4.1	2800	1.3	4700	30000	
A 60 3_133.3	133.3	6.8	2800	2.2	4700	30000	3.8	2800	1.2	4700	30000	
A 60 3_144.0	144.0	6.2	2800	2.0	4700	30000	3.5	2800	1.1	4700	30000	
A 60 3_156.0	156.0	5.8	2800	1.9	4700	30000	3.2	2800	1.0	4700	30000	
A 60 3_171.5	171.5	5.2	2800	1.7	4700	30000	2.9	2800	0.94	4700	30000	
A 60 3_185.8	185.8	4.8	2800	1.6	4700	30000	2.7	2800	0.87	4700	30000	
A 60 4_208.7	208.7	4.3	2800	1.4	3500	30000	2.4	2800	0.79	3500	30000	
A 60 4_226.1	226.1	4.0	2800	1.3	3500	30000	2.2	2800	0.73	3500	30000	
A 60 4_264.3	264.3	3.4	2800	1.1	3500	30000	1.9	2800	0.62	3500	30000	
A 60 4_286.3	286.3	3.1	2800	1.0	3500	30000	1.7	2800	0.58	3500	30000	
A 60 4_324.2	324.2	2.8	2800	0.91	3500	30000	1.5	2800	0.51	3500	30000	
A 60 4_351.2	351.2	2.6	2800	0.84	3500	30000	1.4	2800	0.47	3500	30000	
A 60 4_404.7	404.7	2.2	2800	0.73	3500	30000	1.2	2800	0.41	3500	30000	
A 60 4_438.4	438.4	2.1	2800	0.68	3500	30000	1.1	2800	0.38	3500	30000	
A 60 4_500.3	500.3	1.8	2800	0.59	3500	30000	1.0	2800	0.33	3500	30000	
A 60 4_542.0	542.0	1.7	2800	0.55	3500	30000	0.92	2800	0.30	3500	30000	
A 60 4_585.8	585.8	1.5	2800	0.51	3500	30000	0.85	2800	0.28	3500	30000	
A 60 4_634.6	634.6	1.4	2800	0.47	3500	30000	0.79	2800	0.26	3500	30000	
A 60 4_697.3	697.3	1.3	2800	0.43	3500	30000	0.72	2800	0.24	3500	30000	
A 60 4_755.4	755.4	1.2	2800	0.39	3500	30000	0.66	2800	0.22	3500	30000	



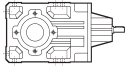

A 70 5000 Nm

		n ₁ = 2800 min ⁻¹					n ₁ = 1400 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	

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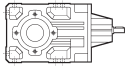

A 70 5000 Nm

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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	

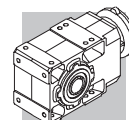


A 80

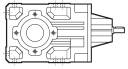

8000 Nm

	i	n ₁ = 2800 min ⁻¹					n ₁ = 1400 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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

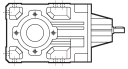

	i	n ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	
A 80 3_9.8	9.8	92	4450	47	—	36700	51	5300	31	—	43800	
A 80 3_10.7	10.7	84	4900	48	—	36900	47	5850	32	—	44000	
A 80 3_12.3	12.3	73	4900	41	—	38900	41	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)



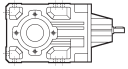

A 90 14000 Nm

	i	n ₁ = 2800 min ⁻¹					n ₁ = 1400 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	
A 90 3_9.7	9.7	289	7800	260	2440	27600	145	9050	151	5520	35000	315
A 90 3_10.5	10.5	267	8350	257	2620	27700	134	9800	151	5530	34900	
A 90 3_12.6	12.6	221	8500	217	2700	29800	111	10450	133	4790	36700	
A 90 3_13.7	13.7	204	8050	189	4670	31800	102	11150	131	5060	36900	
A 90 3_15.6	15.6	180	8900	184	3240	32000	90	10950	113	5410	39400	
A 90 3_16.9	16.9	166	9650	184	3230	31900	83	11850	113	5440	39300	
A 90 3_19.4	19.4	144	9400	156	3160	34300	72	11550	96	5350	42300	
A 90 3_21.0	21.0	133	10150	156	3210	34300	67	12400	95	5510	42400	
A 90 3_22.3	22.3	126	9850	143	9660	35700	63	12150	88	12200	43900	
A 90 3_24.1	24.1	116	10700	143	9660	35500	58	13150	88	12200	43800	
A 90 3_29.1	29.1	96	10550	117	9800	38900	48	13000	72	12400	47900	
A 90 3_31.5	31.5	89	11450	117	9800	38800	44	14000	72	12400	47900	
A 90 3_35.8	35.8	78	11150	100	9910	41600	39	13750	62	12500	51100	
A 90 3_38.8	38.8	72	12100	100	9900	41500	36	14000	58	12700	52700	
A 90 3_44.6	44.6	63	11800	85	9920	44600	31	14000	51	12700	56000	
A 90 3_48.3	48.3	58	12800	85	9920	44500	29.0	14000	47	12800	58000	
A 90 3_55.0	55.0	51	12550	73	9960	47500	25.4	14000	41	12800	61400	
A 90 3_59.6	59.6	47	13550	73	9970	47500	23.5	14000	38	13000	63500	
A 90 3_68.8	68.8	41	13350	63	9960	50900	20.4	14000	33	13000	67400	
A 90 3_74.5	74.5	38	14000	61	10000	51700	18.8	14000	30	13100	69700	
A 90 3_80.4	80.4	35	13900	56	9920	53500	17.4	14000	28	13000	71900	
A 90 3_87.1	87.1	32	14000	52	10100	55500	16.1	14000	26	13200	74300	
A 90 3_98.6	98.6	28.4	14000	46	9990	58500	14.2	14000	23	13100	75000	
A 90 3_106.8	106.8	26.2	14000	42	10100	60600	13.1	14000	21	13300	75000	
A 90 3_116.9	116.9	24.0	14000	39	10100	63000	12.0	14000	19.3	13200	75000	
A 90 3_126.6	126.6	22.1	10650	27	10600	71400	11.1	13150	16.7	13400	75000	
A 90 3_139.4	139.4	20.1	10350	24	10600	74500	10.0	12750	14.7	13400	75000	
A 90 3_151.0	151.0	18.5	11200	24	10600	75000	9.3	13800	14.7	13400	75000	
A 90 4_166.1	166.1	16.9	14000	28	—	75000	8.4	14000	13.9	—	75000	
A 90 4_180.0	180.0	15.6	14000	26	—	75000	7.8	14000	12.8	—	75000	
A 90 4_209.0	209.0	13.4	14000	22	—	75000	6.7	14000	11.0	—	75000	
A 90 4_226.4	226.4	12.4	14000	20	—	75000	6.2	14000	10.2	—	75000	
A 90 4_281.4	281.4	9.9	14000	16.4	—	75000	5.0	14000	8.2	—	75000	
A 90 4_304.9	304.9	9.2	14000	15.1	—	75000	4.6	14000	7.6	—	75000	
A 90 4_355.8	355.8	7.9	14000	13.0	—	75000	3.9	14000	6.5	—	75000	
A 90 4_385.4	385.4	7.3	14000	12.0	—	75000	3.6	14000	6.0	680	75000	
A 90 4_449.2	449.2	6.2	14000	10.3	—	75000	3.1	14000	5.1	—	75000	
A 90 4_486.6	486.6	5.8	14000	9.5	—	75000	2.9	14000	4.7	950	75000	
A 90 4_555.3	555.3	5.0	14000	8.3	—	75000	2.5	14000	4.2	740	75000	
A 90 4_601.6	601.6	4.7	14000	7.7	—	75000	2.3	14000	3.8	1200	75000	
A 90 4_707.9	707.9	4.0	14000	6.5	—	75000	2.0	14000	3.3	1050	75000	
A 90 4_766.9	766.9	3.7	14000	6.0	—	75000	1.8	14000	3.0	1490	75000	
A 90 4_865.1	865.1	3.2	14000	5.3	—	75000	1.6	14000	2.7	1170	75000	
A 90 4_937.2	937.2	3.0	14000	4.9	—	75000	1.5	14000	2.5	1590	75000	
A 90 4_1025	1025	2.7	14000	4.5	—	75000	1.4	14000	2.2	1330	75000	
A 90 4_1111	1111	2.5	14000	4.2	—	75000	1.3	14000	2.1	1740	75000	
A 90 4_1222	1222	2.3	14000	3.8	—	75000	1.1	14000	1.9	1380	75000	
A 90 4_1324	1324	2.1	14000	3.5	—	75000	1.1	14000	1.7	1790	75000	
A 90 4_1507	1507	1.9	14000	3.1	—	75000	0.93	14000	1.5	1440	75000	
A 90 4_1632	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 ₁ = 900 min ⁻¹					n ₁ = 500 min ⁻¹					
		n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} N	n ₂ min ⁻¹	M _{n2} Nm	P _{n1} kW	R _{n1} N	R _{n2} 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

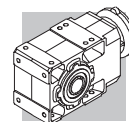
Please be aware that motor-gearbox combinations resulting from the following charts are purely based on geometrical compatibility.

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

(C 40)

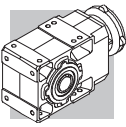
		IEC_  (IM B5)												
		BN										IEC		
P _{n1} (#) [kW]	2p	0.37	0.75	1.5	2.2	4	4	9.2	18.5	22	30	45	55	
	4p	0.25	0.55	1.1	1.85	3	4	9.2	15	22	30	47	55	
	6p	0.12	0.37	0.75	1.1	1.85	2.2	5.5	11	15	18.5	30	37	
		P63	P71	P80	P90	P100	P112	P132	P160	P180	P200	P225	P250	
A 05 2	i =	5.5_91.6	5.5_51.3	5.5_51.3										
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_{n1} = maximum installable power on input P_—



(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	



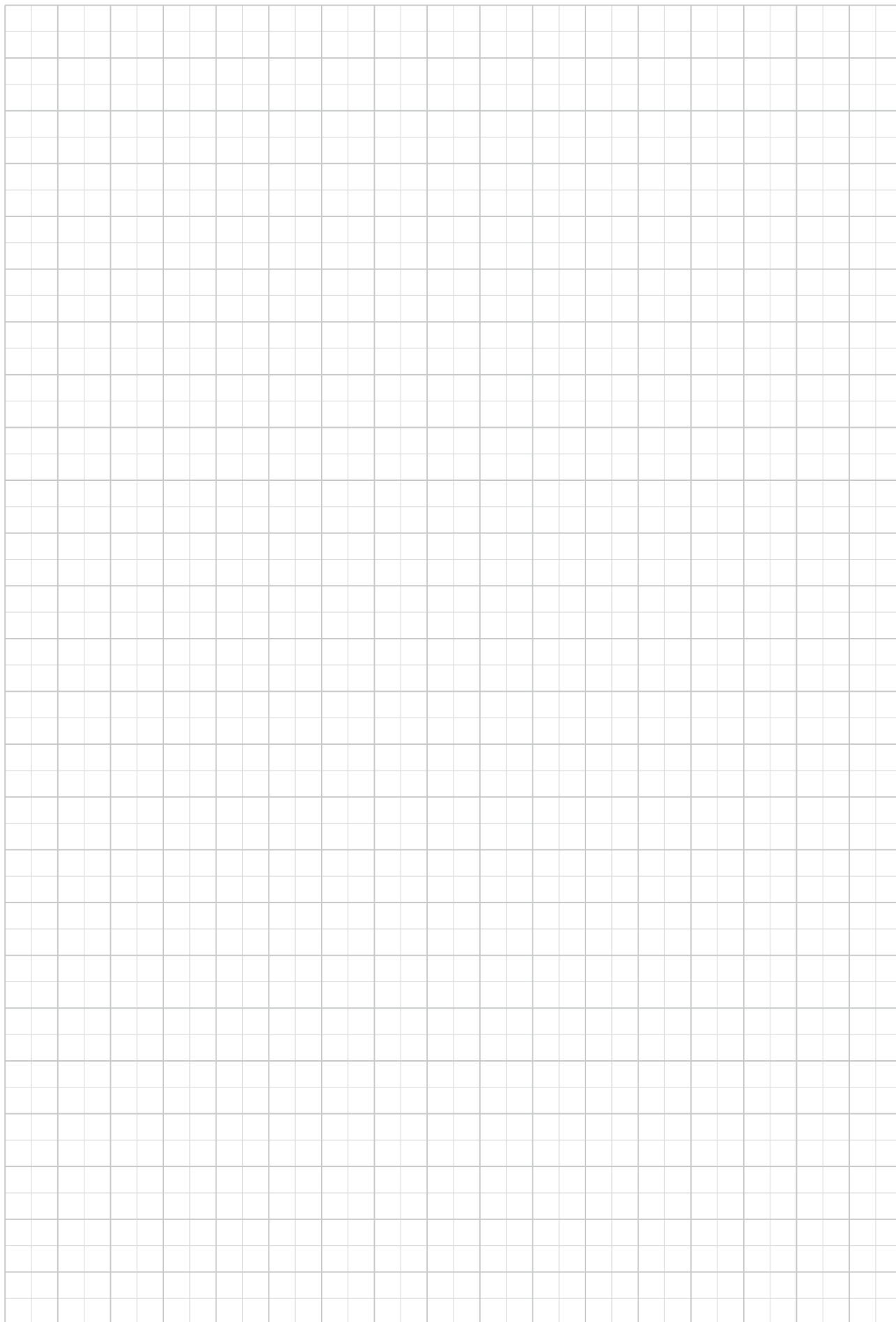
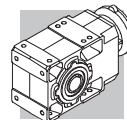
Motor adapters matching the most popular brands of servomotors are available for units size A05... A60. Dimensions of servomotor inputs are provided within the drawing section for each frame size. The code **SK** applies for inputs featuring a conventional keyway, while through the specification of the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



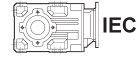


41 MOMENT OF INERTIA

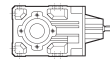
The following charts indicate moment of inertia values J_r [kgm²] referred to the gear unit high speed shaft. A key to the symbols used follows:



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...).



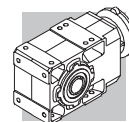
This symbol refers to gearbox values.




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

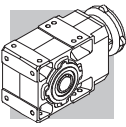
A 05

	i	J ($\cdot 10^{-4}$) [kgm ²]				
			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	—	—	—



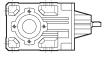


A 05

		J ($\cdot 10^{-4}$) [kgm ²]					
		 SERVO					
		40A		60A		60B 80A	
i		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 ²]							
			 IEC						
			63	71	80	90	100	112	
A 10 2_5.5	5.5	1.0	2.5	2.5	3.9	3.8	5.1	5.1	1.8
A 10 2_6.3	6.3	0.80	2.3	2.3	3.7	3.6	4.9	4.9	1.6
A 10 2_7.2	7.2	0.60	2.1	2.1	3.5	3.4	4.7	4.7	1.5
A 10 2_8.5	8.5	0.45	1.9	1.9	3.3	3.1	4.5	4.5	1.4
A 10 2_9.6	9.6	0.30	1.8	1.8	3.2	3.1	4.4	4.4	1.3
A 10 2_10.6	10.6	0.50	2.0	2.0	3.4	3.3	4.6	4.6	1.4
A 10 2_12.3	12.3	0.20	1.7	1.7	3.1	3.0	4.3	4.3	1.1
A 10 2_13.9	13.9	0.30	1.8	1.8	3.2	3.1	4.6	4.6	1.2
A 10 2_16.4	16.4	0.25	1.7	1.7	3.1	3.0	4.3	4.3	1.1
A 10 2_18.6	18.6	0.20	1.7	1.7	3.1	3.0	4.3	4.3	1.0
A 10 2_21.4	21.4	0.15	1.6	1.6	3.0	2.9	4.2	4.2	1.0
A 10 2_23.8	23.8	0.10	1.6	1.6	3.0	2.9	4.2	4.2	1.0
A 10 2_25.5	25.5	0.10	1.6	1.6	3.0	2.9	4.2	4.2	1.0
A 10 2_28.6	28.6	0.10	1.6	1.6	3.0	2.9	4.2	4.2	0.90
A 10 2_32.2	32.2	0.08	1.6	1.6	3.0	2.9	4.2	4.2	0.90
A 10 2_35.1	35.1	0.07	1.6	1.6	3.0	2.9	4.2	4.2	0.90
A 10 2_40.9	40.9	0.06	1.6	1.6	3.0	2.9	4.2	4.2	0.90
A 10 2_45.4	45.4	0.05	1.6	1.6	3.0	2.9	4.2	4.2	0.90
A 10 2_51.3	51.3	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 10 2_58.6	58.6	0.03	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 10 2_65.9	65.9	0.02	1.5	1.5	2.9	2.8	4.1	4.1	0.90
A 10 2_76.4	76.4	0.02	1.5	1.5	—	—	—	—	0.90
A 10 2_91.6	91.6	0.01	1.5	1.5	—	—	—	—	0.90


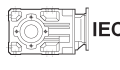
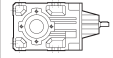


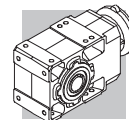
A 10

		J ($\cdot 10^{-4}$) [kgm ²]									
		 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 ⁻⁴) [kgm ²]							
			 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


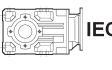
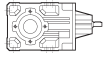


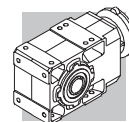
A 20

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



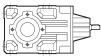


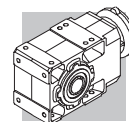
A 30

		J (•10 ⁻⁴) [kgm ²]											
		 SERVO											
	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 ⁻⁴) [kgm ²]								
			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



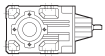


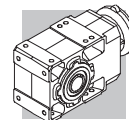
A 35

		J (•10 ⁻⁴) [kgm ²]											
		 SERVO											
	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 ⁻⁴) [kgm ²]								
			 IEC							
			63	71	80	90	100	112		
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



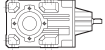


A 41

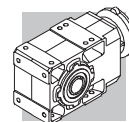
		J ($\cdot 10^{-4}$) [kgm ²]																	
		 SERVO																	
	i	60A		60B 80A		80B		95A		80C 95B 110A		95C 110B		130A		130B 180A		180B	
		SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC	SK	SC
A 41 2_5.2	5.2	—	—	—	—	—	—	—	—	16	16.5	16	17	16	17	30	32	32	37
A 41 2_7.1	7.1	—	—	—	—	—	—	—	—	10	10.5	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 ²]										
			 IEC 									
			63	71	80	90	100	112	132	160	180	
A 50 2_7.7	7.7	15	—	—	18	18	19	19	34	93	91	24
A 50 2_9.7	9.7	10	—	—	13	13	14	14	29	89	86	19
A 50 2_13.1	13.1	6.3	—	—	9.2	9.1	10	10	25	85	82	15
A 50 2_16.6	16.6	4.2	—	—	7.0	7.0	8.2	8.2	23	82	80	13
A 50 2_20.9	20.9	2.8	4.2	4.2	5.7	5.6	6.9	6.9	22	81	79	12
A 50 3_24.0	24.0	6.0	—	—	8.9	8.8	10	10	25	84	82	15
A 50 3_26.4	26.4	5.8	—	—	8.7	8.6	9.9	9.9	25	84	82	15
A 50 3_32.4	32.4	4.0	—	—	6.8	6.8	8.1	8.1	23	82	80	13
A 50 3_35.6	35.6	3.9	—	—	6.7	6.7	8.0	8.0	23	82	80	13
A 50 3_40.9	40.9	2.7	—	—	5.6	5.5	6.8	6.8	22	81	79	12
A 50 3_45.0	45.0	2.6	—	—	5.5	5.4	6.7	6.7	22	81	79	12
A 50 3_51.7	51.7	1.9	3.4	3.4	4.7	4.7	6.0	6.0	21	80	78	11
A 50 3_56.8	56.8	1.9	3.3	3.3	4.7	4.6	5.9	5.9	21	80	78	11
A 50 3_63.9	63.9	1.4	2.9	2.8	4.2	4.2	5.5	5.5	20	80	77	11
A 50 3_70.2	70.2	1.4	2.8	2.8	4.2	4.1	5.4	5.4	20	80	77	10
A 50 3_81.5	81.5	0.90	2.4	2.4	3.8	3.7	5.0	5.0	20	79	77	10
A 50 3_89.5	89.5	0.90	2.4	2.4	3.7	3.7	5.0	5.0	20	79	77	10
A 50 3_99.5	99.5	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	79	77	9.7
A 50 3_109.4	109.4	0.60	2.1	2.1	3.5	3.4	4.7	4.7	20	79	77	9.7
A 50 3_118.0	118.0	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	9.6
A 50 3_129.7	129.7	0.50	2.0	2.0	3.4	3.3	4.6	4.6	—	—	—	9.6
A 50 3_140.6	140.6	0.40	1.8	1.8	3.2	3.2	4.4	4.4	—	—	—	9.4
A 50 3_154.6	154.6	0.40	1.8	1.8	3.2	3.2	4.4	4.4	—	—	—	9.4
A 50 3_173.4	173.4	0.30	1.7	1.7	3.1	3.0	4.3	4.3	—	—	—	9.3
A 50 3_190.6	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.





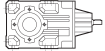
A 50

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





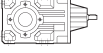
A 55

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

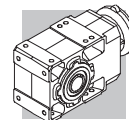
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



A 60

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





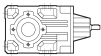
A 60

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

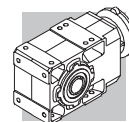
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.





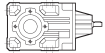
A 70

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

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





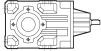
A 80

	i	J (•10 ⁻⁴) [kgm ²]											
			 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

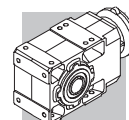
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.



