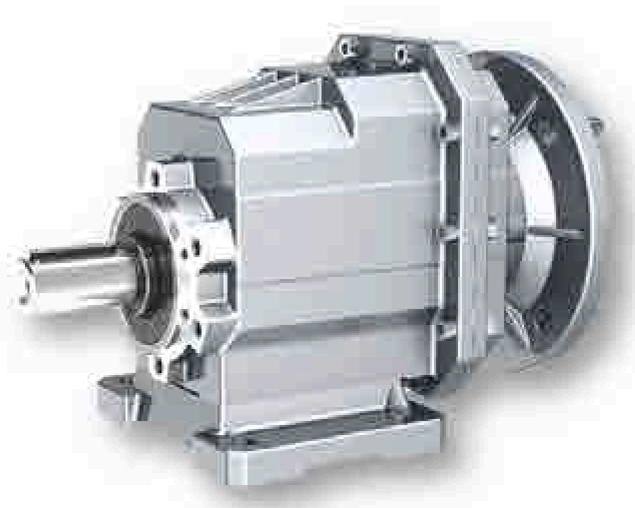
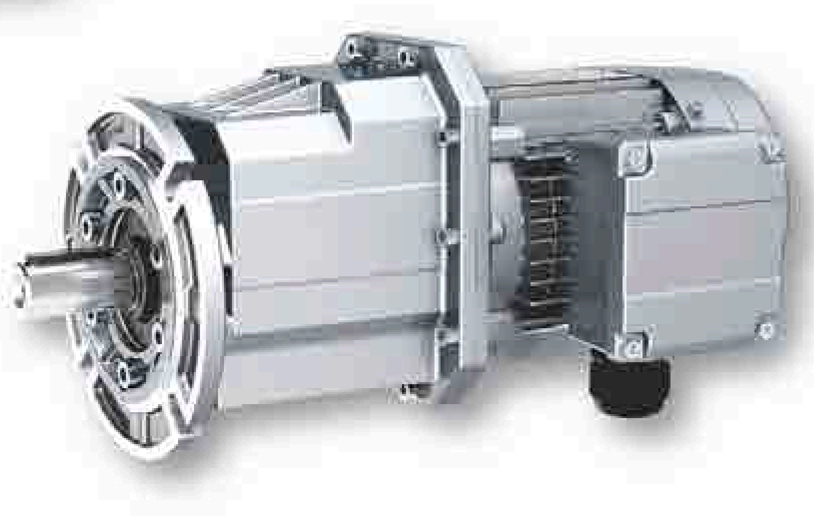
KPC 系列斜齿轮减速器

SERIES HELICAL GEAR UNITS





目录
CONTENTS

1. 概述

KPC 系列小型斜齿轮减速器是我公司在模块组合体系的基础上设计的新一代减速器产品，可分别与普通IEC、制动、防爆、变频、伺服等电机组合，可在立体空间六个方位任意安装。该产品广泛适用于轻纺、食品、啤酒饮料、化工、自动化仓储设备、烟草、环保、物流等驱动领域。

1.1 产品特点

- 模块化；
- 斜齿轮传动，效率高；
- 精磨齿面，噪音低；
- 结构紧凑，设计精巧；
- 安装方式多样；
- 铝制箱体，重量轻；
- 渗碳硬齿面，经久耐用；
- 可组合多种结构形式，满足各种传动条件的需求。

KPC 系列小型斜齿轮减速器共有6种机型号，功率0.12～11KW，速比3.66～58.78，最大扭矩120～1550Nm。可根据用户要求进行任意组合(底脚、法兰)和多种安装位置的选择。

1. SUMMARIZE

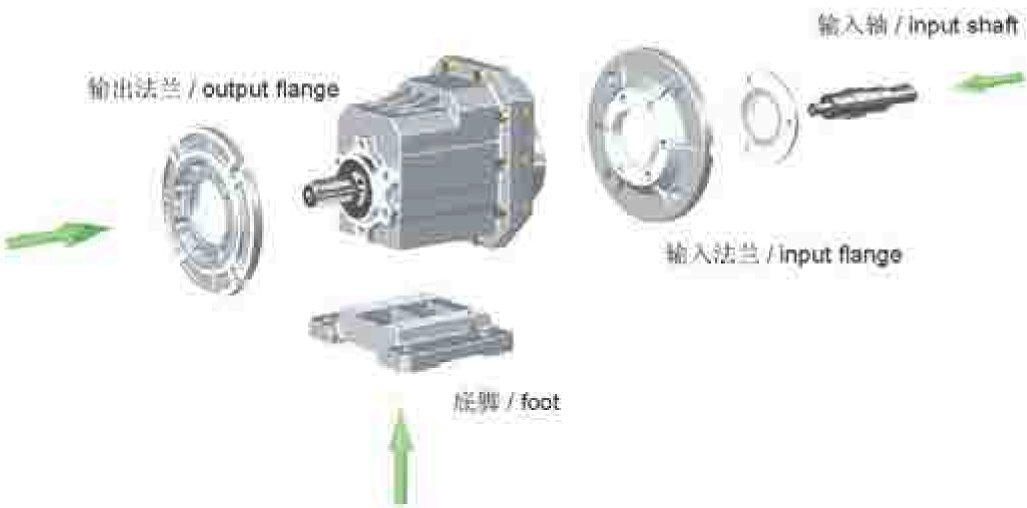
KPC Series helical gear units is a new generation mechanic-electrical integrated product, which designed basing on the modular system. It can be connected respectively with motors such as normal motor, brake motor, explosion-proof motor, frequency conversion motor, servo motor, IEC motor and so on. It can be mounted discretionary six orientation in solid space. This kind of product is widely used in drive fields such as textile, foodstuff, beverage, chemical industry, automatic arm ladder, automatic storage equipment, metallurgy, tobacco, environment-protection, logistics and so on.

1.1 Products characteristics

- Modularity;
- High efficiency;
- Low noise;
- Space effective, refined design;
- Universal mounting;
- Aluminium housing, light in weight;
- Gears in carbonize hard,durable;
- Multistructure, can be combined in many forms to meet needs of all kinds of transmission conditions.

KPC Series helical gear units has more than 6 types. Power 0.12-11KW; Ratio 3.66-58.78;Torque max 120-1550Nm. It can be connected (foot, flange) discretionary and use multi-mounting positions according to customers' requirements.

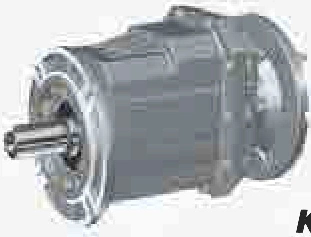
1.2 结构特点 / Structure feature



2. 产品结构 / PRODUCT STRUCTURE PICTURE

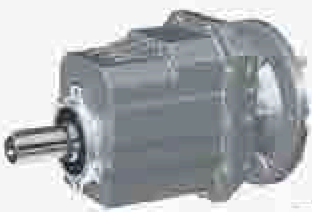
KPC..P(IEC)
底脚安装斜齿轮减速器
Foot-mounted helical gear unit

KPC..HS
轴输入底脚安装斜齿轮减速器
Shaft input foot-mounted helical gear unit

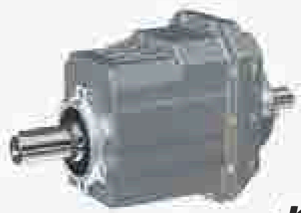


KPCF..P(IEC)
法兰安装斜齿轮减速器
Flange-mounted helical gear unit

KPCF..HS
轴输入法兰安装斜齿轮减速器
Shaft input flange-mounted helical gear unit



KPCZ..P(IEC)
B14形式法兰安装斜齿轮减速器
B14 Flange-mounted helical gear unit



KPCZ..HS
轴输入B14形式法兰安装斜齿轮减速器
Shaft input B14 flange-mounted helical gear unit

KPC..MX..
底脚安装斜齿轮减速电机
Foot-mounted helical geared motors

KPCF..MX..
法兰安装斜齿轮减速电机
Flange-mounted helical geared motors

KPCZ..MX..
B14形式法兰安装斜齿轮减速电机
B14 Flange-mounted helical geared motors

3. 型号说明 / MODEL ILLUMINATE

3.1 减速电机 / Geared motor

KPC F 02 II - 28.88 - M6 - MX71D4 / BMG / 270° / S

① ② ③ ④ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

NO	说　　明	Comments
1	**KPC**:减速器系列代号	**KPC**: code for gear units series
2	1). 无代号表示底脚安装 2). **F: B5** 形式法兰安装 3). **Z: B14** 形式法兰安装	1). No code means foot-mounted 2). **F:** B5 flange mounted 3). **Z:** B14 flange mounted
3	减速器规格号 01、02、03、04、05、06	Specification code of gear units 01,02,03,04,05,06
4	1). **B01**、**M01**......表示底脚代号,无法兰 2). **I**、**II**、**III**: **B5** 形式输出法兰规格,默认 I 可以不写	1). **B01**、**M01**...... means foot code,without flange 2). **I, II, III: B5** Output flange specification, default **I** not to write out is ok
6	减速器传动比 **i**	Transmission ratio of gear units **i**
7	**M1**: 安装方位，默认安装方位**M1**可以不写	**M1**: Mounting positio,default mounting position **M1** not to write out is ok
8	电机型号规格	Motor type
9	1). 无代号表示无制动器 2). **BMG**: 制动器	1). no code means no brake 2). **BMG**: brake
10	电机接线盒位置，默认位置**0 (R)**可以不写	Position diagram for motor terminal box, default position **0 (R)** not to write out is ok
12	电机进线位置，默认位置**S**可以不写	Coil in pssition for motor, default position **S** not to write out is ok

3.2 减速器或减速器+IEC电机 / Gear unit or gear unit+IEC motor

减速器 / Gear unit　　　　电机 / Motor

KPC F 02 II - P71B5 - 28.88 - M6 - 7124 (或/or 0.37-4) - / 270°/ S

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑩ ⑪

NO	说　　明	Comments
1	**KPC**: 减速器系列代号	**KPC**: code for gear units series
2	1). 无代号表示底脚安装 2). **F**: B5形式法兰安装 3). **Z**: B14形式法兰安装	1). No code means foot-mounted 2). **F**: B5 flange mounted 3). **Z**: B14 flange mounted
3	减速器规格号 01、02、03、04、05、06	Specification code of gear units 01,02,03,04,05,06
4	1). **B01**、**M01**......表示底脚代号,无法兰 2). **I**、**II**、**III**: **B5** 形式输出法兰规格,默认 I 可以不写	1). **B01**、**M01**...... means foot code,without flange 2). **I, II, III: B5** Output flange specification, default **I** not to write out is ok
5	1). **IEC** 输入法兰；　2). **HS**: 轴输入	1). **IEC** input flange　　2). **HS**: Shaft input
6	减速器传动比 i	Transmission ratio of gear units **i**
7	**M1**: 安装方位，默认安装方位**M1**可以不写	**M1**: Mounting positio,default mounting position **M1** not to write out is ok
8	1). 无代号表示不带电机 2). 电机型号或功率、极数	1). No mark means without motor 2). Model motos (poles of power)
10	电机接线盒位置，默认位置**0° (R)** 可以不写	Position diagram for motor terminal box, default position **0°(R)** not to write out is ok
11	电机进线位置，默认位置**S**可以不写	Coil in pssition for motor, default position **S** not to write out is ok

订单时请说明是否带电机，一般按不带电机供应。
When ordering, you should show whether the reducers are equipped with motors, otherwise reducers aren't supplied with motors

示例 Example:　**KPC01B01- 28.50 - M1 - MX71D4**
KPCZ03 - HS - 6.31
KPCF02III - P80B14 - 8.78 - M1 - 8024 - 270° / E

4. 选型相关参数

4.1 功率 P

$$P_1 = \frac{P_2}{\eta} \text{ [kW]}$$

$$P_{1n} \geqslant P_1 \cdot f_s \text{ [kW]}$$

P_1 输入功率
P_2 输出功率
P_{1n} 输入电机额定功率
f_s 使用系数
η 传动效率

KPC 系列斜齿轮减速器的传动是**2**级齿轮传动，其效率**η**为**96%**。

4.2 转速 n

n_1 减速器输入转速
n_2 减速器输出转速

若是齿轮箱外部传动装置驱动，为了优化工作条件和提高使用寿命，建议使用1400r/min或更低转速。允许输入较高的输入转速，但在这种情况下，额定扭矩M_2会下降。

4.3 传动比 i

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

传动比通常为小数，在选型表中保留两位小数。

4.4 扭矩 M

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \text{ [Nm]}$$

$$M_{2n} \geqslant M_2 \cdot f_s \text{ [Nm]}$$

M_2 输出扭矩
M_{2n} 额定输出扭矩
P_1 输入功率
η 传动效率
f_s 使用系数

4. RELEVANT PARAMETER

4.1 Power P

$$P_1 = \frac{P_2}{\eta} \text{ [kW]}$$

$$P_{1n} \geqslant P_1 \cdot f_s \text{ [kW]}$$

P_1 Input power
P_2 Output power
P_{1n} Rated input motor power
f_s Service factor
η Transmission efficiency

KPC Series helical gear units has **2 stage** and the efficiency is about **96%**.

4.2 Rotation speed n

n_1 Gear units input speed
n_2 Gear units output speed

If driven by the external gearing,1400r/min or lower rotation speed is suggested so as to optimize the working conditions and prolong the service life. Higher input rotation speed is permitted, but in this situation, the rated torque M_2 will be reduced.

