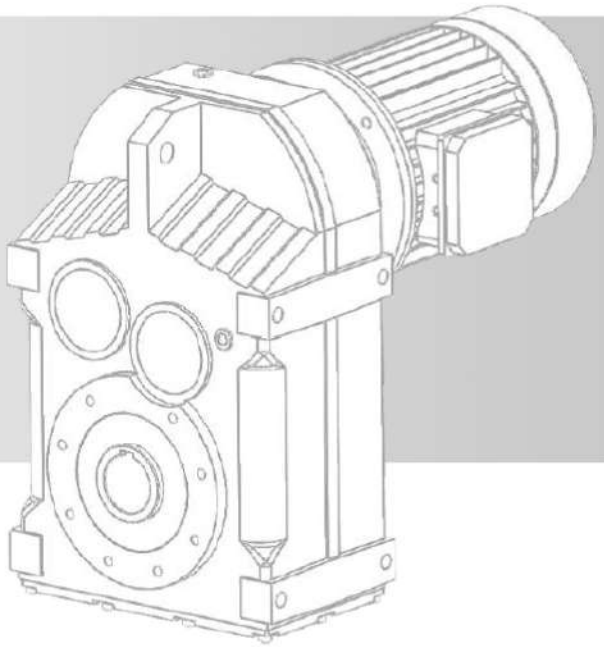
TRANSTECNO®
the modular gearmotor

ITS

ITS

ITS Iron

HELICAL PARALLEL GEARMOTORS



TRANSTECNO · GENUINE · PRODUCTS ·

Introduction

General information

Information in this manual is provided with symbols in order to understand the subject matter and data. These symbols are intended to aid the user in selecting the right gearmotors.

Input speed

• This is the input speed at the gearbox related to the type of drive unit selected.
• When different speeds are required, contact our Technical Service.

Gear ratio

• This value is strictly related to the size and number of teeth gears inside the gearbox.
• From the data given in the catalogue, the value can be calculated using the following formula:

$$i = \frac{n_1}{n_2}$$

Output speed

This is the gearbox output speed calculated using the formula given above:

$$n_2 = \frac{n_1}{i}$$

Requested torque

This is the torque needed for the application and must be known when selecting a drive system. It can either be provided by the user or calculated according to the application data (if provided).

Nominal torque

This is the output torque that can be transmitted by the gearbox according to input speed n1 and gear ratio i. It is calculated based on service with a continuous steady load corresponding to a service factor equal to 1. This value is not given in the catalogue but can be calculated approximately with the following formula between M2 (output torque) and sf (service factor):

$$Mn_2 = M_2 \cdot sf$$

Output torque

This is the gearbox's output torque. It is strictly related to power P1 ofthe motor installed, output rpm n2 and dynamic efficiency Rd. It can be calculated with the following formula:

$$M_2 = \frac{9550 \cdot P_2 \cdot Rd}{n_2}$$

Or :

$$M_2 = \frac{9550 \cdot P_2}{n_2}$$

Where :

$$P_2 = P_1 \cdot Rd$$

Efficiency

Efficiency is caculated based on dynamic efficiency Rd of the gearboxes.
On helical gearboxes the average efficiency is 94%.

Input power

This is the power applied by the motor at the gearbox input in reference to speed n1.
It can be calculated with the following formula:

$$P_1 = \frac{M_2 \cdot n_2}{9550 \cdot Rd}$$

Service factor

This value indicates how a certain drive system is to be over sized in order to assure the requested service and stand up to shocks. The tables given in the catalogue offer a wide range of drive systems with different service factors able to satisfy most types of applications. To correctly understand service factor values sf given for each item, approximate values for load classes A, B and C along with the number of hours of daily operation h/d and number of start-ups/hours need to be known.
Once the load class required for the application has been determined, locate corresponding value sf to be used when selecting the most suitable drive system.

Type of load	***A** - Uniform*	*fa ≤ 0.3*
	***B** - Moderate shocks*	*fa ≤ 3*
	***C** - Heavy shocks*	*fa ≤ 10*

$$fa = \frac{Je}{Jm}$$

• Je (kgm^2) moment of reduced external inertia at the drive-shaft
• Jm (kgm^2) moment of inertia of motor.
If fa > 10 call our Technical Service.

A *Uniform load*

h/d	sf								
	start-up / hour								
	2	4	8	16	32	63	125	250	500
4	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2
8	1.0	1.0	1.1	1.1	1.3	1.3	1.3	1.3	1.3
16	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
24	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8

B *Moderate shock load*

h/d	sf								
	start-up / hour								
	2	4	8	16	32	63	125	250	500
4	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
8	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
16	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8
24	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2

C *Heavy shock load*

h/d	sf								
	start-up / hour								
	2	4	8	16	32	63	125	250	500
4	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
8	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8
16	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2
24	2.2	2.2	2.2	2.2	2.5	2.5	2.5	2.5	2.5

Radial load

Pinions, pulleys, etc applied on the output shaft of the gearboxes create radial forces that must be taken into consideration to avoid excessive stress risking damage to the gearbox itself.
External radial load R that acts on the gearbox shaft can be calculated as follows:

$$R = \frac{2000 \cdot M_2 \cdot kr}{d} \leq R_2$$

where :

d [mm] diameter of the pinion or pulley

kr coefficiency in relation to type of transmission :

kr = 1.4 sprocket wheel

kr = 1.1 gear

kr = 1.5 - 2.5 pulley for V belts

Keep in mind that values R2 refer to loads that act on the center line of the output shaft (considering the shaft protrudes). As a result, the value should be compared under the same conditions.

Axial load

At times, along with the radial load, force A may be present that acts axially on the output shaft. In this case, keep in mind allowable axial load A2 that can be applied on the shaft is:

$$A_2 = R_2 \cdot 0.2$$

If axial load A that acts on the shaft is greater than A2, contact our Technical Service.

Selecting the gearmotors

To select the required gearmotor, perform the procedure below:
1. Determine the service factor sf for the desired application by referring to the charts given on page A4. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.
2. If the required motor power output P is known, go to item 3); if the required output torque M is known, determine motor output P by using the following formulas:

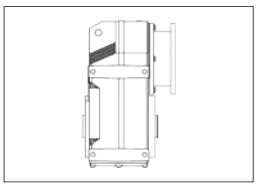
$$P = \frac{M \cdot n_2}{9550 \cdot Rd}$$

Where Rd stands for the dynamic efficiency and n2 indicates the required output rpm of the gearmotor.

3. Use the specification chart to search for the power unit where P1 is greater than or equal to P with a speed n2/n2max that approximates the desired one. Choose a power unit where the indicated service factor sf is equal to or greater than that cal culated at point 1).

Lubrication

All unit sizes of ITH series are complete with mineral oil, viscosity 220.



ITS

SHELL	MOBIL	KLUB
Omala S2 G 220	Mobilgear 660 XP 2	Kluberoil GEM 1-220 N

CASTROL	FUCHS	B
Tribol 1100/220 Optigear BM 220	Renolin CLP 220	Energol GR-XP 220

The tables contain the approximate amount of lubricant held and/or to be put in.
Always specify the desired installation position at the time of order.

Operating temperature

Standard temperature range

ITS	-25°C / +50°C

Standard temperature range

	< -15°C	**> +50°C**
ITS	Output radial load halved	• Use Viton (FPM) oil seals • Use high temperatue lubricant

For temperature <0°C refer to the following notes:
- Check if the motor is suitable for low temperature;
- Due to the high viscosity of the lubricant, check if the motor can supply high starting torque;
- Let the group run for a few minutes without load to guarantee good lubrication;

Installation and inspection

While installing the gearbox always make sure that:
• The specifications stamped on the rating plate match those indicated for the unit actually ordered;
• The mating surfaces and the shafts are thoroughly clean and free of dents;
• The surfaces where the gearbox to be mounted on are flat and strong enough;
• The machine drive shaft and the gearbox shaft are perfectly aligned;
• The required torque limiters have been installed if the machine is likely to produce shocks or blockages during operation;
• The rotary parts have been provided with the required safety guards;
• Adequate weatherproof covering has been provided if the machine is to be installed outdoor;
• The working environment is not exposed to corrosive agents (unless this has been indicated while placing the order so that the gearbox assembly can be adequately set up);
• The pinions or pulleys on the gearbox input/output shafts are properly fitted in order not to produce radial and/or axial loads that exceed the maximum allowable limits;
• All the couplings have been treated with adequate rust preventative in order to avoid oxidation provoked by contact;
• All the mounting screws have been securely tightened;
• Check the lubricant quantity depending on the mounting position on all gearboxes.

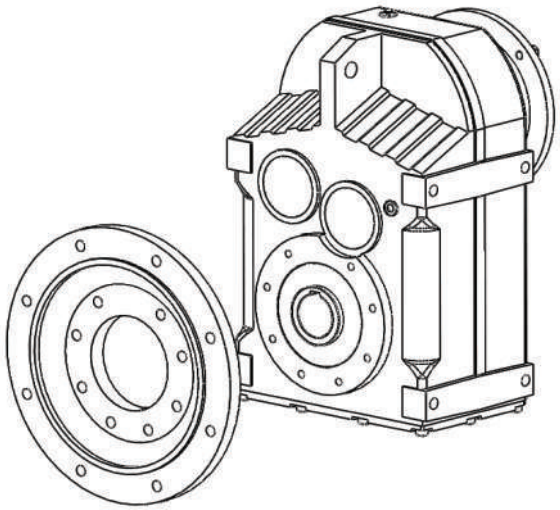
Critical applications

In these cases please contact the Technical Service
• Used to increase speed ;
• Used as a hoist;
• Used in mounting positions not shown in the catalogue;
• Use in environment pressure other than atmospheric pressure;
• Use in places with temperature <-25°C or >+50°C

Technical features

The ITS gearmotors are intended for heavy duty applications.
The robust one pieces casing of the main housing and the modular design of input and output sets increase application fexibility.

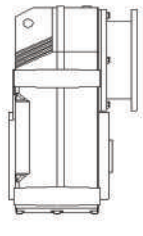
The main features of ITS range are:
• Robust cast iron housings;
• High degree of modularity;
• Lubrication with synthetic oil;
• Coupled to motor with input coupling;
• Epoxy powder coating RAL 7016 average thickness 0,10 – 0,15 mm.



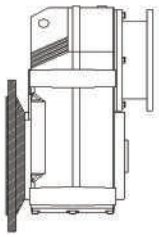
Versions

ITS...

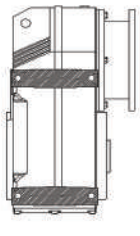
Gearbox version



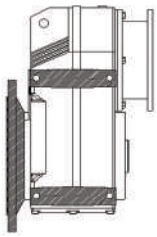
U



U / F..

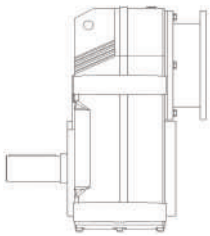


P



P / F..

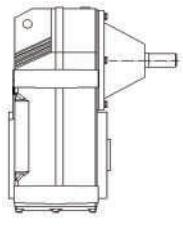
Output shaft



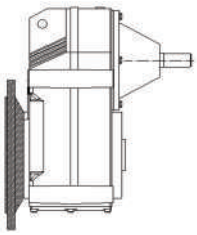
SZ

ITSIS...

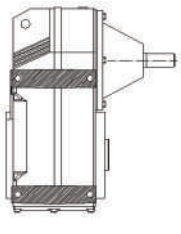
Gearbox version



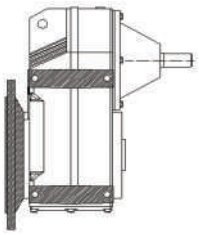
U



U / F..

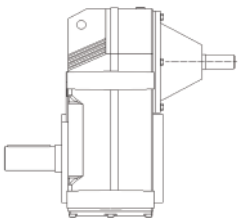


P

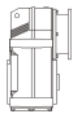


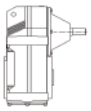
P / F..

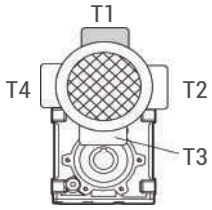
Output shaft



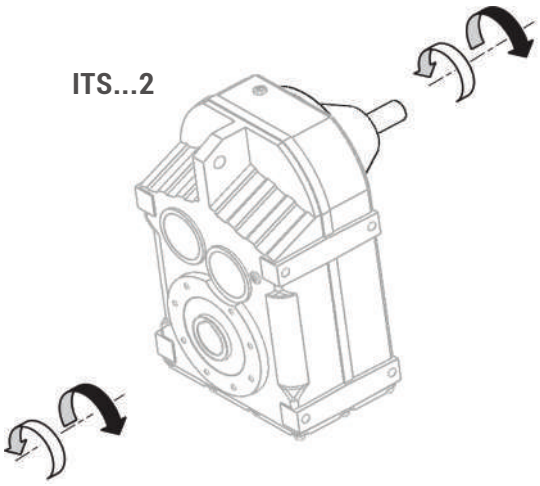
SZ

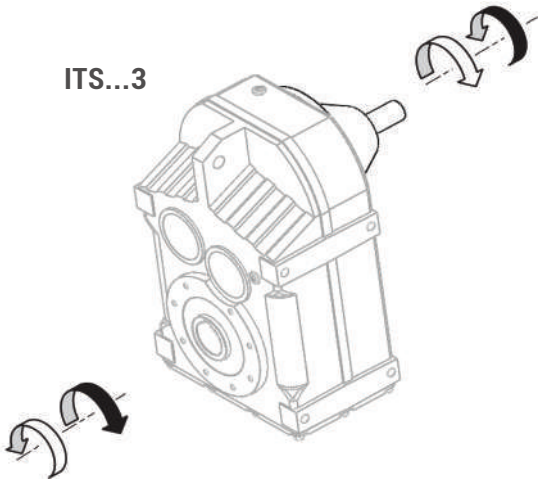
GEARBOX										
ITS	95	2	U	13.70	D70	132	B5	SZ	M1	CW
Type	Size	Stages	Version	Ratio	Output shaft	IEC	Version	Solid outout shaft	Mounting position	Backstop device
ITS 	95 96 97 98	2 3	U.. U / F.. P.. P / F..	see tables	see tables	80... --- 180...	B5 B14	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)	CW CCW

GEARBOX							
ITSIS	95	2	U	13.70	D70	SZ	M1
Type	Size	Stages	Version	Ratio	Output shaft	Solid outout shaft	Mounting position
ITSIS 	95 96 97 98	2 3	U.. U / F.. P.. P / F..	see tables	see tables	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)

MOTOR					
5.5 kW	4p	3ph	230 / 400V	50Hz	T1
Power	**Poles**	**Phases**	**Voltage**	**Frequency**	**Terminal box pos.**
see tables	2p 4p 6p 8p	1ph 3ph	230 / 400V 220 / 380V ... 230V	50 Hz 60Hz	

Direction of rotation



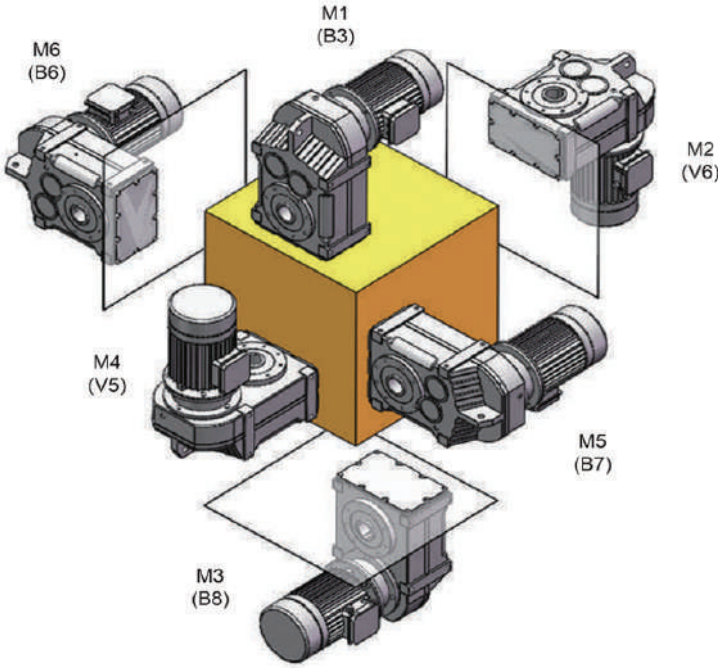


Symbols

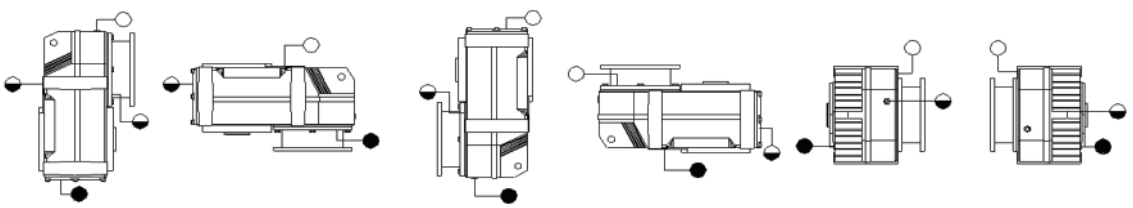
n_1	[min^{-1}]	Input speed
n_2	[min^{-1}]	Output speed
i		Ratio
P_1	[kW]	Input power
M_2	[Nm]	Output torque referred to P_1
Pn_1	[kW]	Nominal in put power
Mn_2	[Nm]	Nominal output torque referred to Pn_1
sf		Service factor
R_1	[N]	Permitted input radial load
A_1	[N]	Permitted input axial load
R_2U	[N]	Permitted output radial load for “U...” version
R_2P	[N]	Permitted output radial load for “P...” version
R_2	[N]	Permitted output radial load
A_2	[N]	Permitted output axial load

Lubrication

- ITS series gearmotors come complete with mineral oil.
- The lubricant quantity depends on mounting position.



ITS	Oil quantity *(litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
952	19	22.5	12.7	26	19	21
953						
962	26.5	33	20	29	28	29
963						
972	42	57	34.5	65	47	50
973						
982	72.5	108	65	108	88	80
983						



M1 (B3) **M2** (V6) **M3** (B8) **M4** (V5) **M5** (B7) **M6** (B6)

Breather and filling plug
Oil level plug
Oil drain plug

Technical data

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
0.75							
80B4	8.0	814	5.0	175.3	ITS 953	B5	24650
1400min^{-1}	6.9	945	4.3	203.5		B5	24650
	6.2	1054	3.8	227		B5	
	5.8	1117	3.6	240.6		B5	
	5.1	1266	3.0	272.7		B5	
1.1							
90S4	11.7	812	5.0	119.3	ITS 953	B5	24650
1400min^{-1}	9.9	966	4.2	141.9		B5	24650
	8.8	1090	3.7	160		B5	24650
	8.0	1194	3.4	175.3		B5	24650
	6.9	1386	2.9	203.5		B5	24650
	6.2	1546	2.6	227		B5	
	5.8	1639	2.5	240.6		B5	
	5.1	1857	2.1	272.7		B5	
1.5							
90L4	16.1	808	5.0	87.03	ITS 953	B5	24650
1400min^{-1}	14.4	904	4.5	97.34		B5	24650
	12.8	1018	4.0	109.6		B5	24650
	11.7	1108	3.6	119.3		B5	24650
	9.9	1318	3.1	141.9		B5	24650
	8.8	1486	2.7	160		B5	24650
	8.0	1628	2.5	175.3		B5	24650
	6.9	1890	2.1	203.5		B5	24650
	6.2	2108	1.9	227		B5	
	5.8	2235	1.8	240.6		B5	
	5.1	2532	1.5	272.7		B5	
	7.9	1639	4.4	176.5	ITS 963	B5	42330
	6.8	1902	3.8	204.9		B5	42330
	6.1	2122	3.4	228.5		B5	
	5.8	2249	3.2	242.2		B5	
	5.1	2549	2.8	274.5		B5	
2.2							
100LA4	23.0	828	4.9	60.81	ITS 953	B5	23120
1400min^{-1}	20.6	925	4.4	67.92		B5	24650
	17.9	1066	3.8	78.25		B5	24650
	16.1	1185	3.4	87.03		B5	24650
	14.4	1326	3.1	97.34		B5	24650
	12.8	1493	2.7	109.6		B5	24650
	11.7	1625	2.5	119.3		B5	24650
	9.9	1933	2.1	141.9		B5	24650
	8.8	2179	1.9	160		B5	24650
	8.0	2388	1.7	175.3		B5	24650
	6.9	2772	1.5	203.5		B5	24650
	6.2	3092	1.3	227		B5	
	5.8	3278	1.2	240.6		B5	
	5.1	3714	1.0	272.7		B5	
	12.7	1503	4.8	110.3	ITS 963	B5	42330
	11.7	1635	4.4	120.1		B5	42330
	9.8	1945	3.7	142.8		B5	42330
	8.7	2194	3.6	161.1		B5	42330
	7.9	2404	3.0	176.5		B5	42330
	6.8	2790	2.6	204.9		B5	
	6.1	3113	2.3	228.5		B5	
	5.8	3299	2.2	242.2		B5	
	5.1	3738	1.9	274.5		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
3.0							
100LB4	31.6	822	4.9	44.25	ITS 953	B5	19550
1400min^{-1}	28.4	914	4.4	49.21		B5	20400
	25.4	1022	4.0	55.04		B5	21930
	23.0	1129	3.6	60.81		B5	23120
	20.6	1261	3.2	67.92		B5	24650
	17.9	1453	2.8	78.25		B5	24650
	16.1	1616	2.5	87.03		B5	24650
	14.4	1808	2.2	97.34		B5	24650
	12.8	2036	2.0	109.6		B5	24650
	11.7	2215	1.8	119.3		B5	24650
	9.9	2636	1.5	141.9		B5	24650
	8.8	2972	1.4	160		B5	24650
	8.0	3256	1.2	175.3		B5	24650
	6.9	3780	1.1	203.5		B5	24650
	6.2	4217	1.0	227		B5	
	5.8	4469	0.9	240.6		B5	
	17.8	1463	4.9	78.76	ITS 963	B5	42330
	16.0	1627	4.4	87.6		B5	42330
	14.3	1820	4.0	97.98		B5	42330
	12.7	2049	3.5	110.3		B5	42330
	11.7	2230	3.2	120.1		B5	42330
	9.8	2653	2.7	142.8		B5	42330
	8.7	2991	2.6	161.1		B5	42330
	7.9	3278	2.2	176.5		B5	42330
	6.8	3805	1.9	204.9		B5	42330
	6.1	4244	1.7	228.5		B5	
	5.8	4499	1.6	242.2		B5	
	5.1	5097	1.4	274.5		B5	
	9.9	2623	4.3	141.2	ITS 973	B5	58990
	8.8	2958	3.8	159.2		B5	58990
	8.0	3241	3.5	174.5		B5	58990
	6.9	3762	3.0	202.6		B5	58990
	6.2	4197	2.7	226		B5	
	5.8	4448	2.5	239.5		B5	
	5.2	5040	2.2	271.4		B5	
4.0							
112M4	40.7	852	4.8	34.39	ITS 953	B5	17250
1400min^{-1}	36.5	951	4.3	38.4		B5	18610
	31.6	1096	3.7	44.25		B5	19550
	28.4	1219	3.3	49.21		B5	20400
	25.4	1363	3.0	55.04		B5	21930
	23.0	1506	2.7	60.81		B5	23120
	20.6	1682	2.4	67.92		B5	24650
	17.9	1938	2.1	78.25		B5	24650
	16.1	2155	1.9	87.03		B5	24650
	14.4	2411	1.7	97.34		B5	24650
	12.8	2714	1.5	109.6		B5	24650
	11.7	2954	1.4	119.3		B5	24650
	9.9	3514	1.2	141.9		B5	24650
	8.8	3962	1.0	160		B5	24650
	8.0	4342	0.9	175.3		B5	24650
	6.9	5040	0.8	203.5		B5	24650
	22.5	1516	4.8	62.21	ITS 963	B5	40630
	20.5	1693	4.3	68.36		B5	42330
	17.8	1950	3.7	78.76		B5	42330
	16.0	2169	3.3	87.6		B5	42330
	14.3	2426	3.0	97.98		B5	42330
	12.7	2732	2.6	110.3		B5	42330