A 90

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

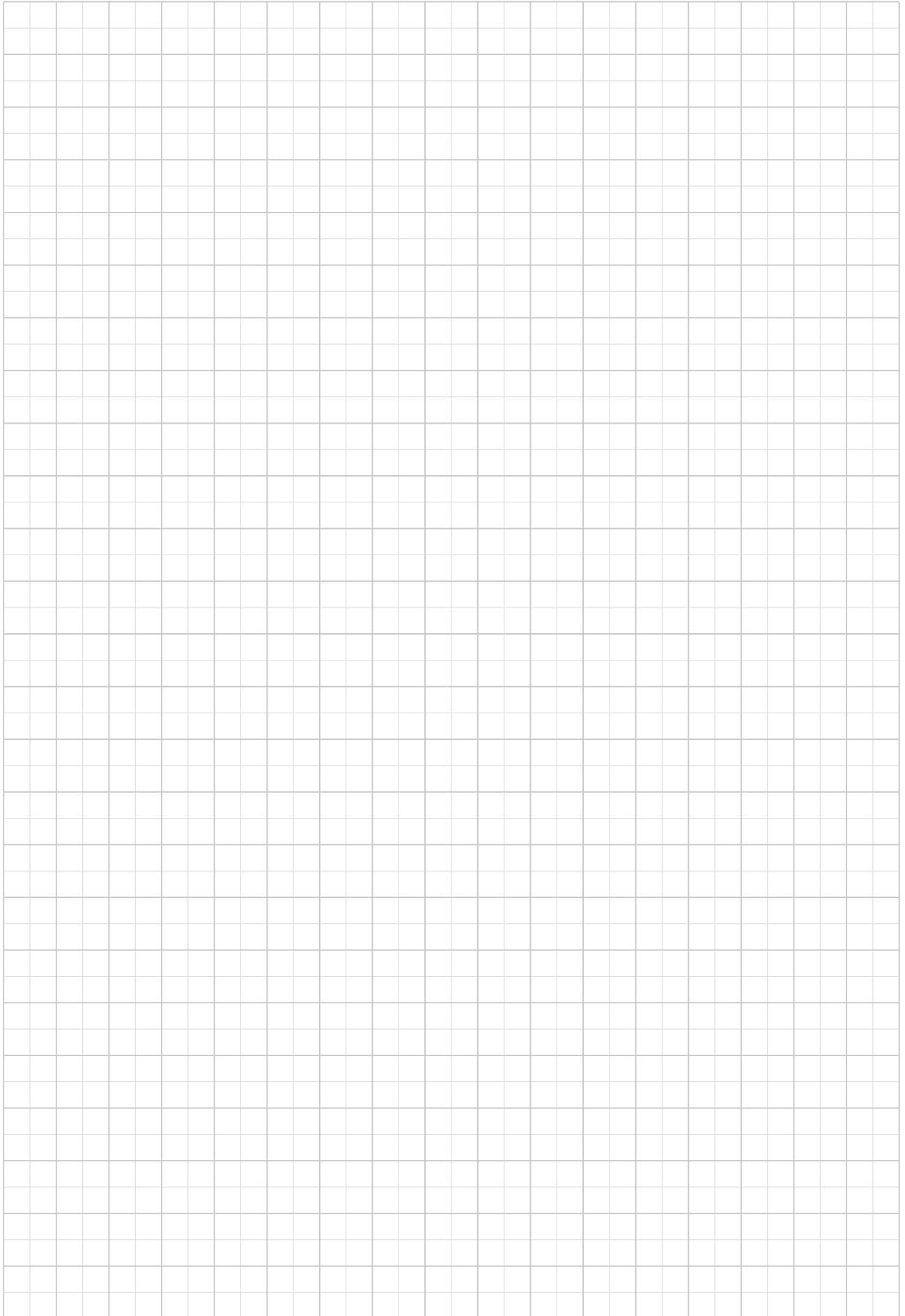
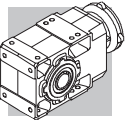
For the values of the moment of inertia of 4-stage gearboxes, please contact our Technical Service department.

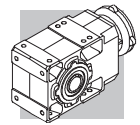


42 EXACT RATIOS

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
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

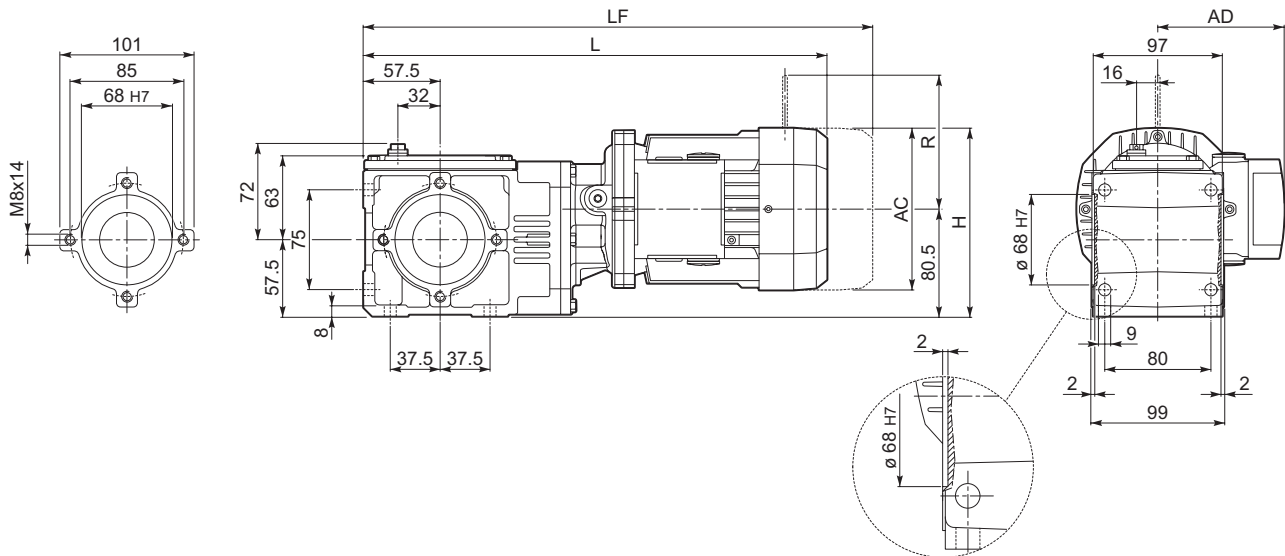






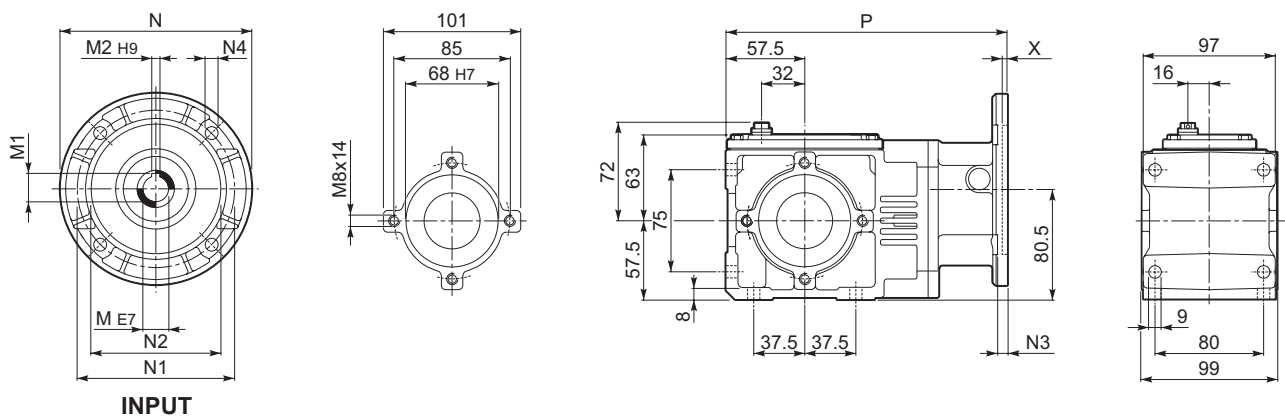
43 DIMENSIONS

A 05...M



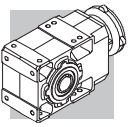
	AC	H	L	AD		M...FD M...FA		M...FD		M...FA	
						LF		R	AD	R	AD
A 05 2 S05 M05	121	141	360.5	95	7.5	426.5	9	96	122	116	95
A 05 2 S1 M1	138	149.5	389.5	108	11.5	450.5	14	103	135	124	108
A 05 2 S2 M2S	156	158.5	418.5	119	15.5	488.5	19	129	146	134	119

A 05...P(IEC)

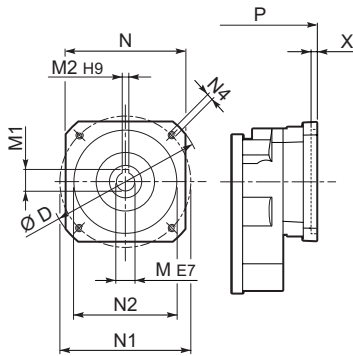
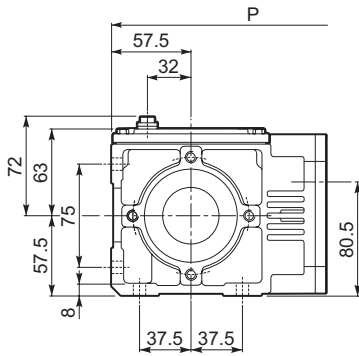


	M	M1	M2	N	N1	N2	N3	N4	X	P	
A 05 2 P63	11	12.8	4	140	115	95	7	9.5	3.5	206	5
A 05 2 P71	14	16.3	5	160	130	110	7	9.5	4	213	5
A 05 2 P80	19	20.8	6	200	165	130	7	11.5	4	223	5.5

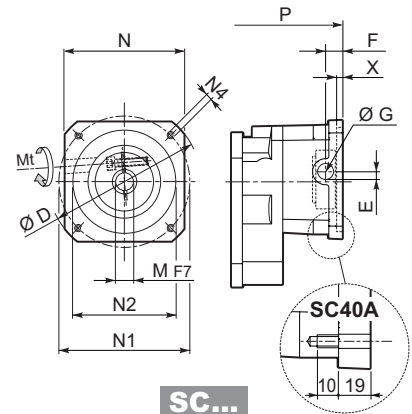
Lowered key of Bonfiglioli supply



A 05...SK / SC



SK...

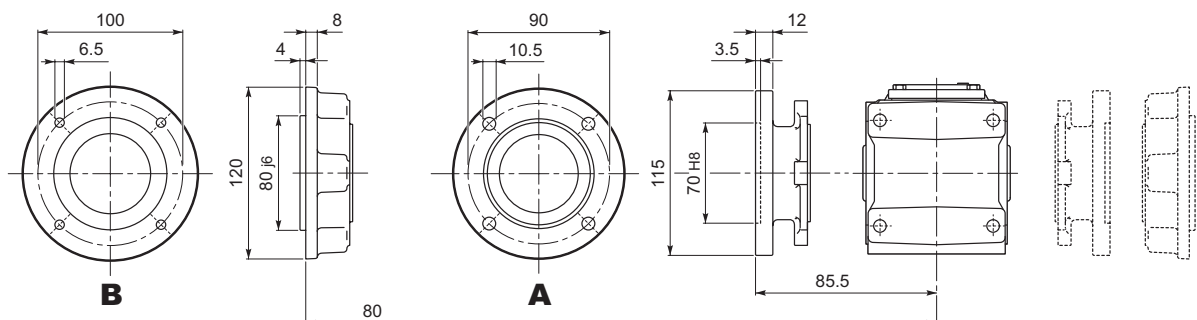


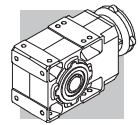
SC...

		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

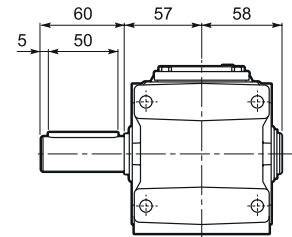
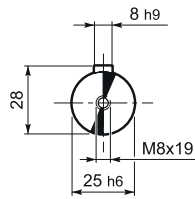
A 05...F...



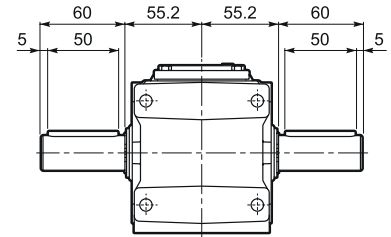
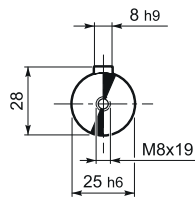


A 05

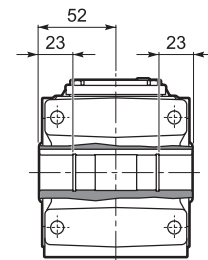
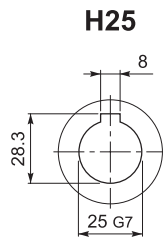
A 05...UR



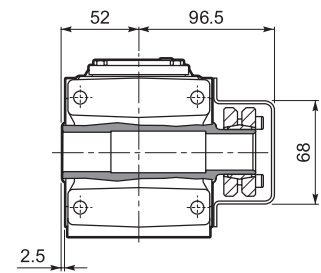
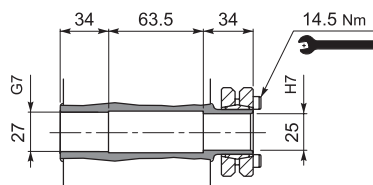
A 05...UD

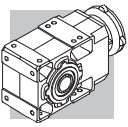


A 05...UH

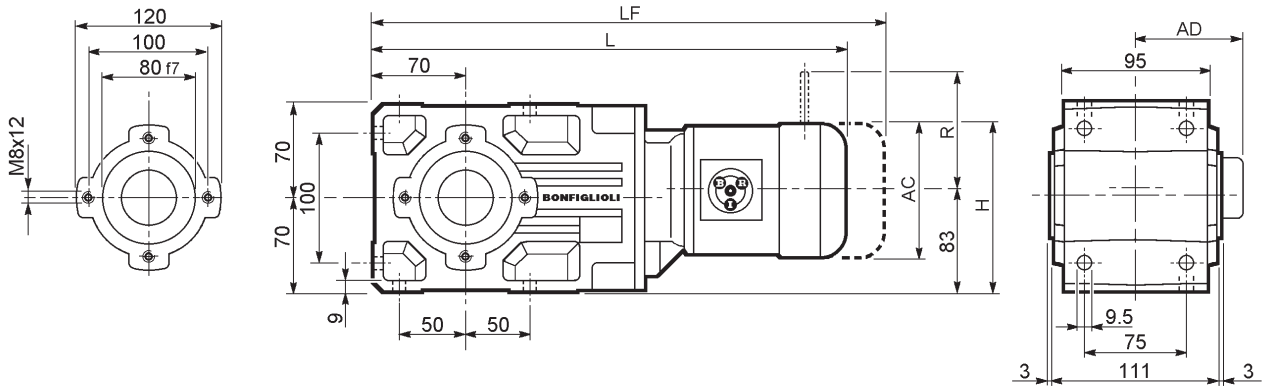


A 05...US

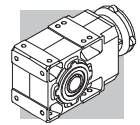




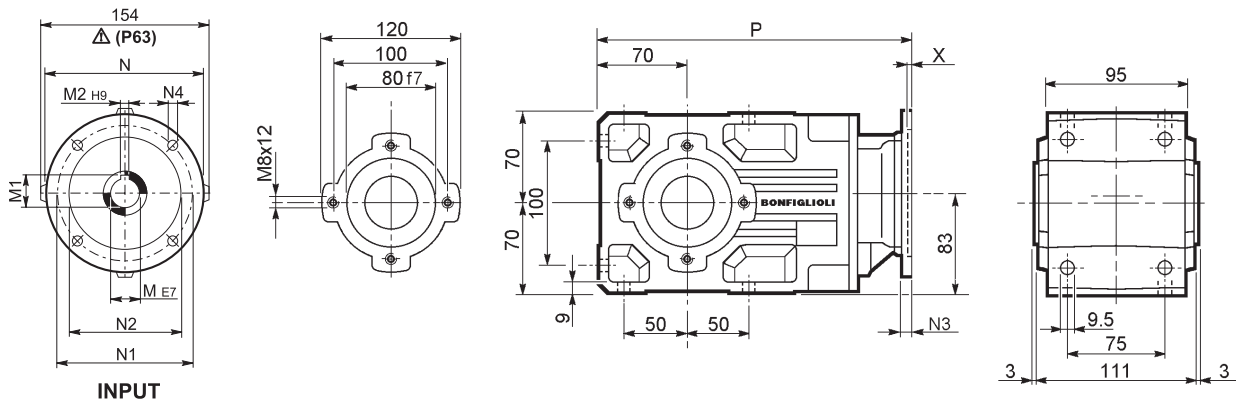
A 10...M



			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
A 10 2	S05	M05	138	152	437.5	108	14	498.5	17	103	135	124	108
A 10 2	S1	M1	156	161	466.5	119	18	536.5	22	129	146	134	119
A 10 2	S2	M2S	195	180.5	509.5	142	23	605.5	30	160	158	160	142
A 10 2	S3	M3S	195	180.5	541.5	142	30	632.5	37	160	158	160	142

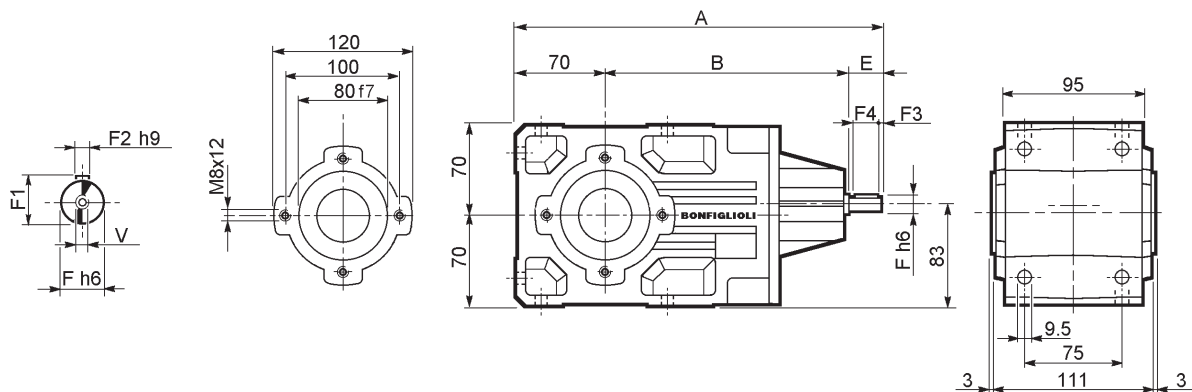


A 10...P(IEC)

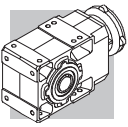


		M	M1	M2	N	N1	N2	N3	N4	X	P	
A 10 2	P63	11	12.8	4	140	115	95	—	M8x10	4	282.5	8
A 10 2	P71	14	16.3	5	160	130	110	—	M8x10	4.5	282.5	9
A 10 2	P80	19	21.8	6	200	165	130	—	M10x14.5	4	302	9
A 10 2	P90	24	27.3	8	200	165	130	—	M10x14.5	4	302	9
A 10 2	P100	28	31.3	8	250	215	180	—	M12x16	4.5	312	13
A 10 2	P112	28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

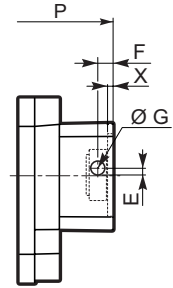
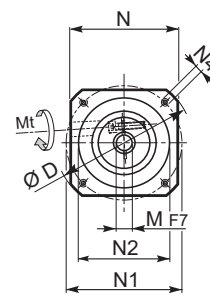
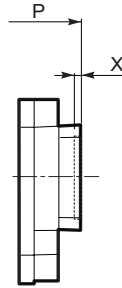
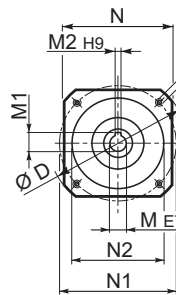
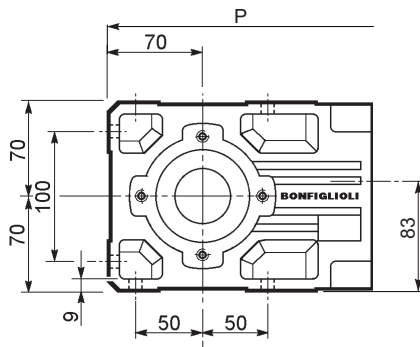
A 10...HS



		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



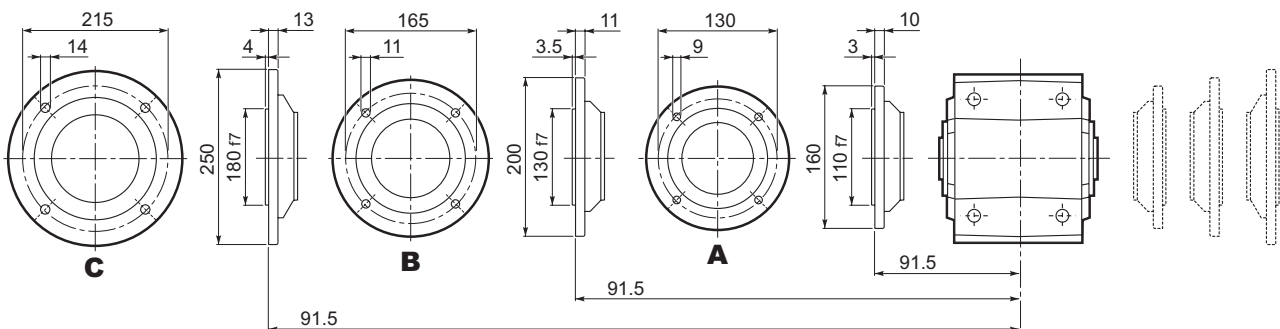
SK...

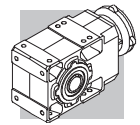
SC...

		D	M	M1	M2	N	N1	N2	N4	X	P	Kg
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	Kg
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

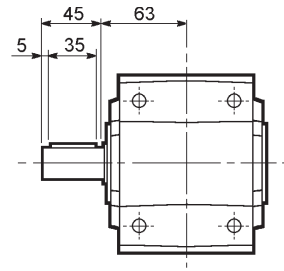
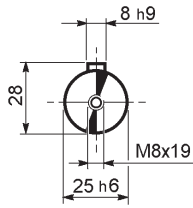
A 10...F...