4.3 Transmission ratio i

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

Usually transmission ratio is decimal fraction with 2 radix point tagged in selection tables.

4.4 Torque M

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \text{ [Nm]}$$

$$M_{2n} \geqslant M_2 \cdot f_s \text{ [Nm]}$$

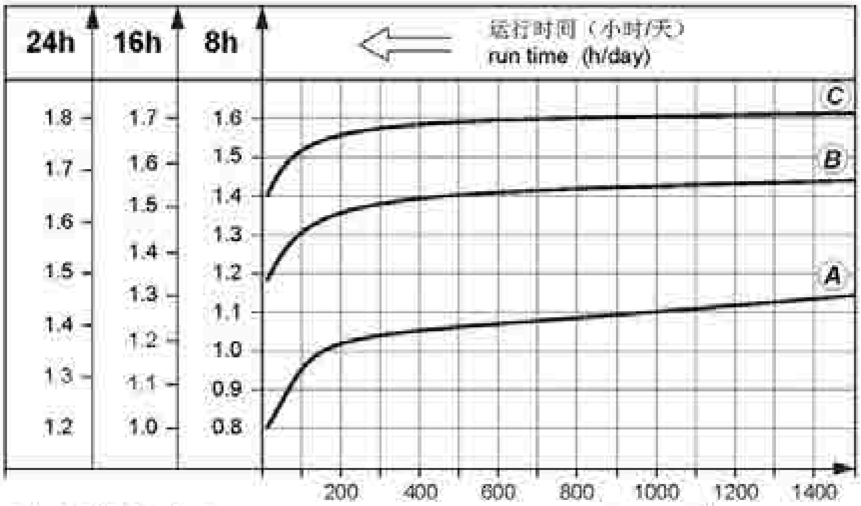
M_2 Output torque
M_{2n} Rated output torque
P_1 Input power
η Transmission efficiency
f_s Service factor

4.5 使用系数 fs

使用减速器时，应考虑一定的使用系数fs，它是根据每天的运转时间和启停频率Z确定的。根据惯性加速系数确定三种负载类型，在下图中可以读取实际应用的使用系数，按下图选取的使用系数必须小于或等于从性能参数表中提供的使用系数。

4.5 Service factor fs

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor fs. The service factor is determined according to the daily operating time and the starting frequency Z. Three load classifications are considered depending on the mass acceleration factor. You can read off the service factor applicable to your application in following Figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table.



图：使用系数（fs）
Fig: Service factor（fs）

\# 启动频率 Z：周期包括所有启动、制动的次数以及变速电机高低速变化时的次数。

\# Starting frequency Z: The cycles include all starting and braking procedures as well as change overs from low to high speed.

4.5.1 负载类型

- (A) 均匀冲击负载，允许惯性加速系数≤0.2
- (B) 中等冲击负载，允许惯性加速系数≤3
- (C) 重冲击负载，允许惯性加速系数≤10

负载类型见附录。

4.5.1 Load classifications

- (A) Uniformshock load, permitted mass acceleration factor ≤0.2
- (B) Moderate shock load, permitted mass acceleration factor ≤3
- (C) Heavy shock load, permitted mass acceleration factor ≤10

Load classifications see the addendum.

4.5.2 惯性加速系数

惯性加速系数计算如下：

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

4.5.2 Mass acceleration factor

The mass acceleration factor is calculated as follows:

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

fa 惯性加速系数
Jc 所有外部传动惯量 [kgm^2]
Jm 驱动电机的传动惯量 [kgm^2]

如果惯性加速系数 **fa**＞10，请与我们技术部联系。

fa Mass acceleration factor
Jc All external mass moments of inertia [kgm^2]
Jm Mass moment of inertia on the motor end [kgm^2]

If mass acceleration factors **fa**＞10, please call our Technical Service.

为了保持减速器的使用寿命，从产品样本中的性能参数表所选择的使用系数f_S应等于或略高于计算出的使用系数f_S。

To keep the service-life of gear units, the use factor f_S selected from the catalogue must be equal or slightly higher than the calculated use factor f_S.

4.6 径向载荷 Fr

在确定影响径向载荷时，安装在轴端上的传动件类型必须考虑在内，不同类型的传动件对应不同传动附加系数f_Z，列表如下：

4.6 Radial loads Fr

When determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors f_Z:

传动件 Transmission element	传动附加系数 Fz Transmission element factor Fz	注释 Comments
齿轮 Gears	1.00	≥17齿 teeth
	1.15	＜17齿 teeth
链轮 Chain sprockets	1.00	≥20齿 teeth
	1.25	＜20齿 teeth
	1.40	＜13齿 teeth
V带轮 Narrow V-belt pulleys	1.75	有预紧力作用 Influence of the tensile force
平带轮 Flat belt pulleys	2.50	有预紧力作用 Influence of the tensile force
齿带轮 Toothed belt pulleys	2.50	有预紧力作用 Influence of the tensile force

作用在轴上的径向载荷按如下公式计算：

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} \ [N]$$

Fr 作用在轴上的载荷 [N]
M 作用在轴上的扭矩 [Nm]
d_0 安装在轴上传动件的平均直径 [mm]
f_z 传动附加系数

当径向负荷不作用在轴中点时，按以下公式计算有效负荷：

$$FxL \le \frac{Fr_2 \cdot a}{(b+x)} \ [N]$$

Fr2 依据下面表格给出中底脚安装式齿轮减速器的许可径向载荷(x = L / 2) [N]
a, b 减速器径向转化常量 [mm]

The overhung loads exerted on the motor or gear shaft is then calculated as follows:

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} \ [N]$$

Fr Resulting radial load [N]
M Torque on the shaft [Nm]
d_0 Mean diameter of the mounted transmis sion element in [mm]
f_z Transmission element factor

The allowed radial load force on the shaft is calculated with the following formula:

$$FxL \le \frac{Fr_2 \cdot a}{(b+x)} \ [N]$$

Fr2 Permitted overhung load (x = L/2) for foot-mounted gear units according to the selection tables in [N]
a, b Gear unit constant for overhung load conversion [mm]

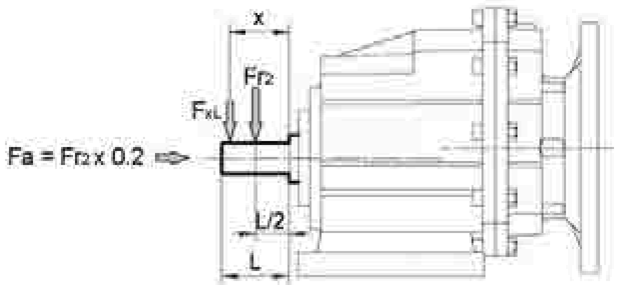
x 轴肩到实际作用点的距离 [mm]

a、b、Fr2 的数值在下面表格给出：

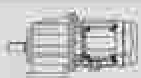
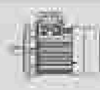
x Distance from the shaft shoulder to the force application point in [mm]
The values of a , b , Fr2 are given in the following tables:

	KPC01	KPC02	KPC03	KPC04	KPC05	KPC06
a	103	116.5	130	147	174	217
b	83	91.5	100	112	134	167

输出轴径向载荷和轴向载荷 Fr2, Fa / **Output shafts radial loads & axial loads Fr2, Fa**



4.7 选型表注释 / SELECTION TABLES COMMENTS

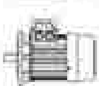
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_S	 Page	  Page

表示IEC与减速器的组合是可行的
表示IEC与减速器的组合是不可行的

- P_{1n} 输入电机额定功率 [kW];
- n_2 输出转速 [r/min];
- M_{2n} 额定输出扭矩 [Nm];
- $M_{2\,max}$ 最大允许输出扭矩 [Nm];
- i 减速器传动比;
- f_S 使用系数;

 减速电机型号

 减速器型号;

 电机型号;

- page 外型尺寸表页码;
- * 表示速比可除尽。

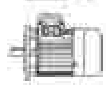
Combination with the IEC in the header row **is possible**

Combination with the IEC in the header row **is not possible**

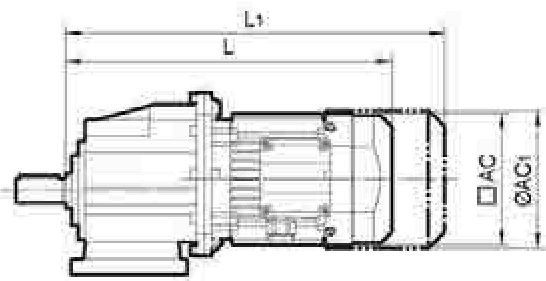
- P_{1n} Rated power driving motor **[kW]**;
- n_2 Output speed **[r/min]**;
- M_{2n} Rated output torque **[Nm]**;
- $M_{2\,max}$ Permissible output torque **[Nm]**;
- i Gear unit ratio;
- f_S Service factor;

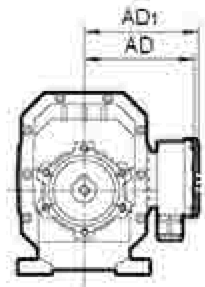
 Geared motor type

 Gear unit type;

 Motor type;

- page Dimension sheet page no;
- * Finite gear unit reduction ratio





L	减速电机总长度;
L1	带刹车的减速电机总长度;
AC	电机直径;
AC1	带刹车电机直径;
AD	接线盒端到电机轴中心距离;
AD1	接线盒端到带刹车的电机轴中心距离.

L	Total length of gearmotor;
L1	Total length of gearmotor including brake;
AC	Diameter of motor;
AC1	Diameter of brake motor;
AD	Center of motor shaft to top part of terminal box;
AD1	Center of brake motor shaft to top part of terminal box.

5. 选型举例 / SELECTION EXAMPLE

5.1 减速器

例：被驱动设备所需扭矩为400Nm，工作6小时/天，均匀冲击负载，启动频率400次/小时，输出转速n2=30 r/min，要求减速器ø200mm输出法兰安装。

查表，选使用系数fs=1.05

$$M_{2n} \geqslant M_2 \cdot f_s = 400 \times 1.05 = 420[\mathrm{Nm}]$$

$$i = \frac{n_1}{n_2} = \frac{1400}{30} = 46.67$$

查KPC系列选型表可选定减速器为:

KPCF04 II - P90B5 - 44.18

5.1 Gear units

Example: The required torque on driven machine is 400Nm, works for 6 hours per day, Uniform shock load, start-up frequency is 400 times per hour, ø200mm output flange-mounted, n2=30 r/min.

see tables, fs=1.05

$$M_{2n} \geqslant M_2 \cdot f_s = 400 \times 1.05 = 420[\mathrm{Nm}]$$

$$i = \frac{n_1}{n_2} = \frac{1400}{30} = 46.67$$

Choose type:

KPCF04 II - P90B5 - 44.18

5.2 减速电机

例：被驱动设备所需功率1kW，工作8小时/天，中等冲击，连续启动，输出转速n2=95r/min，减速电机要求M6底脚安装。

查表，选使用系数fs=1.35

$$i = \frac{n_1}{n_2} = \frac{1400}{95} = 14.74$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{1}{0.96} \times 1.35 = 1.41[\mathrm{kW}]$$

查KPC系列选型表可选定减速电机型号为:

KPC02 - P90B5 - 14.81 - M6 - 1.5-4

5.2 Gear motor

Example: The required power on driven machine 1kW, works for 8 hours per day, moderate shock load, start-up cootinnously, M6 foot-mounted, n2=95 r/min.

see tables, fs=1.35

$$i = \frac{n_1}{n_2} = \frac{1400}{95} = 14.74$$

$$P_{1n} \geq P_1 \cdot f_s = \frac{P_2}{\eta} \cdot f_s = \frac{1}{0.96} \times 1.35 = 1.41[\mathrm{kW}]$$

Choose type:

KPC02 - P90B5 - 14.81 - M6 - 1.5-4

6. 减速器选型表 / GEAR UNIT SELECTION TABLES

6.1 减速器组合表 / Possible geometrical combinations

KPC01..

n_1=1400 r/min

120Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	齿数比	MX63.. 63B5	MX71.. 71B5/B14	MX80.. 80B5/B14	MX90.. 90B5/B14
26	120	2600	53.33	160 / 3				
31	120	2600	45.89	413 / 9				
35	120	2600	40.10	3248 / 81				
39	120	2560	35.47	532 / 15				
49	120	2380	28.50	770 / 27				
59	120	2230	23.56	212 / 9				
71	120	2100	19.83	119 / 6				
78	90	2030	17.86	1357 / 76				
96	120	1900	14.62	658 / 45				
101	90	1860	13.80*	69 / 5				
118	120	1770	11.90	2464 / 207				
143	120	1660	9.81	1148 / 117				
153	80	1630	9.17	1219 / 133				
181	80	1540	7.72	1173 / 152				
246	70	1390	5.69	1081 / 190				
302	70	1290	4.63	88 / 19				
366	70	1210	3.82	943 / 247				

KPC02..