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
4. 0							
112M4 1400min^{-1}	11. 7	2973	2. 4	120. 1	ITS 963	B5	42330
	9. 8	3537	2. 0	142. 8		B5	42330
	8. 7	3988	2. 0	161. 1		B5	42330
	7. 9	4370	1. 7	176. 5		B5	42330
	6. 8	5073	1. 4	204. 9		B5	42330
	6. 1	5659	1. 3	228. 5		B5	
	5. 8	5998	1. 2	242. 2		B5	
	5. 1	6797	1. 1	274. 5		B5	
	14. 5	2396	4. 7	96. 76	ITS 973	B5	58990
	12. 9	2685	4. 2	108. 4		B5	58990
	11. 8	2940	3. 8	118. 7		B5	58990
	9. 9	3497	3. 2	141. 2		B5	58990
	8. 8	3943	2. 9	159. 2		B5	58990
	8. 0	4321	2. 6	174. 5		B5	58990
	6. 9	5016	2. 3	202. 6		B5	58990
	6. 2	5595	2. 0	226		B5	
	5. 8	5931	1. 9	239. 5		B5	
	5. 2	6720	1. 7	271. 4		B5	
	10. 0	3461	4. 9	139. 8	ITS 983	B5	72250
	8. 9	3903	4. 3	157. 6		B5	72250
	8. 1	4277	4. 0	172. 7		B5	72250
	7. 4	4715	3. 6	190. 4		B5	72250
	6. 6	5238	3. 2	211. 5		B5	
	5. 9	5870	2. 8	237. 0		B5	
	5. 2	6651	2. 5	268. 6		B5	
5. 5							
132S4 1400min^{-1}	54. 5	893	4. 6	25. 68	ITS 953	B5	14280
	48. 6	981	4. 1	28. 8		B5	15210
	40. 7	1171	3. 5	34. 39		B5	17250
	36. 5	1308	3. 1	38. 4		B5	18610
	31. 6	1507	2. 7	44. 25		B5	19550
	28. 4	1676	2. 4	49. 21		B5	20400
	25. 4	1874	2. 2	55. 04		B5	21930
	23. 0	2071	2. 0	60. 81		B5	23120
	20. 6	2313	1. 8	67. 92		B5	24650
	17. 9	2664	1. 5	78. 25		B5	24650
	16. 1	2963	1. 4	87. 03		B5	24650
	14. 4	3314	1. 2	97. 34		B5	24650
	12. 8	3732	1. 1	109. 6		B5	24650
	11. 7	4062	1. 0	119. 3		B5	24650
	9. 9	4832	0. 8	141. 9		B5	24650
	32. 1	1487	4. 9	43. 66	ITS 963	B5	35700
	28. 8	1654	4. 4	48. 56		B5	35700
	25. 8	1849	3. 9	54. 31		B5	38330
	22. 9	2084	3. 5	61. 21		B5	40630
	20. 5	2328	3. 1	68. 36		B5	42330
	17. 8	2682	2. 7	78. 76		B5	42330
	16. 0	2983	2. 4	87. 6		B5	42330
	14. 3	3336	2. 2	97. 98		B5	42330
	12. 7	3757	1. 9	110. 3		B5	42330
	11. 7	4088	1. 8	120. 1		B5	42330
	9. 8	4863	1. 5	142. 8		B5	42330
	8. 7	5484	1. 4	161. 1		B5	42330
	7. 9	6009	1. 2	176. 5		B5	42330
	6. 8	6976	1. 0	204. 9		B5	42330
	6. 1	7781	0. 9	228. 5		B5	
	5. 8	8248	0. 9	242. 2		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
5. 5							
132S4 1400min^{-1}	20. 5	2323	4. 9	68. 22	ITS 973	B5	58990
	17. 8	2672	4. 2	78. 46		B5	58990
	16. 1	2959	3. 8	86. 9		B5	58990
	14. 5	3295	3. 4	96. 76		B5	58990
	12. 9	3691	3. 0	108. 4		B5	58990
	11. 8	4042	2. 8	118. 7		B5	58990
	9. 9	4809	2. 3	141. 2		B5	58990
	8. 8	5422	2. 1	159. 2		B5	58990
	8. 0	5942	1. 9	174. 5		B5	58990
	6. 9	6897	1. 6	202. 6		B5	58990
	6. 2	7694	1. 5	226		B5	
	5. 8	8155	1. 4	239. 5		B5	
	5. 2	9240	1. 2	271. 4		B5	
	13. 0	3676	4. 6	108	ITS 983	B5	72250
	11. 9	4000	4. 2	117. 5		B5	72250
	10. 0	4759	3. 6	139. 8		B5	72250
	8. 9	5366	3. 2	157. 6		B5	72250
	8. 1	5880	2. 9	172. 7		B5	72250
	7. 4	6483	2. 6	190. 4		B5	72250
	6. 6	7202	2. 3	211. 5		B5	
	5. 9	8071	2. 1	237		B5	
	5. 2	9145	1. 8	268. 6		B5	
7. 5							
132MA4 1400min^{-1}	79. 5	835	4. 9	17. 61	ITS 953	B5	11220
	70. 6	940	4. 4	19. 83		B5	11220
	64. 9	1023	4. 0	21. 58		B5	12410
	54. 5	1218	3. 4	25. 68	ITS 953	B5	14280
	48. 6	1337	3. 0	28. 8		B5	15210
	40. 7	1597	2. 5	34. 39		B5	17250
	36. 5	1783	2. 3	38. 4		B5	18610
	31. 6	2055	2. 0	44. 25		B5	19550
	28. 4	2285	1. 8	49. 21		B5	20400
	25. 4	2556	1. 6	55. 04		B5	21930
	23. 0	2824	1. 4	60. 81		B5	23120
	20. 6	3154	1. 3	67. 92		B5	24650
	17. 9	3633	1. 1	78. 25		B5	24650
	16. 1	4041	1. 0	87. 03		B5	24650
	14. 4	4520	0. 9	97. 34		B5	24650
	12. 8	5089	0. 8	109. 6		B5	24650
	41. 3	1575	4. 4	33. 93	ITS 963	B5	31020
	36. 9	1759	4. 1	37. 89		B5	33570
	32. 1	2027	3. 6	43. 66		B5	35700
	28. 8	2255	3. 2	48. 56		B5	35700
	25. 8	2522	2. 9	54. 31		B5	38330
	22. 9	2842	2. 5	61. 21		B5	40630
	20. 5	3174	2. 3	68. 36		B5	42330
	17. 8	3657	2. 0	78. 76		B5	42330
	16. 0	4068	1. 8	87. 6		B5	42330
	14. 3	4549	1. 6	97. 98		B5	42330
	12. 7	5123	1. 4	110. 3		B5	42330
	11. 7	5575	1. 3	120. 1		B5	42330
	9. 8	6632	1. 1	142. 8		B5	42330
	8. 7	7478	1. 1	161. 1		B5	42330
	7. 9	8194	0. 9	176. 5		B5	42330

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
7.5							
132MA4 1400min^{-1}	28.2	2306	4.9	49.66	ITS 973	B5	52530
	25.3	2567	4.4	55.29		B5	52530
	23.2	2798	4.0	60.25		B5	55500
	20.5	3168	3.6	68.22		B5	58990
	17.8	3643	3.1	78.46		B5	58990
	16.1	4035	2.8	86.9		B5	58990
	14.5	4493	2.5	96.76		B5	58990
	12.9	5034	2.3	108.4		B5	58990
	11.8	5512	2.0	118.7		B5	58990
	9.9	6557	1.7	141.2		B5	58990
	8.8	7394	1.5	159.2		B5	58990
	8.0	8102	1.4	174.5		B5	58990
	6.9	9405	1.2	202.6		B5	58990
	6.2	10491	1.1	226		B5	
	5.8	11121	1.0	239.5		B5	
	5.2	12600	0.9	271.4		B5	
	18.2	3579	4.7	77.07	ITS 983	B5	72250
	16.3	3980	4.3	85.72		B5	72250
	14.6	4452	3.8	95.88		B5	72250
	13.0	5013	3.4	108		B5	72250
	11.9	5455	3.1	117.5		B5	72250
	10.0	6489	2.6	139.8		B5	72250
	8.9	7317	2.3	157.6		B5	72250
	8.1	8018	2.1	172.7		B5	72250
	7.4	8841	1.9	190.4		B5	72250
	6.6	9821	1.7	211.5		B5	
	5.9	11006	1.5	237		B5	
	5.2	12470	1.3	268.6		B5	
11							
160M4 1400min^{-1}	113.9	855	4.8	12.29	ITS 952	B5	8500
	98.9	985	4.2	14.16		B5	8920
	88.9	1095	3.8	15.75		B5	10110
	79.5	1225	3.4	17.61		B5	11220
	70.6	1379	3.0	19.83		B5	11220
	64.9	1501	2.8	21.58		B5	12410
	54.5	1786	2.3	25.68	ITS 953	B5	14280
	48.6	1961	2.1	28.8		B5	15210
	40.7	2342	1.7	34.39		B5	17250
	36.5	2615	1.6	38.4		B5	18610
	31.6	3013	1.4	44.25		B5	19550
	28.4	3351	1.2	49.21		B5	20400
	25.4	3748	1.1	55.04		B5	21930
	23.0	4141	1.0	60.81		B5	23120
	20.6	4625	0.9	67.92		B5	24650
	79.6	1223	4.8	17.59	ITS 962	B5	22100
	71.0	1371	4.6	19.71		B5	23880
	64.9	1501	4.2	21.58		B5	23880
	54.5	1786	4.0	25.68	ITS 963	B5	27370
	50.9	1872	3.9	27.49		B5	28640
	41.3	2311	3.0	33.93		B5	31020
	36.9	2580	2.8	37.89		B5	33570
	32.1	2973	2.4	43.66		B5	35700
	28.8	3307	2.2	48.56		B5	35700
	25.8	3699	2.0	54.31		B5	38330
	22.9	4168	1.7	61.21		B5	40630
	20.5	4655	1.6	68.36		B5	42330
	17.8	5364	1.4	78.76		B5	42330
	16.0	5966	1.2	87.6		B5	42330
	14.3	6673	1.1	97.98		B5	42330
	12.7	7514	1.0	110.3		B5	42330
	11.7	8176	0.9	120.1		B5	42330

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
11							
160M4 1400min^{-1}	48.6	1963	4.6	28.82	ITS 973	B5	38840
	40.7	2345	4.8	34.43		B5	43010
	35.9	2655	4.3	38.98		B5	46580
	31.2	3053	3.7	44.83		B5	49210
	28.2	3382	3.3	49.66		B5	52530
	25.3	3765	3.0	55.29		B5	52530
	23.2	4103	2.8	60.25		B5	55500
	20.5	4646	2.4	68.22		B5	58990
	17.8	5343	2.1	78.46		B5	58990
	16.1	5918	1.9	86.9		B5	58990
	14.5	6589	1.7	96.76		B5	58990
	12.9	7383	1.5	108.4		B5	58990
	11.8	8084	1.4	118.7		B5	58990
	9.9	9617	1.2	141.2		B5	58990
	8.8	10844	1.0	159.2		B5	58990
	8.0	11883	1.0	174.5		B5	58990
	6.9	13795	0.8	202.6		B5	58990
	25.9	3675	4.6	53.96	ITS 983	B5	65870
	23.4	4079	4.2	59.9		B5	70120
	20.0	4556	3.7	66.9		B5	72250
	18.2	5249	3.2	77.07		B5	72250
	16.3	5838	2.9	85.72		B5	72250
	14.6	6530	2.6	95.88		B5	72250
	13.0	7353	2.3	108		B5	72250
	11.9	8001	2.1	117.5		B5	72250
	10.0	9518	1.8	139.8		B5	72250
	8.9	10732	1.6	157.6		B5	72250
	8.1	11760	1.4	172.7		B5	72250
	7.4	12967	1.3	190.4		B5	72250
	6.6	14403	1.2	211.5		B5	
	5.9	16142	1.0	237		B5	
	5.2	18290	0.9	268.6		B5	
15							
160M4 1400min^{-1}	332.5	399	4.1	4.21	ITS 953	B5	7820
	269.7	492	4.2	5.19		B5	8840
	241.4	550	3.9	5.8		B5	8920
	209.6	634	3.6	6.68		B5	9430
	188.4	705	3.2	7.43		B5	9770
	168.5	788	2.9	8.31		B5	10710
	157.0	846	2.7	8.92		B5	11390
	127.3	1043	3.8	11		B5	11390
	113.9	1166	3.6	12.29		B5	8500
	98.9	1343	3.1	14.16		B5	8920
	88.9	1494	2.8	15.75		B5	10110
	79.5	1670	2.5	17.61		B5	11220
	70.6	1881	2.2	19.83		B5	11220
	64.9	2047	2.0	21.58		B5	12410
	54.5	2436	1.7	25.68	ITS 954	B5	14280
	48.6	2675	1.5	28.8		B5	15210
	40.7	3194	1.3	34.39		B5	17250
	36.5	3566	1.1	38.4		B5	18610
	31.6	4109	1.0	44.25		B5	19550
	28.4	4570	0.9	49.21		B5	20400

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
15							
160M4 1400min^{-1}	152.7	870	4.9	9.17	ITS 962	B5	20400
	127.7	1039	4.6	10.96		B5	19460
	112.9	1176	4.3	12.4		B5	20650
	98.2	1352	4.0	14.26		B5	20650
	88.6	1498	3.8	15.8		B5	20990
	79.6	1668	3.5	17.59		B5	22100
	71.0	1869	3.4	19.71		B5	23880
	64.9	2047	3.1	21.58		B5	23880
	54.5	2436	3.0	25.68	ITS 963	B5	27370
	50.9	2553	2.9	27.49		B5	28640
	41.3	3151	2.2	33.93		B5	31020
	36.9	3519	2.1	37.89		B5	33570
	32.1	4055	1.8	43.66		B5	35700
	28.8	4510	1.6	48.56		B5	35700
	25.8	5044	1.4	54.31		B5	38330
	22.9	5684	1.3	61.21		B5	40630
	20.5	6348	1.2	68.36		B5	42330
	17.8	7314	1.0	78.76		B5	42330
	16.0	8135	0.9	87.6		B5	42330
	14.3	9099	0.8	97.98		B5	42330
	54.5	2436	4.2	25.68	ITS 973	B5	38840
	48.6	2676	3.4	28.82		B5	38840
	40.7	3197	3.5	34.43		B5	43010
	35.9	3620	3.1	38.98		B5	46580
	31.2	4163	2.7	44.83		B5	49210
	28.2	4612	2.5	49.66		B5	52530
	25.3	5135	2.2	55.29		B5	52530
	23.2	5595	2.0	60.25		B5	55500
	20.5	6335	1.8	68.22		B5	58990
	17.8	7286	1.6	78.46		B5	58990
	16.1	8070	1.4	86.90		B5	58990
	14.5	8986	1.3	96.76		B5	58990
	12.9	10068	1.1	108.4		B5	58990
	11.8	11024	1.0	118.7		B5	58990
	9.9	13114	0.9	141.2		B5	58990
	37.2	3496	4.8	37.65	ITS 983	B5	53970
	32.3	4028	4.2	43.37		B5	58560
	29.0	4480	3.8	48.24		B5	62560
	25.9	5011	3.4	53.96		B5	65870
	23.4	5563	3.0	59.90		B5	70120
	20.0	6213	2.7	66.90		B5	72250
	18.2	7157	2.4	77.07		B5	72250
	16.3	7960	2.1	85.72		B5	72250
	14.6	8904	1.9	95.88		B5	72250
	13.0	10027	1.7	108		B5	72250
	11.9	10910	1.6	117.5		B5	72250
	10.0	12979	1.3	139.8		B5	72250
	8.9	14635	1.2	157.6		B5	72250
	8.1	16037	1.1	172.7		B5	72250
	7.4	17682	1.0	190.4		B5	72250
	6.6	19641	0.9	211.5		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
18.5							
160L4 1400min^{-1}	332.5	492	3.3	4.21	ITS 952	B5	7820
	269.7	607	3.4	5.19		B5	8840
	241.4	678	3.2	5.8		B5	8920
	209.6	781	2.9	6.68		B5	9430
	188.4	869	2.6	7.43		B5	9770
	168.5	972	2.3	8.31		B5	10710
	157.0	1043	2.2	8.92		B5	11390
	127.3	1287	3.1	11		B5	11390
	113.9	1438	2.9	12.29		B5	8500
	98.9	1656	2.5	14.16		B5	8920
	88.9	1842	2.3	15.75		B5	10110
	79.5	2060	2.0	17.61		B5	11220
	70.6	2320	1.8	19.83		B5	11220
	64.9	2524	1.6	21.58		B5	12410
	54.5	3004	1.4	25.68	ITS 952	B5	14280
	48.6	3299	1.2	28.80		B5	15210
	40.7	3939	1.0	34.39		B5	17250
	36.5	4398	0.9	38.40		B5	18610
	31.6	5068	0.8	44.25		B5	19550
	321.8	509	4.9	4.35	ITS 962	B5	11000
	269.8	607	4.8	5.19		B5	14000
	238.1	688	4.6	5.88		B5	15300
	207.1	791	4.5	6.76		B5	17930
	186.9	876	4.4	7.49		B5	19720
	167.9	976	4.2	8.34		B5	20400
	152.7	1073	4.0	9.17		B5	20400
	127.7	1282	3.7	10.96		B5	19460
	112.9	1450	3.5	12.4		B5	20650
	98.2	1668	3.2	14.26		B5	20650
	88.6	1848	3.1	15.8		B5	20990
	79.6	2058	2.9	17.59		B5	22100
	71.0	2305	2.7	19.71		B5	23880
	64.9	2524	2.5	21.58		B5	23880
	54.5	3004	2.4	25.68	ITS 963	B5	27370
	50.9	3149	2.3	27.49		B5	28640
	41.3	3886	1.9	33.93		B5	31020
	36.9	4340	1.7	37.89		B5	33570
	32.1	5001	1.5	43.66		B5	35700
	28.8	5562	1.3	48.56		B5	35700
	25.8	6220	1.2	54.31		B5	38330
	22.9	7011	1.0	61.21		B5	40630
	20.5	7830	0.9	68.36		B5	42330
	17.8	9021	0.8	78.76		B5	42330
	70.6	2320	4.6	19.83	ITS 972	B5	35610
	64.9	2524	4.5	21.58		B5	35700
	54.5	3004	3.4	25.68	ITS 973	B5	38840
	48.6	3301	2.7	28.82		B5	38840
	40.7	3943	2.9	34.43		B5	43010
	35.9	4465	2.5	38.98		B5	46580
	31.2	5135	2.2	44.83		B5	49210
	28.2	5688	2.0	49.66		B5	52530
	25.3	6333	1.8	55.29		B5	52530
	23.2	6901	1.6	60.25		B5	55500
	20.5	7814	1.4	68.22		B5	58990
	17.8	8986	1.3	78.46		B5	58990
	16.1	9953	1.1	86.9		B5	58990
	14.5	11082	1.0	96.76		B5	58990
	12.9	12417	0.9	108.4		B5	58990
	11.8	13596	0.8	118.7		B5	58990