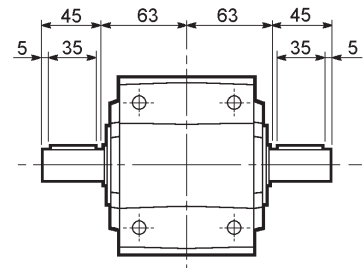
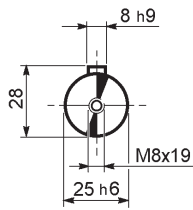


A 10

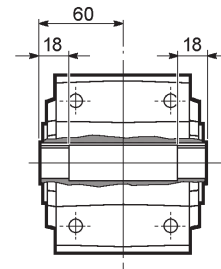
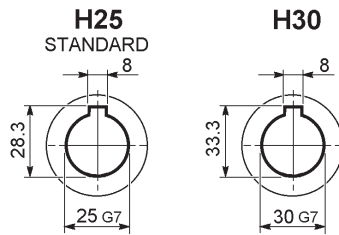
A 10...UR



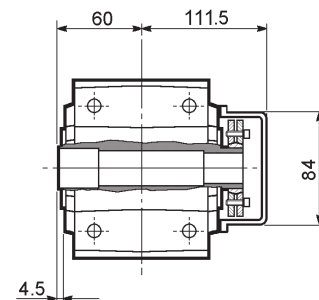
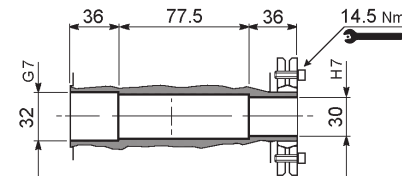
A 10...UD



A 10...UH

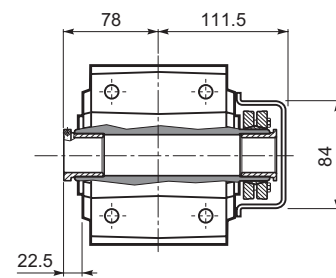
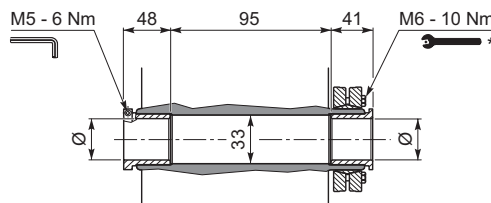


A 10...US

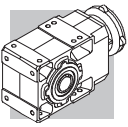


A 10...QF

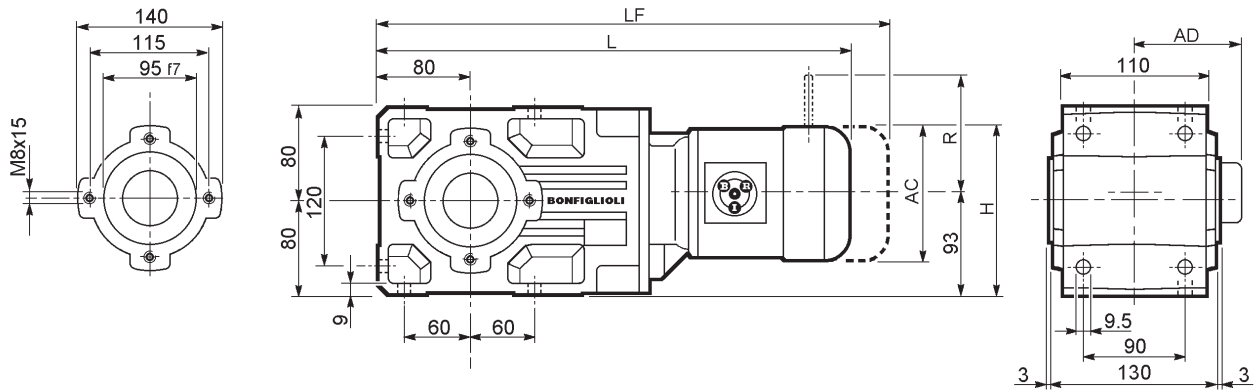
	Ø
QF25	25
QF30	30



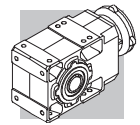
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox. supplied with the gearbox.



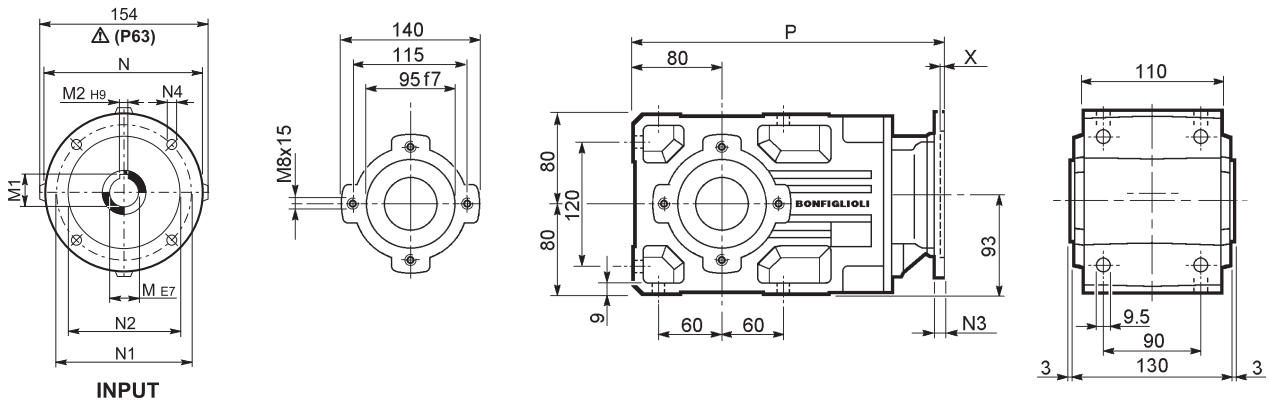
A 20...M



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

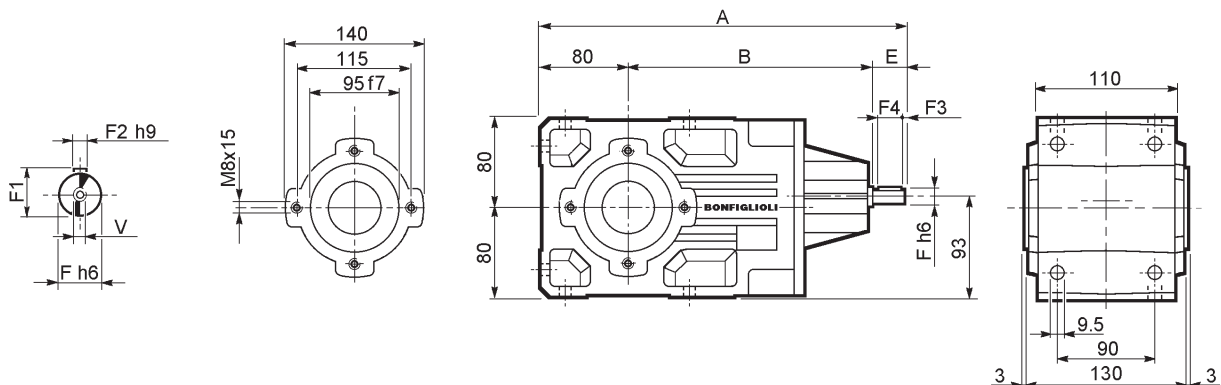


A 20...P(IEC)



		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

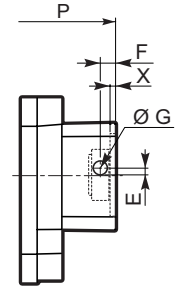
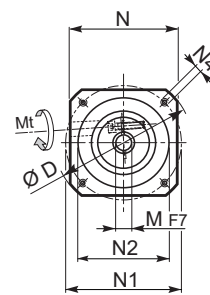
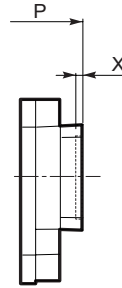
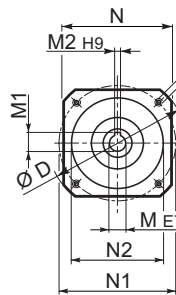
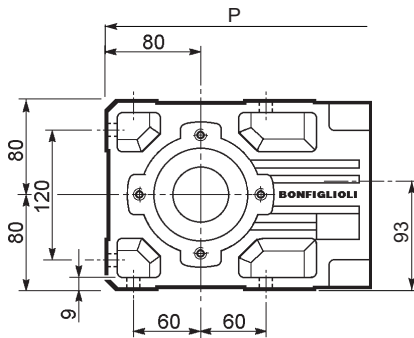
A 20...HS



		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



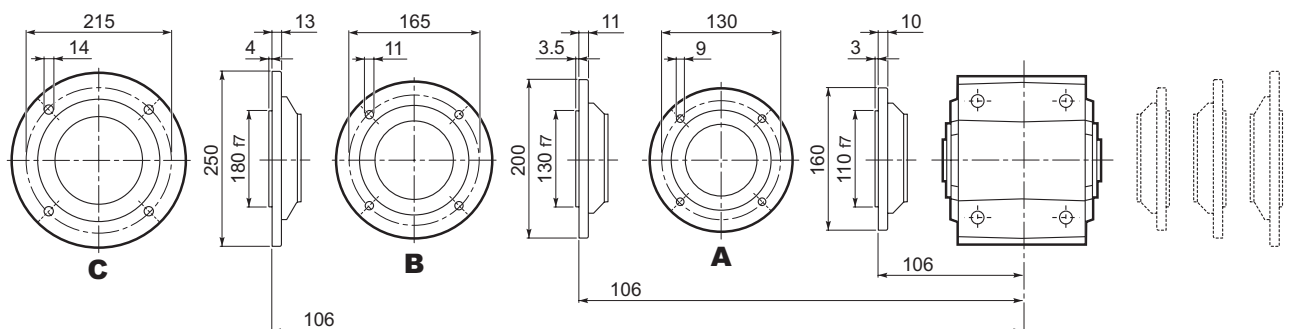
SK...

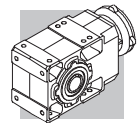
SC...

		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

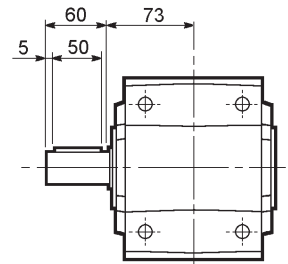
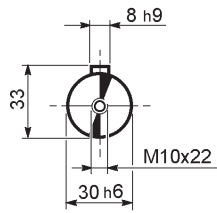
A 20...F...



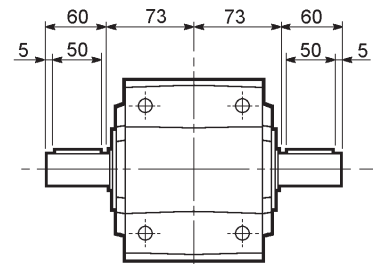
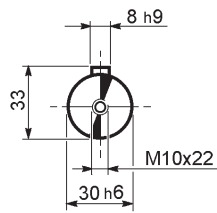


A 20

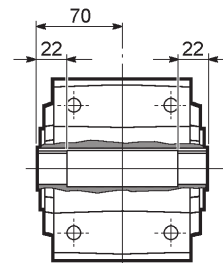
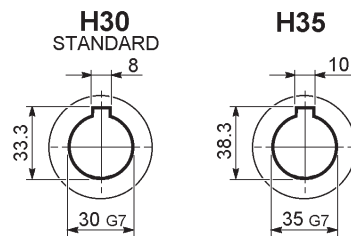
A 20...UR



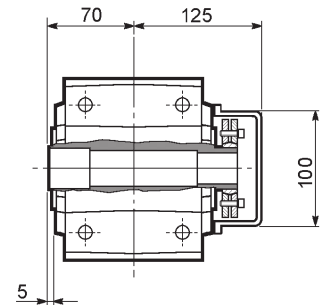
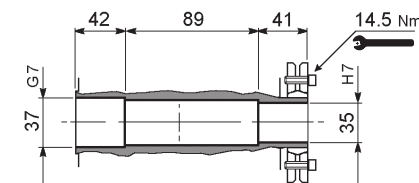
A 20...UD



A 20...UH

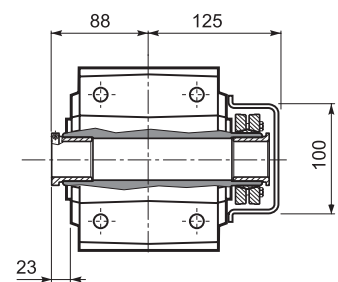
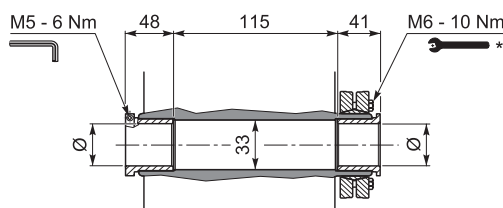


A 20...US

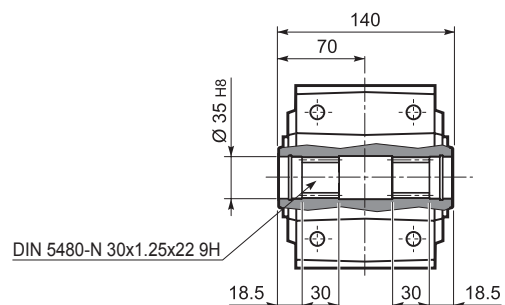


A 20...QF

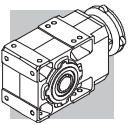
	Ø
QF25	25
QF30	30



A 20...UV



* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



A 30...M

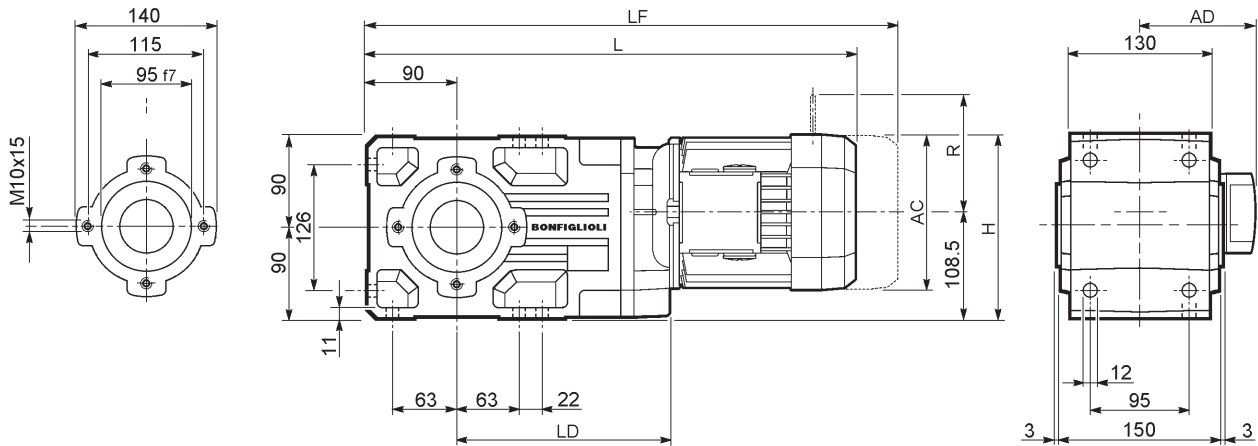
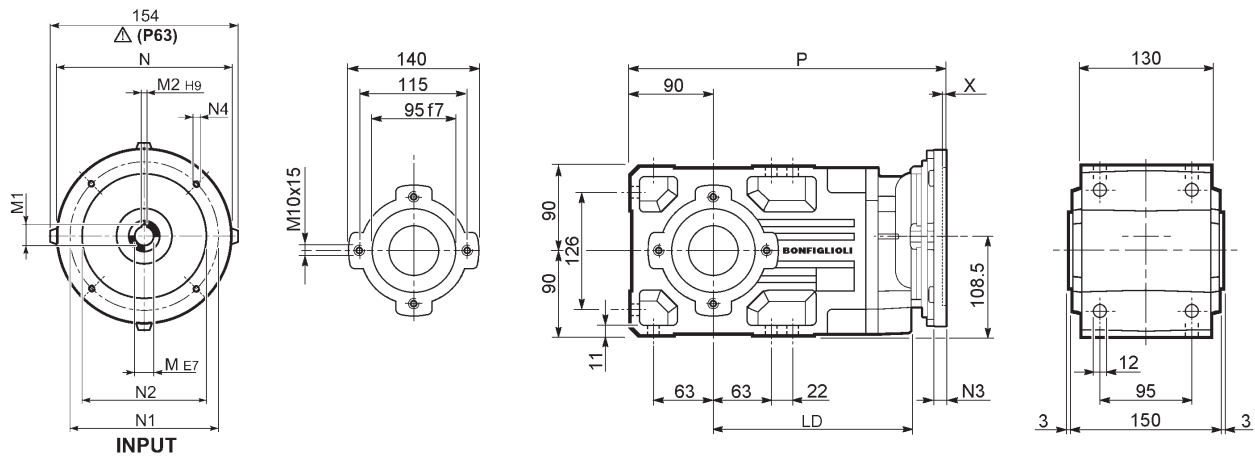


Image	S	M	AC	H	L	LD	AD	Kg	M...FD M...FA		M...FD		M...FA	
									LF	Kg	R	AD	R	AD
	S1	M1	138	177.5	488	201	108	22	549	24	103	135	124	108
	S2	M2S	156	186.5	517	213	119	25	587	29	129	146	134	119
	S3	M3S	195	206	560	223	142	30	656	38	160	158	160	142
	S3	M3L	195	206	592	223	142	38	683	45	160	158	160	142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

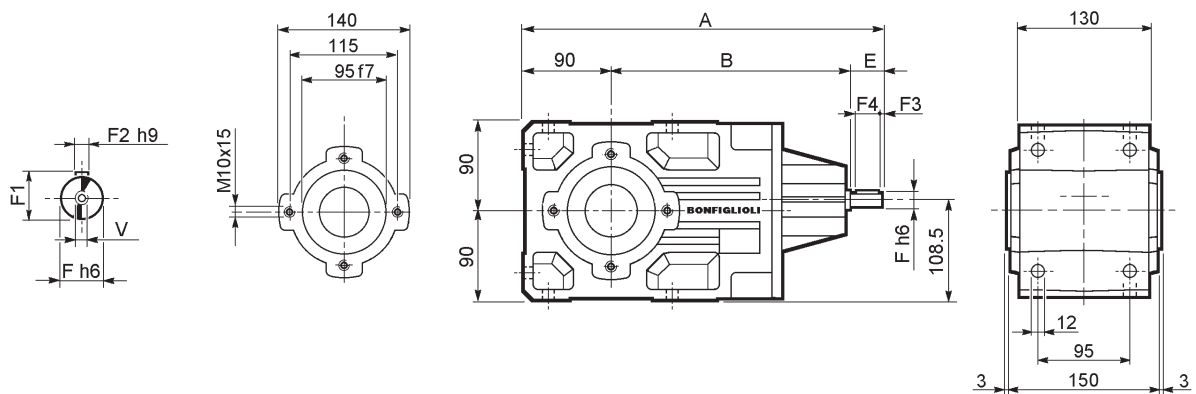


A 30...P(IEC)

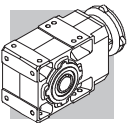


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
		213	11	12.8	4	140	115	95	—	M8x19	4	333	16
		213	14	16.3	5	160	130	110	—	M8x16	4.5	333	16
		223	19	21.8	6	200	165	130	—	M10x14.5	4	352.5	17
		223	24	27.3	8	200	165	130	—	M10x14.5	4	352.5	17
		223	28	31.3	8	250	215	180	—	M12x16	4.5	362.5	20
		223	28	31.3	8	250	215	180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

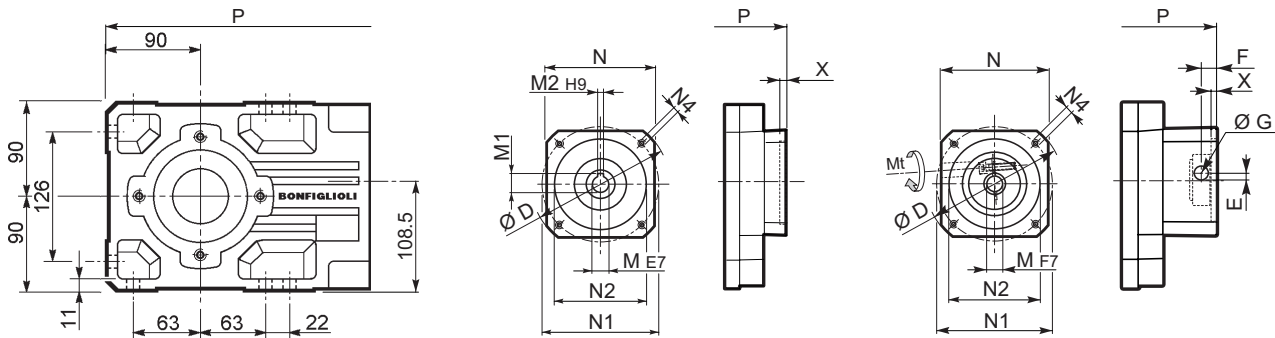
A 30...HS



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



A 30...SK / SC



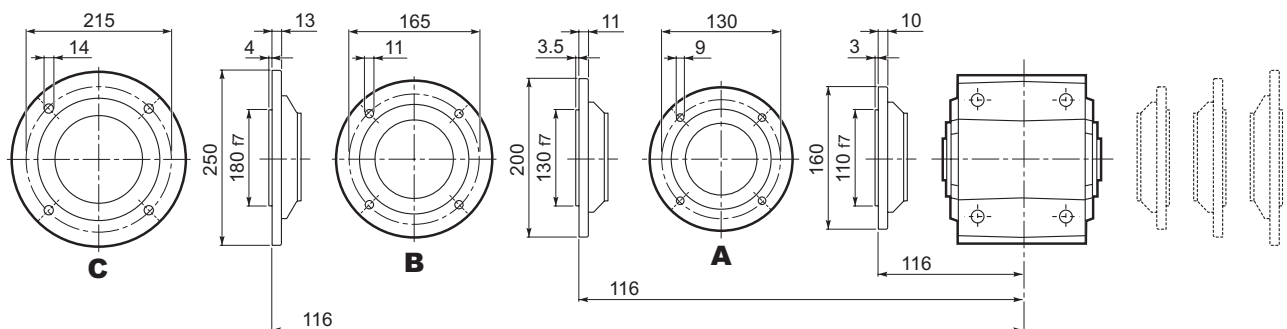
SK...