n_1=1400 r/min

200Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	齿数比	MX63.. 63B5	MX71.. 71B5/B14	MX80.. 80B5/B14	MX90.. 90B5/B14
26	200	4500	54.00*	54 / 1				
30	200	4500	46.46*	3717 / 80				
34	200	4500	40.60*	203 / 5				
39	200	4270	35.91*	3591 / 100				
48	200	3970	28.88*	231 / 8				
59	200	3730	23.85*	477 / 20				
70	200	3520	20.08*	3213 / 160				
82	140	3330	17.10	3009 / 176				
95	200	3180	14.81*	2961 / 200				
106	140	3060	13.21	2907 / 220				
116	200	2970	12.05	1386 / 115				
141	200	2780	9.93	2583 / 260				
159	120	2670	8.78	2703 / 308				
189	120	2520	7.39	2601 / 352				
257	100	2280	5.45	2397 / 440				
316	100	2120	4.43	102 / 23				
383	80	1990	3.66	2091 / 572				

KPC 03..

n_1=1400 r/min

300Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	齿数比	MX71.. 71B5/B14	MX80.. 80B5/B14	MX90.. 90B5/B14	MX100.. 100B5/B14	MX112.. 112B5/B14
24	300	6000	58.09	639 / 11					
28	300	6000	50.02	2201 / 44					
32	300	6000	43.75	4331 / 99					
36	300	6000	38.73	426 / 11					
40	300	5860	34.62	4189 / 121					
49	300	5480	28.30	4047 / 143					
64	280	5020	21.78	1917 / 88					
81	280	4660	17.33	3621 / 209					
93	260	4440	15.06	497 / 33					
113	260	4160	12.37	1633 / 132					
136	240	3910	10.28	3053 / 297					
177	180	3590	7.93	1269 / 160					
222	180	3320	6.31	2397 / 380					
255	150	3170	5.48	329 / 60					
311	150	2970	4.50	1081 / 240					
374	150	2790	3.74	2021 / 540					

KPC 04..

n_1=1400 r/min

500Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	齿数比	MX80.. 80B5/B14	MX90.. 90B5/B14	MX100.. 100B5/B14	MX112.. 112B5/B14
24	500	8000	58.09	639 / 11				
28	500	8000	50.02	2201 / 44				
32	500	8000	43.75	4331 / 99				
36	500	8000	38.73	426 / 11				
40	500	7950	34.62	4189 / 121				
49	500	7430	28.30	4047 / 143				
64	480	6810	21.78	1917 / 88				
81	480	6310	17.33	3621 / 209				
93	460	6020	15.06	497 / 33				
113	460	5640	12.37	1633 / 132				
136	440	5300	10.28	3053 / 297				
177	260	4860	7.93	1269 / 160				
222	260	4510	6.31	2397 / 380				
255	230	4300	5.48	329 / 60				
311	230	4030	4.50	1081 / 240				
374	200	3780	3.74	2021 / 540				

KPC05..

n_1=1400 r/min

820Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	MX90.. TAM90	MX100.. TAM100	MX112 TAM112	MX132S MX132M TAM132	MX132ML TAM132	MX160M
25	820	9000	56.08						
29	820	9000	48.29						
33	820	8910	42.23						
37	820	8550	37.38						
42	820	8240	33.42						
46	820	7960	30.12						
56	820	7470	24.92						
67	810	7060	21.03						
84	810	6540	16.72						
110	710	5970	12.73						
121	690	5780	11.57						
140	660	5510	10.02						
160	630	5260	8.72						
184	610	5030	7.62						
222	560	4730	6.31						
256	540	4510	5.47						
294	520	4300	4.76*						
337	500	4110	4.16						

KPC06..

n_1=1400 r/min

1550Nm

n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	i	MX90.. TAM90	MX100.. TAM100	MX112 TAM112	MX132S MX132M TAM132	MX132ML TAM132	MX160M TAM160
24	1550	13000	58.78*						
27	1550	13000	51.56*						
31	1550	13000	45.79*						
34	1550	12470	41.06*						
38	1550	12060	37.13*						
45	1550	11350	30.94*						
53	1550	10750	26.30*						
66	1490	10000	21.17						
84	1380	9240	16.66						
93	1330	8920	15.03						
106	1270	8540	13.18						
120	1230	8190	11.63*						
136	1200	7870	10.31*						
159	1180	7470	8.81						
174	1150	7240	8.04						
198	1050	6930	7.06						
225	1000	6650	6.23*						
254	950	6390	5.52						
297	900	6060	4.71						

6.2 KPC..P(IEC).. 性能参数 / Performance parameter

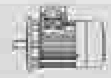
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.12	26	42	53.33	2600	2.9	KPC01	MX63S4	33	KPC01	63B5	6314	34
	31	36	45.89	2600	3.3	KPCF01	MX63S4	33	KPCF01	63B5	6314	34
	35	32	40.10	2600	3.8	KPCZ01	MX63S4	33	KPCZ01	63B5	6314	34
	39	28	35.47	2560	4.3							
	49	22	28.50	2380	5.4							
	59	18.5	23.56	2230	6.5							
	71	15.6	19.83	2100	7.7							
	78	14.0	17.86	2030	6.4							
	96	11.5	14.62	1900	10.4							
	101	10.8	13.80*	1660	8.3							
	118	9.4	11.90	1770	12.8							
	143	7.7	9.81	1660	15.6							
	153	7.2	9.17	1630	11.1							
	181	6.1	7.72	1540	13.2							
	246	4.5	5.69	1390	15.7							
	302	3.6	4.63	1290	19.2							
	366	3.0	3.82	1210	23.3							
	16.9	65	53.33	2600	1.8	KPC01	MX63M6	33	KPC01	63B5	6326	34
	19.6	56	45.89	2600	2.1	KPCF01	MX63M6	33	KPCF01	63B5	6326	34
	22	49	40.10	2600	2.4	KPCZ01	MX63M6	33	KPCZ01	63B5	6326	34
	25	43	35.47	2560	2.8							
	32	35	28.50	2380	3.4							
	38	29	23.56	2230	4.2							
	45	24	19.83	2100	5.0							
	50	22	17.88	2030	4.1							
	62	17.9	14.62	1900	6.7							
	65	16.9	13.80*	1860	5.3							
	76	14.5	11.90	1770	8.2							
	92	12.0	9.81	1660	10.0							
	98	11.2	9.17	1630	7.1							
	117	9.4	7.72	1540	8.5							
	158	7.0	5.69	1390	10.1							
	194	5.7	4.63	1290	12.4							
	236	4.7	3.82	1210	15.0							
0.18	26	63	53.33	2600	1.9	KPC01	MX63M4	33	KPC01	63B5	6324	34
	31	54	45.89	2600	2.2	KPCF01	MX63M4	33	KPCF01	63B5	6324	34
	35	47	40.10	2600	2.5	KPCZ01	MX63M4	33	KPCZ01	63B5	6324	34
	39	42	35.47	2560	2.9							
	49	34	28.50	2380	3.6							
	59	28	23.56	2230	4.3							
	71	23	19.83	2100	5.1							
	78	21	17.86	2030	4.3							
	96	17.2	14.62	1900	7.0							
	101	16.3	13.80*	1860	5.5							
	118	14.0	11.90	1770	8.6							
	143	11.6	9.81	1660	10.4							
	153	10.8	9.17	1630	7.4							
	181	9.1	7.72	1540	8.8							
	246	6.7	5.69	1390	10.4							
	302	5.5	4.63	1290	12.8							
	366	4.5	3.82	1210	15.5							
	16.9	98	53.33	2600	1.2	KPC01	MX63L6	33	KPC01	71B5/B14	7116	34
	19.6	84	45.89	2600	1.4	KPCF01	MX63L6	33	KPCF01	71B5/B14	7116	34
	22	74	40.10	2600	1.6	KPCZ01	MX63L6	33	KPCZ01	71B5/B14	7116	34
	25	65	35.47	2600	1.8							
	32	52	28.50	2600	2.3							
	38	43	23.56	2580	2.8							
	45	36	19.83	2440	3.3							
	50	33	17.86	2360	2.7							

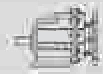
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.18	26	64	54.00*	4500	3.1	KPC02	MX63M4	36	KPC02	63B5	6324	37
	30	55	46.46*	4500	3.7	KPCF02	MX63M4	36	KPCF02	63B5	6324	37
	34	48	40.60*	4500	4.2	KPCZ02	MX63M4	36	KPCZ02	63B5	6324	37
	39	42	35.91*	4270	4.7							
	16.7	99	54.00*	4500	2.0	KPC02	MX63L6	36	KPC02	71B5/B14	7116	37
	19.4	85	46.46*	4500	2.3	KPCF02	MX63L6	36	KPCF02	71B5/B14	7116	37
	22	74	40.60*	4500	2.7	KPCZ02	MX63L6	36	KPCZ02	71B5/B14	7116	37
	25	66	35.91*	4500	3.0							
	31	53	28.88*	4500	3.8							
0.25	26	87	53.33	2600	1.4	KPC01	MX63L4	33	KPC01	71B5/B14	7114	34
	31	75	45.89	2600	1.6	KPCF01	MX63L4	33	KPCF01	71B5/B14	7114	34
	35	66	40.10	2600	1.8	KPCZ01	MX63L4	33	KPCZ01	71B5/B14	7114	34
	39	58	35.47	2560	2.1							
	49	47	28.50	2380	2.6							
	59	39	23.56	2230	3.1							
	71	32	19.63	2100	3.7							
	78	29	17.86	2030	3.1							
	96	24	14.62	1900	5.0							
	101	23	13.80*	1860	4.0							
	118	19.5	11.90	1770	6.2							
	143	16.1	9.81	1660	7.5							
	153	15.0	9.17	1630	5.3							
	181	12.6	7.72	1540	6.3							
	246	9.3	5.69	1390	7.5							
	302	7.6	4.63	1290	9.2							
	366	6.3	3.82	1210	11.2							
	16.9	136	53.33	2600	0.88	KPC01	MX71D6	33	KPC01	71B5/B14	7126	34
	19.6	117	45.89	2600	1.0	KPCF01	MX71D6	33	KPCF01	71B5/B14	7126	34
	22	102	40.10	2600	1.2	KPCZ01	MX71D6	33	KPCZ01	71B5/B14	7126	34
	25	90	35.47	2600	1.3							
	32	73	28.50	2600	1.7							
	38	60	23.56	2580	2.0							
	45	51	19.63	2440	2.4							
	50	45	17.86	2360	2.0							
	62	37	14.62	2200	3.2							
	65	35	13.80*	2160	2.6							
	76	30	11.90	2060	4.0							
	92	25	9.81	1930	4.8							
	98	23	9.17	1890	3.4							
	117	19.7	7.72	1780	4.1							
	158	14.5	5.69	1610	4.8							
	194	11.8	4.63	1500	5.9							
	236	9.7	3.82	1410	7.2							
	26	88	54.00*	4500	2.3	KPC02	MX63L4	36	KPC02	71B5/B14	7114	37
	30	76	46.46*	4500	2.6	KPCF02	MX63L4	36	KPCF02	71B5/B14	7114	37
	34	66	40.60*	4500	3.0	KPCZ02	MX63L4	36	KPCZ02	71B5/B14	7114	37
	39	59	35.91*	4270	3.4							
	16.7	138	54.00*	4500	1.5	KPC02	MX71D6	36	KPC02	71B5/B14	7126	37
	19.4	118	46.46*	4500	1.7	KPCF02	MX71D6	36	KPCF02	71B5/B14	7126	37
	22	103	40.60*	4500	1.9	KPCZ02	MX71D6	36	KPCZ02	71B5/B14	7126	37
	25	91	35.91*	4500	2.2							
	31	74	28.88*	4500	2.7							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.37	26	129	53.33	2600	0.93	KPC01	MX71D4	33	KPC01	71B5/B14	7124	34
	31	111	45.89	2600	1.1	KPCF01	MX71D4	33	KPCF01	71B5/B14	7124	34
	35	97	40.10	2600	1.2	KPCZ01	MX71D4	33	KPCZ01	71B5/B14	7124	34
	39	86	35.47	2580	1.4							
	49	69	28.50	2380	1.7							
	59	57	23.56	2230	2.1							
	71	48	19.83	2100	2.5							
	78	43	17.86	2030	2.1							
	96	35	14.62	1900	3.4							
	101	33	13.80*	1860	2.7							
	118	29	11.90	1770	4.2							
	143	24	9.81	1660	5.0							
	153	22	9.17	1630	3.6							
	181	18.7	7.72	1540	4.3							
	246	13.8	5.69	1390	5.1							
	302	11.2	4.63	1290	6.2							
	366	9.3	3.82	1210	7.6							
	25	134	35.47	2600	0.90	KPC01	MX80K6	33	KPC01	80B5/B14	8016	34
	32	107	28.50	2600	1.1	KPCF01	MX80K6	33	KPCF01	80B5/B14	8016	34
	38	89	23.56	2580	1.4	KPCZ01	MX80K6	33	KPCZ01	80B5/B14	8016	34
	45	75	19.83	2440	1.6							
	50	67	17.86	2360	1.3							
	62	55	14.62	2200	2.2							
	65	52	13.80*	2160	1.7							
	76	45	11.90	2060	2.7							
	92	37	9.81	1930	3.2							
	98	35	9.17	1890	2.3							
	117	29	7.72	1780	2.7							
	26	131	54.00*	4500	1.5	KPC02	MX71D4	36	KPC02	71B5/B14	7124	37
	30	113	46.46*	4500	1.8	KPCF02	MX71D4	36	KPCF02	71B5/B14	7124	37
	34	98	40.60*	4500	2.0	KPCZ02	MX71D4	36	KPCZ02	71B5/B14	7124	37
	39	87	35.91*	4270	2.3							
	48	70	28.88*	3970	2.9							
	59	58	23.85*	3730	3.5							
	70	49	20.08*	3520	4.1							
	82	41	17.10	3330	3.4							
	95	36	14.81*	3180	5.6							
	16.7	204	54.00*	4500	1.0	KPC02	MX80K6	36	KPC02	80B5/B14	8016	37
	19.4	175	46.46*	4500	1.1	KPCF02	MX80K6	36	KPCF02	80B5/B14	8016	37
	22	153	40.60*	4500	1.3	KPCZ02	MX80K6	36	KPCZ02	80B5/B14	8016	37
	25	135	35.91*	4500	1.5							
	31	109	28.88*	4500	1.8							
	38	90	23.85*	4320	2.2							
	45	76	20.08*	4080	2.6							
	53	64	17.10	3860	2.2							
	68	50	13.21	3550	2.8							
	24	141	58.09	6000	2.1	KPC03	MX71D4	39	KPC03	71B5	7124	40
	28	121	50.02	6000	2.5	KPC03	MX71D4	39	KPCF03	71B5	7124	40
	32	106	43.75	6000	2.8	KPC03	MX71D4	39	KPCZ03	71B5	7124	40
	36	94	38.73	6000	3.2							
	40	84	34.62	5860	3.6							
	15.5	219	58.09	6000	1.4	KPC03	MX80K6	39	KPC03	80B5/B14	8016	40
	18.0	189	50.02	6000	1.6	KPC03	MX80K6	39	KPCF03	80B5/B14	8016	40
	21	165	43.75	6000	1.8	KPC03	MX80K6	39	KPCZ03	80B5/B14	8016	40
	23	146	38.73	6000	2.1							
	26	130	34.62	6000	2.3							
	32	107	28.30	6000	2.8							
	41	82	21.78	5820	3.4							