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
18.5							
160L4 1400min^{-1}	50.1	3204	4.9	27.97	ITS 983	B5	49130
	41.5	3861	4.4	33.71		B5	53120
	37.2	4312	3.9	37.65		B5	53970
	32.3	4967	3.4	43.37		B5	58560
	29.0	5525	3.1	48.24		B5	62560
	25.9	6180	2.7	53.96		B5	65870
	23.4	6861	2.5	59.90		B5	70120
	20.0	7662	2.2	66.90		B5	72250
	18.2	8827	1.9	77.07		B5	72250
	16.3	9820	1.7	85.72		B5	72250
	14.6	10980	1.5	95.88		B5	72250
	13.0	12360	1.4	108		B5	72250
	11.9	13450	1.3	117.5		B5	72250
	10.0	16000	1.1	139.8		B5	72250
	8.9	18049	0.9	157.6		B5	72250
	8.1	19779	0.9	172.7		B5	72250
22							
180L4 1400min^{-1}	332.5	586	2.8	4.21	ITS 952	B5	7820
	269.7	722	2.9	5.19		B5	8840
	241.4	807	2.7	5.80		B5	8920
	209.6	929	2.4	6.68		B5	9430
	188.4	1034	2.2	7.43		B5	9770
	168.5	1156	2.0	8.31		B5	10710
	157.0	1241	1.8	8.92		B5	11390
	127.3	1530	2.6	11		B5	11390
	113.9	1710	2.4	12.29		B5	8500
	98.9	1970	2.1	14.16		B5	8920
	88.9	2191	1.9	15.75		B5	10110
	79.5	2450	1.7	17.61		B5	11220
	70.6	2758	1.5	19.83		B5	11220
	64.9	3002	1.4	21.58		B5	12410
	54.5	3572	1.2	25.68	ITS 953	B5	14280
	48.6	3923	1.0	28.8		B5	15210
	40.7	4684	0.9	34.39		B5	17250
	321.8	605	4.2	4.35	ITS 962	B5	11000
	269.8	722	4.0	5.19		B5	14000
	238.1	818	3.9	5.88		B5	15300
	207.1	940	3.8	6.76		B5	17930
	186.9	1042	3.7	7.49		B5	19720
	167.9	1160	3.6	8.34		B5	20400
	152.7	1276	3.4	9.17		B5	20400
	127.7	1525	3.1	10.96		B5	19460
	112.9	1725	2.9	12.4		B5	20650
	98.2	1984	2.7	14.26		B5	20650
	88.6	2198	2.6	15.8		B5	20990
	79.6	2447	2.4	17.59		B5	22100
	71.0	2742	2.3	19.71		B5	23880
	64.9	3002	2.1	21.58		B5	23880
	54.5	3572	2.0	25.68	ITS 963	B5	27370
	50.9	3744	2.0	27.49		B5	28640
	41.3	4621	1.5	33.93		B5	31020
	36.9	5161	1.4	37.89		B5	33570
	32.1	5947	1.2	43.66		B5	35700
	28.8	6614	1.1	48.56		B5	35700
	25.8	7397	1.0	54.31		B5	38330
	22.9	8337	0.9	61.21		B5	40630

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
22							
180L4 1400min^{-1}	88.9	2191	4.8	15.75	ITS 972	B5	30940
	79.5	2450	4.3	17.61		B5	33150
	70.6	2758	3.9	19.83		B5	35610
	64.9	3002	3.8	21.58		B5	35700
	54.5	3572	2.9	25.68	ITS 973	B5	38840
	48.6	3925	2.3	28.82		B5	38840
	40.7	4689	2.4	34.43		B5	43010
	35.9	5309	2.1	38.98		B5	46580
	31.2	6106	1.8	44.83		B5	49210
	28.2	6764	1.7	49.66		B5	52530
	25.3	7531	1.5	55.29		B5	52530
	23.2	8206	1.4	60.25		B5	55500
	20.5	9292	1.2	68.22		B5	58990
	17.8	10686	1.1	78.46		B5	58990
	16.1	11836	1.0	86.9		B5	58990
	14.5	13179	0.9	96.76		B5	58990
	55.1	3535	4.4	25.41	ITS 983	B5	44030
	50.1	3810	4.1	27.97		B5	49130
	41.5	4591	3.7	33.71		B5	53120
	37.2	5128	3.3	37.65		B5	53970
	32.3	5907	2.9	43.37		B5	58560
	29.0	6570	2.6	48.24		B5	62560
	25.9	7350	2.3	53.96		B5	65870
	23.4	8159	2.1	59.9		B5	70120
	20.0	9112	1.9	66.9		B5	72250
	18.2	10480	1.6	77.07		B5	72250
	16.3	11600	1.5	85.72		B5	72250
	14.6	13045	1.3	95.88		B5	72250
	13.0	14706	1.2	108		B5	72250
	11.9	16001	1.1	117.5		B5	72250
	10.0	19036	0.9	139.8		B5	72250
30							
200L4 1400min^{-1}	332.5	814	2.0	4.21	ITS 952	B5	7820
	269.7	1008	2.1	5.19		B5	8840
	241.4	1123	2.0	5.80		B5	8920
	209.6	1267	1.8	6.68		B5	9430
	188.4	1409	1.6	7.43		B5	9770
	168.5	1576	1.4	8.31		B5	10710
	157.0	1692	1.3	8.92		B5	11390
	127.3	2087	1.9	11		B5	11390
	113.9	2331	1.8	12.29		B5	8500
	98.9	2686	1.5	14.16		B5	8920
	88.9	2988	1.4	15.75		B5	10110
	79.5	3340	1.2	17.61		B5	11220
	70.6	3761	1.1	19.83		B5	11220
	64.9	4093	1.0	21.58		B5	12410
	54.5	4871	0.9	25.68	ITS 953	B5	14280

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
30							
200L4 1400min^{-1}	321.8	825	3.0	4.35	ITS 962	B5	11000
	269.8	984	3.0	5.19		B5	14000
	238.1	1115	2.9	5.88		B5	15300
	207.1	1282	2.8	6.76		B5	17930
	186.9	1421	2.7	7.49		B5	19720
	167.9	1582	2.6	8.34		B5	20400
	152.7	1739	2.5	9.17		B5	20400
	127.7	2079	2.3	10.96		B5	19460
	112.9	2352	2.2	12.4		B5	20650
	98.2	2705	2.0	14.26		B5	20650
	88.6	2997	1.9	15.8		B5	20990
	79.6	3337	1.8	17.59		B5	22100
	71.0	3739	1.7	19.71		B5	23880
	64.9	4093	1.5	21.58		B5	23880
	54.5	4871	1.5	25.68	ITS 963	B5	27370
	50.9	5106	1.4	27.49		B5	28640
	41.3	6302	1.1	33.93		B5	31020
	36.9	7037	1.0	37.89		B5	33570
	32.1	8109	0.9	43.66		B5	35700
	28.8	9019	0.8	48.56		B5	35700
	270.8	981	4.9	5.17	ITS 972	B5	25070
	242.6	1094	4.8	5.77		B5	26940
	210.5	1261	4.6	6.65		B5	27200
	189.2	1404	4.3	7.4		B5	29750
	169.3	1569	4.3	8.27		B5	31450
	153.3	1732	4.2	9.13		B5	31450
	127.3	2087	4.1	11		B5	28900
	113.9	2331	4.1	12.29		B5	30940
	98.9	2686	3.9	14.16		B5	30940
	88.9	2988	3.5	15.75		B5	30940
	79.5	3340	3.2	17.61		B5	33150
	70.6	3761	2.8	19.83		B5	35610
	64.9	4093	2.8	21.58		B5	35700
	54.5	4871	2.1	25.68	ITS 973	B5	38840
	48.6	5353	1.7	28.82		B5	38840
	40.7	6395	1.8	34.43		B5	43010
	35.9	7240	1.6	38.98		B5	46580
	31.2	8326	1.4	44.83		B5	49210
	28.2	9223	1.2	49.66		B5	52530
	25.3	10269	1.1	55.29		B5	52530
	23.2	11190	1.0	60.25		B5	55500
	20.5	12671	0.9	68.22		B5	58990
	72.9	3642	4.5	19.2	ITS 982	B5	40800
	65.5	4052	4.3	21.36		B5	43260
	55.1	4820	3.3	25.41	ITS 983	B5	44030
	50.1	5195	3.0	27.97		B5	49130
	41.5	6261	2.7	33.71		B5	53120
	37.2	6993	2.4	37.65		B5	53970
	32.3	8055	2.1	43.37		B5	58560
	29.0	8960	1.9	48.24		B5	62560
	25.9	10020	1.7	53.96		B5	65870
	23.4	11120	1.5	59.9		B5	70120
	20.0	12420	1.4	66.9		B5	72250
	18.2	14300	1.2	77.07		B5	72250
	16.3	15900	1.1	85.72		B5	72250
	14.6	17800	1.0	95.88		B5	72250
	13.0	20053	0.8	108		B5	72250

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
37							
225S4 1400min^{-1}	332.5	985	1.6	4.21	ITS 952	B5	7820
	269.7	1214	1.7	5.19		B5	8840
	241.4	1357	1.6	5.8		B5	8920
	209.6	1563	1.5	6.68		B5	9430
	188.4	1738	1.3	7.43		B5	9770
	168.5	1944	1.2	8.31		B5	10710
	157.0	2087	1.1	8.92		B5	11390
	127.3	2573	1.5	11		B5	11390
	113.9	2875	1.4	12.29		B5	8500
	98.9	3313	1.3	14.16		B5	8920
	88.9	3685	1.1	15.75		B5	10110
	79.5	4120	1.0	17.61		B5	11220
	70.6	4639	0.9	19.83		B5	11220
	64.9	5048	0.8	21.58		B5	12410
	321.8	1018	2.5	4.35	ITS 962	B5	11000
	269.8	1215	2.4	5.19		B5	14000
	238.1	1374	2.3	5.88		B5	15300
	207.1	1581	2.3	6.76		B5	17930
	186.9	1752	2.2	7.49		B5	19720
	167.9	1951	2.1	8.34		B5	20400
	152.7	2145	2.0	9.17		B5	20400
	127.7	2564	1.9	10.96		B5	19460
	112.9	2901	1.8	12.4		B5	20650
	98.2	3336	1.6	14.26		B5	20650
	88.6	3696	1.5	15.8		B5	20990
	79.6	4115	1.4	17.59		B5	22100
	71.0	4611	1.4	19.71		B5	23880
	64.9	5048	1.3	21.58		B5	23880
	54.5	6008	1.2	25.68	ITS 963	B5	27370
	50.9	6297	1.2	27.49		B5	28640
	41.3	7772	0.9	33.93		B5	31020
	36.9	8679	0.8	37.89		B5	33570
	326.3	1004	4.1	4.29	ITS 972	B5	17900
	270.8	1209	4.0	5.17		B5	25070
	242.6	1350	3.9	5.77		B5	26940
	210.5	1556	3.7	6.65		B5	27200
	189.2	1731	3.5	7.4		B5	29750
	169.3	1935	3.5	8.27		B5	31450
	153.3	2136	3.4	9.13		B5	31450
	127.3	2573	3.4	11		B5	28900
	113.9	2875	3.3	12.29		B5	30940
	98.9	3313	3.2	14.16		B5	30940
	88.9	3685	2.9	15.75		B5	30940
	79.5	4120	2.6	17.61		B5	33150
	70.6	4639	2.3	19.83		B5	35610
	64.9	5048	2.2	21.58		B5	35700
	54.5	6008	1.7	25.68	ITS 973	B5	38840
	48.6	6602	1.4	28.82		B5	38840
	40.7	7887	1.4	34.43		B5	43010
	35.9	8929	1.3	38.98		B5	46580
	31.2	10269	1.1	44.83		B5	49210
	28.2	11376	1.0	49.66		B5	52530
	25.3	12665	0.9	55.29		B5	52530
	23.2	13801	0.8	60.25		B5	55500

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
37							
225S4 1400min^{-1}	99.9	3278	5.0	14.01	ITS 982	B5	34850
	89.8	3647	4.7	15.59		B5	36120
	80.6	4061	4.3	17.36		B5	38160
	72.9	4492	3.6	19.2		B5	40800
	65.5	4997	3.5	21.36		B5	43260
	55.1	5944	2.6	25.41	ITS 983	B5	44030
	50.1	6407	2.4	27.97		B5	49130
	41.5	7722	2.2	33.71		B5	53120
	37.2	8624	2.0	37.65		B5	53970
	32.3	9940	1.7	43.37		B5	58560
	29.0	11050	1.5	48.24		B5	62560
	25.9	12360	1.4	53.96		B5	65870
	23.4	13720	1.2	59.9		B5	70120
	20.0	15320	1.1	66.9		B5	72250
	18.2	17650	1.0	77.07		B5	72250
	16.3	19636	0.9	85.72		B5	72250
45							
225M4 1400min^{-1}	332.5	1198	1.4	4.21	ITS 952	B5	7820
	269.7	1477	1.4	5.19		B5	8840
	241.4	1650	1.3	5.8		B5	8920
	209.6	1901	1.2	6.68		B5	9430
	188.4	2114	1.1	7.43		B5	9770
	168.5	2364	1.0	8.31		B5	10710
	157.0	2538	0.9	8.92		B5	11390
	127.3	3130	1.3	11		B5	11390
	113.9	3497	1.2	12.29		B5	8500
	98.9	4029	1.0	14.16		B5	8920
	88.9	4481	0.9	15.75		B5	10110
	79.5	5010	0.8	17.61		B5	11220
	321.8	1238	2.0	4.35	ITS 962	B5	14000
	269.8	1477	2.0	5.19		B5	15300
	238.1	1673	1.9	5.88		B5	17930
	207.1	1923	1.9	6.76		B5	19720
	186.9	2131	1.8	7.49		B5	20400
	167.9	2373	1.7	8.34		B5	20400
	152.7	2609	1.6	9.17		B5	19460
	127.7	3118	1.5	10.96		B5	20650
	112.9	3528	1.4	12.4		B5	20650
	98.2	4057	1.3	14.26		B5	20990
	88.6	4495	1.3	15.8		B5	22100
	79.6	5005	1.2	17.59		B5	23880
	71.0	5608	1.1	19.71		B5	23880
	64.9	6140	1.0	21.58		B5	27370
	54.5	7307	1.0	25.68	ITS 962	B5	28640
	50.9	7659	1.0	27.49		B5	11220
	326.3	1221	3.3	4.29	ITS 972	B5	17900
	270.8	1471	3.3	5.17		B5	25070
	242.6	1642	3.2	5.77		B5	26940
	210.5	1892	3.1	6.65		B5	27200
	189.2	2105	2.9	7.4		B5	29750
	169.3	2353	2.9	8.27		B5	31450
	153.3	2598	2.8	9.13		B5	31450
	127.3	3130	2.8	11		B5	28900
	113.9	3497	2.7	12.29		B5	30940
	98.9	4029	2.6	14.16		B5	30940
	88.9	4481	2.4	15.75		B5	30940
	79.5	5010	2.1	17.61		B5	33150
	70.6	5642	1.9	19.83		B5	35610
	64.9	6140	1.8	21.58		B5	35700

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
45							
225M4 1400min^{-1}	54.5	7307	1.4	25.68	ITS 973	B5	38840
	48.6	8029	1.1	28.82		B5	38840
	40.7	9592	1.2	34.43		B5	43010
	35.9	10860	1.0	38.98		B5	46580
	31.2	12489	0.9	44.83		B5	49210
	28.2	13835	0.8	49.66		B5	52530
	128.0	3113	4.9	10.94	ITS 982	B5	33150
	110.6	3602	4.3	12.66		B5	34760
	99.9	3986	4.1	14.01		B5	34850
	89.8	4436	3.9	15.59		B5	36120
	80.6	4939	3.5	17.36		B5	38160
	72.9	5463	3.0	19.2		B5	40800
	65.5	6077	2.8	21.36		B5	43260
	55.1	7230	2.2	25.41	ITS 982	B5	44030
	50.1	7792	2.0	27.97		B5	49130
	41.5	9391	1.8	33.71		B5	53120
	37.2	10470	1.6	37.65		B5	53970
	32.3	12060	1.4	43.37		B5	58560
	29.0	13439	1.3	48.24		B5	62560
	25.9	15033	1.1	53.96		B5	65870
	23.4	16688	1.0	59.9		B5	70120
	20.0	18638	0.9	66.9		B5	72250
55							
250M4 1400min^{-1}	332.5	1464	1.1	4.21	ITS 952	B5	7820
	269.7	1805	1.1	5.19		B5	8840
	241.4	2017	1.1	5.8		B5	8920
	209.6	2323	1.0	6.68		B5	9430
	188.4	2584	0.9	7.43		B5	9770
	168.5	2890	0.8	8.31		B5	10710
	157.0	3102	0.7	8.92		B5	11390
	127.3	3825	1.0	11		B5	11390
	113.9	4274	1.0	12.29		B5	8500
	98.9	4924	0.9	14.16		B5	8920
	321.8	1513	1.7	4.35	ITS 962	B5	11000
	269.8	1805	1.6	5.19		B5	14000
	238.1	2045	1.6	5.88		B5	15300
	207.1	2351	1.5	6.76		B5	17930
	186.9	2605	1.5	7.49		B5	19720
	167.9	2900	1.4	8.34		B5	20400
	152.7	3189	1.3	9.17		B5	20400
	127.7	3811	1.3	10.96		B5	19460
	112.9	4312	1.2	12.4		B5	20650
	98.2	4959	1.1	14.26		B5	20650
	88.6	5494	1.0	15.8		B5	20990
	79.6	6117	1.0	17.59		B5	22100
	71.0	6854	0.9	19.71		B5	23880
	64.9	7504	0.8	21.58		B5	23880
	54.5	8930	0.8	25.68	ITS 962	B5	27370

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
55							
250M4 1400min^{-1}	326.3	1488	2.7	4.29	ITS 972	B5	17900
	270.8	1794	2.7	5.17		B5	25070
	242.6	1998	2.6	5.77		B5	26940
	210.5	2308	2.5	6.65		B5	27200
	189.2	2568	2.4	7.4		B5	29750
	169.3	2873	2.3	8.27		B5	31450
	153.3	3168	2.3	9.13		B5	31450
	127.3	3820	2.3	11		B5	28900
	113.9	4257	2.2	12.29		B5	30940
	98.9	4910	2.2	14.16		B5	30940
	88.9	5465	1.9	15.75		B5	30940
	79.5	6118	1.7	17.61		B5	33150
	70.6	6896	1.5	19.83		B5	35610
	64.9	7504	1.5	21.58		B5	35700
	54.5	8930	1.2	25.68	ITS 973	B5	38840
	48.6	9813	0.9	28.82		B5	38840
	40.7	11724	1.0	34.43		B5	43010
	35.9	13273	0.9	38.98		B5	46580
	153.8	3165	4.6	9.1	ITS 982	B5	31450
	128.0	3804	4.0	10.94		B5	33150
	110.6	4403	3.5	12.66		B5	34760
	99.9	4872	3.4	14.01		B5	34850
	89.8	5421	3.2	15.59		B5	36120
	80.6	6037	2.9	17.36		B5	38160
	72.9	6677	2.4	19.2		B5	40800
	65.5	7428	2.3	21.36		B5	43260
	55.1	8836	1.8	25.41	ITS 983	B5	44030
	50.1	9524	1.6	27.97		B5	49130
	41.5	11460	1.5	33.71		B5	53120
	37.2	12800	1.3	37.65		B5	53970
	32.3	14750	1.2	43.37		B5	58560
	29.0	16400	1.0	48.24		B5	62560
	25.9	18374	0.9	53.96		B5	65870
	23.4	20396	0.8	59.9		B5	70120
75							
280S4 1400min^{-1}	321.8	2063	1.2	4.35	ITS 962	B5	11000
	269.8	2461	1.2	5.19		B5	14000
	238.1	2788	1.1	5.88		B5	15300
	207.1	3206	1.1	6.76		B5	17930
	186.9	3552	1.1	7.49		B5	19720
	167.9	3955	1.0	8.34		B5	20400
	152.7	4348	1.0	9.17		B5	20400
	127.7	5197	0.9	10.96		B5	19460
	112.9	5880	0.9	12.4		B5	20650
	98.2	6762	0.8	14.26		B5	20650
	326.3	2033	2.0	4.29	ITS 972	B5	17900
	270.8	2450	2.0	5.17		B5	25070
	242.6	2730	1.9	5.77		B5	26940
	210.5	3152	1.8	6.65		B5	27200
	189.2	3508	1.7	7.4		B5	29750
	169.3	3925	1.7	8.27		B5	31450
	153.3	4327	1.7	9.13		B5	31450
	127.3	5218	1.7	11		B5	28900
	113.9	5816	1.6	12.29		B5	30940
	98.9	6700	1.6	14.16		B5	30940
	88.9	7465	1.4	15.75		B5	30940
	79.5	8356	1.3	17.61		B5	33150
	70.6	9415	1.1	19.83		B5	35610
	64.9	10233	1.1	21.58		B5	35700
	54.5	12178	0.8	25.68	ITS 973	B5	38840

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
75							
280S4 1400min^{-1}	153.8	4315	3.3	9.1	ITS 982	B5	31450
	128.0	5188	3.0	10.94		B5	33150
	110.6	6003	2.6	12.66		B5	34760
	99.9	6644	2.5	14.01		B5	34850
	89.8	7393	2.3	15.59		B5	36120
	80.6	8232	2.1	17.36		B5	38160
	72.9	9105	1.8	19.2		B5	40800
	65.5	10129	1.7	21.36		B5	43260
	55.1	12050	1.3	25.41	ITS 983	B5	44030
	50.1	12980	1.2	27.97		B5	49130
	41.5	15640	1.1	33.71		B5	53120
	37.2	17470	1.0	37.65		B5	53970
	32.3	20138	0.8	43.37		B5	58560
90							
280M4 1400min^{-1}	326.3	2441	1.7	4.29	ITS 972	B5	17900
	270.8	2942	1.6	5.17		B5	25070
	242.6	3277	1.6	5.77		B5	26940
	210.5	3784	1.5	6.65		B5	27200
	189.2	4210	1.4	7.40		B5	29750
	169.3	4711	1.4	8.27		B5	31450
	153.3	5195	1.4	9.13		B5	31450
	127.3	6265	1.4	11		B5	28900
	113.9	6982	1.4	12.29		B5	30940
	98.9	8051	1.3	14.16		B5	30940
	88.9	8961	1.2	15.75		B5	30940
	79.5	10000	1.1	17.61		B5	33150
	70.6	11284	0.9	19.83		B5	35610
	64.9	12280	0.9	21.58		B5	35700
	153.8	5178	2.8	9.1	ITS 982	B5	31450
	128.0	6225	2.5	10.94		B5	33150
	110.6	7204	2.1	12.66		B5	34760
	99.9	7972	2.1	14.01		B5	34850
	89.8	8871	2.0	15.59		B5	36120
	80.6	9879	1.8	17.36		B5	38160
	72.9	10930	1.5	19.2		B5	40800
	65.5	12160	1.4	21.36		B5	43260
	55.1	14460	1.1	25.41	ITS 983	B5	44030
	50.1	15580	1.0	27.97		B5	49130
	41.5	18783	0.9	33.71		B5	53120
	37.2	20978	0.8	37.65		B5	53970
110							
315S4 1400min^{-1}	326.3	2984	1.4	4.29	ITS 972	B5	17900
	270.8	3596	1.3	5.17		B5	25070
	242.6	4013	1.3	5.77		B5	26940
	210.5	4625	1.3	6.65		B5	27200
	189.2	5147	1.2	7.4		B5	29750
	169.3	5752	1.2	8.27		B5	31450
	153.3	6350	1.1	9.13		B5	31450
	127.3	7651	1.1	11		B5	28900
	113.9	8548	1.1	12.29		B5	30940
	98.9	9848	1.1	14.16		B5	30940
	88.9	10954	1.0	15.75		B5	30940
	79.5	12248	0.9	17.61		B5	33150