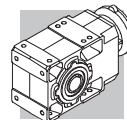
SC...

		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

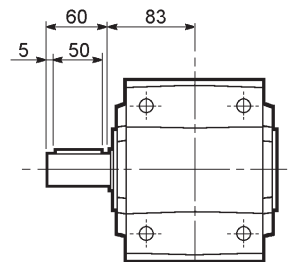
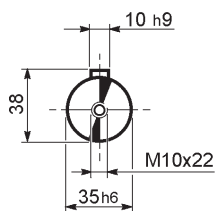
A 30...F...



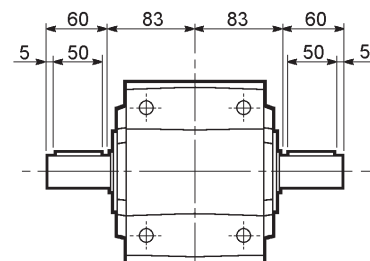
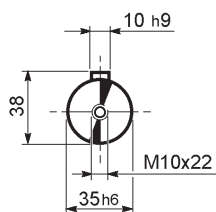


A 30

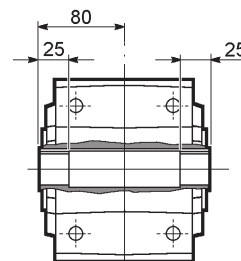
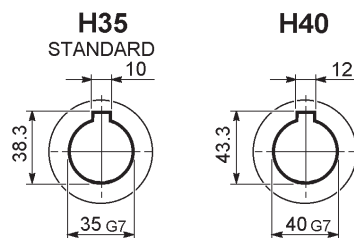
A 30...UR



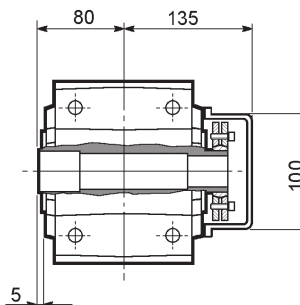
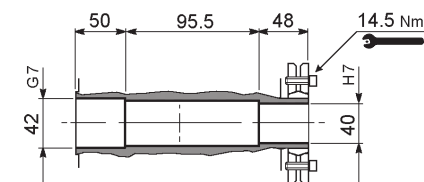
A 30...UD



A 30...UH

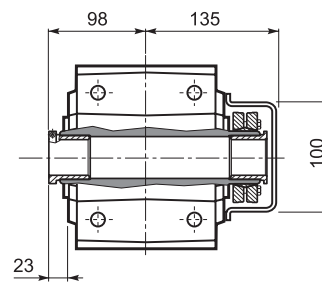
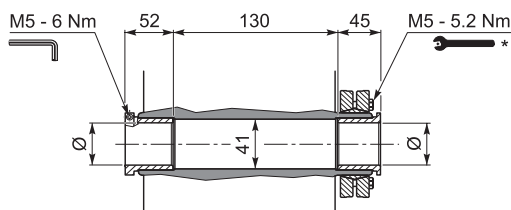


A 30...US

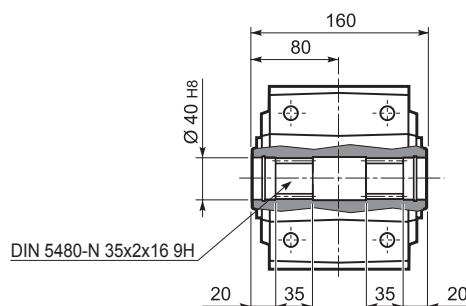


A 30...QF

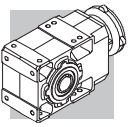
	Ø
QF35	35
QF40	40



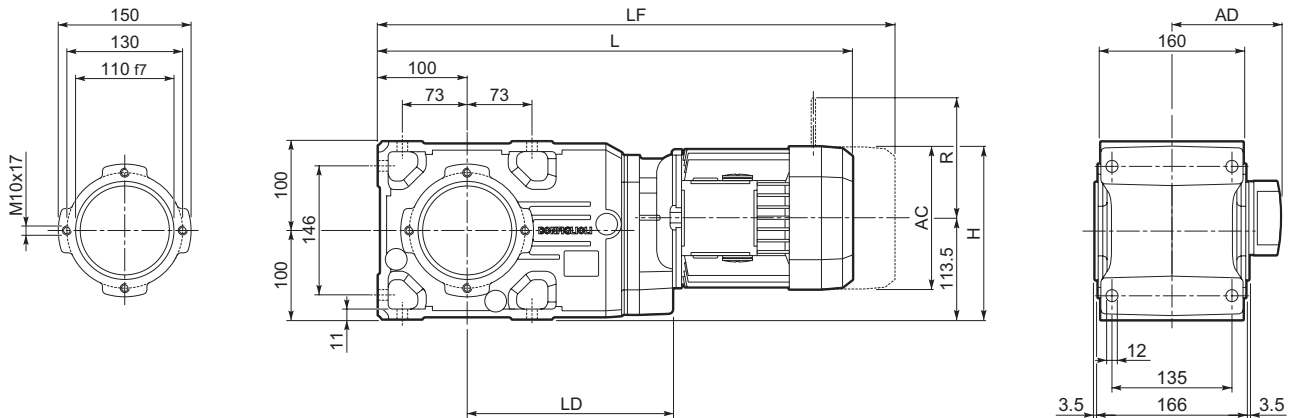
A 30...UV



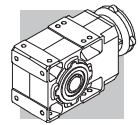
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



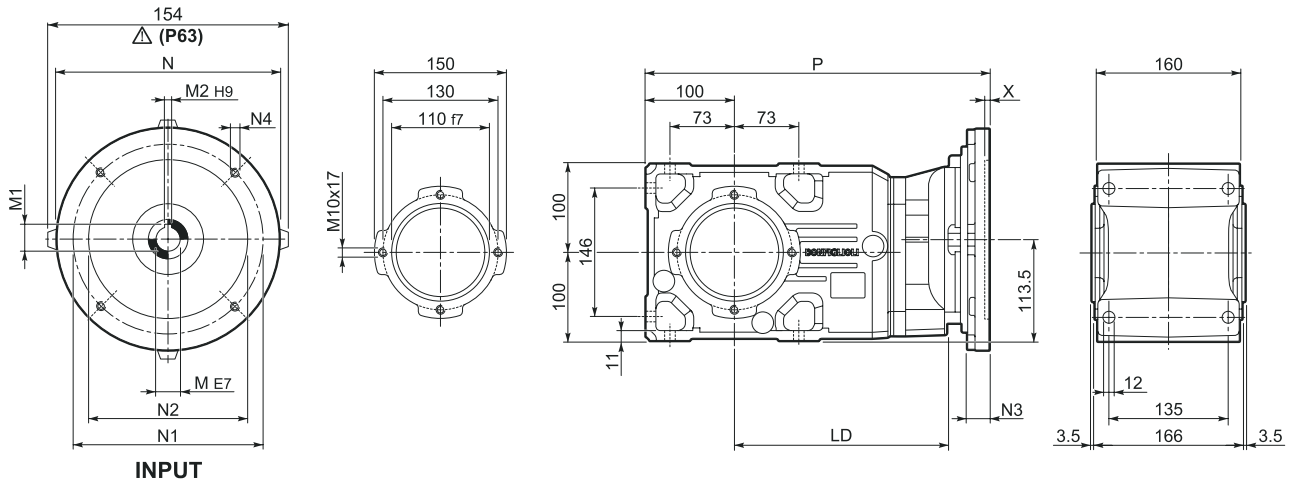
A 35...M



										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

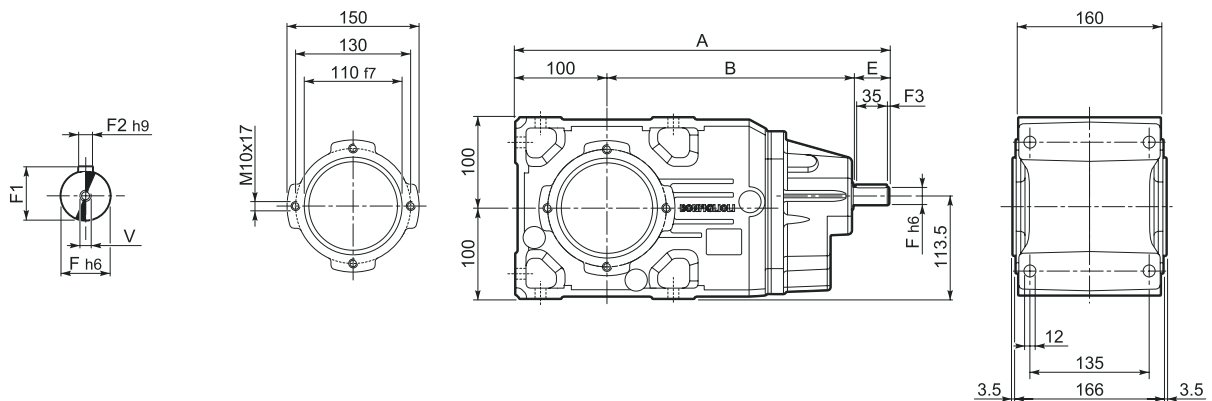


A 35...P(IEC)

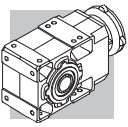


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 35 2	P63	229.5	11	12.8	4	140	115	95	—	M8x19	4	359.5	28
A 35 2	P71	229.5	14	16.3	5	160	130	110	—	M8x16	4.5	359.5	28
A 35 2	P80	239.5	19	21.8	6	200	165	130	—	M10x14.5	4	379	29
A 35 2	P90	239.5	24	27.3	8	200	165	130	—	M10x14.5	4	379	29
A 35 2	P100	239.5	28	31.3	8	250	215	180	—	M12x16	4.5	389	32
A 35 2	P112	239.5	28	31.3	8	250	215	180	—	M12x16	4.5	389	32
A 35 2	P132	—	38	41.3	10	300	265	230	16	14	5	425.5	40
A 35 3	P63	—	11	12.8	4	140	115	95	—	M8x19	4	417	29
A 35 3	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	417	29
A 35 3	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	436.5	30
A 35 3	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	436.5	30
A 35 3	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	34
A 35 3	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	446.5	34

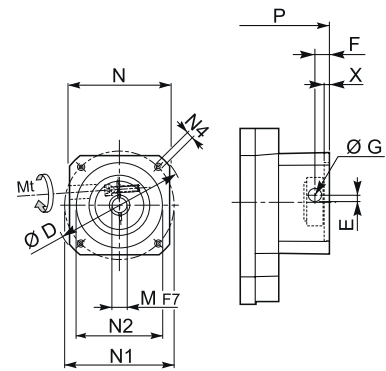
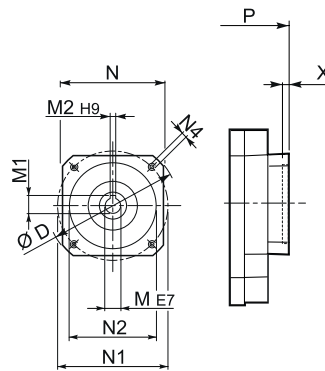
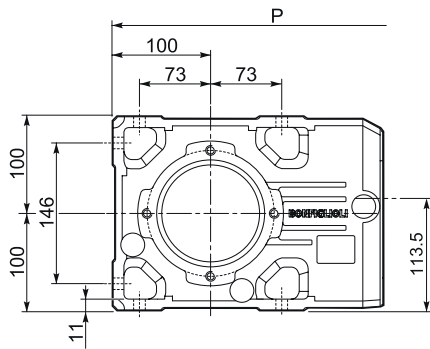
A 35...HS



		A	B	E	F	F1	F2	F3	F4	V	Kg
A 35 2	HS	409.5	269.5	40	19	21.5	6	2.5	35	M6x16	29
A 35 3		424	284	40	16	18	5	2.5	35	M6x16	29



A 35...SK / SC



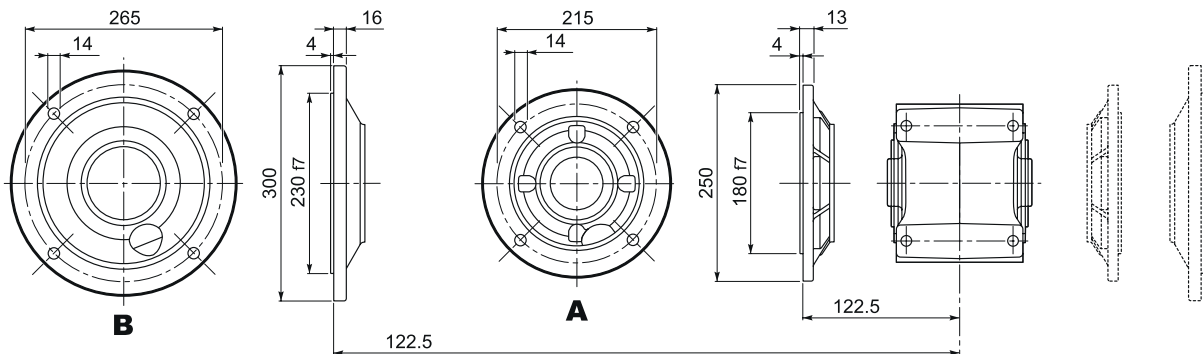
SK...

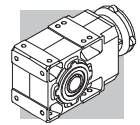
SC...

		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

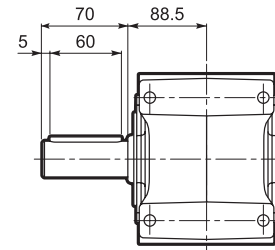
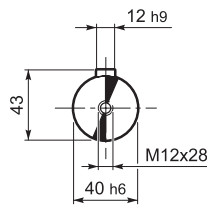
A 35...F...



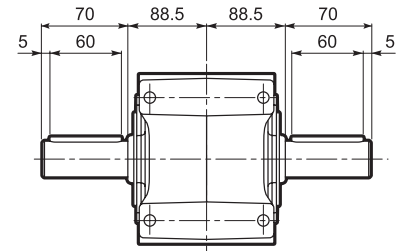
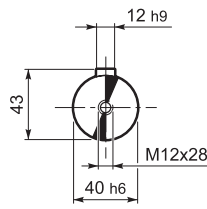


A 35

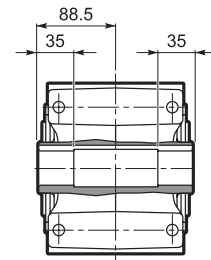
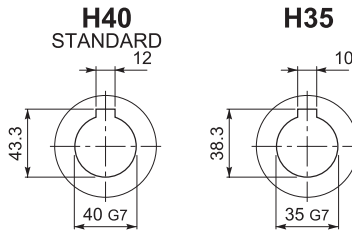
A 35...UR



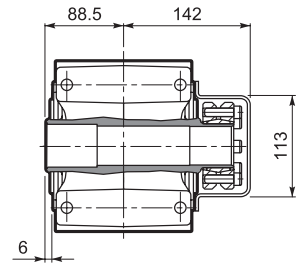
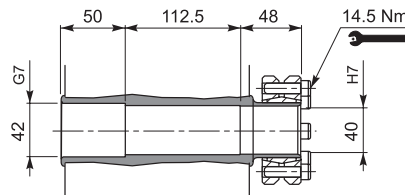
A 35...UD



A 35...UH



A 35...US

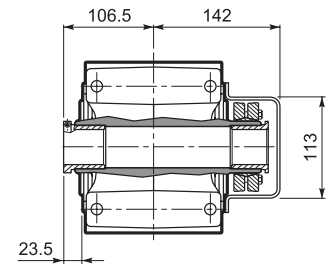
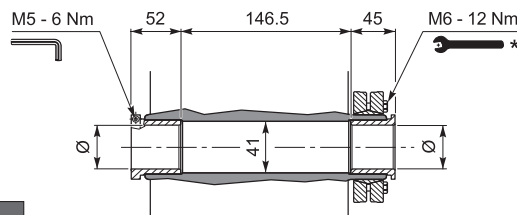


A 35...QF

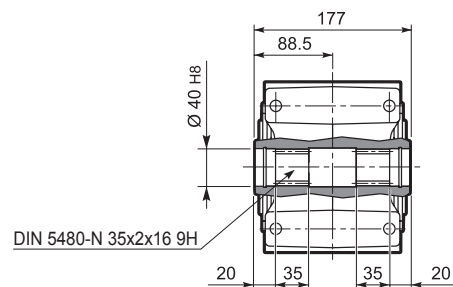
	Ø
QF35	35
QF40	40



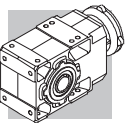
	M _{n2} max [Nm]
A 35 QF35	550



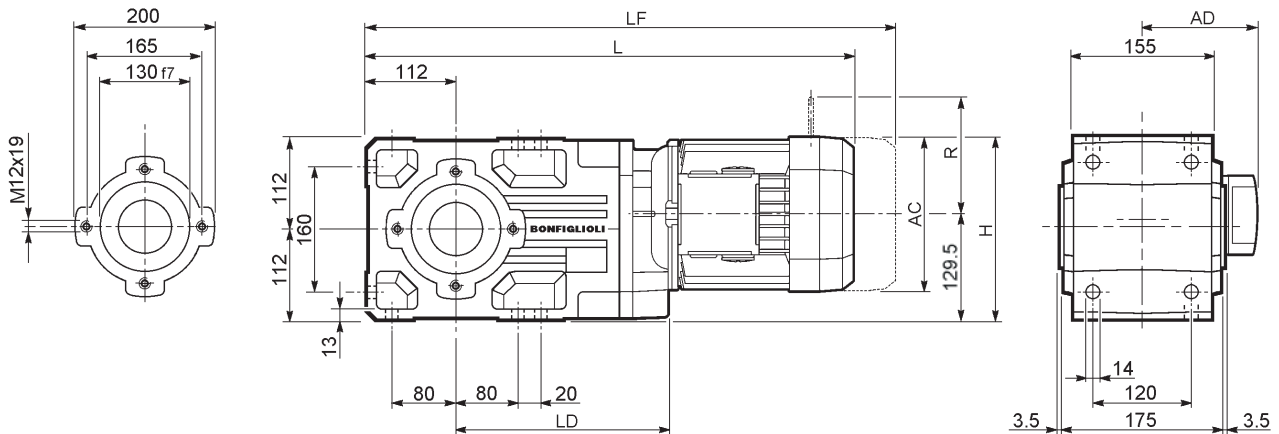
A 35...UV



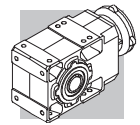
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



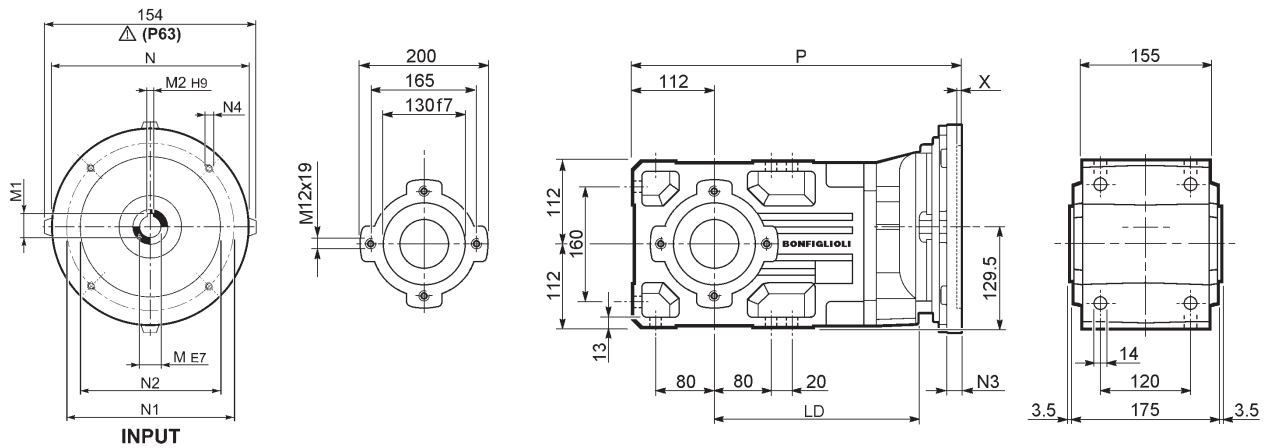
A 41...M



										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

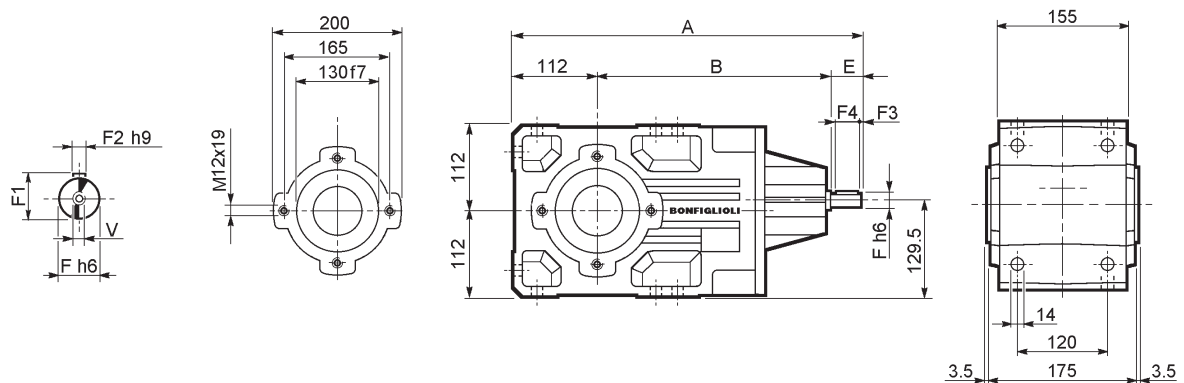


A 41...P(IEC)