P1n [kW]	n2 [r/min]	M2n [Nm]	i	Fr2 [N]	fs			Page				Page
0.55	53	96	53.33	2320	1.2	KPC01	MX71D2	33	KPC01	71B5/B14	7122	34
	61	83	45.89	2210	1.5	KPCF01	MX71D2	33	KPCF01	71B5/B14	7122	34
	70	72	40.10	2110	1.7	KPCZ01	MX71D2	33	KPCZ01	71B5/B14	7122	34
	79	64	35.47	2030	1.9							
	98	51	28.50	1880	2.3							
	119	42	23.56	1770	2.8							
	141	36	19.83	1670	3.4							
	157	32	17.86	1610	2.8							
	203	25	13.80*	1480	3.6							
	39	126	35.47	2560	0.94	KPC01	MX80K4	33	KPC01	80B5/B14	8014	34
	49	103	28.50	2380	1.2	KPCF01	MX80K4	33	KPCF01	80B5/B14	8014	34
	59	85	23.56	2230	1.4	KPCZ01	MX80K4	33	KPCZ01	80B5/B14	8014	34
	71	71	19.83	2100	1.7							
	78	64	17.86	2030	1.4							
	96	53	14.62	1900	2.3							
	101	50	13.80*	1860	1.6							
	118	43	11.90	1770	2.8							
	143	35	9.81	1660	3.4							
	153	33	9.17	1630	2.4							
	181	28	7.72	1540	2.9							
	246	20	5.69	1390	3.4							
	302	16.7	4.63	1290	4.2							
	366	13.8	3.82	1210	5.1							
	38	132	23.56	2580	0.91	KPC01	MX80N6	33	KPC01	80B5/B14	8026	34
	45	111	19.83	2440	1.1	KPCF01	MX80N6	33	KPCF01	80B5/B14	8026	34
	62	82	14.62	2200	1.5	KPCZ01	MX80N6	33	KPCZ01	80B5/B14	8026	34
	65	77	13.80*	2160	1.2							
	76	67	11.90	2060	1.8							
	92	55	9.81	1930	2.2							
	98	51	9.17	1890	1.6							
	117	43	7.72	1780	1.8							
	158	32	5.69	1610	2.2							
	194	26	4.63	1500	2.7							
	236	21	3.82	1410	3.3							
	52	97	54.00*	3880	2.1	KPC02	MX71D2	36	KPC02	71B5/B14	7122	37
	60	84	46.46*	3690	2.4	KPCF02	MX71D2	36	KPCF02	71B5/B14	7122	37
	69	73	40.60*	3530	2.7	KPCZ02	MX71D2	36	KPCZ02	71B5/B14	7122	37
	78	65	35.91*	3390	3.1							
	97	52	28.88*	3150	3.8							
	26	194	54.00*	4500	1.0	KPC02	MX80K4	36	KPC02	80B5/B14	8014	37
	30	167	46.46*	4500	1.2	KPCF02	MX80K4	36	KPCF02	80B5/B14	8014	37
	34	146	40.60*	4500	1.4	KPCZ02	MX80K4	36	KPCZ02	80B5/B14	8014	37
	39	129	35.91*	4270	1.5							
	48	104	28.88*	3970	1.9							
	59	86	23.85*	3730	2.3							
	70	72	20.08*	3520	2.8							
	82	62	17.10	3330	2.3							
	95	53	14.81*	3180	3.7							
	106	48	13.21	3060	2.9							
	22	227	40.60*	4500	0.88	KPC02	MX80N6	36	KPC02	80B5/B14	8026	37
	25	201	35.91*	4500	1.0	KPCF02	MX80N6	36	KPCF02	80B5/B14	8026	37
	31	162	28.88*	4500	1.2	KPCZ02	MX80N6	36	KPCZ02	80B5/B14	8026	37
	38	134	23.85*	4320	1.5							
	45	113	20.08*	4080	1.8							
	53	96	17.10	3860	1.5							
	61	83	14.81*	3680	2.4							
	68	74	13.21	3550	1.9							
	103	49	8.78	3090	2.4							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.55	24	209	58.09	6000	1.4	KPC03	MX80K4	39	KPC03	80B5/B14	8014	40
	28	180	50.02	6000	1.7	KPC03	MX80K4	39	KPCF03	80B5/B14	8014	40
	32	158	43.75	6000	1.9	KPC03	MX80K4	39	KPCZ03	80B5/B14	8014	40
	36	139	38.73	6000	2.2							
	40	125	34.62	5860	2.4							
	49	102	28.30	5480	2.9							
	64	78	21.78	5020	3.6							
	81	62	17.33	4660	4.5							
	15.5	325	58.09	6000	0.92	KPC03	MX80N6	39	KPC03	80B5/B14	8026	40
	18.0	280	50.02	6000	1.1	KPCF03	MX80N6	39	KPCF03	80B5/B14	8026	40
	21	245	43.75	6000	1.2	KPCZ03	MX80N6	39	KPCZ03	80B5/B14	8026	40
	23	217	38.73	6000	1.4							
	26	194	34.62	6000	1.5							
	32	159	28.30	6000	1.9							
	41	122	21.78	5820	2.3							
	52	97	17.33	5400	2.9							
	60	84	15.06	5150	3.1							
	73	69	12.37	4820	3.8							
	24	209	58.09	8000	2.4	KPC04	MX80K4	42	KPC04	80B5/B14	8014	43
	28	180	50.02	8000	2.8	KPCF04	MX80K4	42	KPCF04	80B5/B14	8014	43
	32	158	43.75	8000	3.2	KPCZ04	MX80K4	42	KPCZ04	80B5/B14	8014	43
	36	139	38.73	8000	3.6							
	40	125	34.62	7950	4.0							
	15.5	325	58.09	8000	1.5	KPC04	MX80N6	42	KPC04	80B5/B14	8026	43
	18.0	280	50.02	8000	1.8	KPCF04	MX80N6	42	KPCF04	80B5/B14	8026	43
	21	245	43.75	8000	2.0	KPCZ04	MX80N6	42	KPCZ04	80B5/B14	8026	43
	23	217	38.73	8000	2.3							
	26	194	34.62	8000	2.6							
	32	159	28.30	8000	3.2							
	41	122	21.78	7890	3.9							
0.75	61	113	45.89	2210	1.1	KPC01	MX80K2	33	KPC01	80B5/B14	8012	34
	70	98	40.10	2110	1.2	KPCF01	MX80K2	33	KPCF01	80B5/B14	8012	34
	79	87	35.47	2030	1.4	KPCZ01	MX80K2	33	KPCZ01	80B5/B14	8012	34
	98	70	28.50	1880	1.7							
	119	58	23.56	1770	2.1							
	141	49	19.83	1670	2.5							
	157	44	17.86	1610	2.1							
	192	36	14.62	1510	3.3							
	203	34	13.80*	1480	2.7							
	59	116	23.56	2230	1.0	KPC01	MX80N4	33	KPC01	80B5/B14	8024	34
	71	97	19.83	2100	1.2	KPCF01	MX80N4	33	KPCF01	80B5/B14	8024	34
	78	88	17.86	2030	1.0	KPCZ01	MX80N4	33	KPCZ01	80B5/B14	8024	34
	96	72	14.62	1900	1.7							
	101	68	13.80*	1860	1.3							
	118	58	11.90	1770	2.1							
	143	48	9.81	1660	2.5							
	153	45	9.17	1630	1.8							
	181	38	7.72	1540	2.1							
	246	28	5.69	1390	2.5							
	302	23	4.63	1290	3.1							
	366	18.8	3.82	1210	3.7							
	62	112	14.62	2200	1.1	KPC01	MX90S6	33	KPC01	90B5/B14	90S6	34
	76	91	11.90	2060	1.3	KPCF01	MX90S6	33	KPCF01	90B5/B14	90S6	34
	92	75	9.81	1930	1.6	KPCZ01	MX90S6	33	KPCZ01	90B5/B14	90S6	34
	98	70	9.17	1890	1.1							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.75	117	59	7.72	1780	1.4	KPC01	MX90S6	33	KPC01	90B5/B14	90S6	34
	158	43	5.69	1610	1.6	KPCF01	MX90S6	33	KPCF01	90B5/B14	90S6	34
	194	35	4.63	1500	2.0	KPCZ01	MX90S6	33	KPCZ01	90B5/B14	90S6	34
	236	29	3.82	1410	2.4							
	52	133	54.00*	3880	1.5	KPC02	MX80K2	36	KPC02	80B5/B14	8012	37
	60	114	46.46*	3690	1.8	KPCF02	MX80K2	36	KPCF02	80B5/B14	8012	37
	69	100	40.60*	3530	2.0	KPCZ02	MX80K2	36	KPCZ02	80B5/B14	8012	37
	78	88	35.91*	3390	2.3							
	97	71	28.88*	3150	2.8							
	117	59	23.85*	2960	3.4							
	139	49	20.08*	2790	4.1							
	164	42	17.10	2650	3.3							
	30	228	46.46*	4500	0.88	KPC02	MX80N4	36	KPC02	80B5/B14	8024	37
	34	199	40.60*	4500	1.0	KPCF02	MX80N4	36	KPCF02	80B5/B14	8024	37
	39	176	35.91*	4270	1.1	KPCZ02	MX80N4	36	KPCZ02	80B5/B14	8024	37
	48	142	28.88*	3970	1.4							
	59	117	23.85*	3730	1.7							
	70	99	20.08*	3520	2.0							
	82	84	17.10	3330	1.7							
	95	73	14.81*	3180	2.7							
	106	65	13.21	3060	2.2							
	116	59	12.05	2970	3.4							
	141	49	9.93	2780	4.1							
	159	43	8.78	2670	2.8							
	189	36	7.39	2520	3.3							
	257	27	5.45	2280	3.7							
	38	182	23.85*	4320	1.1	KPC02	MX90S6	36	KPC02	90B5/B14	90S6	37
	45	153	20.08*	4080	1.3	KPCF02	MX90S6	36	KPCF02	90B5/B14	90S6	37
	61	113	14.81*	3680	1.8	KPCZ02	MX90S6	36	KPCZ02	90B5/B14	90S6	37
	68	101	13.21	3550	1.4							
	75	92	12.05	3440	2.2							
	91	76	9.93	3220	2.6							
	103	67	8.78	3090	1.8							
	122	56	7.39	2920	2.1							
	165	42	5.45	2640	2.4							
	48	143	58.09	5530	2.1	KPC03	MX80K2	39	KPC03	80B5/B14	8012	40
	56	123	50.02	5260	2.4	KPCF03	MX80K2	39	KPCF03	80B5/B14	8012	40
	64	107	43.75	5030	2.8	KPCZ03	MX80K2	39	KPCZ03	80B5/B14	8012	40
	72	95	38.73	4830	3.2							
	81	85	34.62	4650	3.5							
	24	285	58.09	6000	1.1	KPC03	MX80N4	39	KPC03	80B5/B14	8024	40
	28	246	50.02	6000	1.2	KPCF03	MX80N4	39	KPCF03	80B5/B14	8024	40
	32	215	43.75	6000	1.4	KPCZ03	MX80N4	39	KPCZ03	80B5/B14	8024	40
	36	190	38.73	6000	1.6							
	40	170	34.62	5860	1.8							
	49	139	28.30	5480	2.2							
	64	107	21.78	5020	2.6							
	81	85	17.33	4660	3.3							
	93	74	15.06	4440	3.5							
	23	296	38.73	6000	1.0	KPC03	MX90S6	39	KPC03	90B5/B14	90S6	40
	26	264	34.62	6000	1.1	KPCF03	MX90S6	39	KPCF03	90B5/B14	90S6	40
	32	216	28.30	6000	1.4	KPCZ03	MX90S6	39	KPCZ03	90B5/B14	90S6	40
	41	166	21.78	5820	1.7							
	52	132	17.33	5400	2.1							
	60	115	15.06	5150	2.3							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
0.75	73	95	12.37	4820	2.8	KPC03	MX90S6	39	KPC03	90B5/B14	90S6	40
	88	79	10.28	4530	3.1	KPCF03	MX90S6	39	KPCF03	90B5/B14	90S6	40
	113	61	7.93*	4160	3.0	KPCZ03	MX90S6	39	KPCZ03	90B5/B14	90S6	40
	143	48	6.31	3850	3.7							
	164	42	5.48	3670	3.6							
	24	285	58.09	8000	1.8	KPC04	MX80N4	42	KPC04	80B5/B14	8024	43
	28	246	50.02	8000	2.0	KPCF04	MX80N4	42	KPCF04	80B5/B14	8024	43
	32	215	43.75	8000	2.3	KPCZ04	MX80N4	42	KPCZ04	80B5/B14	8024	43
	36	190	38.73	8000	2.6							
	40	170	34.62	7950	2.9							
	49	139	28.30	7430	3.6							
	64	107	21.78	6810	4.5							
	15.5	444	58.09	8000	1.1	KPC04	MX90S6	42	KPC04	90B5/B14	90S6	43
	18.0	382	50.02	8000	1.3	KPCF04	MX90S6	42	KPCF04	90B5/B14	90S6	43
	21	334	43.75	8000	1.5	KPCZ04	MX90S6	42	KPCZ04	90B5/B14	90S6	43
	23	296	38.73	8000	1.7							
	26	264	34.62	8000	1.9							
	32	216	28.30	8000	2.3							
	41	166	21.78	7890	2.9							
	52	132	17.33	7310	3.6							
1.1	98	103	28.50	1880	1.2	KPC01	MX80N2	33	KPC01	80B5/B14	8022	34
	119	85	23.56	1770	1.4	KPCF01	MX80N2	33	KPCF01	80B5/B14	8022	34
	141	71	19.83	1670	1.7	KPCZ01	MX80N2	33	KPCZ01	80B5/B14	8022	34
	157	64	17.86	1610	1.4							
	192	53	14.62	1510	2.3							
	203	50	13.80*	1480	1.8							
	235	43	11.90	1410	2.8							
	285	35	9.81	1320	3.4							
	305	33	9.17	1290	2.4							
	363	28	7.72	1220	2.9							
	492	20	5.69	1100	3.4							
	605	16.7	4.63	1030	4.2							
	733	13.8	3.82	960	5.1							
	96	105	14.62	1900	1.1	KPC01	MX90S4	33	KPC01	90B5/B14	90S4	34
	118	86	11.90	1770	1.4	KPCF01	MX90S4	33	KPCF01	90B5/B14	90S4	34
	143	71	9.81	1660	1.7	KPCZ01	MX90S4	33	KPCZ01	90B5/B14	90S4	34
	153	66	9.17	1630	1.2							
	181	56	7.72	1540	1.4							
	246	41	5.69	1390	1.7							
	302	33	4.63	1290	2.1							
	366	28	3.82	1210	2.5							
	92	110	9.81	1930	1.1	KPC01	MX90L6	33	KPC01	90B5/B14	90L6	34
	117	87	7.72	1780	0.92	KPCF01	MX90L6	33	KPCF01	90B5/B14	90L6	34
	156	64	5.69	1610	1.1	KPCZ01	MX90L6	33	KPCZ01	90B5/B14	90L6	34
	194	52	4.63	1500	1.3							
	236	43	3.82	1410	1.6							
	52	194	54.00*	3880	1.0	KPC02	MX80N2	36	KPC02	80B5/B14	8022	37
	60	167	46.46*	3690	1.2	KPCF02	MX80N2	36	KPCF02	80B5/B14	8022	37
	69	146	40.60*	3530	1.4	KPCZ02	MX80N2	36	KPCZ02	80B5/B14	8022	37
	78	129	35.91*	3390	1.5							
	97	104	28.88*	3150	1.9							
	117	86	23.85*	2960	2.3							
	139	72	20.08*	2790	2.8							
	164	62	17.10	2650	2.3							
	189	53	14.81*	2520	3.7							
	212	48	13.21	2430	2.9							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
1.1	48	208	28.88*	3970	0.96	KPC02	MX90S4	36	KPC02	90B5/B14	90S4	37
	59	172	23.85*	3730	1.2	KPCF02	MX90S4	36	KPCF02	90B5/B14	90S4	37
	70	146	20.08*	3520	1.4	KPCZ02	MX90S4	36	KPCZ02	90B5/B14	90S4	37
	95	107	14.81*	3180	1.9							
	106	95	13.21	3060	1.5							
	116	87	12.05	2970	2.3							
	141	72	9.93	2780	2.8							
	159	63	8.78	2670	1.9							
	189	53	7.39	2520	2.3							
	257	39	5.45	2280	2.5							
	316	32	4.43	2120	3.1							
	383	26	3.66	1990	3.0							
	61	166	14.81*	3680	1.2	KPC02	MX90L6	36	KPC02	90B5/B14	90L6	37
	75	135	12.05	3440	1.5	KPCF02	MX90L6	36	KPCF02	90B5/B14	90L6	37
	91	111	9.93	3220	1.8	KPCZ02	MX90L6	36	KPCZ02	90B5/B14	90L6	37
	103	98	8.78	3090	1.2							
	122	83	7.39	2920	1.4							
	165	61	5.45	2640	1.6							
	203	50	4.43	2460	2.0							
	246	41	3.66	2310	2.0							
	48	209	58.09	5530	1.4	KPC03	MX80N2	39	KPC03	80B5/B14	8022	40
	56	180	50.02	5260	1.7	KPCF03	MX80N2	39	KPCF03	80B5/B14	8022	40
	64	158	43.75	5030	1.9	KPCZ03	MX80N2	39	KPCZ03	80B5/B14	8022	40
	72	139	38.73	4830	2.2							
	81	125	34.62	4650	2.4							
	99	102	28.30	4350	2.9							
	129	78	21.78	3990	3.6							
	32	315	43.75	6000	0.95	KPC03	MX90S4	39	KPC03	90B5/B14	90S4	40
	36	279	38.73	6000	1.1	KPCF03	MX90S4	39	KPCF03	90B5/B14	90S4	40
	40	249	34.62	5860	1.2	KPCZ03	MX90S4	39	KPCZ03	90B5/B14	90S4	40
	49	204	28.30	5480	1.5							
	64	157	21.78	5020	1.8							
	81	125	17.33	4660	2.2							
	93	108	15.06	4440	2.4							
	113	89	12.37	4160	2.9							
	136	74	10.28	3910	3.2							
	177	57	7.93*	3590	3.2							
	222	45	6.31	3320	4.0							
	255	39	5.48	3170	3.8							
	311	32	4.50	2970	4.6							
	374	27	3.74	2790	5.6							
	32	317	28.30	6000	0.95	KPC03	MX90L6	39	KPC03	90B5/B14	90L6	40
	41	244	21.78	5820	1.1	KPCF03	MX90L6	39	KPCF03	90B5/B14	90L6	40
	52	194	17.33	5400	1.4	KPCZ03	MX90L6	39	KPCZ03	90B5/B14	90L6	40
	60	169	15.06	5150	1.5							
	73	139	12.37	4820	1.9							
	88	115	10.28	4530	2.1							
	113	89	7.93*	4160	2.0							
	143	71	6.31	3850	2.5							
	164	61	5.48	3670	2.4							
	200	50	4.50	3440	3.0							
	241	42	3.74	3230	3.6							
	48	209	58.09	7500	2.4	KPC04	MX80N2	42	KPC04	80B5/B14	8022	43
	56	180	50.02	7130	2.8	KPCF04	MX80N2	42	KPCF04	80B5/B14	8022	43
	64	158	43.75	6820	3.2	KPCZ04	MX80N2	42	KPCZ04	80B5/B14	8022	43
	72	139	38.73	6550	3.6							
	81	125	34.62	6310	4.0							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
1.1	24	418	58.09	8000	1.2	KPC04	MX90S4	42	KPC04	90B5/B14	90S4	43
	28	360	50.02	8000	1.4	KPCF04	MX90S4	42	KPCF04	90B5/B14	90S4	43
	32	315	43.75	8000	1.6	KPCZ04	MX90S4	42	KPCZ04	90B5/B14	90S4	43
	36	279	38.73	8000	1.8							
	40	249	34.62	7950	2.0							
	49	204	28.30	7430	2.5							
	64	157	21.78	6810	3.1							
	81	125	17.33	6310	3.8							
	93	108	15.06	6020	4.2							
	21	490	43.75	8000	1.0	KPC04	MX90L6	42	KPC04	90B5/B14	90L6	43
	23	434	38.73	8000	1.2	KPCF04	MX90L6	42	KPCF04	90B5/B14	90L6	43
	26	386	34.62	8000	1.3	KPCZ04	MX90L6	42	KPCZ04	90B5/B14	90L6	43
	32	317	28.30	8000	1.6							
	41	244	21.78	7890	2.0							
	52	194	17.33	7310	2.5							
	60	169	15.06	6980	2.7							
	73	139	12.37	6540	3.3							
	88	115	10.28	6150	3.8							
	113	89	7.93*	5640	2.9							
	143	71	6.31	5220	3.7							
	164	61	5.48	4980	3.7							
	25	404	56.08	9000	2.0	KPC05	MX90S4	45	KPC05	TAM90	90S4	46
	29	348	48.29	9000	2.4	KPCF05	MX90S4	45	KPCF05	TAM90	90S4	46
	33	304	42.23	8910	2.7	KPCZ05	MX90S4	45	KPCZ05	TAM90	90S4	46
	37	269	37.38	8550	3.0							
	42	241	33.42	8240	3.4							
	46	217	30.12	7960	3.8							
	16.0	628	56.08	9000	1.3	KPC05	MX90L6	45	KPC05	TAM90	90L6	46
	18.6	541	48.29	9000	1.5	KPCF05	MX90L6	45	KPCF05	TAM90	90L6	46
	21	473	42.23	9000	1.7	KPCZ05	MX90L6	45	KPCZ05	TAM90	90L6	46
	24	419	37.38	9000	2.0							
	27	374	33.42	9000	2.2							
	30	338	30.12	9000	2.4							
	36	279	24.92	8660	2.9							
	43	236	21.03	8180	3.4							
	24	423	58.78*	13000	3.7	KPC06	MX90S4	48	KPC06	TAM90	90S4	49
	27	371	51.56*	13000	4.2	KPCF06	MX90S4	48	KPCF06	TAM90	90S4	49
						KPCZ06	MX90S4	48	KPCZ06	TAM90	90S4	49
	15.3	659	58.78*	13000	2.4	KPC06	MX90L6	48	KPC06	TAM90	90L6	49
	17.5	578	51.56*	13000	2.7	KPCF06	MX90L6	48	KPCF06	TAM90	90L6	49
	19.7	513	45.79*	13000	3.0	KPCZ06	MX90L6	48	KPCZ06	TAM90	90L6	49
	22	460	41.06*	13000	3.4							
	24	416	37.13*	13000	3.7							
1.5	119	116	23.56	1770	1.0	KPC01	MX90S2	33	KPC01	90B5/B14	90S2	34
	141	97	19.83	1670	1.2	KPCF01	MX90S2	33	KPCF01	90B5/B14	90S2	34
	192	72	14.62	1510	1.7	KPCZ01	MX90S2	33	KPCZ01	90B5/B14	90S2	34
	203	68	13.80*	1480	1.3							
	235	58	11.90	1410	2.1							
	285	48	9.81	1320	2.5							
	305	45	9.17	1290	1.8							
	363	38	7.72	1220	2.1							
	492	28	5.69	1100	2.5							
	605	23	4.63	1030	3.1							
	733	18.8	3.82	960	3.7							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
1.5	118	117	11.90	1770	1.0	KPC01	MX90L4	33	KPC01	90B5/B14	90L4	34
	143	96	9.81	1660	1.2	KPCF01	MX90L4	33	KPCF01	90B5/B14	90L4	34
	153	90	9.17	1630	0.89	KPCZ01	MX90L4	33	KPCZ01	90B5/B14	90L4	34
	181	76	7.72	1540	1.1							
	246	56	5.69	1390	1.3							
	302	45	4.63	1290	1.5							
	366	38	3.82	1210	1.9							
	69	199	40.60*	3530	1.0	KPC02	MX90S2	36	KPC02	90B5/B14	90S2	37
	78	176	35.91*	3390	1.1	KPCF02	MX90S2	36	KPCF02	90B5/B14	90S2	37
	97	142	28.88*	3150	1.4	KPCZ02	MX90S2	36	KPCZ02	90B5/B14	90S2	37
	117	117	23.85*	2960	1.7							
	139	99	20.08*	2790	2.0							
	189	73	14.81*	2520	2.7							
	212	65	13.21	2430	2.2							
	232	59	12.05	2350	3.4							
	282	49	9.93	2210	4.1							
	319	43	8.78	2120	2.8							
	379	36	7.39	2000	3.3							
	514	27	5.45	1810	3.7							
	95	145	14.81*	3180	1.4	KPC02	MX90L4	36	KPC02	90B5/B14	90L4	37
	116	118	12.05	2970	1.7	KPCF02	MX90L4	36	KPCF02	90B5/B14	90L4	37
	141	98	9.93	2780	2.1	KPCZ02	MX90L4	36	KPCZ02	90B5/B14	90L4	37
	159	86	8.78	2670	1.4							
	189	73	7.39	2520	1.7							
	257	54	5.45	2280	1.9							
	316	44	4.43	2120	2.3							
	383	36	3.66	1990	2.2							
	48	285	58.09	5630	1.1	KPC03	MX90S2	39	KPC03	90B5/B14	90S2	40
	56	246	50.02	5260	1.2	KPCF03	MX90S2	39	KPCF03	90B5/B14	90S2	40
	64	215	43.75	5030	1.4	KPCZ03	MX90S2	39	KPCZ03	90B5/B14	90S2	40
	72	190	38.73	4830	1.6							
	81	170	34.62	4650	1.8							
	99	139	28.30	4350	2.2							
	129	107	21.78	3990	2.6							
	162	85	17.33	3690	3.3							
	186	74	15.06	3530	3.5							
	40	340	34.62	5860	0.88	KPC03	MX90L4	39	KPC03	90B5/B14	90L4	40
	49	278	28.30	5480	1.1	KPCF03	MX90L4	39	KPCF03	90B5/B14	90L4	40
	64	214	21.78	5020	1.3	KPCZ03	MX90L4	39	KPCZ03	90B5/B14	90L4	40
	81	170	17.33	4660	1.6							
	93	148	15.06	4440	1.8							
	113	122	12.37	4160	2.1							
	136	101	10.28	3910	2.4							
	177	78	7.93*	3590	2.3							
	222	62	6.31	3320	2.9							
	255	54	5.48	3170	2.8							
	311	44	4.50	2970	3.4							
	374	37	3.74	2790	4.1							
	52	265	17.33	5400	1.1	KPC03	MX100M6	39	KPC03	100B5/B14	100L6	40
	60	230	15.06	5150	1.1	KPCF03	MX100M6	39	KPCF03	100B5/B14	100L6	40
	73	189	12.37	4820	1.4	KPCZ03	MX100M6	39	KPCZ03	100B5/B14	100L6	40
	88	157	10.28	4530	1.5							
	113	121	7.93*	4160	1.5							
	143	96	6.31	3850	1.9							
	164	84	5.48	3670	1.8							
	200	69	4.50	3440	2.2							
	241	57	3.74	3230	2.6							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
1.5	48	285	58.09	7500	1.8	KPC 04	MX90S2	42	KPC 04	90B5/B14	90S2	43
	56	246	50.02	7130	2.0	KPC F04	MX90S2	42	KPC F04	90B5/B14	90S2	43
	64	215	43.75	6820	2.3	KPC Z04	MX90S2	42	KPC Z04	90B5/B14	90S2	43
	72	190	38.73	6550	2.6							
	81	170	34.62	6310	2.9							
	99	139	28.30	5900	3.6							
	24	571	58.09	8000	0.88	KPC 04	MX90L4	42	KPC 04	90B5/B14	90L4	43
	28	491	50.02	8000	1.0	KPC F04	MX90L4	42	KPC F04	90B5/B14	90L4	43
	32	430	43.75	8000	1.2	KPC Z04	MX90L4	42	KPC Z04	90B5/B14	90L4	43
	36	380	38.73	8000	1.3							
	40	340	34.62	7950	1.5							
	49	278	28.30	7430	1.8							
	64	214	21.78	6810	2.2							
	81	170	17.33	6310	2.8							
	93	146	15.06	6020	3.1							
	113	122	12.37	5640	3.8							
	136	101	10.28	5300	4.4							
	177	78	7.93*	4860	3.3							
	222	62	6.31	4510	4.2							
	255	54	5.48	4300	4.3							
	26	529	34.62	8000	0.95	KPC 04	MX100M6	42	KPC 04	100B5/B14	100L6	43
	32	432	28.30	8000	1.2	KPC F04	MX100M6	42	KPC F04	100B5/B14	100L6	43
	41	333	21.78	7890	1.4	KPC Z04	MX100M6	42	KPC Z04	100B5/B14	100L6	43
	52	265	17.33	7310	1.8							
	60	230	15.06	6980	2.0							
	73	189	12.37	6540	2.4							
	88	157	10.28	6150	2.8							
	113	121	7.93*	5640	2.1							
	143	96	6.31	5220	2.7							
	164	84	5.48	4980	2.7							
	200	69	4.50	4660	3.3							
	241	57	3.74	4390	3.5							
	50	275	56.08	7770	3.0	KPC 05	MX90S2	45	KPC 05	TAM90	90S2	46
	58	237	48.29	7390	3.5	KPC F05	MX90S2	45	KPC F05	TAM90	90S2	46
	66	207	42.23	7070	4.0	KPC Z05	MX90S2	45	KPC Z05	TAM90	90S2	46
	25	551	56.08	9000	1.5	TRC 05	MX90L4	45	KPC 05	TAM90	90L4	46
	29	474	48.29	9000	1.7	TRC F05	MX90L4	45	KPC F05	TAM90	90L4	46
	33	415	42.23	8910	2.0	TRC Z05	MX90L4	45	KPC Z05	TAM90	90L4	46
	37	367	37.38	8550	2.2							
	42	328	33.42	8240	2.5							
	46	296	30.12	7960	2.8							
	56	245	24.92	7470	3.3							
	67	207	21.03	7060	3.9							
	18.6	738	48.29	9000	1.1	KPC 05	MX100M6	45	KPC 05	TAM100	100L6	46
	21	645	42.23	9000	1.3	KPC F05	MX100M6	45	KPC F05	TAM100	100L6	46
	24	571	37.38	9000	1.4	KPC Z05	MX100M6	45	KPC Z05	TAM100	100L6	46
	27	511	33.42	9000	1.6							
	30	460	30.12	9000	1.8							
	36	381	24.92	8660	2.2							
	43	321	21.03	8180	2.5							
	54	255	16.72	7580	3.2							
	71	195	12.73	6920	3.7							
	78	177	11.57	6700	3.9							