IEC - 50 Hz - n_1 1400min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
110							
315S4 1400min^{-1}	153.8	6325	2.3	9.1	ITS 982	B5	31450
	128.0	7600	2.0	10.94		B5	33150
	110.6	8800	1.7	12.66		B5	34760
	99.9	9740	1.7	14.01		B5	34850
	89.8	10830	1.6	15.59		B5	36120
	80.6	12060	1.4	17.36		B5	38160
	72.9	13350	1.2	19.2		B5	40800
	65.5	14850	1.2	21.36		B5	43260
	55.1	17660	0.9	25.41	ITS 983	B5	44030
	50.1	19048	0.8	27.97		B5	49130
132							
315M4 1400min^{-1}	326.3	3580	1.1	4.29	ITS 972	B5	17900
	270.8	4315	1.1	5.17		B5	25070
	242.6	4816	1.1	5.77		B5	26940
	210.5	5550	1.1	6.65		B5	27200
	189.2	6176	1.0	7.4		B5	29750
	169.3	6902	1.0	8.27		B5	31450
	153.3	7620	1.0	9.13		B5	31450
	127.3	9181	0.9	11		B5	28900
	113.9	10257	0.9	12.29		B5	30940
	98.9	11818	0.9	14.16		B5	30940
	88.9	13145	0.8	15.75		B5	30940
	153.8	7600	1.9	9.1	ITS 982	B5	31450
	128.0	9135	1.7	10.94		B5	33150
	110.6	10570	1.5	12.66		B5	34760
	99.9	11700	1.4	14.01		B5	34850
	89.8	13000	1.3	15.59		B5	36120
	80.6	14500	1.2	17.36		B5	38160
	72.9	16000	1.0	19.2		B5	40800
	65.5	17840	1.0	21.36		B5	43260
160							
360S4 1400min^{-1}	153.8	9206	1.6	9.1	ITS 982	B5	31450
	128.0	11067	1.4	10.94		B5	33150
	110.6	12807	1.2	12.66		B5	34760
	99.9	14173	1.2	14.01		B5	34850
	89.8	15771	1.1	15.59		B5	36120
	80.6	17562	1.0	17.36		B5	38160
	72.9	19424	0.8	19.2		B5	40800
	65.5	21609	0.8	21.36		B5	43260
300							
360M4 1400min^{-1}	153.8	11507	1.3	9.1	ITS 982	B5	31450
	128.0	13834	1.1	10.94		B5	33150
	110.6	16009	1.0	12.66		B5	34760
	99.9	17716	0.9	14.01		B5	34850
	89.8	19714	0.9	15.59		B5	36120

Technical data

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
0. 75							
80B4	10. 0	653	6. 1	175. 3	ITS 953	B5	24650
1750min^{-1}	8. 6	758	5. 3	203. 5		B5	24650
	7. 7	845	4. 7	227		B5	
	7. 3	896	4. 5	240. 6		B5	
	6. 4	1016	3. 9	272. 7		B5	
1. 1							
90S4	14. 7	652	6. 1	119. 3	ITS 953	B5	24650
1750min^{-1}	12. 3	775	5. 2	141. 9		B5	24650
	10. 9	874	4. 6	160		B5	24650
	10. 0	958	4. 2	175. 3		B5	24650
	8. 6	1112	3. 6	203. 5		B5	24650
	7. 7	1240	3. 2	227		B5	
	7. 3	1314	3. 0	240. 6		B5	
	6. 4	1490	2. 7	272. 7		B5	
1. 5							
90L4	20. 1	648	6. 2	87. 03	ITS 953	B5	24650
1750min^{-1}	18. 0	725	5. 5	97. 34		B5	24650
	16. 0	816	4. 9	109. 6		B5	24650
	14. 7	889	4. 5	119. 3		B5	24650
	12. 3	1057	3. 8	141. 9		B5	24650
	10. 9	1192	3. 4	160		B5	24650
	10. 0	1306	3. 1	175. 3		B5	24650
	8. 6	1516	2. 6	203. 5		B5	24650
	7. 7	1691	2. 4	227		B5	
	7. 3	1792	2. 2	240. 6		B5	
	6. 4	2031	2. 0	272. 7		B5	
	9. 9	1315	5. 3	176. 5	ITS 963	B5	42330
	8. 5	1526	4. 6	204. 9		B5	42330
	7. 7	1702	4. 1	228. 5		B5	
	7. 2	1804	3. 9	242. 2		B5	
	6. 4	2045	3. 4	274. 5		B5	
2. 2							
100LA4	28. 8	664	6. 0	60. 81	ITS 953	B5	23120
1750min^{-1}	25. 8	742	5. 4	67. 92		B5	24650
	22. 4	855	4. 7	78. 25		B5	24650
	20. 1	951	4. 2	87. 03		B5	24650
	18. 0	1063	3. 8	97. 34		B5	24650
	16. 0	1197	3. 3	109. 6		B5	24650
	14. 7	1303	3. 1	119. 3		B5	24650
	12. 3	1550	2. 6	141. 9		B5	24650
	10. 9	1748	2. 3	160		B5	24650
	10. 0	1915	2. 1	175. 3		B5	24650
	8. 6	2223	1. 8	203. 5		B5	24650
	7. 7	2480	1. 6	227		B5	
	7. 3	2629	1. 5	240. 6		B5	
	6. 4	2979	1. 3	272. 7		B5	
	15. 9	1205	5. 8	110. 3	ITS 963	B5	42330
	14. 6	1312	5. 3	120. 1		B5	42330
	12. 3	1560	4. 5	142. 8		B5	42330
	10. 9	1760	4. 0	161. 1		B5	42330
	9. 9	1928	3. 6	176. 5		B5	42330
	8. 5	2239	3. 1	204. 9		B5	
	7. 7	2496	2. 8	228. 5		B5	
	7. 2	2646	2. 6	242. 2		B5	
	6. 4	2999	2. 3	274. 5		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
3. 0							
100LB4	39. 5	659	6. 1	44. 25	ITS 953	B5	19550
1750min^{-1}	35. 6	733	5. 5	49. 21		B5	20400
	31. 8	820	4. 9	55. 04		B5	21930
	28. 8	906	4. 4	60. 81		B5	23120
	25. 8	1012	4. 0	67. 92		B5	24650
	22. 4	1166	3. 4	78. 25		B5	24650
	20. 1	1297	3. 1	87. 03		B5	24650
	18. 0	1450	2. 8	97. 34		B5	24650
	16. 0	1633	2. 4	109. 6		B5	24650
	14. 7	1777	2. 3	119. 3		B5	24650
	12. 3	2114	1. 9	141. 9		B5	24650
	10. 9	2384	1. 7	160		B5	24650
	10. 0	2612	1. 5	175. 3		B5	24650
	8. 6	3032	1. 3	203. 5		B5	24650
	7. 7	3382	1. 2	227		B5	
	7. 3	3584	1. 1	240. 6		B5	
	22. 2	1173	6. 0	78. 76	ITS 963	B5	42330
	20. 0	1305	5. 4	87. 6		B5	42330
	17. 9	1460	4. 8	97. 98		B5	42330
	15. 9	1643	4. 3	110. 3		B5	42330
	14. 6	1789	3. 9	120. 1		B5	42330
	12. 3	2127	3. 3	142. 8		B5	42330
	10. 9	2400	2. 9	161. 1		B5	42330
	9. 9	2629	2. 7	176. 5		B5	42330
	8. 5	3053	2. 3	204. 9		B5	42330
	7. 7	3404	2. 1	228. 5		B5	
	7. 2	3608	1. 9	242. 2		B5	
	6. 4	4090	1. 7	274. 5		B5	
	12. 4	2104	5. 2	141. 2	ITS 973	B5	58990
	11. 0	2372	4. 6	159. 2		B5	58990
	10. 0	2600	4. 2	174. 5		B5	58990
	8. 6	3018	3. 6	202. 6		B5	58990
	7. 7	3367	3. 3	226		B5	
	7. 3	3568	3. 1	239. 5		B5	
	6. 4	4043	2. 7	271. 4		B5	
4. 0							
112M4	50. 9	683	5. 9	34. 39	ITS 953	B5	17250
1750min^{-1}	45. 6	763	5. 2	38. 4		B5	18610
	39. 5	879	4. 6	44. 25		B5	19550
	35. 6	978	4. 1	49. 21		B5	20400
	31. 8	1093	3. 7	55. 04		B5	21930
	28. 8	1208	3. 3	60. 81		B5	23120
	25. 8	1349	3. 0	67. 92		B5	24650
	22. 4	1554	2. 6	78. 25		B5	24650
	20. 1	1729	2. 3	87. 03		B5	24650
	18. 0	1934	2. 1	97. 34		B5	24650
	16. 0	2177	1. 8	109. 6		B5	24650
	14. 7	2370	1. 7	119. 3		B5	24650
	12. 3	2819	1. 4	141. 9		B5	24650
	10. 9	3178	1. 3	160		B5	24650
	10. 0	3482	1. 1	175. 3		B5	24650
	8. 6	4042	1. 0	203. 5		B5	24650
	28. 1	1236	5. 7	62. 21	ITS 963	B5	40630
	25. 6	1358	5. 2	68. 36		B5	42330
	22. 2	1564	4. 5	78. 76		B5	42330
	20. 0	1740	4. 0	87. 6		B5	42330
	17. 9	1946	3. 6	97. 98		B5	42330
	15. 9	2191	3. 2	110. 3		B5	42330

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
4. 0							
112M4 1750min^{-1}	14. 6	2386	2. 9	120. 1	ITS 963	B5	42330
	12. 3	2837	2. 5	142. 8		B5	42330
	10. 9	3200	2. 2	161. 1		B5	42330
	9. 9	3506	2. 0	176. 5		B5	42330
	8. 5	4070	1. 7	204. 9		B5	42330
	7. 7	4539	1. 5	228. 5		B5	
	7. 2	4811	1. 5	242. 2		B5	
	6. 4	5453	1. 3	274. 5		B5	
	18. 1	1922	5. 7	96. 76	ITS 973	B5	58990
	16. 1	2153	5. 1	108. 4		B5	58990
	14. 7	2358	4. 7	118. 7		B5	58990
	12. 4	2805	3. 9	141. 2		B5	58990
	11. 0	3162	3. 5	159. 2		B5	58990
	10. 0	3466	3. 2	174. 5		B5	58990
	8. 6	4024	2. 7	202. 6		B5	58990
	7. 7	4489	2. 5	226		B5	
	7. 3	4757	2. 3	239. 5		B5	
	6. 4	5391	2. 0	271. 4		B5	
	12. 5	2777	6. 5	139. 8	ITS 983	B5	72250
	11. 1	3131	5. 7	157. 6		B5	72250
	10. 1	3431	5. 2	172. 7		B5	72250
	9. 2	3782	4. 8	190. 4		B5	72250
	8. 3	4201	4. 3	211. 5		B5	
	7. 4	4708	3. 8	237. 0		B5	
	6. 5	5335	3. 4	268. 6		B5	
5. 5							
132S4 1750min^{-1}	68. 1	701	5. 7	25. 68	ITS 953	B5	14280
	60. 8	787	5. 1	28. 8		B5	15210
	50. 9	939	4. 3	34. 39		B5	17250
	45. 6	1049	3. 8	38. 4		B5	18610
	39. 5	1209	3. 3	44. 25		B5	19550
	35. 6	1344	3. 0	49. 21		B5	20400
	31. 8	1503	2. 7	55. 04		B5	21930
	28. 8	1661	2. 4	60. 81		B5	23120
	25. 8	1855	2. 2	67. 92		B5	24650
	22. 4	2137	1. 9	78. 25		B5	24650
	20. 1	2377	1. 7	87. 03		B5	24650
	18. 0	2659	1. 5	97. 34		B5	24650
	16. 0	2994	1. 3	109. 6		B5	24650
	14. 7	3258	1. 2	119. 3		B5	24650
	12. 3	3876	1. 0	141. 9		B5	24650
	40. 1	1192	5. 9	43. 66	ITS 963	B5	35700
	36. 0	1326	5. 3	48. 56		B5	35700
	32. 2	1483	4. 7	54. 31		B5	38330
	28. 6	1672	4. 2	61. 21		B5	40630
	25. 6	1867	3. 7	68. 36		B5	42330
	22. 2	2151	3. 3	78. 76		B5	42330
	20. 0	2393	2. 9	87. 6		B5	42330
	17. 9	2676	2. 6	97. 98		B5	42330
	15. 9	3013	2. 3	110. 3		B5	42330
	14. 6	3280	2. 1	120. 1		B5	42330
	12. 3	3900	1. 8	142. 8		B5	42330
	10. 9	4400	1. 6	161. 1		B5	42330
	9. 9	4821	1. 5	176. 5		B5	42330
	8. 5	5596	1. 3	204. 9		B5	42330
	7. 7	6241	1. 1	228. 5		B5	
	7. 2	6615	1. 1	242. 2		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
5. 5							
132S4 1750min^{-1}	25. 7	1863	5. 9	68. 22	ITS 973	B5	58990
	22. 3	2143	5. 1	78. 46		B5	58990
	20. 1	2373	4. 6	86. 9		B5	58990
	18. 1	2643	4. 2	96. 76		B5	58990
	16. 1	2961	3. 7	108. 4		B5	58990
	14. 7	3242	3. 4	118. 7		B5	58990
	12. 4	3857	2. 9	141. 2		B5	58990
	11. 0	4348	2. 5	159. 2		B5	58990
	10. 0	4766	2. 3	174. 5		B5	58990
	8. 6	5534	2. 0	202. 6		B5	58990
	7. 7	6173	1. 8	226		B5	
	7. 3	6541	1. 7	239. 5		B5	
	6. 4	7413	1. 5	271. 4		B5	
	16. 2	2950	6. 1	108	ITS 983	B5	72250
	14. 9	3209	5. 6	117. 5		B5	72250
	12. 5	3818	4. 7	139. 8		B5	72250
	11. 1	4305	4. 2	157. 6		B5	72250
	10. 1	4717	3. 8	172. 7		B5	72250
	9. 2	5200	3. 5	190. 4		B5	72250
	8. 3	5777	3. 1	211. 5		B5	
	7. 4	6473	2. 8	237		B5	
	6. 5	7336	2. 5	268. 6		B5	
7. 5							
132MA4 1750min^{-1}	99. 4	678	5. 9	17. 61	ITS 952	B5	11220
	88. 3	763	5. 2	19. 83		B5	11220
	81. 1	830	4. 8	21. 58		B5	12410
	68. 1	956	4. 2	25. 68	ITS 953	B5	14280
	60. 8	1073	3. 7	28. 8		B5	15210
	50. 9	1281	3. 1	34. 39		B5	17250
	45. 6	1430	2. 8	38. 4		B5	18610
	39. 5	1648	2. 4	44. 25		B5	19550
	35. 6	1833	2. 2	49. 21		B5	20400
	31. 8	2050	2. 0	55. 04		B5	21930
	28. 8	2265	1. 8	60. 81		B5	23120
	25. 8	2530	1. 6	67. 92		B5	24650
	22. 4	2914	1. 4	78. 25		B5	24650
	20. 1	3241	1. 2	87. 03		B5	24650
	18. 0	3625	1. 1	97. 34		B5	24650
	16. 0	4082	1. 0	109. 6		B5	24650
	51. 6	1264	5. 5	33. 93	ITS 963	B5	31020
	46. 2	1411	5. 0	37. 89		B5	33570
	40. 1	1626	4. 3	43. 66		B5	35700
	36. 0	1809	3. 9	48. 56		B5	35700
	32. 2	2023	3. 5	54. 31		B5	38330
	28. 6	2280	3. 1	61. 21		B5	40630
	25. 6	2546	2. 7	68. 36		B5	42330
	22. 2	2933	2. 4	78. 76		B5	42330
	20. 0	3263	2. 1	87. 6		B5	42330
	17. 9	3649	1. 9	97. 98		B5	42330
	15. 9	4108	1. 7	110. 3		B5	42330
	14. 6	4473	1. 6	120. 1		B5	42330
	12. 3	5319	1. 3	142. 8		B5	42330
	10. 9	6000	1. 2	161. 1		B5	42330
	9. 9	6574	1. 1	176. 5		B5	42330

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
7.5							
132MA4 1750min^{-1}	35.2	1850	5.9	49.66	ITS 973	B5	52530
	31.7	2059	5.3	55.29		B5	52530
	29.0	2244	4.9	60.25		B5	55500
	25.7	2541	4.3	68.22		B5	58990
	22.3	2922	3.8	78.46		B5	58990
	20.1	3237	3.4	86.9		B5	58990
	18.1	3604	3.1	96.76		B5	58990
	16.1	4037	2.7	108.4		B5	58990
	14.7	4421	2.5	118.7		B5	58990
	12.4	5259	2.1	141.2		B5	58990
	11.0	5929	1.9	159.2		B5	58990
	10.0	6499	1.7	174.5		B5	58990
	8.6	7546	1.5	202.6		B5	58990
	7.7	8417	1.3	226		B5	
	7.3	8920	1.2	239.5		B5	
	6.4	10108	1.1	271.4		B5	
	22.7	2870	6.3	77.07	ITS 983	B5	72250
	20.4	3193	5.6	85.72		B5	72250
	18.3	3571	5.0	95.88		B5	72250
	16.2	4022	4.5	108		B5	72250
	14.9	4376	4.1	117.5		B5	72250
	12.5	5207	3.5	139.8		B5	72250
	11.1	5870	3.1	157.6		B5	72250
	10.1	6432	2.8	172.7		B5	72250
	9.2	7091	2.5	190.4		B5	72250
	8.3	7877	2.3	211.5		B5	
	7.4	8827	2.0	237		B5	
	6.5	10004	1.8	268.6		B5	
11							
160M4 1750min^{-1}	142.4	693	5.8	12.29	ITS 952	B5	8500
	123.6	799	5.0	14.16		B5	8920
	111.1	889	4.5	15.75		B5	10110
	99.4	994	4.0	17.61		B5	11220
	88.3	1119	3.6	19.83		B5	11220
	81.1	1218	3.3	21.58		B5	12410
	68.1	1403	2.9	25.68	ITS 953	B5	14280
	60.8	1573	2.5	28.8		B5	15210
	50.9	1879	2.1	34.39		B5	17250
	45.6	2098	1.9	38.4		B5	18610
	39.5	2417	1.7	44.25		B5	19550
	35.6	2688	1.5	49.21		B5	20400
	31.8	3007	1.3	55.04		B5	21930
	28.8	3322	1.2	60.81		B5	23120
	25.8	3710	1.1	67.92		B5	24650
	99.5	993	993	17.59	ITS 962	B5	22100
	88.8	1112	1112	19.71		B5	23880
	81.1	1218	1218	21.58		B5	23880
	68.1	1403	1403	25.68	ITS 963	B5	27370
	63.7	1502	1502	27.49		B5	28640
	51.6	1853	1853	33.93		B5	31020
	46.2	2070	2070	37.89		B5	33570
	40.1	2385	2385	43.66		B5	35700
	36.0	2653	2653	48.56		B5	35700
	32.2	2967	2967	54.31		B5	38330
	28.6	3344	3344	61.21		B5	40630
	25.6	3734	3734	68.36		B5	42330
	22.2	4302	4302	78.76		B5	42330
	20.0	4785	4785	87.6		B5	42330
	17.9	5352	5352	97.98		B5	42330
	15.9	6025	6025	110.3		B5	42330
	14.6	6561	6561	120.1		B5	42330