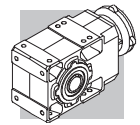


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 41 2	P63	232	11	12.8	4	140	115	95	—	M8x19	4	375	37
A 41 2	P71	232	14	16.3	5	160	130	110	—	M8x16	4.5	375	38
A 41 2	P80	248	19	21.8	6	200	165	130	—	M10x14.5	4	394.5	39
A 41 2	P90	248	24	27.3	8	200	165	130	—	M10x14.5	4	394.5	39
A 41 2	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	404.5	43
A 41 2	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	404.5	43
A 41 2	P132	—	38	41.3	10	300	265	230	16	14	5	441	46
A 41 3	P63	—	11	12.8	4	140	115	95	—	M8x19	4	436.5	39
A 41 3	P71	—	14	16.3	5	160	130	110	—	M8x16	4.5	436.5	39
A 41 3	P80	—	19	21.8	6	200	165	130	—	M10x14.5	4	456	40
A 41 3	P90	—	24	27.3	8	200	165	130	—	M10x14.5	4	456	40
A 41 3	P100	—	28	31.3	8	250	215	180	—	M12x16	4.5	466	44
A 41 3	P112	—	28	31.3	8	250	215	180	—	M12x16	4.5	466	44

A 41...HS

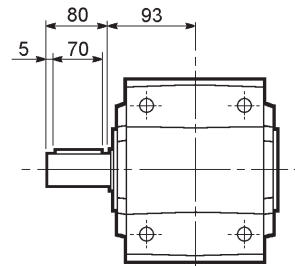
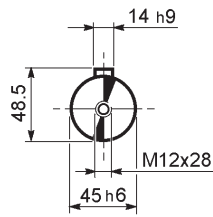


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 41 2	HS	464	302.5	50	24	27	8	2.5	45	M8x19	40.7
A 41 3	HS	486.5	334.5	40	19	21.5	6	2.5	35	M6x16	39.5

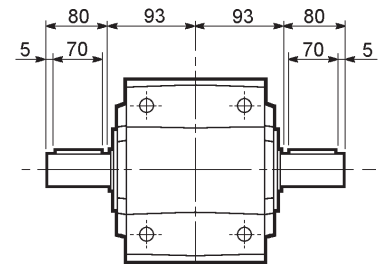
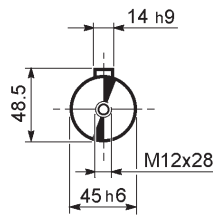


A 41

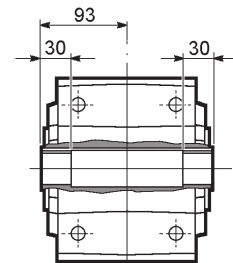
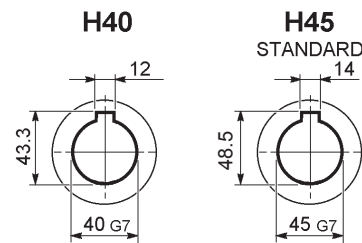
A 41...UR



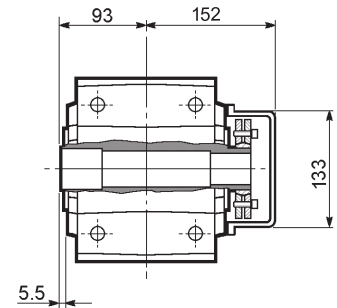
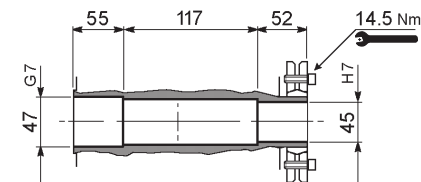
A 41...UD



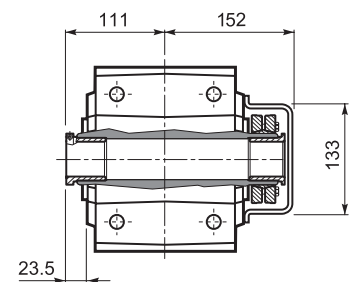
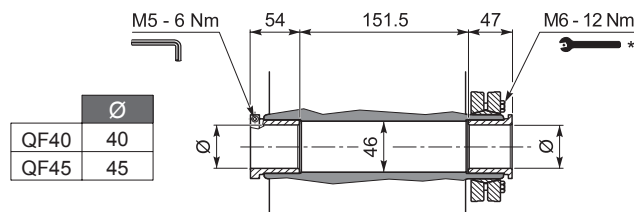
A 41...UH



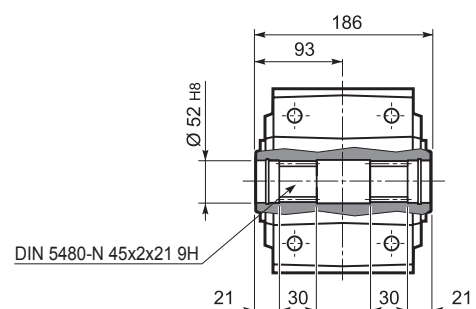
A 41...US



A 41...QF



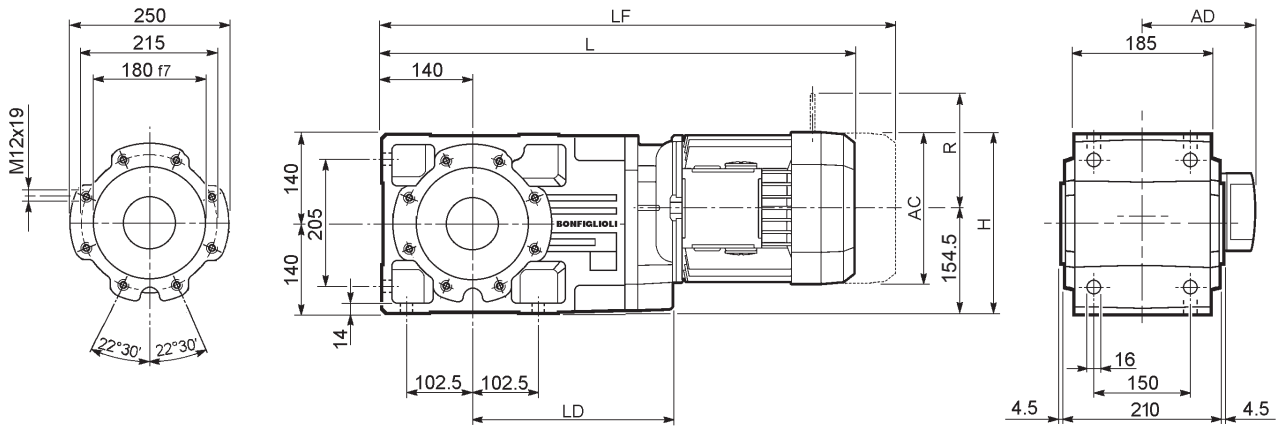
A 41...UV



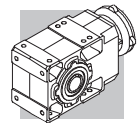
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



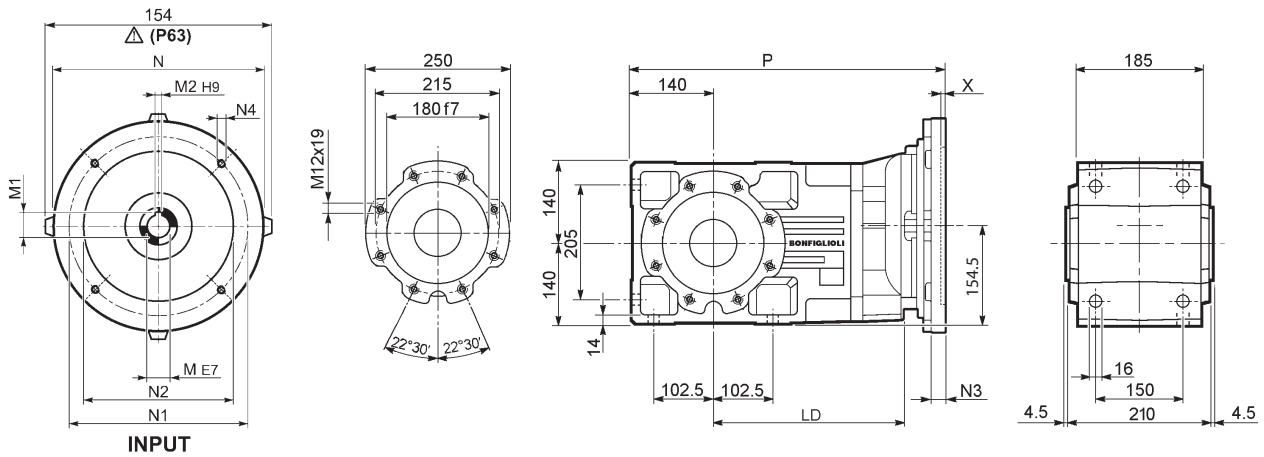
A 50...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD	Kg	LF	Kg	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

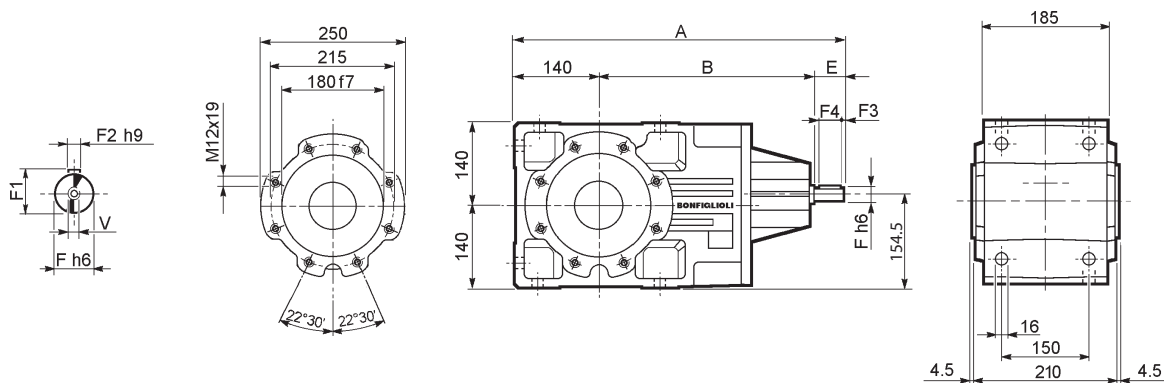


A 50...P(IEC)

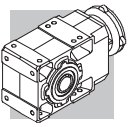


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 50 2/3	P63	284.5	11	12.8	4	140	115	95	—	M8x19	4	454.5	60
A 50 2/3	P71	284.5	14	16.3	5	160	130	110	—	M8x16	4.5	454.5	60
A 50 2/3	P80	299.5	19	21.8	6	200	165	130	—	M10x14.5	4	474	61
A 50 2/3	P90	299.5	24	27.3	8	200	165	130	—	M10x14.5	4	474	61
A 50 2/3	P100	284.5	28	31.3	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

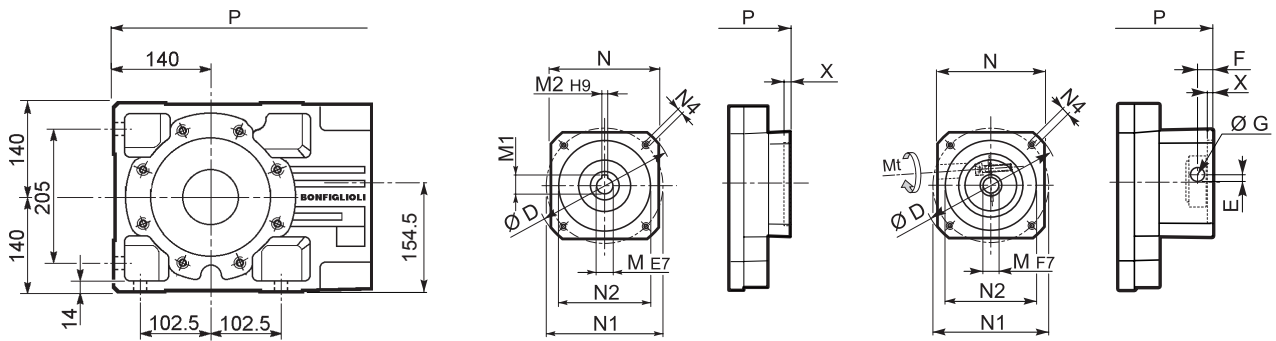
A 50...HS



		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



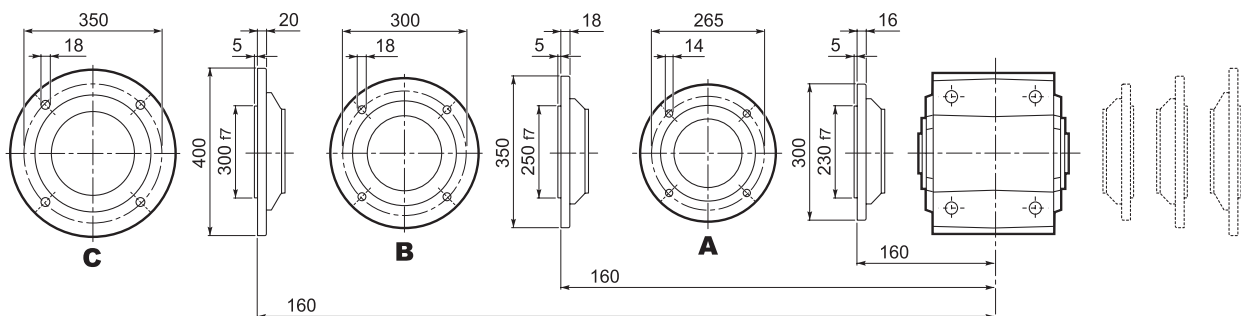
SK...

SC...

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	474	—	61/61
		120	19	21.8	6	96	100	80	M6x12	4	474	545.5	61/61/63
		130	14	16.3	5	102	115	95	M8x12	4	474	545.5	61/61/63
		130	19	21.8	6	102	115	95	M8x12	4	474	545.5	61/61/63
		130	24	27.3	8	102	115	95	M8x12	4	474	545.5	61/61/63
		150	19	21.8	6	120	130	110	M8x12	5	474	545.5	61/61/65
		150	24	27.3	8	120	130	110	M8x12	5	474	575	61/61/65
		188	24	27.3	8	142	165	130	M10x20	5	474	575	63/63/66
		189	32	35.3	10	160	165	130	M10x20	5	520.5	—	69/69
		240	32	35.3	10	192	215	180	M12x19	5	520.5	—	69/69
		240	38	41.3	10	192	215	180	M12x19	5	520.5	—	69/69

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	497.5	—	62/62
			M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	497.5	569	62/62/64
			M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	497.5	569	62/62/64
			M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	497.5	569	62/62/64
			M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	497.5	569	62/62/64
			M6 15	150	16.5	16	17.75	19	120	130	110	M8x16	5	497.5	569	63/63/66
			M6 15	150	16.5	16	17.75	24	120	130	110	M8x16	5	497.5	569	63/63/66
			M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	497.5	569	64/64/67
			M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	543.5	—	68/68
			M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	547.5	—	68/68
			M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	547.5	—	68/68

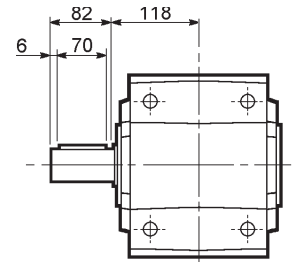
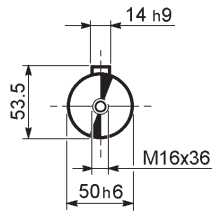
A 50...F...



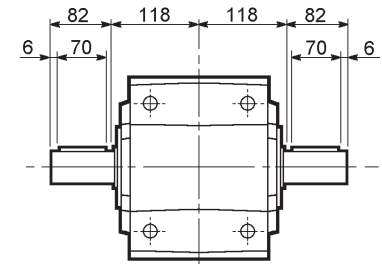
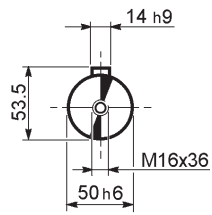


A 50

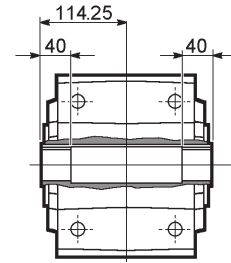
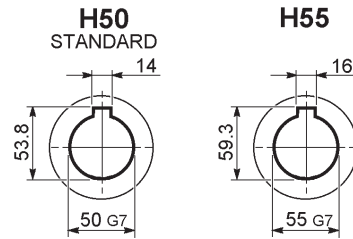
A 50...UR



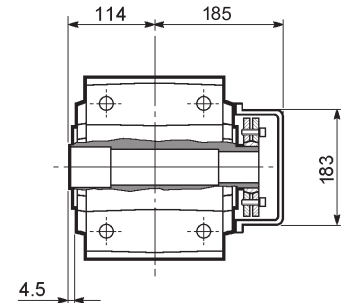
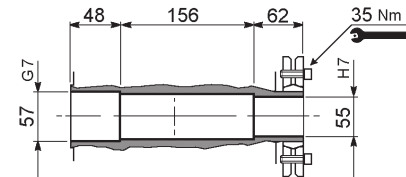
A 50...UD



A 50...UH

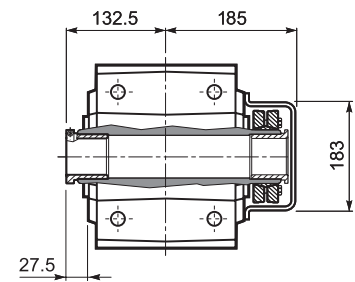
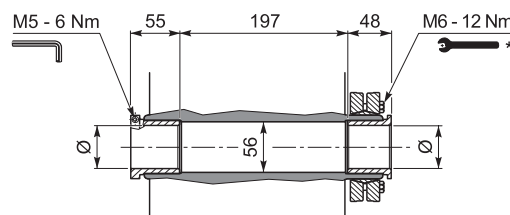


A 50...US

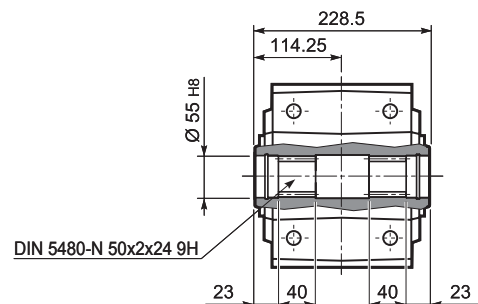


A 50...QF

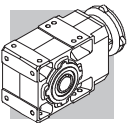
	Ø
QF50	50
QF55	55



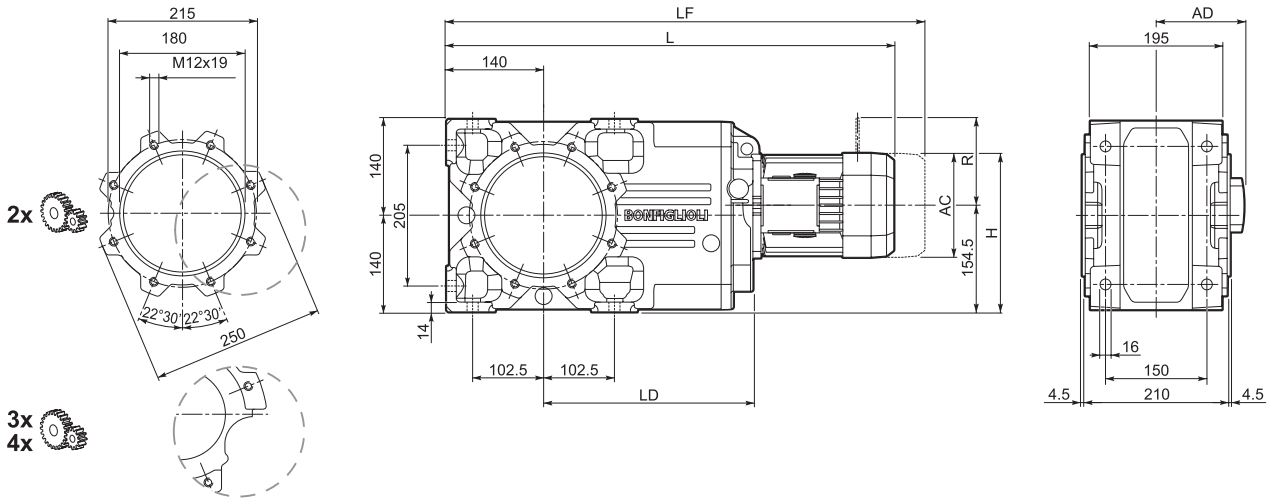
A 50...UV



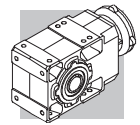
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



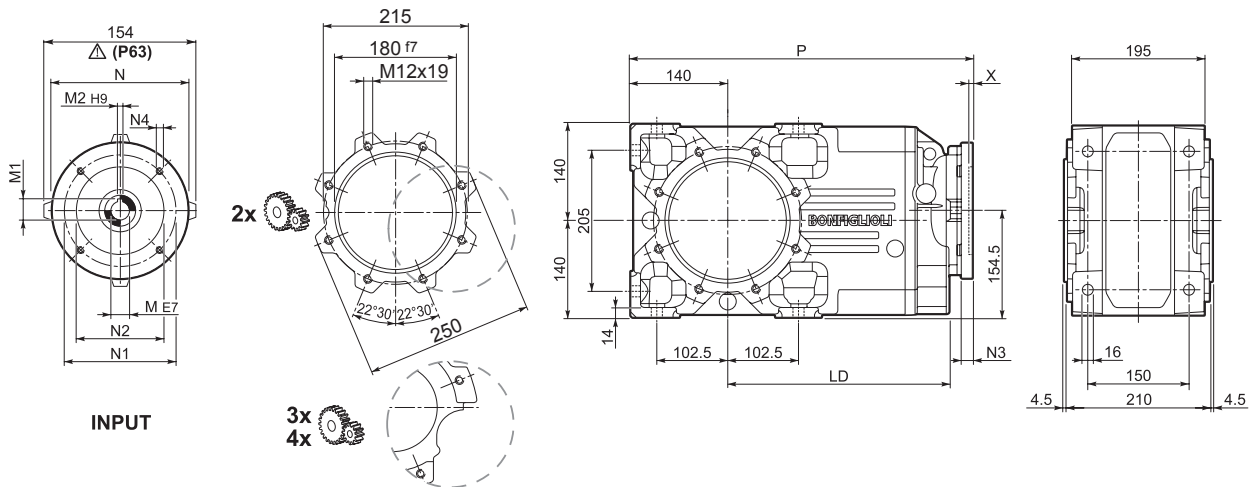
A 55...M



										M...FD M...FA		M...FD		M...FA			
			AC	H	L	LD	AD		LF		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