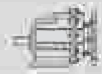
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
1.5	24	577	58.78*	13000	2.7	KPC06	MX90L4	48	KPC06	TAM90	90L4	49
	27	506	51.56*	13000	3.1	KPCF06	MX90L4	48	KPCF06	TAM90	90L4	49
	31	450	45.79*	13000	3.4	KPCZ06	MX90L4	48	KPCZ06	TAM90	90L4	49
	34	403	41.06*	12470	3.8							
	15.3	898	58.78*	13000	1.7	KPC06	MX100M6	48	KPC06	TAM100	100L6	49
	17.5	788	51.56*	13000	2.0	KPCF06	MX100M6	48	KPCF06	TAM100	100L6	49
	19.7	700	45.79*	13000	2.2	KPCZ06	MX100M6	48	KPCZ06	TAM100	100L6	49
	22	627	41.06*	13000	2.5							
	24	567	37.13*	13000	2.7							
	29	473	30.94*	13000	3.3							
	34	402	26.30*	12460	3.9							
2.2	97	208	28.88*	3150	0.96	KPC02	MX90L2	36	KPC02	90B5/B14	90L2	37
	117	172	23.85*	2960	1.2	KPCF02	MX90L2	36	KPCF02	90B5/B14	90L2	37
	139	145	20.08*	2790	1.4	KPCZ02	MX90L2	36	KPCZ02	90B5/B14	90L2	37
	189	107	14.81*	2520	1.9							
	212	95	13.21	2430	1.5							
	232	87	12.05	2350	2.3							
	282	72	9.93	2210	2.8							
	319	63	8.78	2120	1.9							
	379	53	7.39	2000	2.3							
	514	39	5.45	1810	2.5							
	632	32	4.43	1680	3.1							
	765	26	3.66	1580	3.0							
	64	315	43.75	5030	0.95	KPC03	MX90L2	39	KPC03	90B5/B14	90L2	40
	72	279	38.73	4830	1.1	KPCF03	MX90L2	39	KPCF03	90B5/B14	90L2	40
	81	249	34.62	4650	1.2	KPCZ03	MX90L2	39	KPCZ03	90B5/B14	90L2	40
	99	204	28.30	4350	1.5							
	129	157	21.78	3990	1.8							
	162	125	17.33	3690	2.2							
	186	108	15.06	3530	2.4							
	226	89	12.37	3300	2.9							
	272	74	10.28	3100	3.2							
	353	57	7.93*	2850	3.2							
	444	45	6.31	2640	4.0							
	511	39	5.48	2520	3.6							
	64	314	21.78	5020	0.89	KPC03	MX100M4	39	KPC03	100B5/B14	100LA4	40
	81	250	17.33	4660	1.1	KPCF03	MX100M4	39	KPCF03	100B5/B14	100LA4	40
	93	217	15.06	4440	1.2	KPCZ03	MX100M4	39	KPCZ03	100B5/B14	100LA4	40
	113	178	12.37	4160	1.5							
	136	148	10.28	3910	1.6							
	177	114	7.93*	3590	1.6							
	222	91	6.31	3320	2.0							
	255	79	5.48	3170	1.9							
	311	65	4.50	2970	2.3							
	374	54	3.74	2790	2.8							
	73	277	12.37	4820	0.94	KPC03	MX112M6	39	KPC03	112B5/B14	112M6	40
	88	230	10.28	4530	1.0	KPCF03	MX112M6	39	KPCF03	112B5/B14	112M6	40
	113	178	7.93*	4160	1.0	KPCZ03	MX112M6	39	KPCZ03	112B5/B14	112M6	40
	143	141	6.31	3850	1.3							
	164	123	5.48	3670	1.2							
	200	101	4.50	3440	1.5							
	241	84	3.74	3230	1.8							
	48	418	58.09	7500	1.2	KPC04	MX90L2	42	KPC04	90B5/B14	90L2	43
	56	360	50.02	7130	1.4	KPCF04	MX90L2	42	KPCF04	90B5/B14	90L2	43
	64	315	43.75	6820	1.6	KPCZ04	MX90L2	42	KPCZ04	90B5/B14	90L2	43