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
11							
160M4 1750min^{-1}	60.7	1574	7.0	28.82	ITS 973	B5	38840
	50.8	1881	5.8	34.43		B5	43010
	44.9	2129	5.2	38.98		B5	46580
	39.0	2449	4.5	44.83		B5	49210
	35.2	2713	4.1	49.66		B5	52530
	31.7	3020	3.6	55.29		B5	52530
	29.0	3291	3.3	60.25		B5	55500
	25.7	3727	3.0	68.22		B5	58990
	22.3	4286	2.6	78.46		B5	58990
	20.1	4747	2.3	86.9		B5	58990
	18.1	5286	2.1	96.76		B5	58990
	16.1	5921	1.9	108.4		B5	58990
	14.7	6484	1.7	118.7		B5	58990
	12.4	7713	1.4	141.2		B5	58990
	11.0	8696	1.3	159.2		B5	58990
	10.0	9532	1.2	174.5		B5	58990
	8.6	11067	1.0	202.6		B5	58990
	32.4	2948	6.1	53.96	ITS 983	B5	65870
	29.2	3272	5.5	59.9		B5	70120
	26.2	3654	4.9	66.9		B5	72250
	22.7	4210	4.3	77.07		B5	72250
	20.4	4683	3.8	85.72		B5	72250
	18.3	5238	3.4	95.88		B5	72250
	16.2	5900	3.1	108		B5	72250
	14.9	6419	2.8	117.5		B5	72250
	12.5	7637	2.4	139.8		B5	72250
	11.1	8609	2.1	157.6		B5	72250
	10.1	9434	1.9	172.7		B5	72250
	9.2	10401	1.7	190.4		B5	72250
	8.3	11553	1.6	211.5		B5	
	7.4	12946	1.4	237		B5	
	6.5	14673	1.2	268.6		B5	
15							
160M4 1750min^{-1}	415.7	324	12.3	4.21	ITS 952	B5	7820
	337.2	399	10.0	5.19		B5	8840
	301.7	446	9.0	5.8		B5	8920
	262.0	514	7.8	6.68		B5	9430
	235.5	572	7.0	7.43		B5	9770
	210.6	639	6.3	8.31		B5	10710
	196.2	686	5.8	8.92		B5	11390
	159.1	846	4.7	11		B5	11390
	142.4	946	4.2	12.29		B5	8500
	123.6	1090	3.7	14.16		B5	8920
	111.1	1212	3.3	15.75		B5	10110
	99.4	1355	3.0	17.61		B5	11220
	88.3	1526	2.6	19.83		B5	11220
	81.1	1660	2.4	21.58		B5	12410
	68.1	1913	2.1	25.68	ITS 953	B5	14280
	60.8	2145	1.9	28.8		B5	15210
	50.9	2562	1.6	34.39		B5	17250
	45.6	2860	1.4	38.4		B5	18610
	39.5	3296	1.2	44.25		B5	19550
	35.6	3666	1.1	49.21		B5	20400

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
15							
160M4 1750min^{-1}	190.8	706	9.9	9.17	ITS 962	B5	20400
	159.7	843	8.3	10.96		B5	19460
	141.1	954	7.3	12.4		B5	20650
	122.7	1097	6.4	14.26		B5	20650
	110.8	1216	5.8	15.8		B5	20990
	99.5	1353	5.2	17.59		B5	22100
	88.8	1517	4.6	19.71		B5	23880
	81.1	1660	4.2	21.58		B5	23880
	63.7	2048	3.7	25.68	ITS 963	B5	27370
	51.6	2527	3.4	27.49		B5	28640
	46.2	2822	2.8	33.93		B5	31020
	40.1	3252	2.5	37.89		B5	33570
	36.0	3617	2.2	43.66		B5	35700
	32.2	4046	1.9	48.56		B5	35700
	28.6	4560	1.7	54.31		B5	38330
	25.6	5092	1.5	61.21		B5	40630
	22.2	5867	1.4	68.36		B5	42330
	20.0	6525	1.2	78.76		B5	42330
	17.9	7299	1.1	87.6		B5	42330
			1.0	97.98		B5	42330
	68.1	1913	5.8	25.68	ITS 973	B5	38840
	60.7	2147	5.1	28.82		B5	38840
	50.8	2565	4.3	34.43		B5	43010
	44.9	2904	3.8	38.98		B5	46580
	39.0	3339	3.3	44.83		B5	49210
	35.2	3699	3.0	49.66		B5	52530
	31.7	4119	2.7	55.29		B5	52530
	29.0	4488	2.5	60.25		B5	55500
	25.7	5082	2.2	68.22		B5	58990
	22.3	5844	1.9	78.46		B5	58990
	20.1	6473	1.7	86.90		B5	58990
	18.1	7208	1.5	96.76		B5	58990
	16.1	8075	1.4	108.4		B5	58990
	14.7	8842	1.2	118.7		B5	58990
	12.4	10518	1.0	141.2		B5	58990
	46.5	2805	6.4	37.65	ITS 983	B5	53970
	40.4	3231	5.6	43.37		B5	58560
	36.3	3593	5.0	48.24		B5	62560
	32.4	4019	4.5	53.96		B5	65870
	29.2	4462	4.0	59.90		B5	70120
	26.2	4983	3.6	66.90		B5	72250
	22.7	5741	3.1	77.07		B5	72250
	20.4	6385	2.8	85.72		B5	72250
	18.3	7142	2.5	95.88		B5	72250
	16.2	8045	2.2	108		B5	72250
	14.9	8753	2.1	117.5		B5	72250
	12.5	10414	1.7	139.8		B5	72250
	11.1	11740	1.5	157.6		B5	72250
	10.1	12864	1.4	172.7		B5	72250
	9.2	14183	1.3	190.4		B5	72250
	8.3	15755	1.1	211.5		B5	

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
18.5							
160L4 1750min^{-1}	415.7	400	10.0	4.21	ITS 952	B5	7820
	337.2	493	8.1	5.19		B5	8840
	301.7	550	7.3	5.8		B5	8920
	262.0	634	6.3	6.68		B5	9430
	235.5	705	5.7	7.43		B5	9770
	210.6	789	5.1	8.31		B5	10710
	196.2	847	4.7	8.92		B5	11390
	159.1	1044	3.8	11		B5	11390
	142.4	1166	3.4	12.29		B5	8500
	123.6	1344	3.0	14.16		B5	8920
	111.1	1495	2.7	15.75		B5	10110
	99.4	1671	2.4	17.61		B5	11220
	88.3	1882	2.1	19.83		B5	11220
	81.1	2048	2.0	21.58		B5	12410
	68.1	2359	1.7	25.68	ITS 952	B5	14280
	60.8	2646	1.5	28.80		B5	15210
	50.9	3159	1.3	34.39		B5	17250
	45.6	3528	1.1	38.40		B5	18610
	39.5	4065	1.0	44.25		B5	19550
	402.3	413	17.0	4.35	ITS 962	B5	11000
	337.2	493	14.2	5.19		B5	14000
	297.6	558	12.5	5.88		B5	15300
	258.9	642	10.9	6.76		B5	17930
	233.6	711	9.8	7.49		B5	19720
	209.8	791	8.8	8.34		B5	20400
	190.8	870	8.0	9.17		B5	20400
	159.7	1040	6.7	10.96		B5	19460
	141.1	1177	5.9	12.4		B5	20650
	122.7	1353	5.2	14.26		B5	20650
	110.8	1499	4.7	15.8		B5	20990
	99.5	1669	4.2	17.59		B5	22100
	88.8	1870	3.7	19.71		B5	23880
	81.1	2048	3.4	21.58		B5	23880
	68.1	2359	3.0	25.68	ITS 963	B5	27370
	63.7	2526	2.8	27.49		B5	28640
	51.6	3117	2.2	33.93		B5	31020
	46.2	3481	2.0	37.89		B5	33570
	40.1	4011	1.7	43.66		B5	35700
	36.0	4461	1.6	48.56		B5	35700
	32.2	4990	1.4	54.31		B5	38330
	28.6	5623	1.2	61.21		B5	40630
	25.6	6280	1.1	68.36		B5	42330
	22.2	7236	1.0	78.76		B5	42330
	88.3	1882	5.8	19.83	ITS 972	B5	35610
	81.1	2048	5.4	21.58		B5	35700
	68.1	2359	4.7	25.68	ITS 973	B5	38840
	60.7	2648	4.2	28.82		B5	38840
	50.8	3163	3.5	34.43		B5	43010
	44.9	3581	3.1	38.98		B5	46580
	39.0	4119	2.7	44.83		B5	49210
	35.2	4562	2.4	49.66		B5	52530
	31.7	5080	2.2	55.29		B5	52530
	29.0	5535	2.0	60.25		B5	55500
	25.7	6267	1.8	68.22		B5	58990
	22.3	7208	1.5	78.46		B5	58990
	20.1	7984	1.4	86.9		B5	58990
	18.1	8889	1.2	96.76		B5	58990
	16.1	9959	1.1	108.4		B5	58990
	14.7	10905	1.0	118.7		B5	58990

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
18. 5							
160L4 1750min^{-1}	62. 6	2570	7. 0	27. 97	ITS 983	B5	49130
	51. 9	3097	5. 8	33. 71		B5	53120
	46. 5	3459	5. 2	37. 65		B5	53970
	40. 4	3984	4. 5	43. 37		B5	58560
	36. 3	4432	4. 1	48. 24		B5	62560
	32. 4	4957	3. 6	53. 96		B5	65870
	29. 2	5503	3. 3	59. 90		B5	70120
	26. 2	6146	2. 9	66. 90		B5	72250
	22. 7	7080	2. 5	77. 07		B5	72250
	20. 4	7875	2. 3	85. 72		B5	72250
	18. 3	8809	2. 0	95. 88		B5	72250
	16. 2	9922	1. 8	108		B5	72250
	14. 9	10795	1. 7	117. 5		B5	72250
	12. 5	12844	1. 4	139. 8		B5	72250
	11. 1	14479	1. 2	157. 6		B5	72250
	10. 1	15866	1. 1	172. 7		B5	72250
22							
180L4 1750min^{-1}	415. 7	475	8. 4	4. 21	ITS 952	B5	7820
	337. 2	586	6. 8	5. 19		B5	8840
	301. 7	655	6. 1	5. 80		B5	8920
	262. 0	754	5. 3	6. 68		B5	9430
	235. 5	839	4. 8	7. 43		B5	9770
	210. 6	938	4. 3	8. 31		B5	10710
	196. 2	1007	4. 0	8. 92		B5	11390
	159. 1	1241	3. 2	11		B5	11390
	142. 4	1387	2. 9	12. 29		B5	8500
	123. 6	1598	2. 5	14. 16		B5	8920
	111. 1	1777	2. 3	15. 75		B5	10110
	99. 4	1987	2. 0	17. 61		B5	11220
	88. 3	2238	1. 8	19. 83		B5	11220
	81. 1	2435	1. 6	21. 58		B5	12410
	68. 1	2806	1. 4	25. 68	ITS 953	B5	14280
	60. 8	3146	1. 3	28. 8		B5	15210
	50. 9	3757	1. 1	34. 39		B5	17250
	402. 3	491	14. 3	4. 35	ITS 962	B5	11000
	337. 2	586	12. 0	5. 19		B5	14000
	297. 6	664	10. 5	5. 88		B5	15300
	258. 9	763	9. 2	6. 76		B5	17930
	233. 6	845	8. 3	7. 49		B5	19720
	209. 8	941	7. 4	8. 34		B5	20400
	190. 8	1035	6. 8	9. 17		B5	20400
	159. 7	1237	5. 7	10. 96		B5	19460
	141. 1	1399	5. 0	12. 4		B5	20650
	122. 7	1609	4. 3	14. 26		B5	20650
	110. 8	1783	3. 9	15. 8		B5	20990
	99. 5	1985	3. 5	17. 59		B5	22100
	88. 8	2224	3. 1	19. 71		B5	23880
	81. 1	2435	2. 9	21. 58		B5	23880
	68. 1	2806	2. 5	25. 68	ITS 963	B5	27370
	63. 7	3003	2. 3	27. 49		B5	28640
	51. 6	3707	1. 9	33. 93		B5	31020
	46. 2	4140	1. 7	37. 89		B5	33570
	40. 1	4770	1. 5	43. 66		B5	35700
	36. 0	5305	1. 3	48. 56		B5	35700
	32. 2	5933	1. 2	54. 31		B5	38330
	28. 6	6687	1. 0	61. 21		B5	40630

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
22							
180L4 1750min^{-1}	111. 1	1777	6. 2	15. 75	ITS 972	B5	30940
	99. 4	1987	5. 5	17. 61		B5	33150
	88. 3	2238	4. 9	19. 83		B5	35610
	81. 1	2435	4. 5	21. 58		B5	35700
	68. 1	2806	3. 9	25. 68	ITS 973	B5	38840
	60. 7	3149	3. 5	28. 82		B5	38840
	50. 8	3762	2. 9	34. 43		B5	43010
	44. 9	4259	2. 6	38. 98		B5	46580
	39. 0	4898	2. 2	44. 83		B5	49210
	35. 2	5425	2. 0	49. 66		B5	52530
	31. 7	6041	1. 8	55. 29		B5	52530
	29. 0	6582	1. 7	60. 25		B5	55500
	25. 7	7453	1. 5	68. 22		B5	58990
	22. 3	8572	1. 3	78. 46		B5	58990
	20. 1	9494	1. 2	86. 9		B5	58990
	18. 1	10571	1. 0	96. 76		B5	58990
	68. 9	2776	6. 5	25. 41	ITS 983	B5	44030
	62. 6	3056	5. 9	27. 97		B5	49130
	51. 9	3683	4. 9	33. 71		B5	53120
	46. 5	4113	4. 4	37. 65		B5	53970
	40. 4	4738	3. 8	43. 37		B5	58560
	36. 3	5270	3. 4	48. 24		B5	62560
	32. 4	5895	3. 1	53. 96		B5	65870
	29. 2	6544	2. 8	59. 9		B5	70120
	26. 2	7309	2. 5	66. 9		B5	72250
	22. 7	8420	2. 1	77. 07		B5	72250
	20. 4	9365	1. 9	85. 72		B5	72250
	18. 3	10475	1. 7	95. 88		B5	72250
	16. 2	11799	1. 5	108		B5	72250
	14. 9	12837	1. 4	117. 5		B5	72250
	12. 5	15273	1. 2	139. 8		B5	72250
30							
200L4 1750min^{-1}	415. 7	648	6. 2	4. 21	ITS 952	B5	7820
	337. 2	799	5. 0	5. 19		B5	8840
	301. 7	893	4. 5	5. 80		B5	8920
	262. 0	1028	3. 9	6. 68		B5	9430
	235. 5	1143	3. 5	7. 43		B5	9770
	210. 6	1279	3. 1	8. 31		B5	10710
	196. 2	1373	2. 9	8. 92		B5	11390
	159. 1	1693	2. 4	11		B5	11390
	142. 4	1891	2. 1	12. 29		B5	8500
	123. 6	2179	1. 8	14. 16		B5	8920
	111. 1	2424	1. 7	15. 75		B5	10110
	99. 4	2710	1. 5	17. 61		B5	11220
	88. 3	3052	1. 3	19. 83		B5	11220
	81. 1	3321	1. 2	21. 58		B5	12410
	68. 1	3826	1. 0	25. 68	ITS 953	B5	14280

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
30							
200L4 1750min^{-1}	402.3	669	10.5	4.35	ITS 962	B5	11000
	337.2	799	8.8	5.19		B5	14000
	297.6	905	7.7	5.88		B5	15300
	258.9	1040	6.7	6.76		B5	17930
	233.6	1153	6.1	7.49		B5	19720
	209.8	1283	5.5	8.34		B5	20400
	190.8	1411	5.0	9.17		B5	20400
	159.7	1687	4.2	10.96		B5	19460
	141.1	1908	3.7	12.4		B5	20650
	122.7	2194	3.2	14.26		B5	20650
	110.8	2431	2.9	15.8		B5	20990
	99.5	2707	2.6	17.59		B5	22100
	88.8	3033	2.3	19.71		B5	23880
	81.1	3321	2.1	21.58		B5	23880
	68.1	3826	1.8	25.68	ITS 963	B5	27370
	63.7	4095	1.7	27.49		B5	28640
	51.6	5055	1.4	33.93		B5	31020
	46.2	5645	1.2	37.89		B5	33570
	40.1	6504	1.1	43.66		B5	35700
	36.0	7234	1.0	48.56		B5	35700
	338.5	796	13.8	5.17	ITS 972	B5	25070
	303.3	888	12.4	5.77		B5	26940
	263.2	1023	10.7	6.65		B5	27200
	236.5	1139	9.7	7.4		B5	29750
	211.6	1273	8.6	8.27		B5	31450
	191.7	1405	7.8	9.13		B5	31450
	159.1	1693	6.5	11		B5	28900
	142.4	1891	5.8	12.29		B5	30940
	123.6	2179	5.0	14.16		B5	30940
	111.1	2424	4.5	15.75		B5	30940
	99.4	2710	4.1	17.61		B5	33150
	88.3	3052	3.6	19.83		B5	35610
	81.1	3321	3.3	21.58		B5	35700
	68.1	3826	2.9	25.68	ITS 973	B5	38840
	60.7	4294	2.6	28.82		B5	38840
	50.8	5129	2.1	34.43		B5	43010
	44.9	5807	1.9	38.98		B5	46580
	39.0	6679	1.6	44.83		B5	49210
	35.2	7398	1.5	49.66		B5	52530
	31.7	8237	1.3	55.29		B5	52530
	29.0	8976	1.2	60.25		B5	55500
	25.7	10163	1.1	68.22		B5	58990
	91.1	2955	6.1	19.2	ITS 982	B5	40800
	81.9	3287	5.5	21.36		B5	43260
	68.9	3786	4.8	25.41	ITS 983	B5	44030
	62.6	4167	4.3	27.97		B5	49130
	51.9	5022	3.6	33.71		B5	53120
	46.5	5609	3.2	37.65		B5	53970
	40.4	6461	2.8	43.37		B5	58560
	36.3	7187	2.5	48.24		B5	62560
	32.4	8039	2.2	53.96		B5	65870
	29.2	8924	2.0	59.9		B5	70120
	26.2	9967	1.8	66.9		B5	72250
	22.7	11482	1.6	77.07		B5	72250
	20.4	12771	1.4	85.72		B5	72250
	18.3	14284	1.3	95.88		B5	72250
	16.2	16090	1.1	108		B5	72250

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
37							
225S4 1750min^{-1}	415.7	799	5.0	4.21	ITS 952	B5	7820
	337.2	985	4.1	5.19		B5	8840
	301.7	1101	3.6	5.8		B5	8920
	262.0	1268	3.2	6.68		B5	9430
	235.5	1410	2.8	7.43		B5	9770
	210.6	1577	2.5	8.31		B5	10710
	196.2	1693	2.4	8.92		B5	11390
	159.1	2088	1.9	11		B5	11390
	142.4	2333	1.7	12.29		B5	8500
	123.6	2688	1.5	14.16		B5	8920
	111.1	2989	1.3	15.75		B5	10110
	99.4	3342	1.2	17.61		B5	11220
	88.3	3764	1.1	19.83		B5	11220
	81.1	4096	1.0	21.58		B5	12410
	402.3	826	8.5	4.35	ITS 962	B5	11000
	337.2	985	7.1	5.19		B5	14000
	297.6	1116	6.3	5.88		B5	15300
	258.9	1283	5.5	6.76		B5	17930
	233.6	1422	4.9	7.49		B5	19720
	209.8	1583	4.4	8.34		B5	20400
	190.8	1740	4.0	9.17		B5	20400
	159.7	2080	3.4	10.96		B5	19460
	141.1	2354	3.0	12.4		B5	20650
	122.7	2707	2.6	14.26		B5	20650
	110.8	2999	2.3	15.8		B5	20990
	99.5	3339	2.1	17.59		B5	22100
	88.8	3741	1.9	19.71		B5	23880
	81.1	4096	1.7	21.58		B5	23880
	68.1	4718	1.5	25.68	ITS 963	B5	27370
	63.7	5051	1.4	27.49		B5	28640
	51.6	6234	1.1	33.93		B5	31020
	46.2	6962	1.0	37.89		B5	33570
	407.9	814	13.5	4.29	ITS 972	B5	17900
	338.5	981	11.2	5.17		B5	25070
	303.3	1095	10.0	5.77		B5	26940
	263.2	1262	8.7	6.65		B5	27200
	236.5	1405	7.8	7.4		B5	29750
	211.6	1570	7.0	8.27		B5	31450
	191.7	1733	6.3	9.13		B5	31450
	159.1	2088	5.3	11		B5	28900
	142.4	2333	4.7	12.29		B5	30940
	123.6	2688	4.1	14.16		B5	30940
	111.1	2989	3.7	15.75		B5	30940
	99.4	3342	3.3	17.61		B5	33150
	88.3	3764	2.9	19.83		B5	35610
	81.1	4096	2.7	21.58		B5	35700
	68.1	4718	2.3	25.68	ITS 973	B5	38840
	60.7	5295	2.1	28.82		B5	38840
	50.8	6326	1.7	34.43		B5	43010
	44.9	7162	1.5	38.98		B5	46580
	39.0	8237	1.3	44.83		B5	49210
	35.2	9125	1.2	49.66		B5	52530
	31.7	10159	1.1	55.29		B5	52530
	29.0	11070	1.0	60.25		B5	55500

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
37							
225S4 1750min^{-1}	124.9	2659	6.8	14.01	ITS 982	B5	34850
	112.3	2959	6.1	15.59		B5	36120
	100.8	3295	5.5	17.36		B5	38160
	91.1	3644	4.9	19.2		B5	40800
	81.9	4054	4.4	21.36		B5	43260
	68.9	4669	3.9	25.41	ITS 983	B5	44030
	62.6	5139	3.5	27.97		B5	49130
	51.9	6194	2.9	33.71		B5	53120
	46.5	6918	2.6	37.65		B5	53970
	40.4	7969	2.3	43.37		B5	58560
	36.3	8864	2.0	48.24		B5	62560
	32.4	9915	1.8	53.96		B5	65870
	29.2	11006	1.6	59.9		B5	70120
	26.2	12292	1.5	66.9		B5	72250
	22.7	14161	1.3	77.07		B5	72250
		15750	1.1	85.72		B5	72250
45							
225M4 1750min^{-1}	415.7	972	4.1	4.21	ITS 952	B5	7820
	337.2	1198	3.3	5.19		B5	8840
	301.7	1339	3.0	5.8		B5	8920
	262.0	1542	2.6	6.68		B5	9430
	235.5	1715	2.3	7.43		B5	9770
	210.6	1918	2.1	8.31		B5	10710
	196.2	2059	1.9	8.92		B5	11390
	159.1	2539	1.6	11		B5	11390
	142.4	2837	1.4	12.29		B5	8500
	123.6	3269	1.2	14.16		B5	8920
	111.1	3636	1.1	15.75		B5	10110
	99.4	4065	1.0	17.61		B5	11220
	402.3	1004	7.0	4.35	ITS 962	B5	14000
	337.2	1198	5.8	5.19		B5	15300
	297.6	1357	5.2	5.88		B5	17930
	258.9	1560	4.5	6.76		B5	19720
	233.6	1729	4.0	7.49		B5	20400
	209.8	1925	3.6	8.34		B5	20400
	190.8	2117	3.3	9.17		B5	19460
	159.7	2530	2.8	10.96		B5	20650
	141.1	2862	2.4	12.4		B5	20650
	122.7	3292	2.1	14.26		B5	20990
	110.8	3647	1.9	15.8		B5	22100
	99.5	4060	1.7	17.59		B5	23880
	88.8	4550	1.5	19.71		B5	23880
	81.1	4981	1.4	21.58		B5	27370
	68.1	5739	1.2	25.68	ITS 962	B5	28640
	63.7	6143	1.1	27.49		B5	11220
	407.9	990	11.1	4.29	ITS 972	B5	17900
	338.5	1193	9.2	5.17		B5	25070
	303.3	1332	8.3	5.77		B5	26940
	263.2	1535	7.2	6.65		B5	27200
	236.5	1708	6.4	7.4		B5	29750
	211.6	1909	5.8	8.27		B5	31450
	191.7	2108	5.2	9.13		B5	31450
	159.1	2539	4.3	11		B5	28900
	142.4	2837	3.9	12.29		B5	30940
	123.6	3269	3.4	14.16		B5	30940
	111.1	3636	3.0	15.75		B5	30940
	99.4	4065	2.7	17.61		B5	33150
	88.3	4578	2.4	19.83		B5	35610
	81.1	4981	2.2	21.58		B5	35700