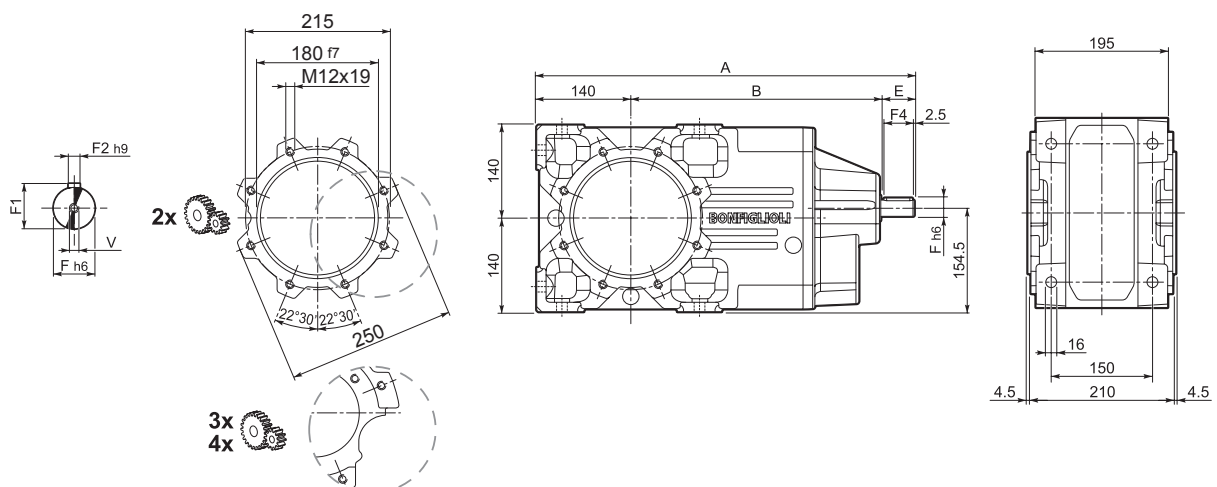


A 55...P(IEC)

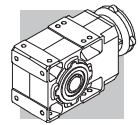


		LD	M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 55 3	P63	302.5	11	12.8	4	140	115	95	—	M8x19	4	472.5	75
A 55 3	P71	302.5	14	16.3	5	160	130	110	—	M8x16	4.5	472.5	75
A 55 2/3	P80	317.5	19	21.8	6	200	165	130	—	M10x14.5	4	492	81
A 55 2/3	P90	317.5	24	27.3	8	200	165	130	—	M10x14.5	4	492	81
A 55 2/3	P100	302.5	28	31.3	8	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

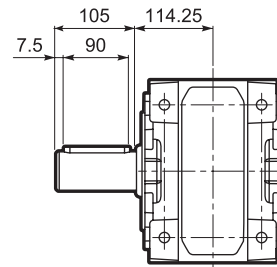
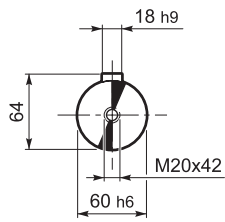


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 55 2	HS	561.5	371.5	50	24	27	8	2.5	45	M8x19	96
A 55 3		561.5	371.5	50	24	27	8	2.5	45	M8x19	91
A 55 4		594	414	40	19	21.5	6	2.5	35	M6x16	92

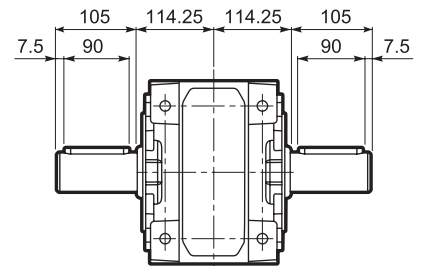
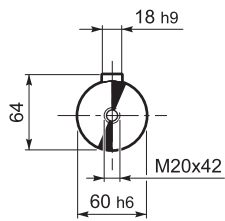


A 55

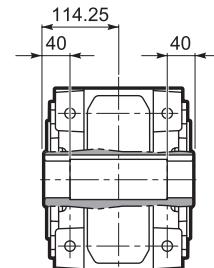
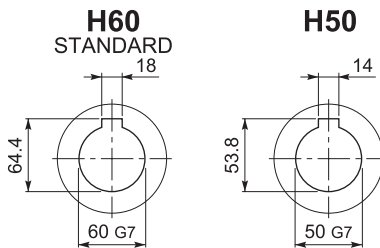
A 55...UR



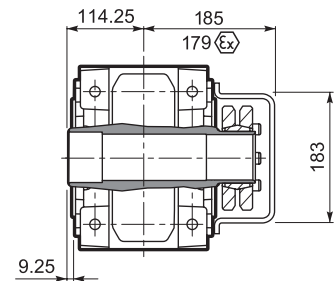
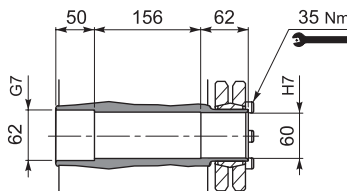
A 55...UD



A 55...UH



A 55...US

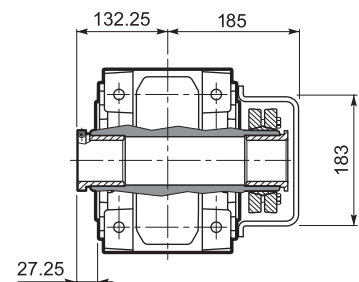
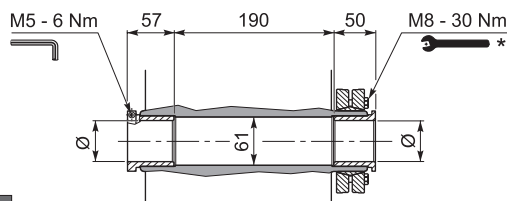


A 55...QF

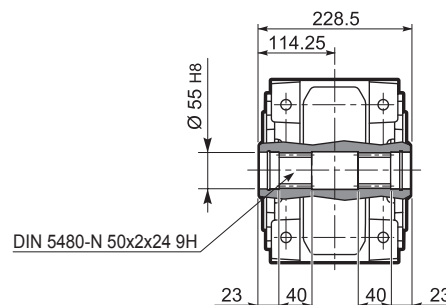
	Ø
QF55	55
QF60	60



	M _{n2} max [Nm]
A 55 QF55	1900



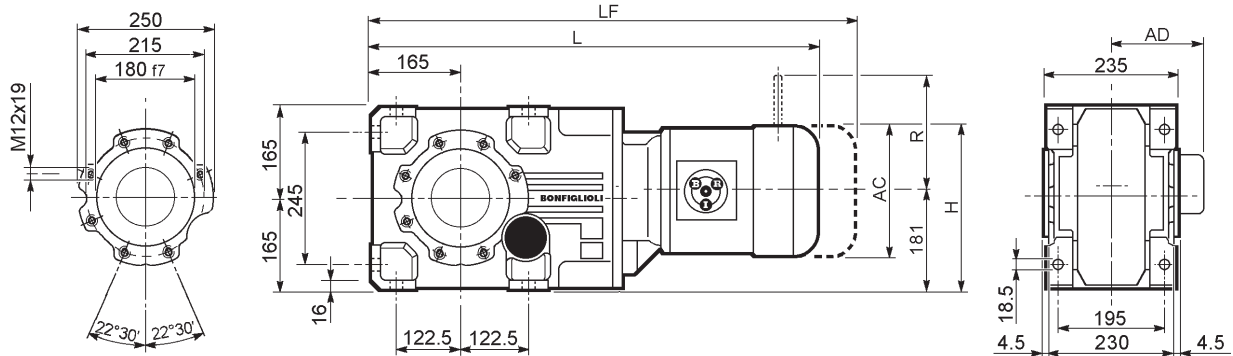
A 55...UV



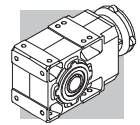
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



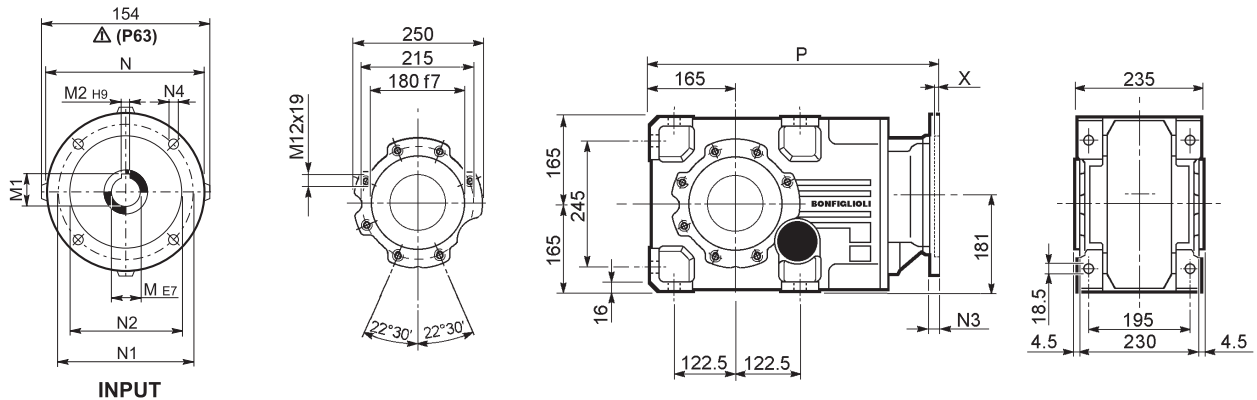
A 60...M



									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

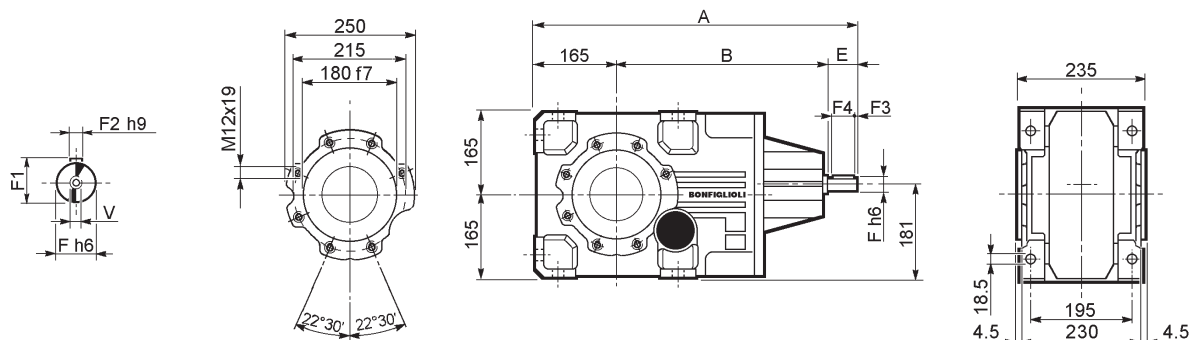


A 60...P(IEC)

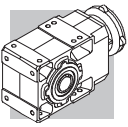


		M	M1	M2	N	N1	N2	N3	N4	X	P	Kg
A 60 3	P63	11	12.8	4	140	115	95	—	M8x19	4	516.5	90
A 60 3	P71	14	16.3	5	160	130	110	—	M8x16	4.5	516.5	90
A 60 2/3	P80	19	21.8	6	200	165	130	—	M10x14.5	4	536	91
A 60 2/3	P90	24	27.3	8	200	165	130	—	M10x14.5	4	536	91
A 60 2/3	P100	28	31.3	8	250	215	180	—	M12x16	4.5	546	95
A 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

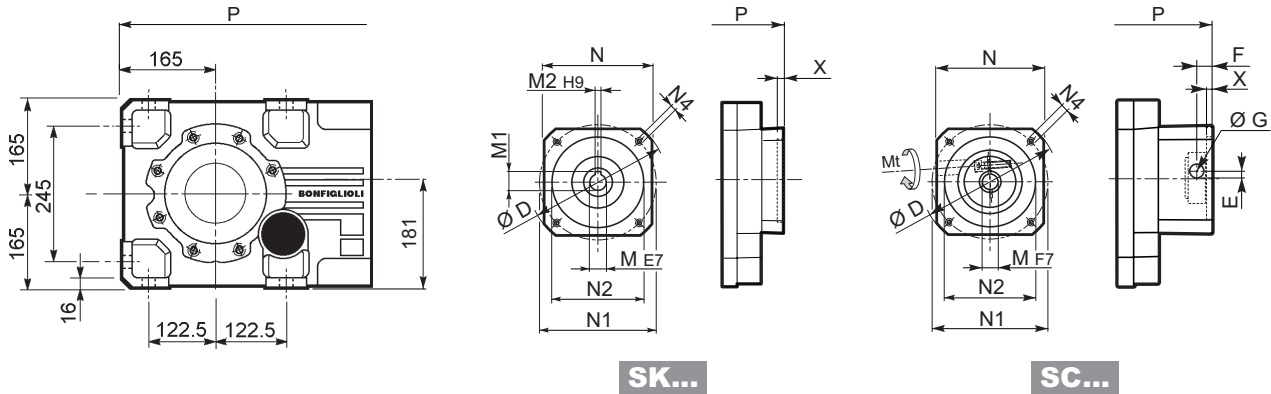
A 60...HS



		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



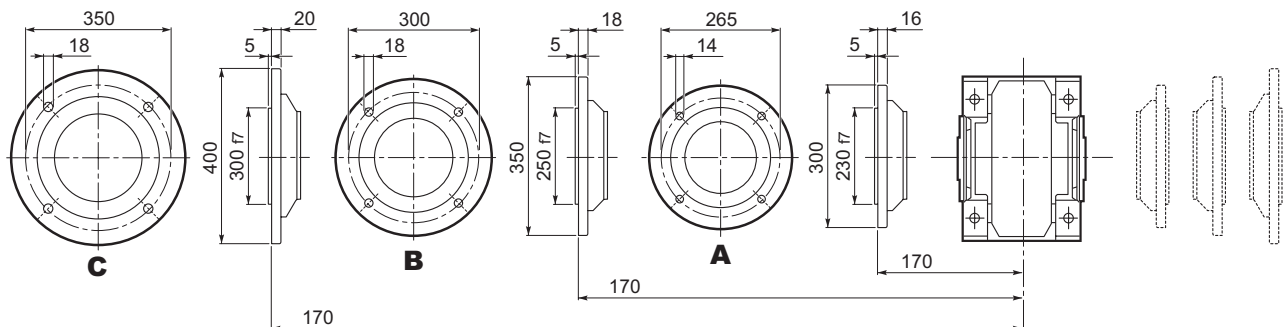
A 60...SK / SC

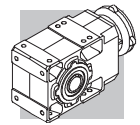


		D	M	M1	M2	N	N1	N2	N4	X	P		Kg
											2/3x	4x	
A 60 4	SK80B	120	14	16.3	5	96	100	80	M6x12	4	—	606.5	89
A 60 2/3/4	SK80C	120	19	21.8	6	96	100	80	M6x12	4	536	606.5	93/93/92
A 60 2/3/4	SK95A	130	14	16.3	5	102	115	95	M8x12	4	536	606.5	93/93/92
A 60 2/3/4	SK95B	130	19	21.8	6	102	115	95	M8x12	4	536	606.5	93/93/92
A 60 2/3/4	SK95C	130	24	27.3	8	102	115	95	M8x12	4	536	606.5	93/93/92
A 60 2/3/4	SK110A	140	19	21.8	6	120	130	110	M8x12	5	536	606.5	93/93/92
A 60 2/3/4	SK110B	140	24	27.3	8	120	130	110	M8x12	5	536	606.5	93/93/92
A 60 2/3/4	SK130A	188	24	27.3	8	142	165	130	M10x20	5	536	606.5	97/97/103
A 60 2/3	SK130B	189	32	35.3	10	160	165	130	M10x20	5	582.5	—	102/102
A 60 2/3	SK180A	240	32	35.3	10	192	215	180	M12x19	5	582.5	—	102/102
A 60 2/3	SK180B	240	38	41.3	10	192	215	180	M12x19	5	582.5	—	102/102

		Mt [Nm]	D	E	F	G	M	N	N1	N2	N4	X	P		Kg
													2/3x	3x	
A 60 4	SC80B	M6 15	120	15.5	14.5	17.75	14	96	100	80	M6x12	4	—	630	90
A 60 2/3/4	SC80C	M6 15	120	15.5	14.5	17.75	19	96	100	80	M6x12	4	559.5	630	94/94/93
A 60 2/3/4	SC95A	M6 15	130	16.5	15	17.75	14	102	115	95	M8x16	4	559.5	630	94/94/93
A 60 2/3/4	SC95B	M6 15	130	16.5	15	17.75	19	102	115	95	M8x16	4	559.5	630	94/94/93
A 60 2/3/4	SC95C	M6 15	130	16.5	15	17.75	24	102	115	95	M8x16	4	559.5	630	94/94/93
A 60 2/3/4	SC110A	M6 15	140	16.5	16	17.75	19	120	130	110	M8x16	5	559.5	630	95/95/93
A 60 2/3/4	SC110B	M6 15	140	16.5	16	17.75	24	120	130	110	M8x16	5	559.5	630	95/95/93
A 60 2/3/4	SC130A	M6 15	188	19	16	17.75	24	142	165	130	M10x20	5	559.5	630	96/96/104
A 60 2/3	SC130B	M8 36	189	20	17	17.75	32	160	165	130	M10x20	5	605.5	—	105/105
A 60 2/3	SC180A	M8 36	240	20	17.5	17.75	32	192	215	180	M12x24	5	609.5	—	105/105
A 60 2/3	SC180B	M8 36	240	20	17.5	17.75	38	192	215	180	M12x24	5	609.5	—	105/105

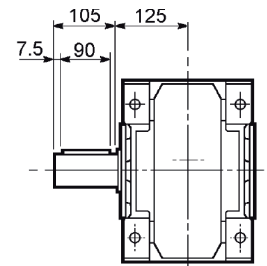
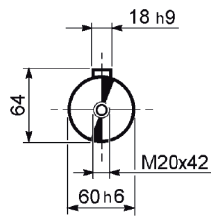
A 60...F...



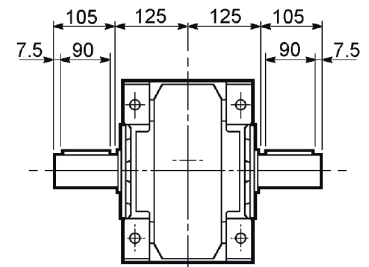
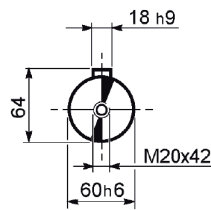


A 60

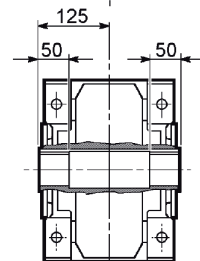
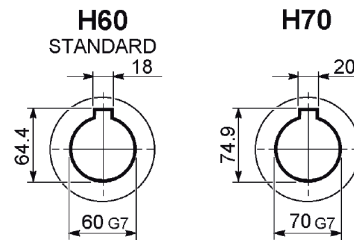
A 60...UR



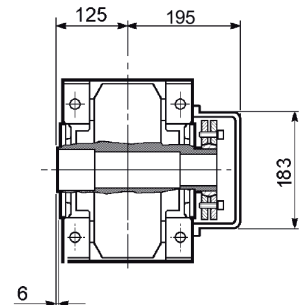
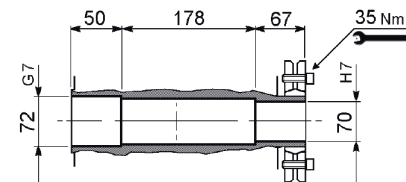
A 60...UD



A 60...UH

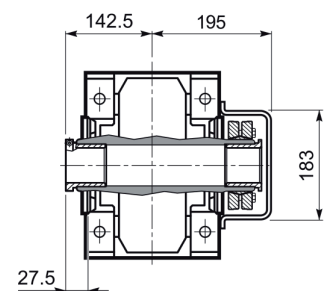
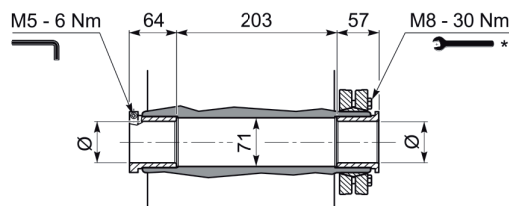


A 60...US

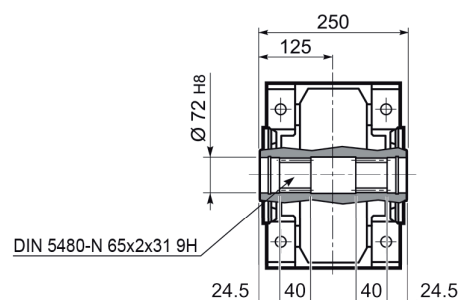


A 60...QF

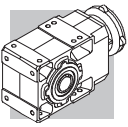
	Ø
QF60	60
QF65	65
QF70	70



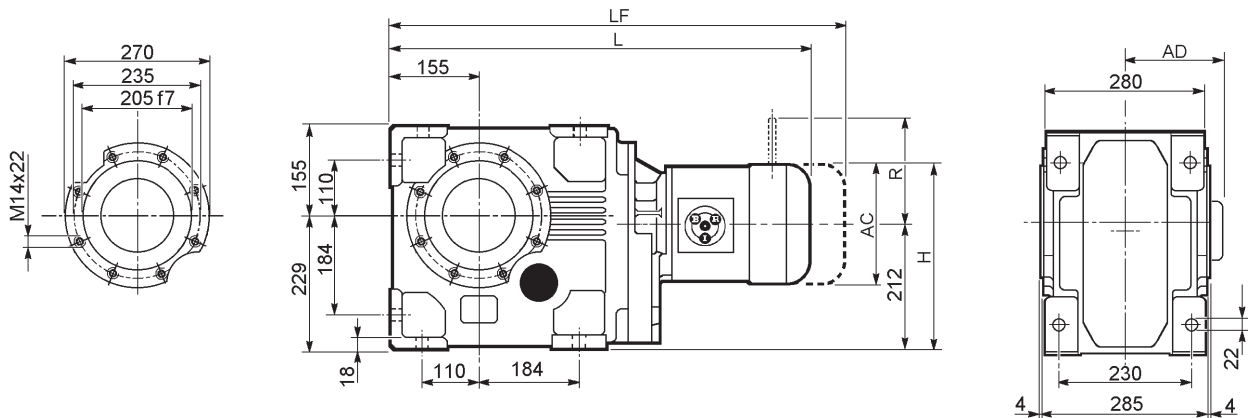
A 60...UV



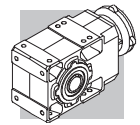
* Follow the MOUNTING INSTRUCTIONS supplied with the gearbox.