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
2.2	72	279	38.73	6550	1.8	KPC04	MX90L2	42	KPC04	90B5/B14	90L2	43
	81	249	34.62	6310	2.0	KPCF04	MX90L2	42	KPCF04	90B5/B14	90L2	43
	99	204	28.30	5900	2.5	KPCZ04	MX90L2	42	KPCZ04	90B5/B14	90L2	43
	129	157	21.78	5410	3.1							
	162	125	17.33	5010	3.8							
	40	499	34.62	7950	1.0	KPC04	MX100M4	42	KPC04	100B5/B14	100LA4	43
	49	408	28.30	7430	1.2	KPCF04	MX100M4	42	KPCF04	100B5/B14	100LA4	43
	64	314	21.78	6810	1.5	KPCZ04	MX100M4	42	KPCZ04	100B5/B14	100LA4	43
	81	250	17.33	6310	1.9							
	93	217	15.06	6020	2.1							
	113	178	12.37	5840	2.6							
	136	146	10.28	5300	3.0							
	177	114	7.93*	4860	2.3							
	222	91	6.31	4510	2.9							
	255	79	5.48	4300	2.9							
	311	65	4.50	4030	3.5							
	374	54	3.74	3780	3.7							
	41	488	21.78	7890	1.0	KPC04	MX112M6	42	KPC04	112B5/B14	112M6	43
	52	388	17.33	7310	1.2	KPCF04	MX112M6	42	KPCF04	112B5/B14	112M6	43
	60	338	15.06	6980	1.4	KPCZ04	MX112M6	42	KPCZ04	112B5/B14	112M6	43
	73	277	12.37	6540	1.7							
	88	230	10.28	6150	1.9							
	113	178	7.93*	5640	1.5							
	143	141	6.31	5220	1.8							
	164	123	5.48	4980	1.9							
	200	101	4.50	4660	2.3							
	241	84	3.74	4390	2.4							
	50	404	56.08	7770	2.0	KPC05	MX90L2	45	KPC05	TAM90	90L2	46
	58	348	48.29	7390	2.4	KPCF05	MX90L2	45	KPCF05	TAM90	90L2	46
	66	304	42.23	7070	2.7	KPCZ05	MX90L2	45	KPCZ05	TAM90	90L2	46
	75	269	37.38	6790	3.0							
	84	241	33.42	6540	3.4							
	93	217	30.12	6320	3.8							
	29	696	48.29	9000	1.2	KPC05	MX100M4	45	KPC05	TAM100	100LA4	46
	33	608	42.23	8910	1.3	KPCF05	MX100M4	45	KPCF05	TAM100	100LA4	46
	37	539	37.38	8550	1.5	KPCZ05	MX100M4	45	KPCZ05	TAM100	100LA4	46
	42	481	33.42	8240	1.7							
	46	434	30.12	7960	1.9							
	56	359	24.92	7470	2.3							
	67	303	21.03	7060	2.7							
	84	241	16.72	6540	3.4							
	110	183	12.73	5970	3.9							
	121	167	11.57	5780	4.1							
	24	838	37.38	9000	0.98	KPC05	MX112M6	45	KPC05	TAM112	112M6	46
	27	749	33.42	9000	1.1	KPCF05	MX112M6	45	KPCF05	TAM112	112M6	46
	30	676	30.12	9000	1.2	KPCZ05	MX112M6	45	KPCZ05	TAM112	112M6	46
	36	558	24.92	8660	1.5							
	43	471	21.03	8180	1.7							
	54	375	16.72	7580	2.2							
	71	285	12.73	6920	2.5							
	78	259	11.57	6700	2.7							
	90	225	10.02	6390	2.9							
	103	195	8.72	6100	3.2							
	118	171	7.62	5830	3.6							
	143	141	6.31	5480	4.0							