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
45							
225M4 1750min^{-1}	68.1	5739	1.9	25.68	ITS 973	B5	38840
	60.7	6440	1.7	28.82		B5	38840
	50.8	7694	1.4	34.43		B5	43010
	44.9	8711	1.3	38.98		B5	46580
	39.0	10018	1.1	44.83		B5	49210
	35.2	11098	1.0	49.66		B5	52530
	160.0	2525	7.1	10.94	ITS 982	B5	33150
	138.2	2922	6.2	12.66		B5	34760
	124.9	3234	5.6	14.01		B5	34850
	112.3	3599	5.0	15.59		B5	36120
	100.8	4007	4.5	17.36		B5	38160
	91.1	4432	4.1	19.2		B5	40800
	81.9	4931	3.7	21.36		B5	43260
	68.9	5678	3.2	25.41	ITS 982	B5	44030
	62.6	6250	2.9	27.97		B5	49130
	51.9	7533	2.4	33.71		B5	53120
	46.5	8414	2.1	37.65		B5	53970
	40.4	9692	1.9	43.37		B5	58560
	36.3	10780	1.7	48.24		B5	62560
	32.4	12058	1.5	53.96		B5	65870
	29.2	13386	1.3	59.9		B5	70120
	26.2	14950	1.2	66.9		B5	72250
55							
250M4 1750min^{-1}	415.7	1188	3.4	4.21	ITS 952	B5	7820
	337.2	1461	2.7	5.19		B5	8840
	301.7	1636	2.4	5.8		B5	8920
	262.0	1885	2.1	6.68		B5	9430
	235.5	2096	1.9	7.43		B5	9770
	210.6	2345	1.7	8.31		B5	10710
	196.2	2517	1.6	8.92		B5	11390
	159.1	3103	1.3	11		B5	11390
	142.4	3467	1.2	12.29		B5	8500
	123.6	3995	1.0	14.16		B5	8920
	402.3	1227	5.7	4.35	ITS 962	B5	11000
	337.2	1464	4.8	5.19		B5	14000
	297.6	1659	4.2	5.88		B5	15300
	258.9	1907	3.7	6.76		B5	17930
	233.6	2113	3.3	7.49		B5	19720
	209.8	2353	3.0	8.34		B5	20400
	190.8	2587	2.7	9.17		B5	20400
	159.7	3092	2.3	10.96		B5	19460
	141.1	3498	2.0	12.4		B5	20650
	122.7	4023	1.7	14.26		B5	20650
	110.8	4458	1.6	15.8		B5	20990
	99.5	4963	1.4	17.59		B5	22100
	88.8	5561	1.3	19.71		B5	23880
	81.1	6088	1.1	21.58		B5	23880
	68.1	7014	1.0	25.68	ITS 962	B5	27370

IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
55							
250M4 1750min^{-1}	407.9	1210	9.1	4.29	ITS 972	B5	17900
	338.5	1459	7.5	5.17		B5	25070
	303.3	1628	6.8	5.77		B5	26940
	263.2	1876	5.9	6.65		B5	27200
	236.5	2088	5.3	7.4		B5	29750
	211.6	2333	4.7	8.27		B5	31450
	191.7	2576	4.3	9.13		B5	31450
	159.1	3103	3.5	11		B5	28900
	142.4	3467	3.2	12.29		B5	30940
	123.6	3995	2.8	14.16		B5	30940
	111.1	4444	2.5	15.75		B5	30940
	99.4	4968	2.2	17.61		B5	33150
	88.3	5595	2.0	19.83		B5	35610
	81.1	6088	1.8	21.58		B5	35700
	68.1	7014	1.6	25.68	ITS 973	B5	38840
	60.7	7872	1.4	28.82		B5	38840
	50.8	9404	1.2	34.43		B5	43010
	44.9	10647	1.0	38.98		B5	46580
	192.3	2567	7.0	9.1	ITS 982	B5	31450
	160.0	3087	5.8	10.94		B5	33150
	138.2	3572	5.0	12.66		B5	34760
	124.9	3953	4.6	14.01		B5	34850
	112.3	4398	4.1	15.59		B5	36120
	100.8	4898	3.7	17.36		B5	38160
	91.1	5417	3.3	19.2		B5	40800
	81.9	6026	3.0	21.36		B5	43260
	68.9	6940	2.6	25.41	ITS 983	B5	44030
	62.6	7639	2.4	27.97		B5	49130
	51.9	9207	2.0	33.71		B5	53120
	46.5	10283	1.8	37.65		B5	53970
	40.4	11846	1.5	43.37		B5	58560
	36.3	13176	1.4	48.24		B5	62560
	32.4	14738	1.2	53.96		B5	65870
	29.2	16360	1.1	59.9		B5	70120
75							
280S4 1750min^{-1}	402.3	1674	4.2	4.35	ITS 962	B5	11000
	337.2	1997	3.5	5.19		B5	14000
	297.6	2262	3.1	5.88		B5	15300
	258.9	2601	2.7	6.76		B5	17930
	233.6	2882	2.4	7.49		B5	19720
	209.8	3209	2.2	8.34		B5	20400
	190.8	3528	2.0	9.17		B5	20400
	159.7	4217	1.7	10.96		B5	19460
	141.1	4771	1.5	12.4		B5	20650
	122.7	5486	1.3	14.26		B5	20650
	407.9	1650	6.7	4.29	ITS 972	B5	17900
	338.5	1989	5.5	5.17		B5	25070
	303.3	2220	5.0	5.77		B5	26940
	263.2	2558	4.3	6.65		B5	27200
	236.5	2847	3.9	7.4		B5	29750
	211.6	3182	3.5	8.27		B5	31450
	191.7	3513	3.1	9.13		B5	31450
	159.1	4232	2.6	11		B5	28900
	142.4	4728	2.3	12.29		B5	30940
	123.6	5448	2.0	14.16		B5	30940
	111.1	6059	1.8	15.75		B5	30940
	99.4	6775	1.6	17.61		B5	33150
	88.3	7629	1.4	19.83		B5	35610
	81.1	8302	1.3	21.58		B5	35700
	68.1	9565	1.2	25.68	ITS 973	B5	38840

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
75							
280S4 1750min^{-1}	192.3	3501	5.1	9.1	ITS 982	B5	31450
	160.0	4209	4.3	10.94		B5	33150
	138.2	4871	3.7	12.66		B5	34760
	124.9	5390	3.3	14.01		B5	34850
	112.3	5998	3.0	15.59		B5	36120
	100.8	6679	2.7	17.36		B5	38160
	91.1	7387	2.4	19.2		B5	40800
	81.9	8218	2.2	21.36		B5	43260
	68.9	9464	1.9	25.41	ITS 983	B5	44030
	62.6	10417	1.7	27.97		B5	49130
	51.9	12555	1.4	33.71		B5	53120
	46.5	14023	1.3	37.65		B5	53970
	40.4	16153	1.1	43.37		B5	58560
90							
280M4 1750min^{-1}	407.9	1981	5.6	4.29	ITS 972	B5	17900
	338.5	2387	4.6	5.17		B5	25070
	303.3	2664	4.1	5.77		B5	26940
	263.2	3070	3.6	6.65		B5	27200
	236.5	3416	3.2	7.40		B5	29750
	211.6	3818	2.9	8.27		B5	31450
	191.7	4215	2.6	9.13		B5	31450
	159.1	5078	2.2	11		B5	28900
	142.4	5674	1.9	12.29		B5	30940
	123.6	6537	1.7	14.16		B5	30940
	111.1	7271	1.5	15.75		B5	30940
	99.4	8130	1.4	17.61		B5	33150
	88.3	9155	1.2	19.83		B5	35610
	81.1	9963	1.1	21.58		B5	35700
	192.3	4201	4.3	9.1	ITS 982	B5	31450
	160.0	5051	3.6	10.94		B5	33150
	138.2	5845	3.1	12.66		B5	34760
	124.9	6468	2.8	14.01		B5	34850
	112.3	7198	2.5	15.59		B5	36120
	100.8	8015	2.2	17.36		B5	38160
	91.1	8864	2.0	19.2		B5	40800
	81.9	9861	1.8	21.36		B5	43260
	68.9	11357	1.6	25.41	ITS 982	B5	44030
	62.6	12501	1.4	27.97		B5	49130
	51.9	15066	1.2	33.71		B5	53120
	46.5	16827	1.1	37.65		B5	53970
110							
315S4 1750min^{-1}	407.9	2421	4.5	4.29	ITS 972	B5	17900
	338.5	2917	3.8	5.17		B5	25070
	303.3	3256	3.4	5.77		B5	26940
	263.2	3752	2.9	6.65		B5	27200
	236.5	4176	2.6	7.4		B5	29750
	211.6	4667	2.4	8.27		B5	31450
	191.7	5152	2.1	9.13		B5	31450
	159.1	6207	1.8	11		B5	28900
	142.4	6935	1.6	12.29		B5	30940
	123.6	7990	1.4	14.16		B5	30940
	111.1	8887	1.2	15.75		B5	30940
	99.4	9937	1.1	17.61		B5	33150

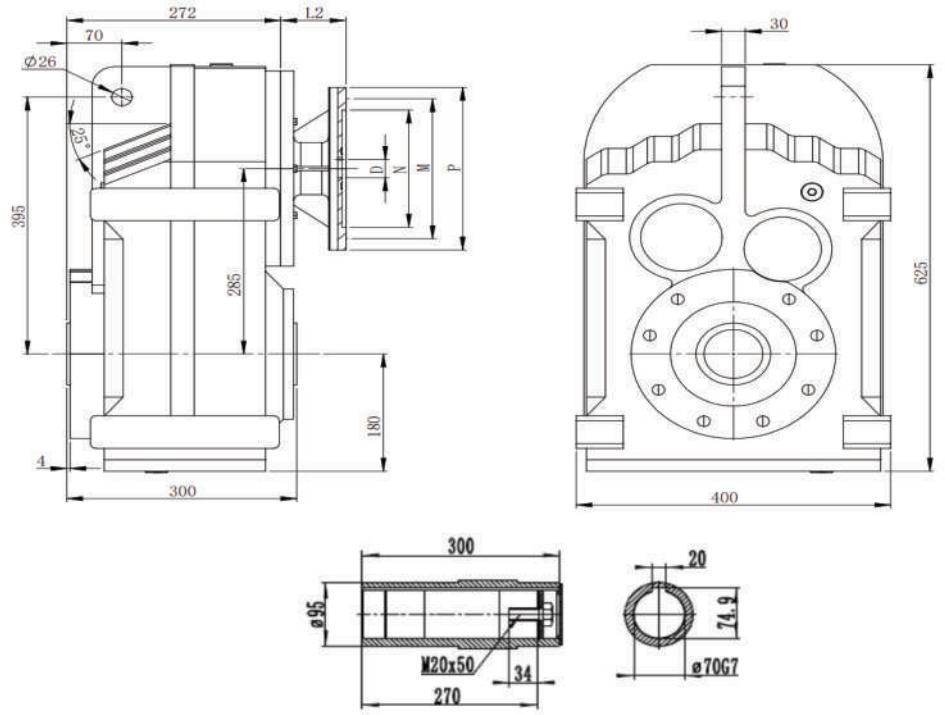
IEC - 60 Hz - n_1 1750min^{-1}

P_1 [kw]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC	R_2 [N]
110							
315S4 1750min^{-1}	192.3	5135	3.5	9.1	ITS 982	B5	31450
	160.0	6173	2.9	10.94		B5	33150
	138.2	7144	2.5	12.66		B5	34760
	124.9	7905	2.3	14.01		B5	34850
	112.3	8797	2.0	15.59		B5	36120
	100.8	9796	1.8	17.36		B5	38160
	91.1	10834	1.7	19.2		B5	40800
	81.9	12053	1.5	21.36		B5	43260
	68.9	13880	1.3	25.41	ITS 983	B5	44030
	62.6	15279	1.2	27.97		B5	49130
132							
315M4 1750min^{-1}	407.9	2905	3.8	4.29	ITS 972	B5	17900
	338.5	3501	3.1	5.17		B5	25070
	303.3	3907	2.8	5.77		B5	26940
	263.2	4503	2.4	6.65		B5	27200
	236.5	5011	2.2	7.4		B5	29750
	211.6	5600	2.0	8.27		B5	31450
	191.7	6182	1.8	9.13		B5	31450
	159.1	7448	1.5	11		B5	28900
	142.4	8322	1.3	12.29		B5	30940
	123.6	9588	1.1	14.16		B5	30940
	111.1	10665	1.0	15.75		B5	30940
	192.3	6162	2.9	9.1	ITS 982	B5	31450
	160.0	7408	2.4	10.94		B5	33150
	138.2	8572	2.1	12.66		B5	34760
	124.9	9486	1.9	14.01		B5	34850
	112.3	10556	1.7	15.59		B5	36120
	100.8	11755	1.5	17.36		B5	38160
	91.1	13001	1.4	19.2		B5	40800
	81.9	14463	1.2	21.36		B5	43260
160							
360S4 1750min^{-1}	192.3	7469	2.4	9.1	ITS 982	B5	31450
	160.0	8979	2.0	10.94		B5	33150
	138.2	10391	1.7	12.66		B5	34760
	124.9	11499	1.6	14.01		B5	34850
	112.3	12796	1.4	15.59		B5	36120
	100.8	14248	1.3	17.36		B5	38160
	91.1	15758	1.1	19.2		B5	40800
	81.9	17531	1.0	21.36		B5	43260
300							
360M4 1750min^{-1}	192.3	9336	1.9	9.1	ITS 982	B5	31450
	160.0	11224	1.6	10.94		B5	33150
	138.2	12988	1.4	12.66		B5	34760
	124.9	14373	1.3	14.01		B5	34850
	112.3	15994	1.1	15.59		B5	36120