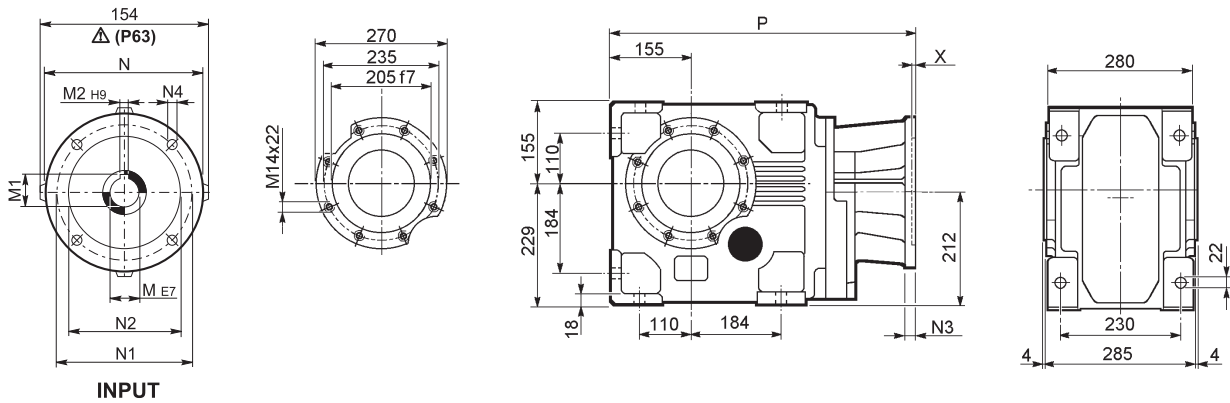
A 70...M



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

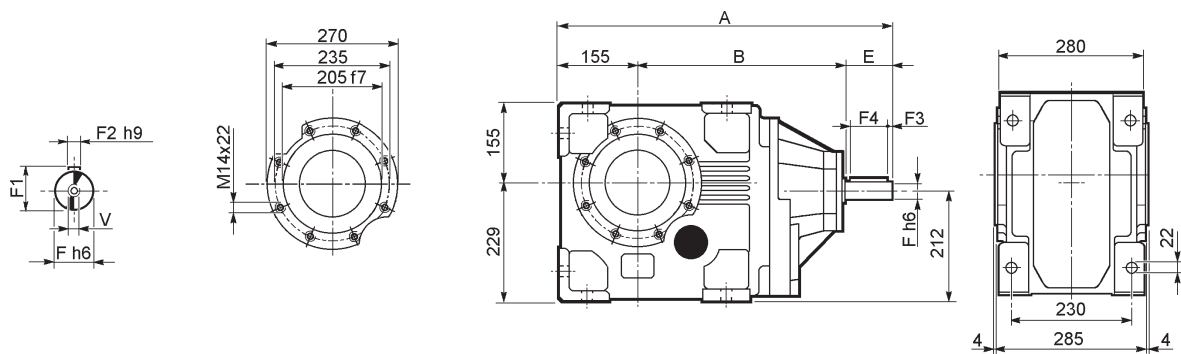


A 70...P (IEC)



		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

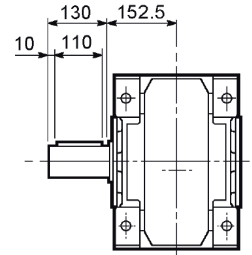
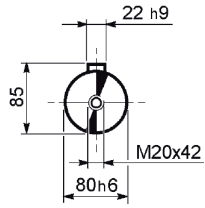


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 70 3	HS	708.5	443.5	110	42	45	12	10	90	M12x28	165
A 70 4	HS	644.5	439.5	50	24	27	8	2.5	45	M8x19	149

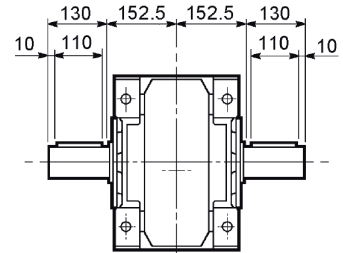
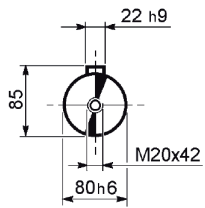


A 70

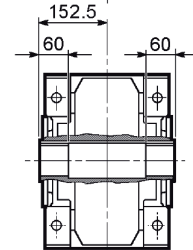
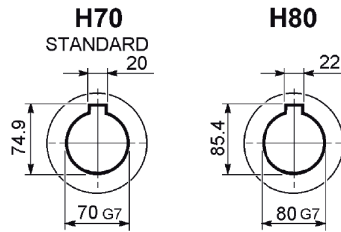
A 70...UR



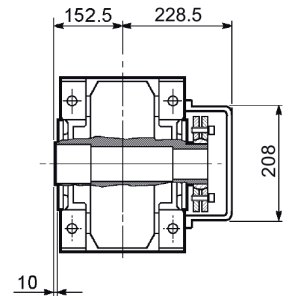
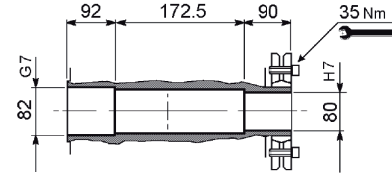
A 70...UD



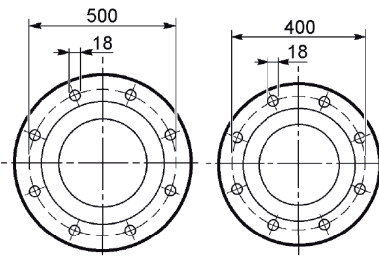
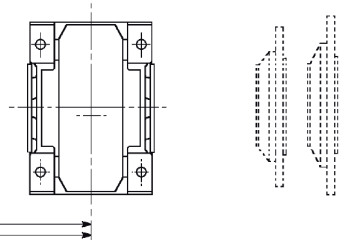
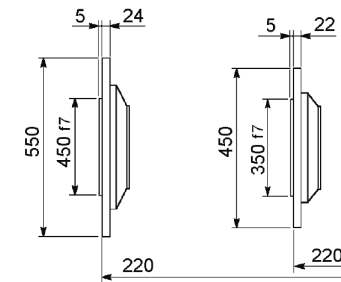
A 70...UH



A 70...US

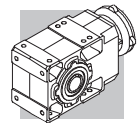


A 70...F...

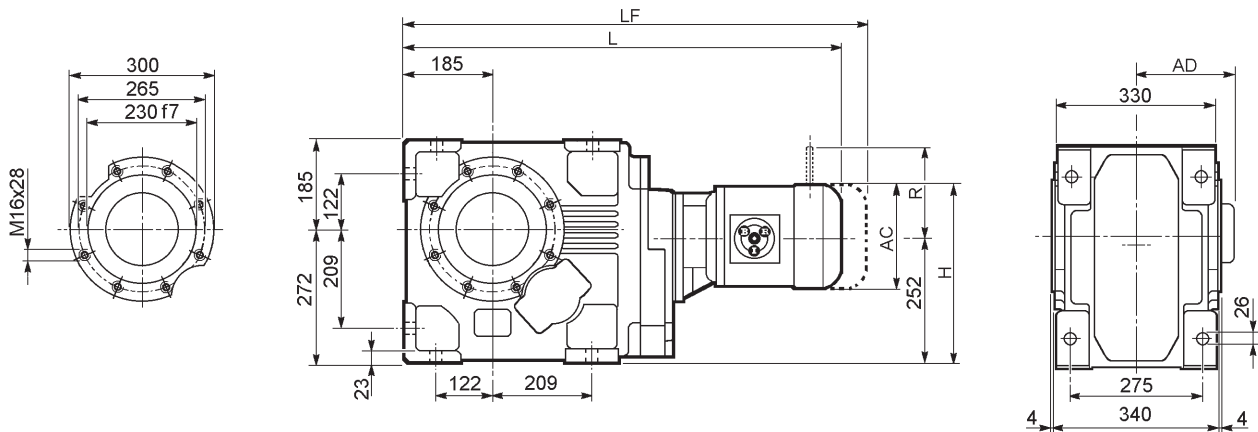


B

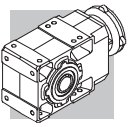
A



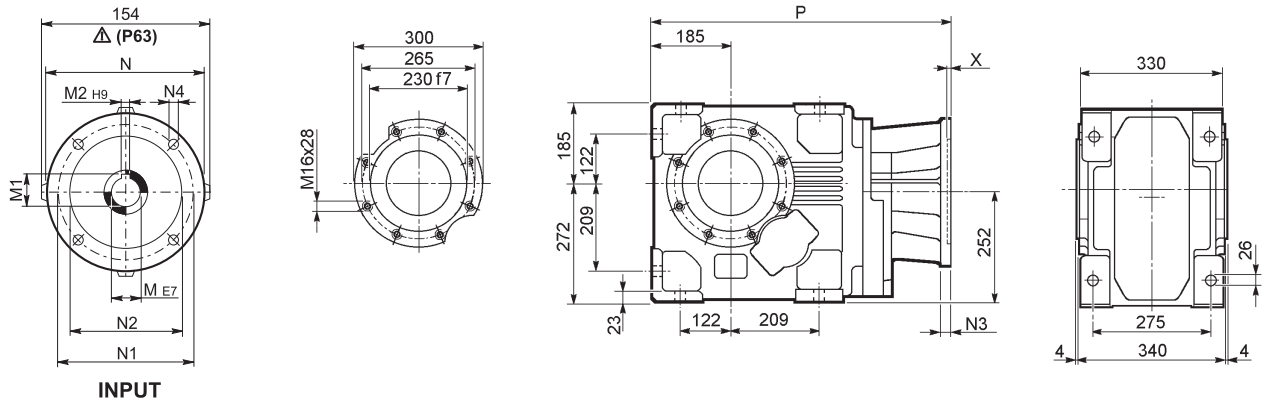
A 80...M



									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

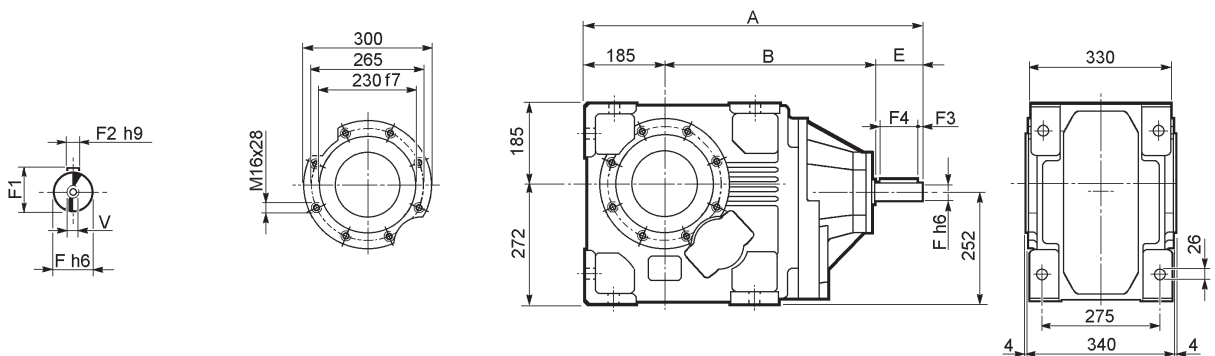


A 80...P(IEC)



		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

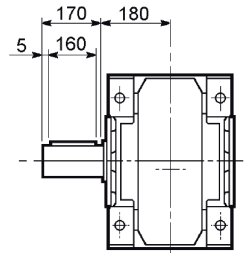
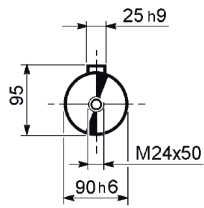


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 80 3	HS	786.5	491.5	110	42	45	12	10	90	M12x28	265
A 80 4		735	500	50	24	27	8	2.5	45	M8x19	250

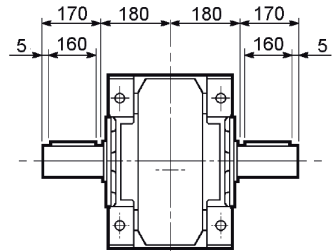
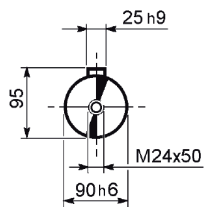


A 80

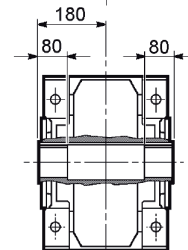
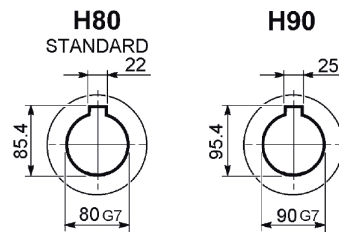
A 80...UR



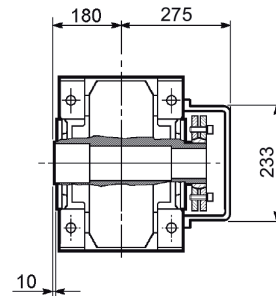
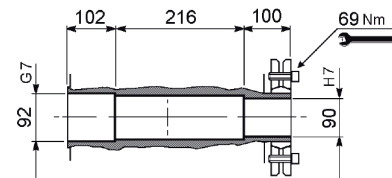
A 80...UD



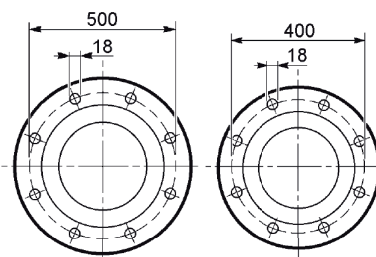
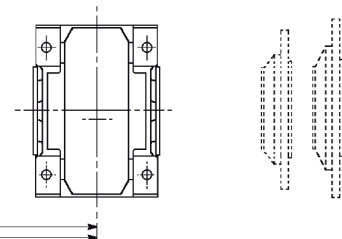
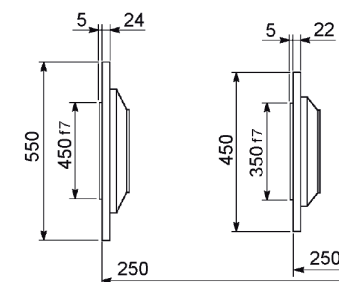
A 80...UH



A 80...US

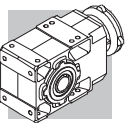


A 80...F...

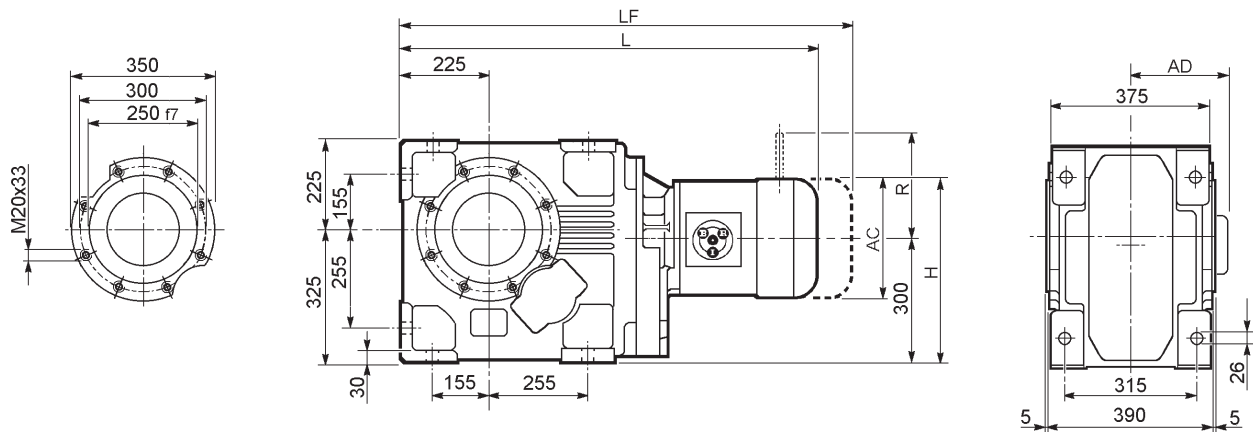


B

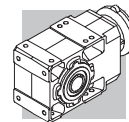
A



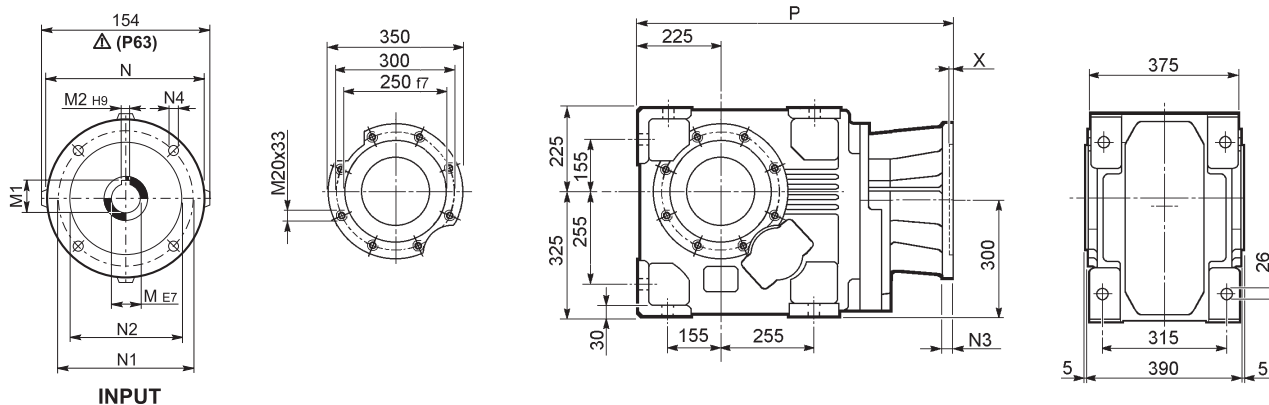
A 90...M



									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



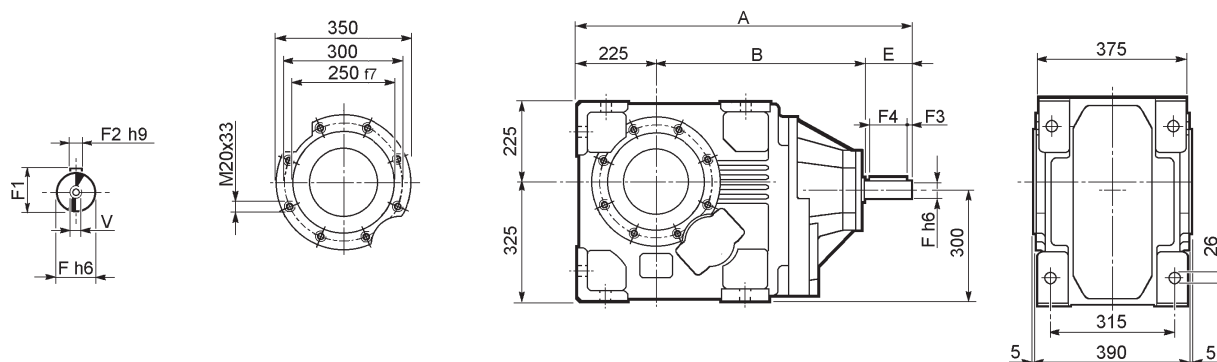
A 90...P (IEC)



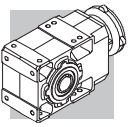
INPUT

		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

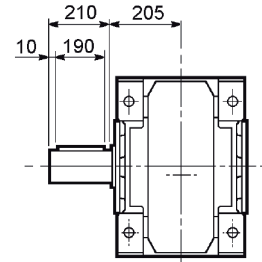
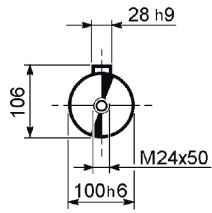


		A	B	E	F	F1	F2	F3	F4	V	Kg
A 90 3	HS	1009	644	140	60	64	18	10	120	M16x36	465
A 90 4		875.5	600.5	50	24	27	8	2.5	45	M8x19	415

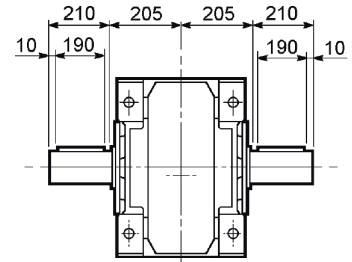
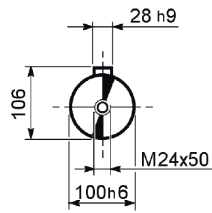


A 90

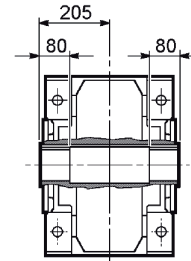
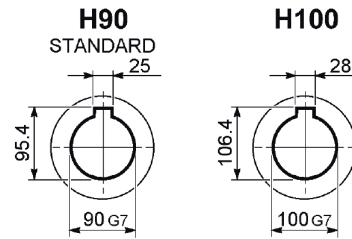
A 90...UR



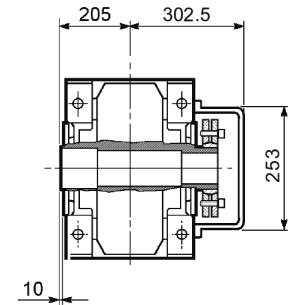
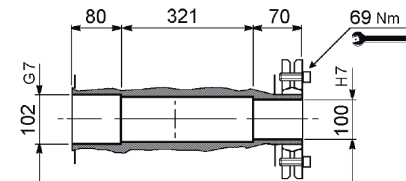
A 90...UD



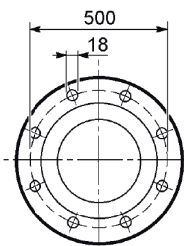
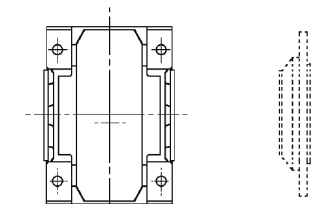
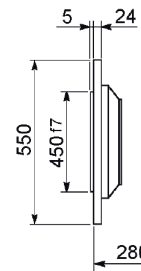
A 90...UH



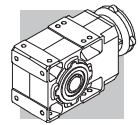
A 90...US



A 90...F...