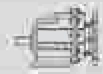
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
2.2	48	423	58.78*	11160	3.7	KPC06	MX90L2	48	KPC06	TAM90	90L2	49
	54	371	51.56*	10680	4.2	KPCF06	MX90L2	48	KPCF06	TAM90	90L2	49
						KPCZ06	MX90L2	48	KPCZ06	TAM90	90L2	49
	24	847	58.78*	13000	1.8	KPC06	MX100M4	48	KPC06	TAM100	100LA4	49
	27	743	51.56*	13000	2.1	KPCF06	MX100M4	48	KPCF06	TAM100	100LA4	49
	31	660	45.79*	13000	2.3	KPCZ06	MX100M4	48	KPCZ06	TAM100	100LA4	49
	34	592	41.06*	12470	2.6							
	38	535	37.13*	12060	2.9							
	45	446	30.94*	11350	3.5							
	53	379	26.30*	10750	4.1							
	15.3	1317	58.78*	13000	1.2	KPC06	MX112M6	48	KPC06	TAM112	112M6	49
	17.5	1155	51.56*	13000	1.3	KPCF06	MX112M6	48	KPCF06	TAM112	112M6	49
	19.7	1026	45.79*	13000	1.5	KPCZ06	MX112M6	48	KPCZ06	TAM112	112M6	49
	22	920	41.06*	13000	1.7							
	24	832	37.13*	13000	1.9							
	29	693	30.94*	13000	2.2							
	34	589	26.30*	12460	2.6							
	43	474	21.17	11590	3.1							
	54	374	16.68	10700	3.7							
	60	337	15.03	10340	3.9							
3.0	99	278	28.30	4350	1.1	KPC03	MX100M2	39	KPC03	100B5/B14	100L2	40
	129	214	21.78	3990	1.3	KPCF03	MX100M2	39	KPCF03	100B5/B14	100L2	40
	162	170	17.33	3690	1.6	KPCZ03	MX100M2	39	KPCZ03	100B5/B14	100L2	40
	186	148	15.06	3530	1.8							
	226	122	12.37	3300	2.1							
	272	101	10.28	3100	2.4							
	353	78	7.93*	2850	2.3							
	444	62	6.31	2640	2.9							
	511	54	5.48	2520	2.8							
	622	44	4.50	2350	3.4							
	749	37	3.74	2210	4.1							
	93	296	15.06	4440	0.88	KPC03	MX100L4	39	KPC03	100B5/B14	100LB4	40
	113	243	12.37	4160	1.1	KPCF03	MX100L4	39	KPCF03	100B5/B14	100LB4	40
	136	202	10.28	3910	1.2	KPCZ03	MX100L4	39	KPCZ03	100B5/B14	100LB4	40
	177	156	7.93*	3590	1.2							
	222	124	6.31	3320	1.5							
	255	108	5.48	3170	1.4							
	311	88	4.50	2970	1.7							
	374	73	3.74	2790	2.0							
	81	340	34.62	6310	1.5	KPC04	MX100M2	42	KPC04	100B5/B14	100L2	43
	99	278	28.30	5900	1.8	KPCF04	MX100M2	42	KPCF04	100B5/B14	100L2	43
	129	214	21.78	5410	2.2	KPCZ04	MX100M2	42	KPCZ04	100B5/B14	100L2	43
	162	170	17.33	5010	2.8							
	186	148	15.06	4780	3.1							
	226	122	12.37	4480	3.8							
	272	101	10.28	4210	4.4							
	353	78	7.93*	3860	3.3							
	444	62	6.31	3580	4.2							
	49	556	28.30	7430	0.90	KPC04	MX100L4	42	KPC04	100B5/B14	100LB4	43
	64	426	21.78	6810	1.1	KPCF04	MX100L4	42	KPCF04	100B5/B14	100LB4	43
	81	340	17.33	6310	1.4	KPCZ04	MX100L4	42	KPCZ04	100B5/B14	100LB4	43
	93	296	15.06	6020	1.6							
	113	243	12.37	5640	1.9							
	136	202	10.28	5300	2.2							
	177	156	7.93*	4860	1.7							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
3.0	222	124	6.31	4510	2.1	KPC04	MX100L4	42	KPC04	100B5/B14	100LB4	43
	255	108	5.48	4300	2.1	KPCF04	MX100L4	42	KPCF04	100B5/B14	100LB4	43
	311	88	4.50	4030	2.6	KPCZ04	MX100L4	42	KPCZ04	100B5/B14	100LB4	43
	374	73	3.74	3780	2.7							
	58	474	48.29	7390	1.7	KPC05	MX100M2	45	KPC05	TAM100	100L2	46
	66	415	42.23	7070	2.0	KPCF05	MX100M2	45	KPCF05	TAM100	100L2	46
	75	367	37.38	6790	2.2	KPCZ05	MX100M2	45	KPCZ05	TAM100	100L2	46
	84	328	33.42	6540	2.5							
	93	296	30.12	6320	2.8							
	112	245	24.92	5930	3.3							
	133	207	21.03	5600	3.9							
	33	830	42.23	8910	1.0	KPC05	MX100L4	45	KPC05	TAM100	100LB4	46
	37	734	37.38	8550	1.1	KPCF05	MX100L4	45	KPCF05	TAM100	100LB4	46
	42	657	33.42	8240	1.2	KPCZ05	MX100L4	45	KPCZ05	TAM100	100LB4	46
	46	592	30.12	7960	1.4							
	56	490	24.92	7470	1.7							
	67	413	21.03	7060	2.0							
	84	328	16.72	6540	2.5							
	110	250	12.73	5970	2.8							
	121	227	11.57	5780	3.0							
	140	197	10.02	5510	3.4							
	161	171	8.72	5260	3.7							
	30	920	30.12	9000	0.89	KPC05	MX132S6	45	KPC05	TAM132	132S6	46
	36	762	24.92	8660	1.1	KPCF05	MX132S6	45	KPCF05	TAM132	132S6	46
	43	643	21.03	8180	1.3	KPCZ05	MX132S6	45	KPCZ05	TAM132	132S6	46
	54	511	16.72	7580	1.6							
	71	389	12.73	6920	1.8							
	78	354	11.57	6700	2.0							
	90	306	10.02	6390	2.2							
	103	266	8.72	6100	2.4							
	118	233	7.62	5830	2.6							
	143	193	6.31	5480	2.9							
	165	167	5.47	5220	3.2							
	189	145	4.76*	4980	3.6							
	216	127	4.16	4770	3.9							
	48	577	58.78*	11160	2.7	KPC06	MX100M2	48	KPC06	TAM100	100L2	49
	54	506	51.56*	10680	3.1	KPCF06	MX100M2	48	KPCF06	TAM100	100L2	49
	61	450	45.79*	10270	3.4	KPCZ06	MX100M2	48	KPCZ06	TAM100	100L2	49
	68	403	41.06*	9900	3.8							
	24	1155	58.78*	13000	1.3	KPC06	MX100L4	48	KPC06	TAM100	100LB4	49
	27	1013	51.56*	13000	1.5	KPCF06	MX100L4	48	KPCF06	TAM100	100LB4	49
	31	900	45.79*	13000	1.7	KPCZ06	MX100L4	48	KPCZ06	TAM100	100LB4	49
	34	807	41.06*	12470	1.9							
	38	729	37.13*	12060	2.1							
	45	608	30.94*	11350	2.6							
	53	517	26.30*	10750	3.0							
	66	416	21.17	10000	3.6							
	84	328	16.68	9240	4.2							
	19.7	1399	45.79*	13000	1.1	KPC06	MX132S6	48	KPC06	TAM132	132S6	49
	22	1255	41.06*	13000	1.2	KPCF06	MX132S6	48	KPCF06	TAM132	132S6	49
	24	1135	37.13*	13000	1.4	KPCZ06	MX132S6	48	KPCZ06	TAM132	132S6	49
	29	946	30.94*	13000	1.6							
	34	804	26.30*	12460	1.9							
	43	647	21.17	11580	2.3							
	54	510	16.68	10700	2.7							

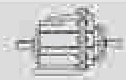
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
3.0	60	459	15.03	10340	2.9	KPC06	MX132S6	48	KPC06	TAM132	132S6	49
	68	403	13.18	9890	3.2	KPCF06	MX132S6	48	KPCF06	TAM132	132S6	49
	77	355	11.63*	9490	3.5	KPCZ06	MX132S6	48	KPCZ06	TAM132	132S6	49
	87	315	10.31*	9120	3.8							
4.0	162	227	17.33	3690	1.2	KPC03	MX112M2	39	KPC03	112B5/B14	112M2	40
	186	197	15.06	3530	1.3	KPCF03	MX112M2	39	KPCF03	112B5/B14	112M2	40
	226	162	12.37	3300	1.6	KPCZ03	MX112M2	39	KPCZ03	112B5/B14	112M2	40
	272	135	10.28	3100	1.8							
	353	104	7.93*	2850	1.7							
	444	83	6.31	2640	2.2							
	511	72	5.48	2520	2.1							
	622	59	4.50	2350	2.5							
	749	49	3.74	2210	3.1							
	136	269	10.28	3910	0.89	KPC03	MX112M4	39	KPC03	112B5/B14	112M4	40
	177	208	7.93*	3590	0.87	KPCF03	MX112M4	39	KPCF03	112B5/B14	112M4	40
	222	165	6.31	3320	1.1	KPCZ03	MX112M4	39	KPCZ03	112B5/B14	112M4	40
	255	144	5.48	3170	1.0							
	311	118	4.50	2970	1.3							
	374	98	3.74	2790	1.5							
	81	453	34.62	6310	1.1	KPC04	MX112M2	42	KPC04	112B5/B14	112M2	43
	99	371	28.30	5900	1.3	KPCF04	MX112M2	42	KPCF04	112B5/B14	112M2	43
	129	285	21.78	5410	1.7	KPCZ04	MX112M2	42	KPCZ04	112B5/B14	112M2	43
	162	227	17.33	5010	2.1							
	186	197	15.06	4780	2.3							
	226	162	12.37	4480	2.8							
	272	135	10.28	4210	3.3							
	353	104	7.93*	3860	2.5							
	444	83	6.31	3580	3.1							
	511	72	5.48	3410	3.2							
	622	59	4.50	3190	3.9							
	749	49	3.74	3000	4.1							
	81	454	17.33	6310	1.1	KPC04	MX112M4	42	KPC04	112B5/B14	112M4	43
	93	394	15.06	6020	1.2	KPCF04	MX112M4	42	KPCF04	112B5/B14	112M4	43
	113	324	12.37	5640	1.4	KPCZ04	MX112M4	42	KPCZ04	112B5/B14	112M4	43
	136	269	10.28	5300	1.6							
	177	208	7.93*	4860	1.3							
	222	165	6.31	4510	1.6							
	255	144	5.48	4300	1.6							
	311	118	4.50	4030	2.0							
	374	98	3.74	3780	2.0							
	58	632	48.29	7390	1.3	KPC05	MX112M2	45	KPC05	TAM112	112M2	46
	66	553	42.23	7070	1.5	KPCF05	MX112M2	45	KPCF05	TAM112	112M2	46
	75	490	37.38	6790	1.7	KPCZ05	MX112M2	45	KPCZ05	TAM112	112M2	46
	84	438	33.42	6540	1.9							
	93	394	30.12	6320	2.1							
	112	326	24.92	5930	2.5							
	133	275	21.03	5600	2.9							
	167	219	16.72	5190	3.7							
	42	875	33.42	8240	0.94	KPC05	MX112M4	45	KPC05	TAM112	112M4	46
	46	789	30.12	7960	1.0	KPCF05	MX112M4	45	KPCF05	TAM112	112M4	46
	56	653	24.92	7470	1.3	KPCZ05	MX112M4	45	KPCZ05	TAM112	112M4	46
	67	551	21.03	7060	1.5							
	84	438	16.72	6540	1.8							
	110	333	12.73	5970	2.1							
	121	303	11.57	5780	2.3							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs		Page			Page
4.0	140	262	10.02	5510	2.5	KPC05 MX112M4	45	KPC05 TAM112	112M4	46
	161	228	8.72	5260	2.8	KPCF05 MX112M4	45	KPCF05 TAM112	112M4	46
	184	200	7.62	5030	3.1	KPCZ05 MX112M4	45	KPCZ05 TAM112	112M4	46
	222	165	6.31	4730	3.4					
	256	143	5.47	4510	3.8					
	48	770	58.78*	11160	2.0	KPC06 MX112M2	48	KPC06 TAM112	112M2	49
	54	675	51.56*	10680	2.3	KPCF06 MX112M2	48	KPCF06 TAM112	112M2	49
	61	600	45.79*	10270	2.6	KPCZ06 MX112M2	48	KPCZ06 TAM112	112M2	49
	68	538	41.06*	9900	2.9					
	75	486	37.13*	9570	3.2					
	90	405	30.94*	9010	3.8					
	24	1540	58.78*	13000	1.0	KPC06 MX112M4	48	KPC06 TAM112	112M4	49
	27	1351	51.56*	13000	1.1	KPCF06 MX112M4	48	KPCF06 TAM112	112M4	49
	31	1199	45.79*	13000	1.3	KPCZ06 MX112M4	48	KPCZ06 TAM112	112M4	49
	34	1076	41.06*	12470	1.4					
	38	973	37.13*	12060	1.6					
	45	810	30.94*	11350	1.9					
	53	689	26.30*	10750	2.2					
	66	555	21.17	10000	2.7					
	84	437	16.68	9240	3.2					
	93	394	15.03	8920	3.4					
	106	345	13.18	8540	3.7					
	120	305	11.63*	8190	4.0					
5.5	75	673	37.38	6790	1.2	KPC05 MX132S2	45	KPC05 TAM132	132SA2	46
	84	602	33.42	6540	1.4	KPCF05 MX132S2	45	KPCF05 TAM132	132SA2	46
	93	542	30.12	6320	1.5	KPCZ05 MX132S2	45	KPCZ05 TAM132	132SA2	46
	112	449	24.92	5930	1.8					
	133	379	21.03	5600	2.1					
	167	301	16.72	5190	2.7					
	220	229	12.73	4740	3.1					
	242	208	11.57	4590	3.3					
	279	180	10.02	4380	3.7					
	321	157	8.72	4180	4.0					
	56	898	24.92	7470	0.91	KPC05 MX132S4	45	KPC05 TAM132	132S4	46
	67	757	21.03	7060	1.1	KPCF05 MX132S4	45	KPCF05 TAM132	132S4	46
	84	602	16.72	6540	1.3	KPCZ05 MX132S4	45	KPCZ05 TAM132	132S4	46
	110	458	12.73	5970	1.5					
	121	417	11.57	5780	1.7					
	140	361	10.02	5510	1.8					
	161	314	8.72	5260	2.0					
	184	274	7.62	5030	2.2					
	222	227	6.31	4730	2.5					
	256	197	5.47	4510	2.7					
	294	171	4.76*	4300	3.0					
	337	150	4.16	4110	3.3					
	48	1059	58.78*	11160	1.5	KPC06 MX132S2	48	KPC06 TAM132	132SA2	49
	61	825	45.79*	10270	1.9	KPCF06 MX132S2	48	KPCF06 TAM132	132SA2	49
	68	739	41.06*	9900	2.1	KPCZ06 MX132S2	48	KPCZ06 TAM132	132SA2	49
	75	669	37.13*	9570	2.3					
	90	557	30.94*	9010	2.8					
	106	474	26.30*	8530	3.3					
	132	381	21.17	7940	3.9					
	31	1649	45.79*	13000	0.94	KPC06 MX132S4	48	KPC06 TAM132	132S4	49
	34	1479	41.06*	12470	1.0	KPCF06 MX132S4	48	KPCF06 TAM132	132S4	49
	38	1337	37.13*	12060	1.2	KPCZ06 MX132S4	48	KPCZ06 TAM132	132S4	49