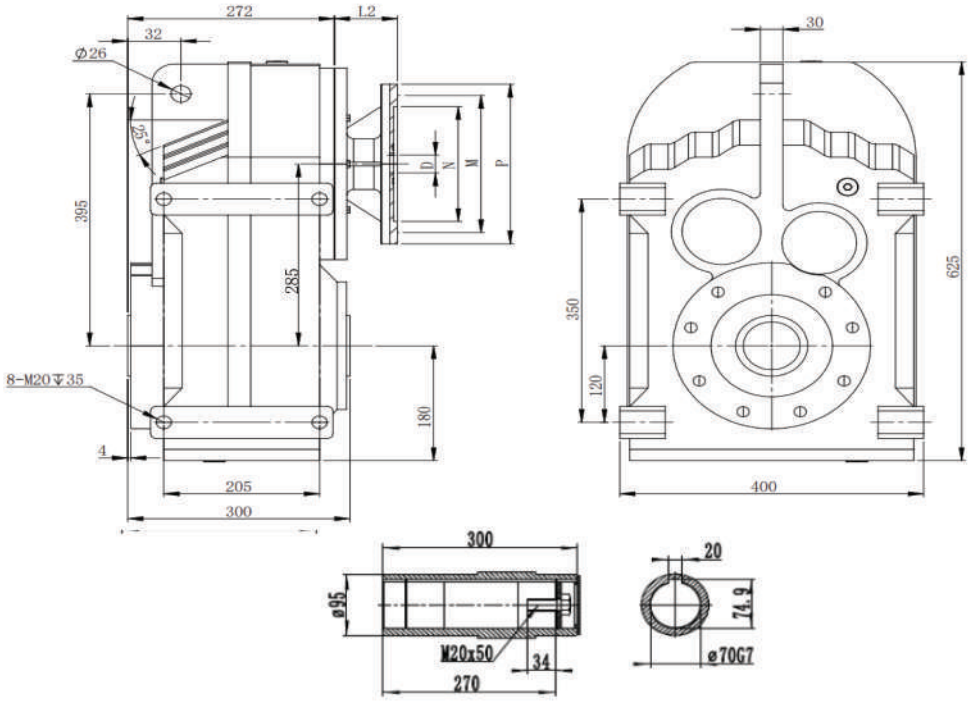
Dimensions

ITS 952 - 953

ITS 952 U
ITS 953 U

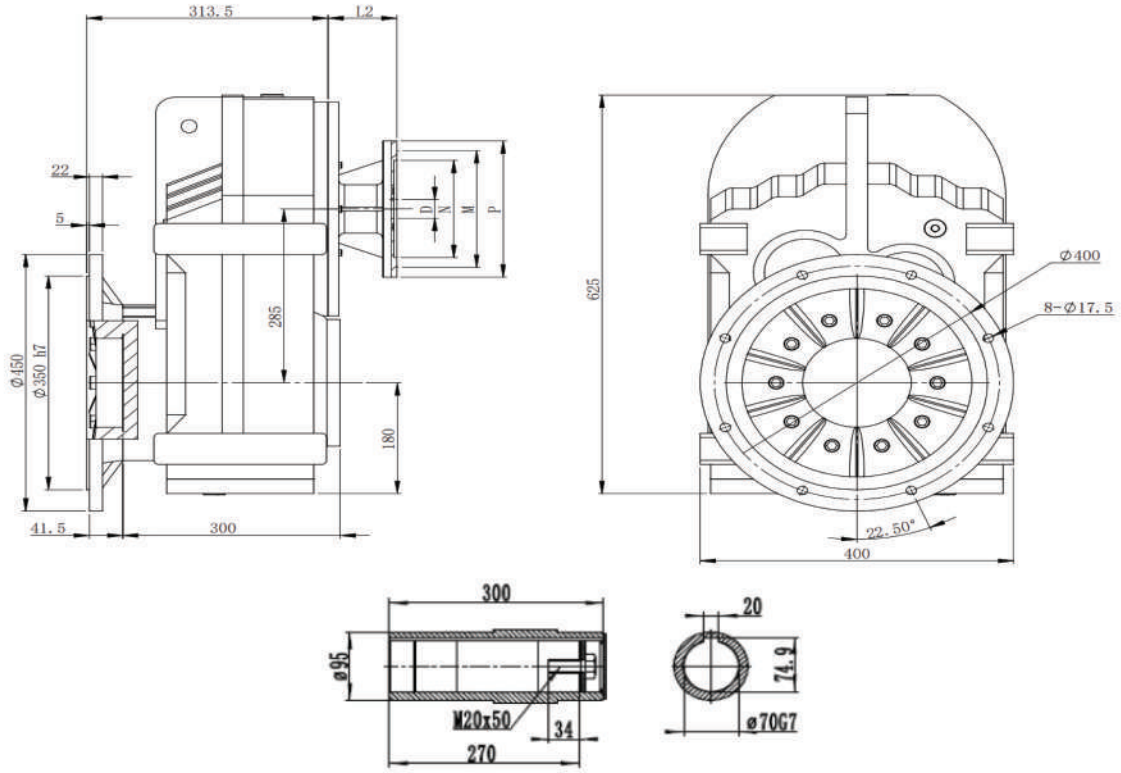


ITS 952 P
ITS 953 P

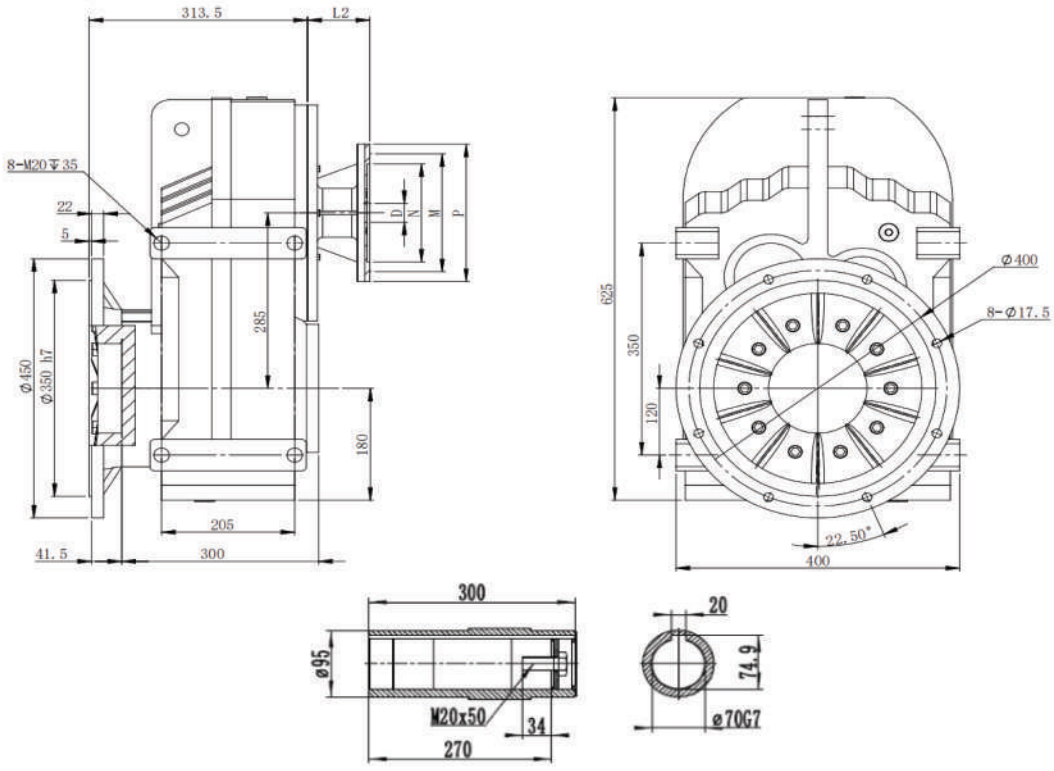


ITS 952 - 953

ITS 952 U/F
ITS 953 U/F

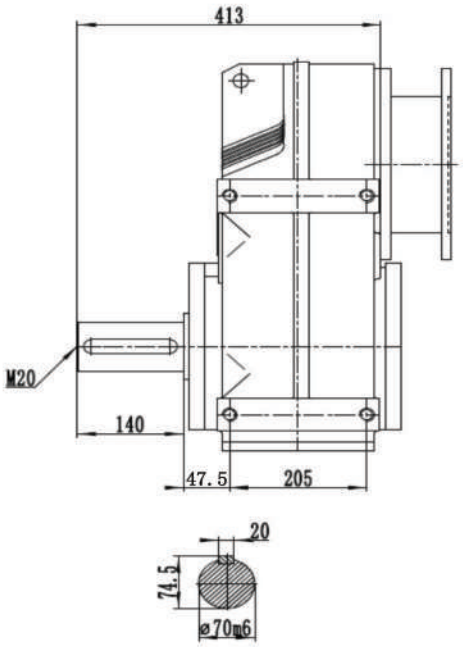


ITS 952 P/F
ITS 953 P/F

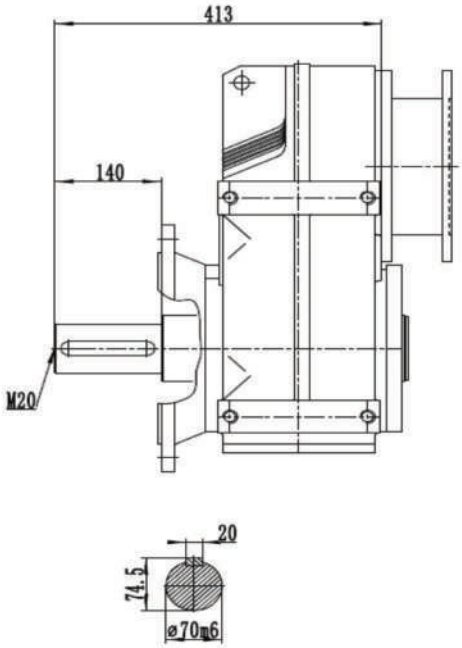


ITS 952 - 953

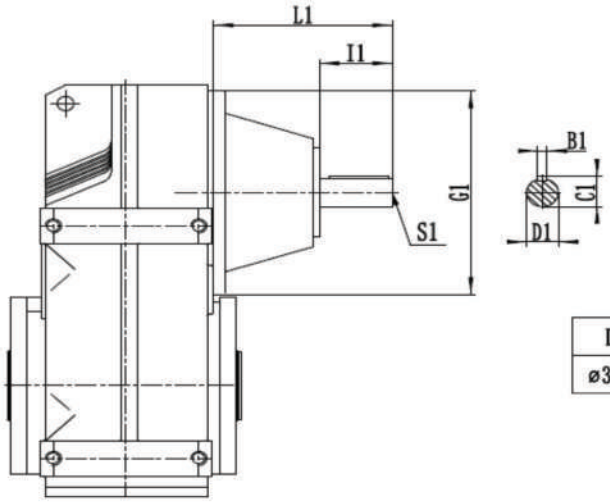
ITS 952 P...SZ...
ITS 953 P...SZ...



ITS 952 P/F...SZ...
ITS 953 P/F...SZ...



ITSIS 952 ...SZ...
ITSIS 953 ...SZ...

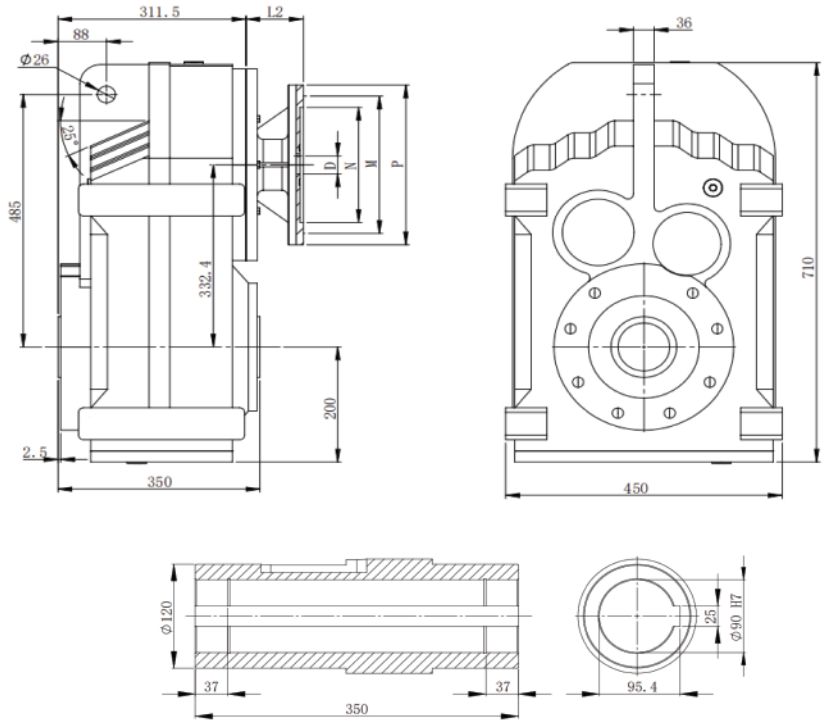


D1	L1	I1	S1	C1	B1	G1
ø38k6	220	80	M12	41	10	ø300

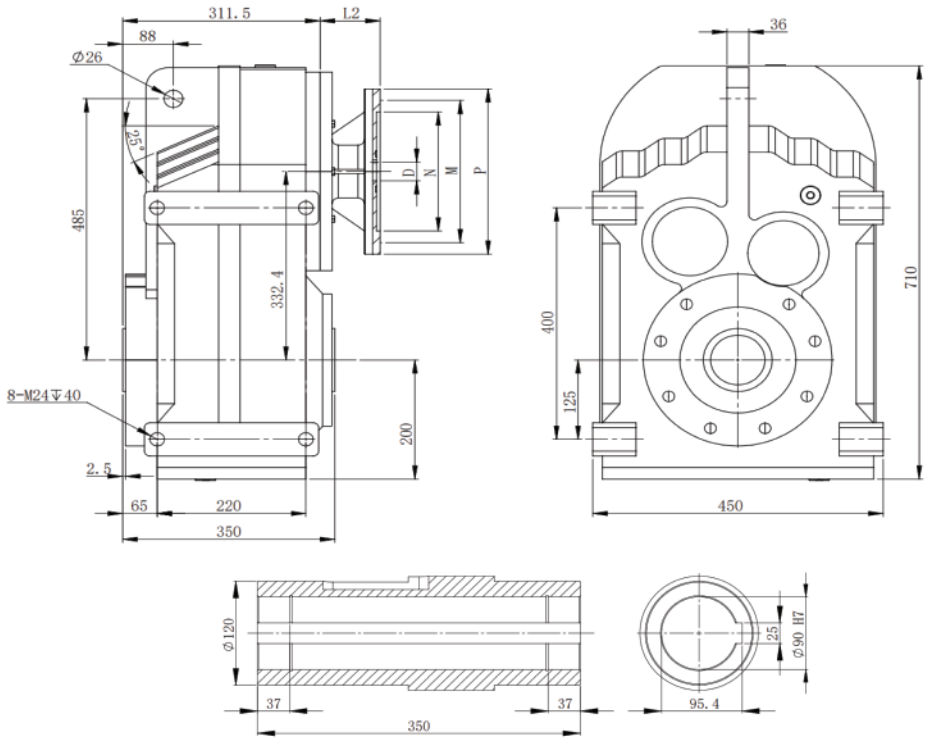
IEC Dimensions							
	90 B5	100 B5	112 B5	132 B5	160 B5	180 B5	200 B5
L2	50	50	50	92	113	113	123
N	130	180	180	230	250	250	300
M	165	215	215	265	300	300	350
P	200	250	250	300	350	350	400
D	24	28	28	38	42	48	55

ITS 962 - 963

ITS 962 U
ITS 963 U

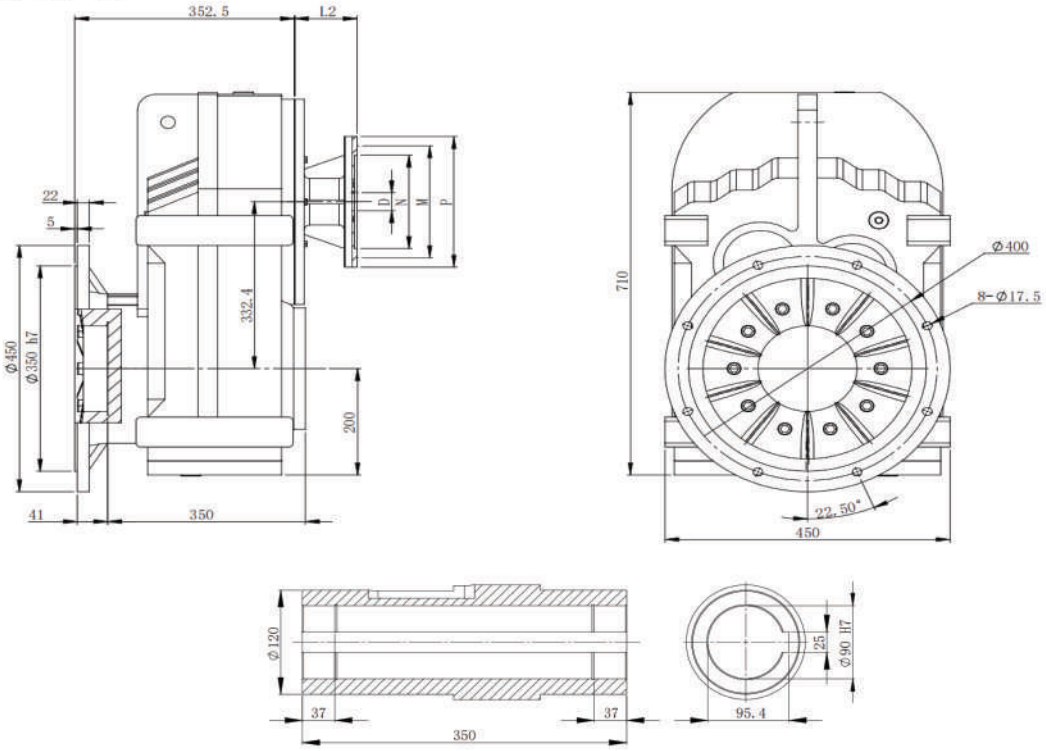


ITS 962 P
ITS 963 P

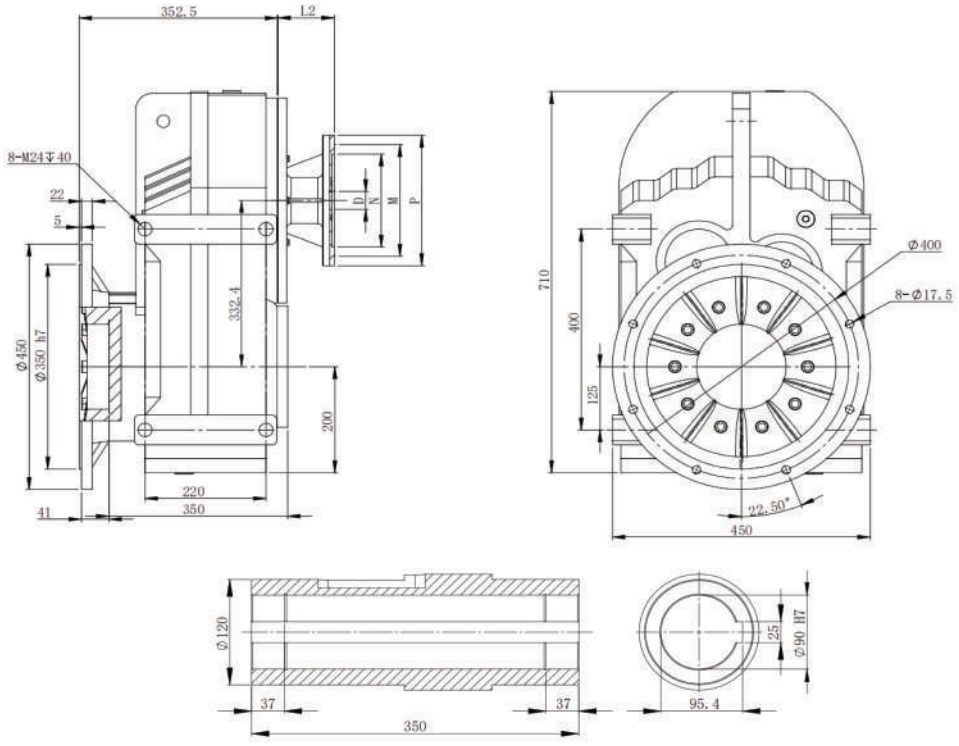


ITS 962 - 963

ITS 962 U/F
ITS 963 U/F

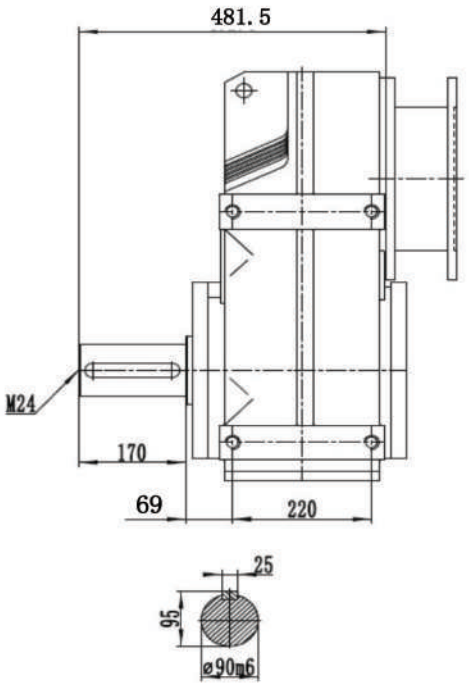


ITS 962 P/F
ITS 963 P/F

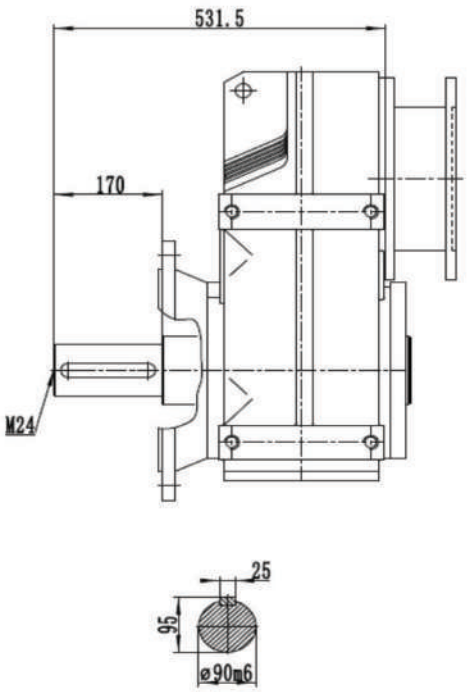


ITS 962 - 963

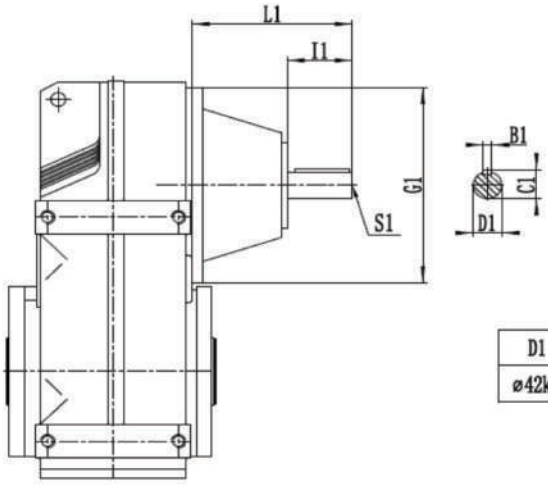
ITS 962 P...SZ...
ITS 963 P...SZ...



ITS 962 P/F...SZ...
ITS 963 P/F...SZ...



ITSIS 962 ...SZ...
ITSIS 963 ...SZ...

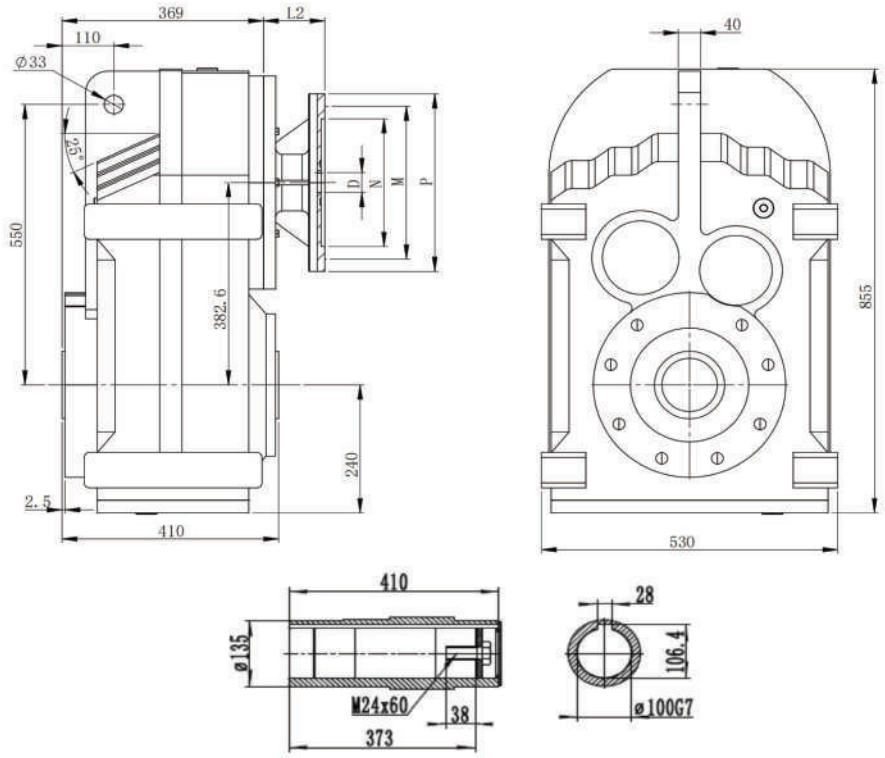


D1	L1	I1	S1	C1	B1	G1
ø42k6	270	110	M16	45	12	ø350

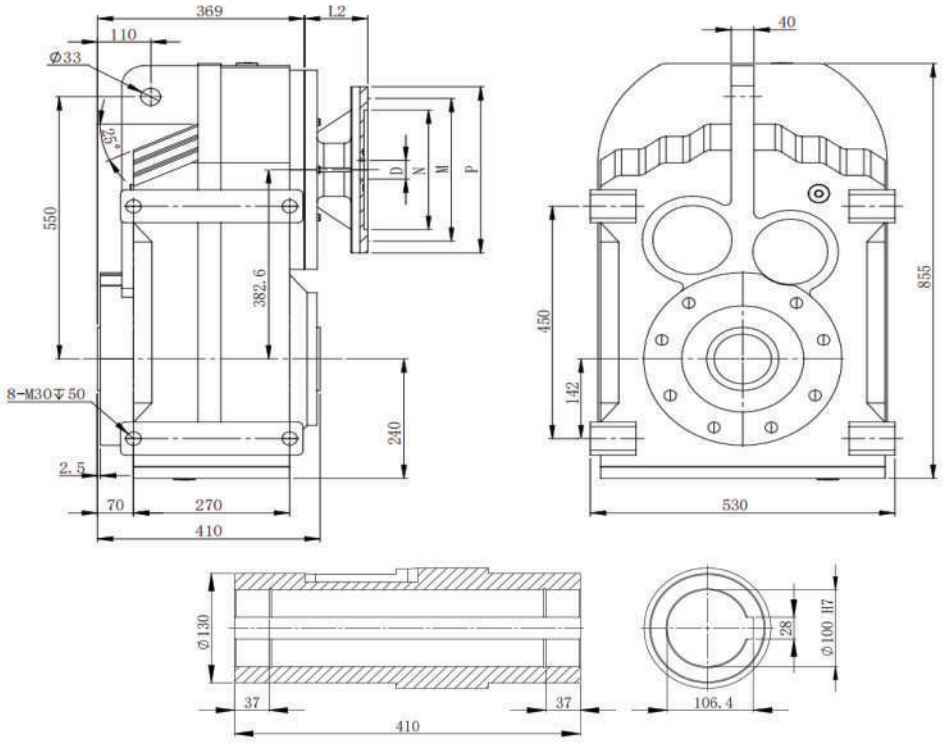
IEC Dimensions							
	100 B5	112 B5	132 B5	160 B5	180 B5	200 B5	225 B5
L2	55	55	76	112	112	130	151
N	180	180	230	250	250	300	350
M	215	215	265	300	300	350	400
P	250	250	300	350	350	400	450
D	28	28	38	42	48	55	60