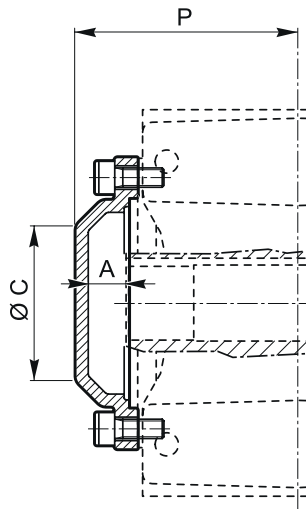


A



44 ACCESSORIES

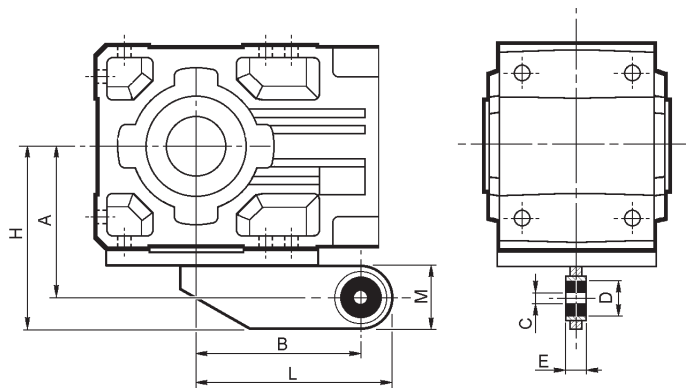
44.1 Safety cover



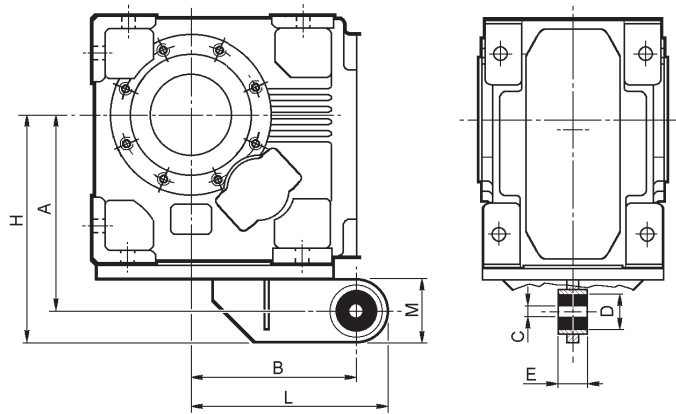
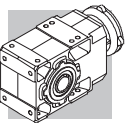
	A	ØC	P
A 05	17.5	36	73.5
A 10	20.5	60	84.5
A 20	20	75	94
A 30	20	75	104
A 35	19.5	80	114
A 41	21	110	120
A 50	26	100	148.5
A 55	27	100	149
A 60	25	100	158
A 70	33.5	120	193.5
A 80	38	140	228
A 90	43	152	258

44.2 Torque arm

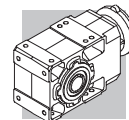
Torque arm comes complete with fastening bolts.



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



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

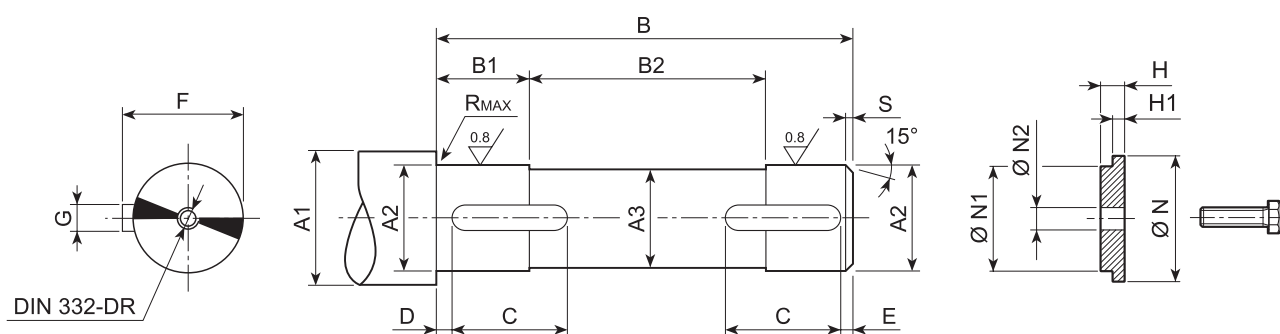




45 CUSTOMER' SHAFT

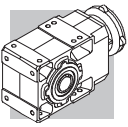
Make the driven shaft to be coupled to the gear unit's output shaft from a good quality steel, respecting the dimensions given in the table.

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.

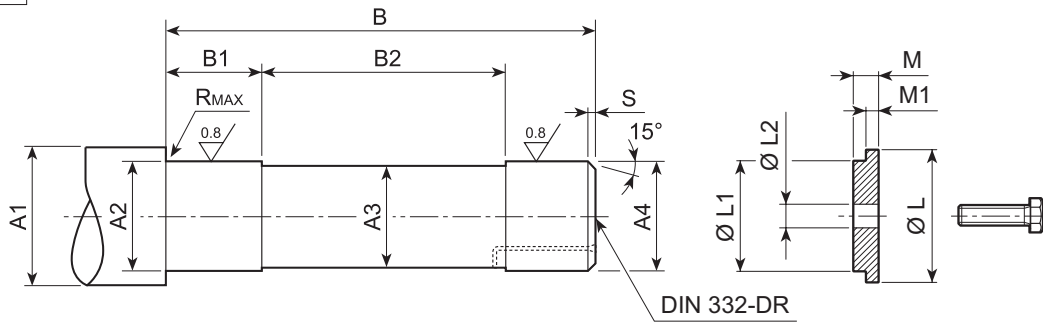
UH_




	A1	A2	A3	B	B1	B2	C	D	E	F	G	R	S		N	N1	N2	H	H1	
														UNI 6604						
A05 UH25	≥ 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
A10 UH30	≥ 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
A10 UH25	≥ 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
A20 UH35	≥ 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
A20 UH30	≥ 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
A30 UH40	≥ 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
A30 UH35	≥ 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
A35 UH40	≥ 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
A35 UH35	≥ 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
A41 UH45	≥ 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
A41 UH40	≥ 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
A50 UH55	≥ 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
A50 UH50	≥ 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
A55 UH60	≥ 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
A55 UH50	≥ 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
A60 UH70	≥ 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
A60 UH60	≥ 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
A70 UH80	≥ 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
A70 UH70	≥ 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
A80 UH90	≥ 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
A80 UH80	≥ 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
A90 UH100	≥ 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
A90 UH90	≥ 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

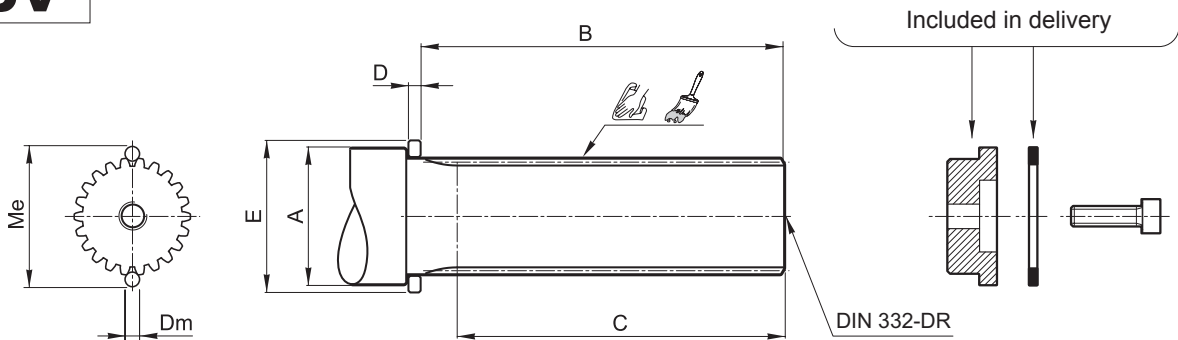




US

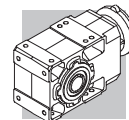


	A1	A2	A3	A4	B	B1	B2	R	S	L	L1	L2	M	M1	 UNI 5739
A 05	≥ 35	27 h7	24	25 h6	129.5	32	63.5	0.5	1.5	29.5	25 d9	11	8.5	7	M10x30
A 10	≥ 42	32 h7	29	30 h6	147.5	34	77.5	0.5	1.5	35.5	30 d9	11	8.5	7	M10x30
A 20	≥ 48	37 h7	34	35 h6	170	40	89	0.5	1.5	43	35 d9	14	8.5	7	M12x35
A 30	≥ 54	42 h7	39	40 h6	191.5	48	95.5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

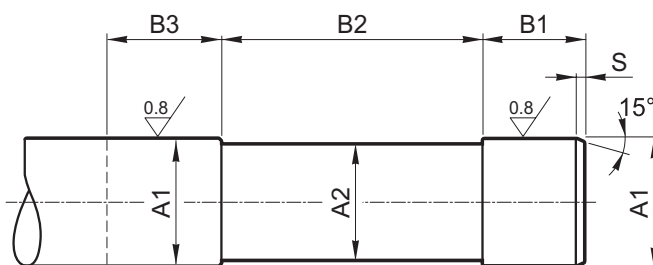
UV



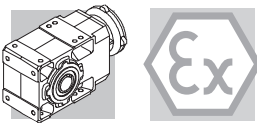
	 DIN 5480	Me	Dm	A	B	C	D	E	 ISO 4762
A 20	30x1.25x22	33.04 +0/-0.04	2.75	≥ 40	111.5	≥ 95	7	45	M10x35
A 30	35x2x16	38.93 +0/-0.04	4	≥ 45	130.5	≥ 112	7	50	M12x40
A 35	35x2x16	38.93 +0/-0.04	4	≥ 45	147.5	≥ 129	7	50	M12x40
A 41	45x2x21	48.86 +0/-0.04	4	≥ 55	155.5	≥ 136	7	60	M16x45
A 50	50x2x24	54.14 +0/-0.05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

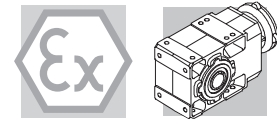
The following table describes the **zones** into which the user of a plant, in which an explosive atmosphere may occur, is required to divide the equipment application areas.

(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 in this catalogue are suitable for installation in zones 1, 21.

Gearbox can also be supplied for installation in zones 2, 22. Contact our Technical Service for further details.



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.

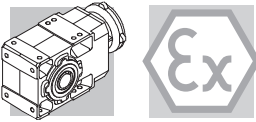
46.3 Levels of protection for the various categories of equipment

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 ⁽¹⁾			G	D	G	D	G	D
Zone			0	20	1	21	2	22
Type of protection gear unit					c, k	c, k		

⁽¹⁾ G = gas D = dust

This catalogue describes BONFIGLIOLI RIDOTTORI **gear units**, intended for use in potentially explosive atmospheres, with limitation to categorie 2.

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).

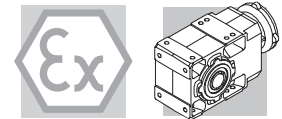
46.5 Declaration of conformity

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 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

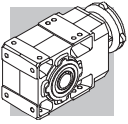
Some fundamental data are necessary to assist the correct selection of a gearbox or gear unit with IEC motor interface. The table below briefly sums up this information.

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)

 Bonfiglioli <small>power, control and green solutions</small>		TECHNICAL DATA REQUIRED FOR THE SELECTION OF GEARBOXS A SERIES				Nr:
						Date:
						Rev_
						Date:
A) GENERAL DATA						
#	1	Company / Customer				
#	2	Contact				
#	3	Branch / Distributor				
#	4	Order quantity				
#	5	Delivery time				
B) ELECTRIC MOTOR						
#	6	Motor Type				
#	7	P_{n1} Rated motor Power		[kW]		
#	8	P_{r1} Motor power demand		[kW]		
#	9	n_1 Input speed		[min ⁻¹]		
#	10	No. of Poles				
C) GEARBOX						
#	11	Gearbox configuration				
#	12	i Gear ratio				
#	13	n_1 Input speed		[min ⁻¹]		
#	14	M_{r2} Output torque demand		[Nm]		
#	15	f_s Service factor demand				
#	16	Rotation of the output shaft [frontal view]:	CW	CCW		
#	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)		
D) ADDITIONAL LOADS						
#	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	
E) APPLICATION						
#	27	Type of application				
#	28	Duty cycle	Time phase	Gearbox output torque	Gearbox output speed	
			%	[Nm]	[min ⁻¹]	
			****	****		
			****	****		
#	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	
F) NOTES						
#	35	Notes and additional Customer requirements:				
#						
#						
#						

Mandatory for the selection



48 INSTALLATION, USE AND MAINTENANCE



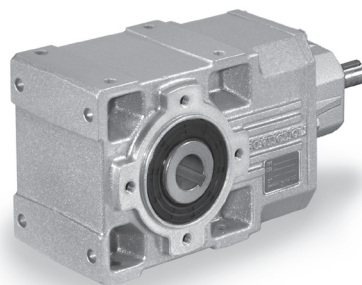
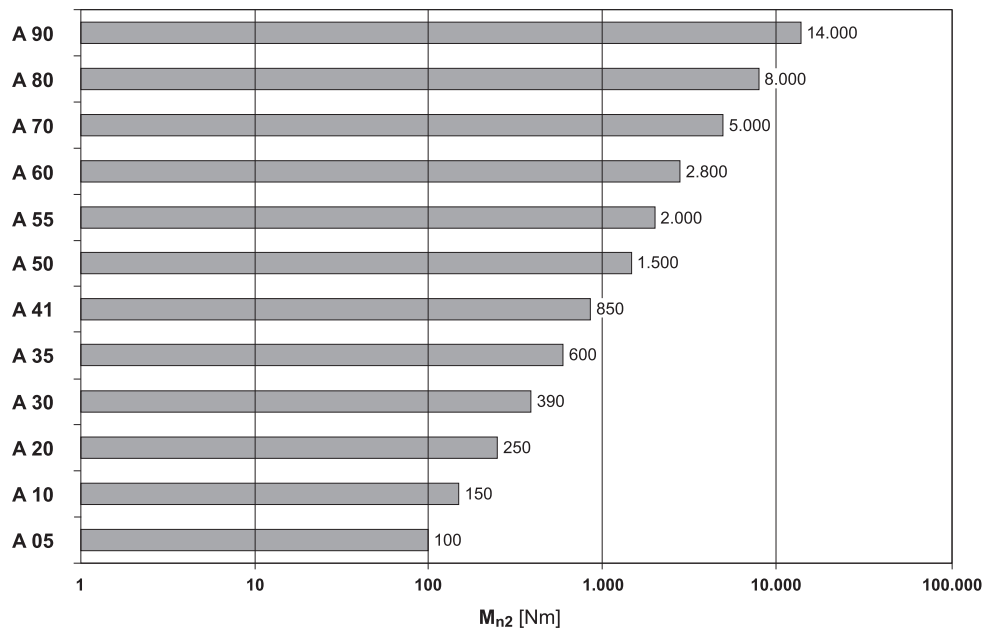
All the instructions for installation, use and maintenance of the product are given in the unit's Manual. This can be downloaded from www.bonfiglioli.com where the manual is available in PDF format in a number of languages.

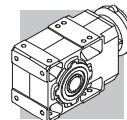
This document must be kept in a suitable place, in the vicinity of the installed gear unit, as a reference for all persons authorised to work with or on the product throughout its service life.

49 CONSTRUCTION OF ATEX-SPECIFIED EQUIPMENT

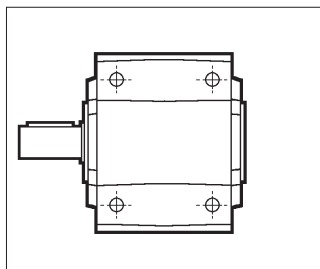
- Equipped with service plugs for periodic lubricant level checks.
- Equipped with vent caps with anti-intrusion valve.
- Factory-charged with lubricant (synthetic oil), depending on the mounting position specified in the order.
- Fluoro elastomer seal rings as standard.
- No plastic component parts..
- 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)



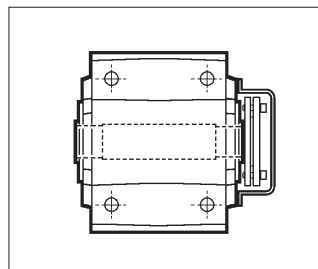


50 VERSIONS



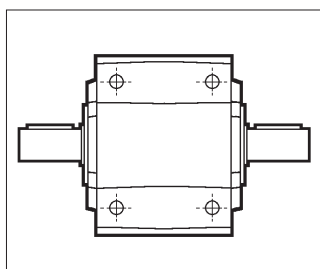
UR
Single extension
output shaft

A 10 ... A 90



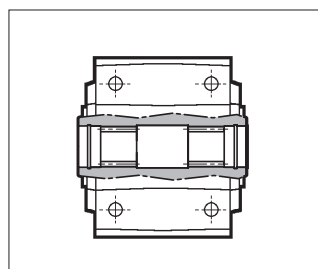
US
Hollow output shaft
and shrink disc

A 05 ... A 90



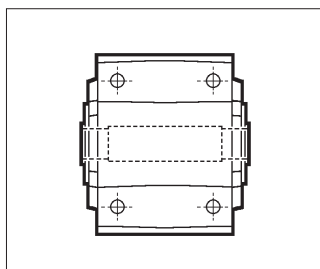
UD
Double extended
output shaft

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...

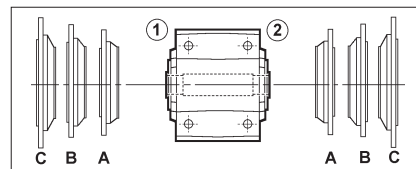
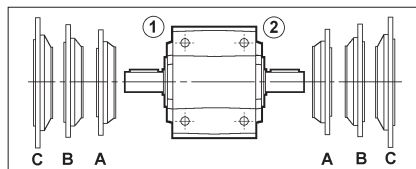
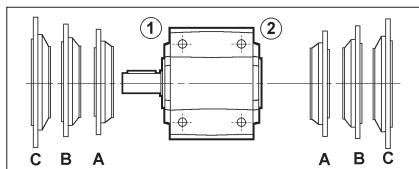
UR F2...

UD F1...

UD F2...

UH... F1...

UH... F2...

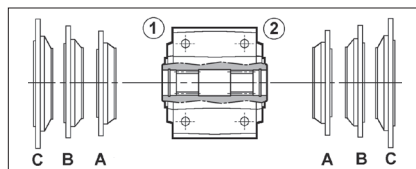
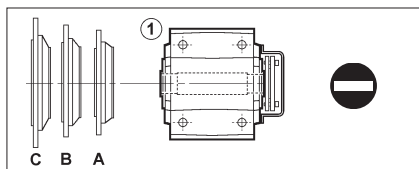


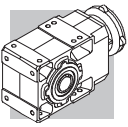
US F1...

US F2...

UV F1...

UV F2...





51 DESIGNATION

GEAR UNIT

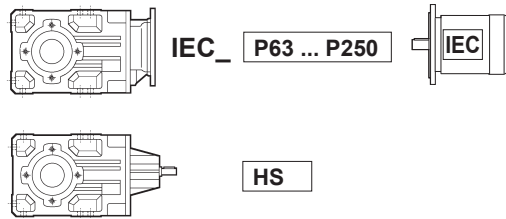
A 50 3 UH50 F1A 99.5 S3 HS EX

OPTIONS

MOUNTING POSITION

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

INPUT CONFIGURATION



GEAR RATIO

OUTPUT FLANGE SIZE AND POSITION

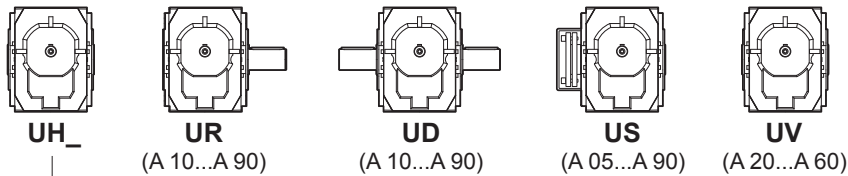
(specify only if requested)

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

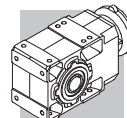
REDUCTIONS

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.