ITS 972 - 973

ITS 972 U
ITS 973 U

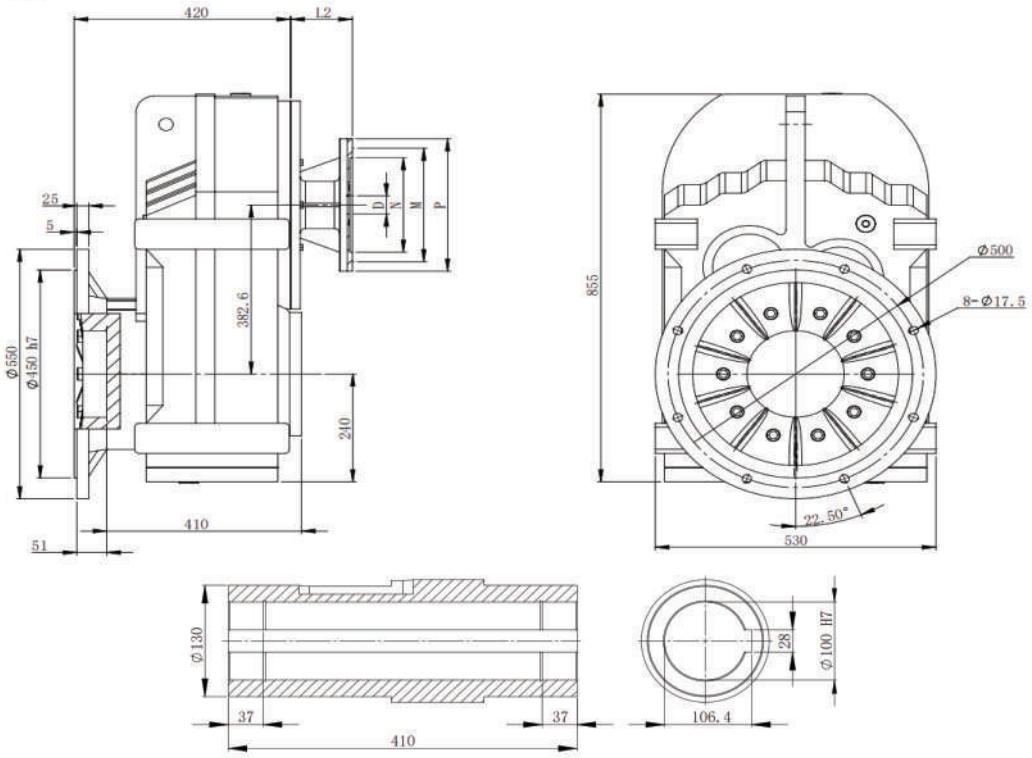


ITS 972 P
ITS 973 P

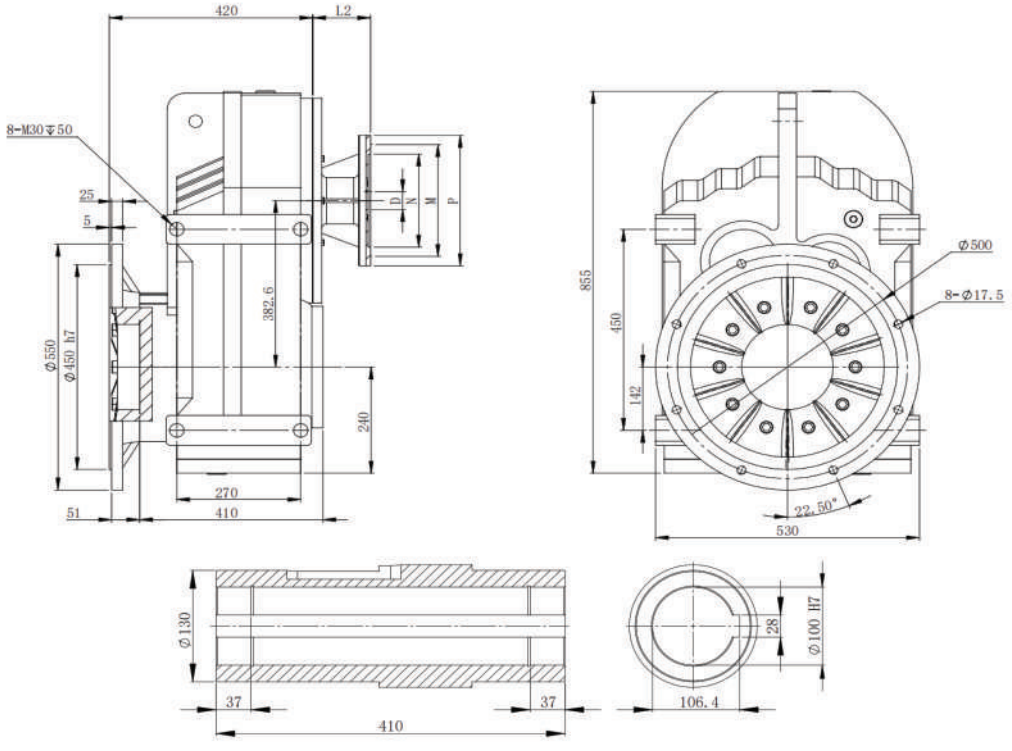


ITS 972 - 973

ITS 972 U/F
ITS 973 U/F

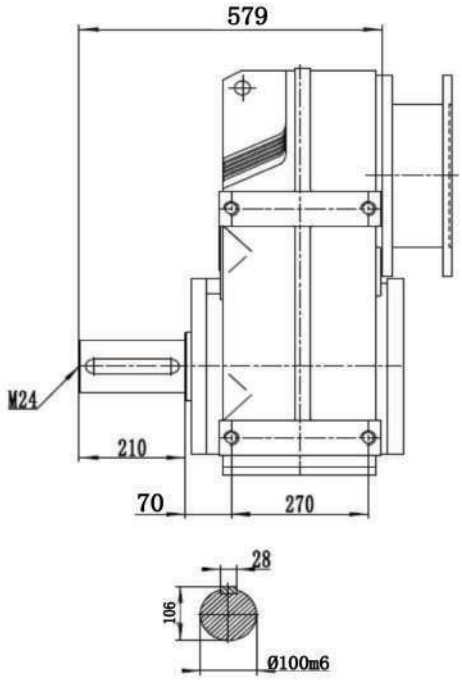


ITS 972 P/F
ITS 973 P/F

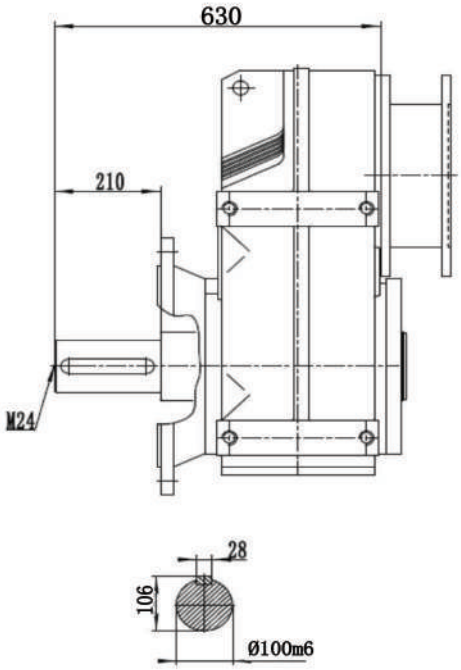


ITS 972 - 973

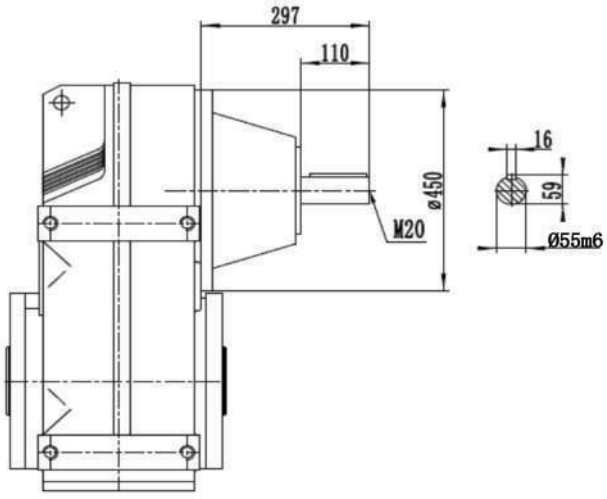
ITS 972 P...SZ...
ITS 973 P...SZ...



ITS 972 P/F...SZ...
ITS 973 P/F...SZ...



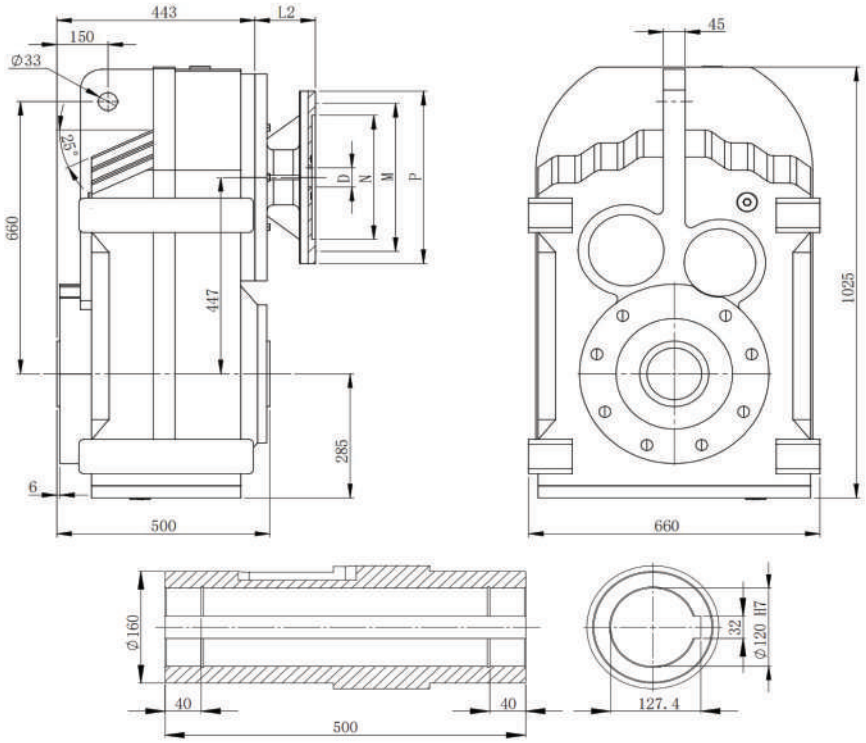
ITSIS 972 ...SZ...
ITSIS 973 ...SZ...



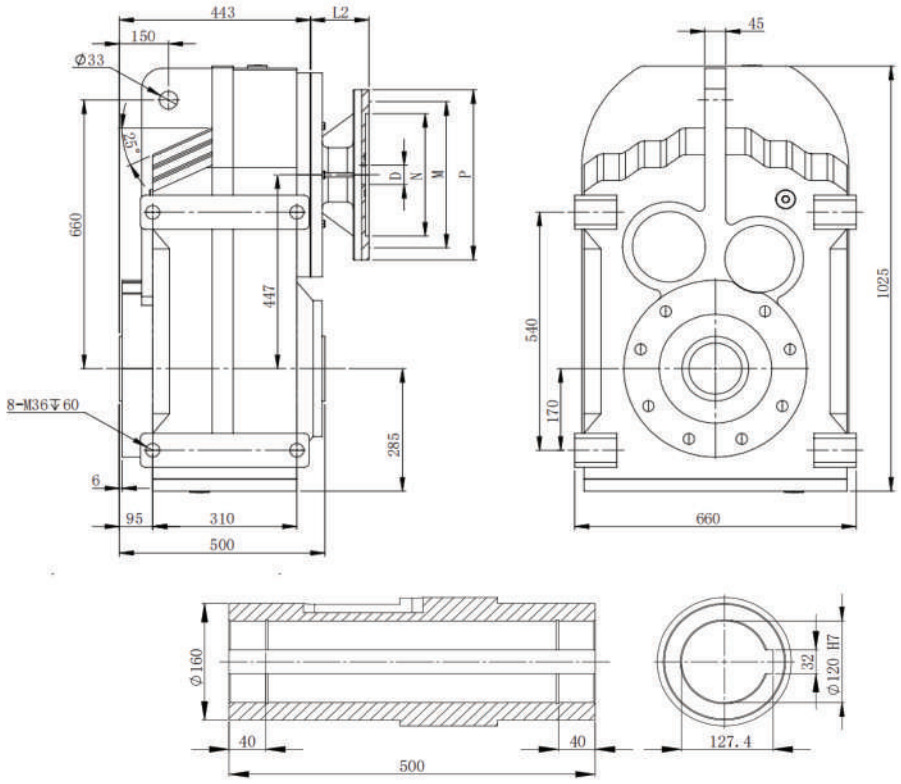
IEC Dimensions							
	132 B5	160 B5	180 B5	200 B5	225 B5	250 B5	280 B5
L2	78	112	112	130	135	139	139
N	230	250	250	300	350	450	450
M	265	300	300	350	400	500	500
P	300	350	350	400	450	550	550
D	38	42	48	55	60	65	75

ITS 982 - 983

ITS 982 U
ITS 983 U

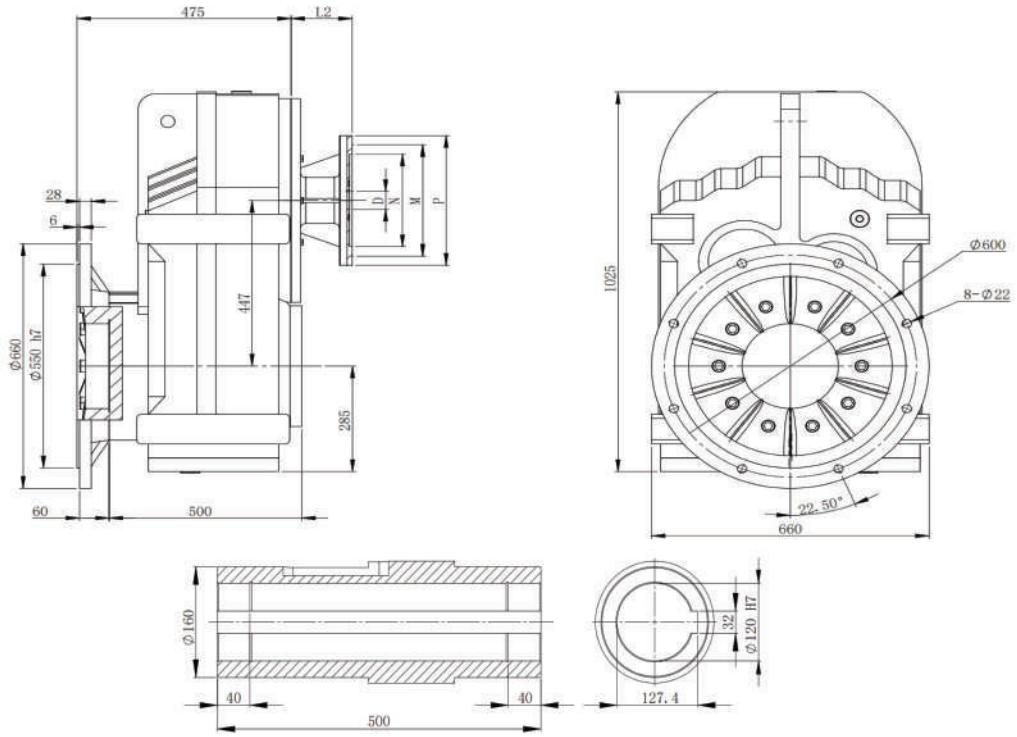


ITS 982 P
ITS 983 P

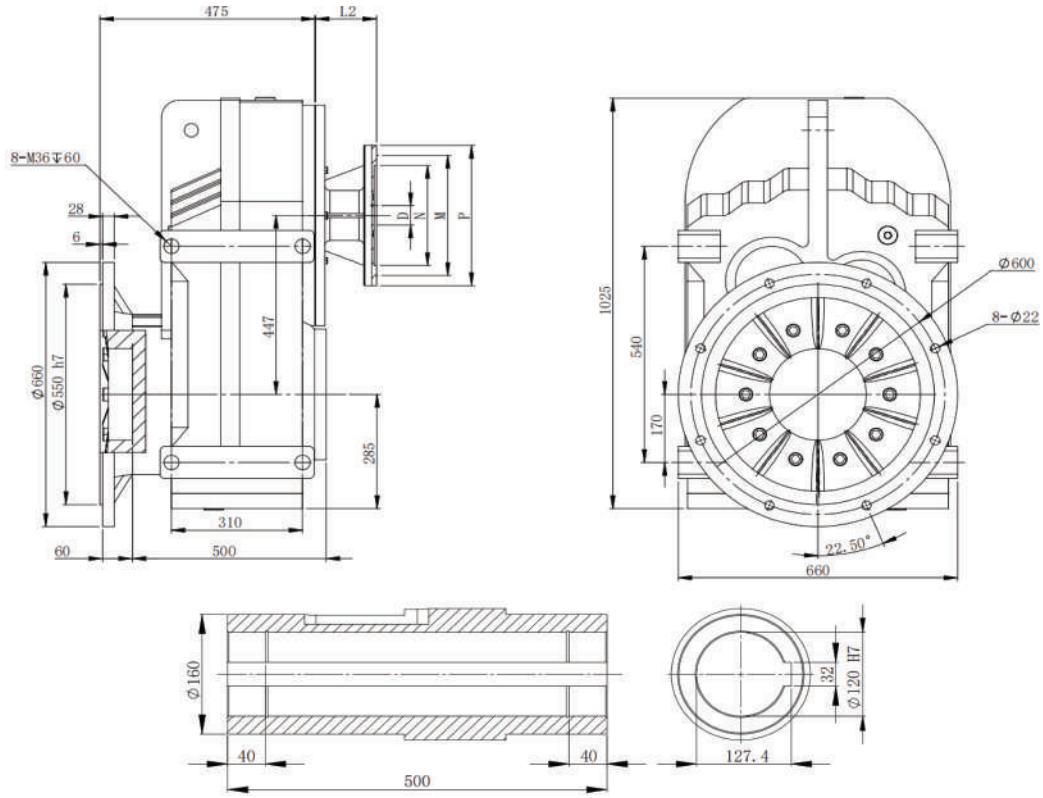


ITS 982 - 983

ITS 982 U/F
ITS 983 U/F

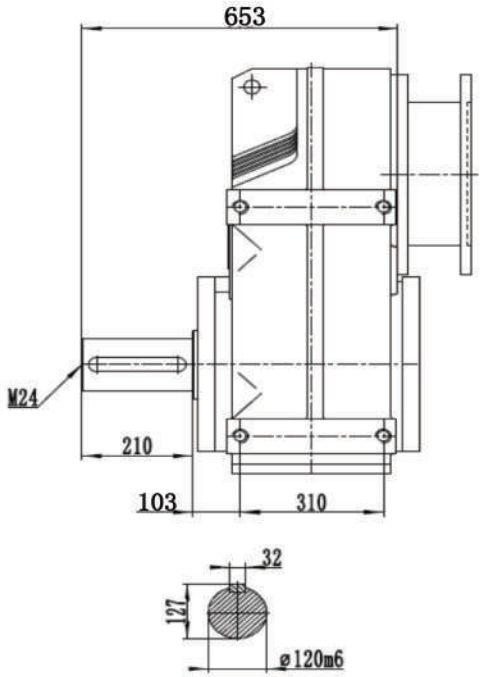


ITS 982 P/F
ITS 983 P/F

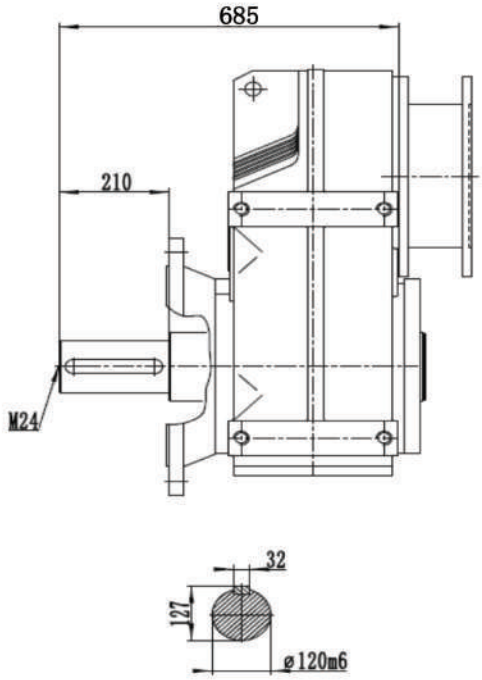


ITS 982 - 983

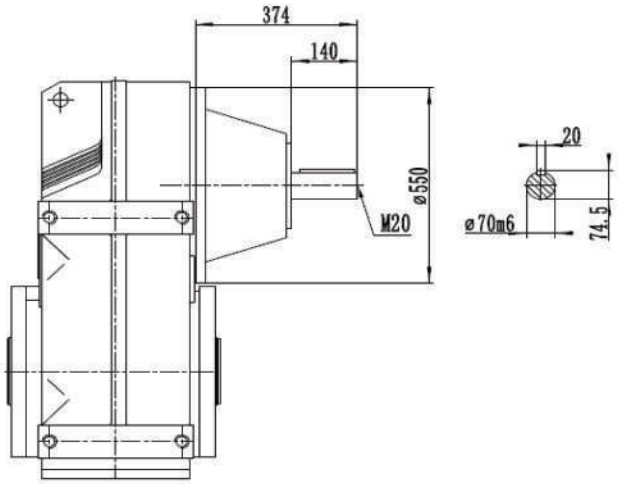
ITS 982 P...SZ...
ITS 983 P...SZ...



ITS 982 P/F...SZ...
ITS 983 P/F...SZ...



ITSIS 982 ...SZ...
ITSIS 983 ...SZ...



IEC Dimensions							
	160 B5	180 B5	200 B5	225 B5	250 B5	280 B5	315 B5
L2	101	101	111	116	120	120	170
N	250	250	300	350	450	450	550
M	300	300	350	400	500	500	600
P	350	350	400	450	550	550	660
D	42	48	55	60	65	75	80