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
5.5	45	1114	30.94*	11350	1.4	KPC06	MX132S4	48	KPC06	TAM132	132S4	49
	53	947	26.30*	10750	1.6	KPCF06	MX132S4	48	KPCF06	TAM132	132S4	49
	66	762	21.17	10000	2.0	KPCZ06	MX132S4	48	KPCZ06	TAM132	132S4	49
	84	601	16.68	9240	2.3							
	93	541	15.03	8920	2.5							
	106	475	13.18	8540	2.7							
	120	419	11.63*	8190	2.9							
	136	371	10.31*	7870	3.2							
	159	317	8.81	7470	3.7							
	174	290	8.04	7240	4.0							
	198	254	7.06	6930	4.1							
7.5	84	821	16.72	6540	1.0	KPC05	MX132M4	45	KPC05	TAM132	132MA4	46
	110	625	12.73	5970	1.1	KPCF05	MX132M4	45	KPCF05	TAM132	132MA4	46
	121	566	11.57	5780	1.2	KPCZ05	MX132M4	45	KPCZ05	TAM132	132MA4	46
	140	492	10.02	5510	1.3							
	161	428	8.72	5260	1.5							
	184	374	7.62	5030	1.6							
	222	310	6.31	4730	1.8							
	256	269	5.47	4510	2.0							
	294	234	4.76*	4300	2.2							
	337	204	4.16	4110	2.4							
	45	1520	30.94*	11350	1.0	KPC06	MX132M4	48	KPC06	TAM132	132MA4	49
	53	1292	26.30*	10750	1.2	KPCF06	MX132M4	48	KPCF06	TAM132	132MA4	49
	66	1040	21.17	10000	1.4	KPCZ06	MX132M4	48	KPCZ06	TAM132	132MA4	49
	84	819	16.68	9240	1.7							
	93	738	15.03	8920	1.8							
	106	647	13.18	8540	2.0							
	120	571	11.63*	8190	2.2							
	136	506	10.31*	7870	2.4							
	159	433	8.81	7470	2.7							
	174	395	8.04	7240	2.9							
	198	347	7.06	6930	3.0							
	225	306	6.23*	6650	3.3							
	254	271	5.52	6390	3.5							
	297	231	4.71	6060	3.9							
9.2	121	697	11.57	5780	1.0	KPC05	MX132ML4	45	KPC05	TAM132	132MB4	46
	140	604	10.02	5510	1.1	KPCF05	MX132ML4	45	KPCF05	TAM132	132MB4	46
	161	525	8.72	5260	1.2	KPCZ05	MX132ML4	45	KPCZ05	TAM132	132MB4	46
	184	459	7.62	5030	1.3							
	222	380	6.31	4730	1.5							
	256	330	5.47	4510	1.6							
	294	287	4.76*	4300	1.8							
	337	251	4.16	4110	2.0							
	53	1584	26.30*	10750	0.98	KPC06	MX132ML4	48				
	66	1275	21.17	10000	1.2	KPCF06	MX132ML4	48				
	84	1005	16.68	9240	1.4	KPCZ06	MX132ML4	48				
	93	906	15.03	8920	1.5	KPC06	MX132ML4	48	KPC06	TAM132	132MB4	49
	106	794	13.18	8540	1.6	KPCF06	MX132ML4	48	KPCF06	TAM132	132MB4	49
	120	701	11.63*	8190	1.8	KPCZ06	MX132ML4	48	KPCZ06	TAM132	132MB4	49
	136	621	10.31*	7870	1.9							
	159	531	8.81	7470	2.2							
	174	484	8.04	7240	2.4							
	198	425	7.06	6930	2.5							
	225	375	6.23*	6650	2.7							
	254	333	5.52	6390	2.9							
	297	284	4.71	6060	3.2							

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	fs			Page				Page
11	140	722	10.02	5510	0.91	KPC05	MX160M4	45				
	161	628	8.72	5260	1.0	KPCF05	MX160M4	45				
	184	549	7.62	5030	1.1	KPCZ05	MX160M4	45				
	222	455	6.31	4730	1.2							
	256	394	5.47	4510	1.4							
	294	343	4.76*	4300	1.5							
	337	300	4.16	4110	1.7							
	66	1525	21.17	10000	0.98	KPC06	MX160M4	48	KPC06	TAM160	160M4	49
	84	1202	16.68	9240	1.1	KPCF06	MX160M4	48	KPCF06	TAM160	160M4	49
	93	1083	15.03	8920	1.2	KPCZ06	MX160M4	48	KPCZ06	TAM160	160M4	49
	106	949	13.18	8540	1.3							
	120	838	11.63*	8190	1.5							
	136	743	10.31*	7870	1.6							
	159	635	8.81	7470	1.9							
	174	579	8.04	7240	2.0							
	198	509	7.06	6930	2.1							
	225	449	6.23*	6650	2.2							
	254	398	5.52	6390	2.4							
	297	339	4.71	6060	2.7							

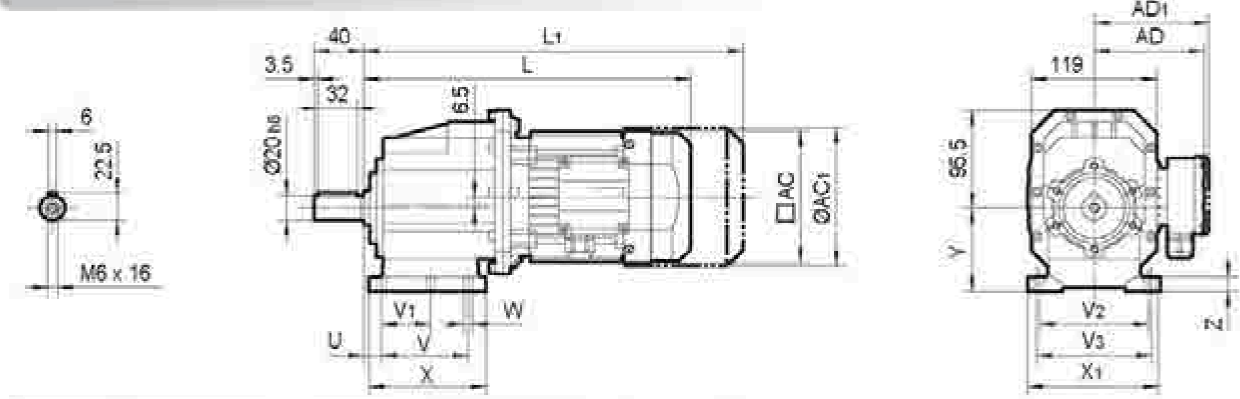
6.3 TRC..HS.. 性能参数 / *Performance parameter*

M_{2max} [Nm]	n_2 [r/min]	i	P_{1n} [kW]	n_1 [r/min]	F_{r2}	F_{r1}		Page
120	26.3	**53.33**	0.34	1400	2600	800	**KPC 01-HS**	35
120	30.5	**45.89**	0.40	1400	2600	800	**KPC F01-HS**	35
120	34.9	**40.10**	0.46	1400	2600	800	**KPC Z01-HS**	35
120	39.5	**35.47**	0.52	1400	2560	800		
120	49.1	**28.50**	0.64	1400	2380	800		
120	59.4	**23.56**	0.78	1400	2230	800		
120	70.6	**19.83**	0.92	1400	2100	800		
90	78.4	**17.86**	0.77	1400	2030	800		
120	95.8	**14.62**	1.25	1400	1900	800		
90	101	**13.80**	1.00	1400	1860	800		
120	118	**11.90**	1.54	1400	1770	800		
120	143	**9.81**	1.87	1400	1660	800		
80	153	**9.17**	1.33	1400	1630	800		
80	181	**7.72**	1.58	1400	1540	800		
70	246	**5.69**	1.88	1400	1390	800		
70	302	**4.63**	2.31	1400	1290	800		
70	366	**3.82**	2.80	1400	1210	800		
200	25.9	**54.00**	0.57	1400	4500	800	**KPC 02-HS**	38
200	30.1	**46.46**	0.66	1400	4500	800	**KPC F02-HS**	38
200	34.5	**40.60**	0.75	1400	4500	800	**KPC Z02-HS**	38
200	39.0	**35.91**	0.85	1400	4270	800		
200	48.5	**28.88**	1.06	1400	3970	800		
200	58.7	**23.85**	1.28	1400	3730	800		
200	69.7	**20.08**	1.52	1400	3520	800		
140	81.9	**17.10**	1.25	1400	3330	800		
200	94.5	**14.81**	2.06	1400	3180	800		
140	106	**13.21**	1.62	1400	3060	800		
200	116	**12.05**	2.53	1400	2970	800		
200	141	**9.93**	3.08	1400	2780	800		
120	159	**8.78**	2.09	1400	2670	800		
120	189	**7.39**	2.48	1400	2520	800		
100	257	**5.45**	2.80	1400	2280	800		
100	316	**4.43**	3.45	1400	2120	800		
80	383	**3.66**	3.34	1400	1990	800		
300	24.1	**58.09**	0.79	1400	6000	1200	**KPC 03-HS**	41
300	28.0	**50.02**	0.92	1400	6000	1200	**KPC F03-HS**	41
300	32.0	**43.75**	1.05	1400	6000	1200	**KPC Z03-HS**	41
300	36.1	**38.73**	1.18	1400	6000	1200		
300	40.4	**34.62**	1.32	1400	5860	1200		
300	49.5	**28.30**	1.62	1400	5480	1200		
280	64.3	**21.78**	1.96	1400	5020	1200		
280	81	**17.33**	2.47	1400	4660	1200		
260	93	**15.06**	2.64	1400	4440	1200		
260	113	**12.37**	3.21	1400	4160	1200		
240	136	**10.28**	3.57	1400	3910	1200		
180	177	**7.93**	3.47	1400	3590	1200		
180	222	**6.31**	4.36	1400	3320	1200		
150	255	**5.48**	4.18	1400	3170	1200		
150	311	**4.50**	5.09	1400	2970	1200		
150	374	**3.74**	6.12	1400	2790	1200		

M_{2max} [Nm]	n_2 [r/min]	i	P_{1n} [kW]	n_1 [r/min]	F_{r2}	F_{r1}			Page
500	24.1	**58.09**	1.31	1400	8000	1200	**KPC04-HS**		44
500	28.0	**50.02**	1.53	1400	8000	1200	**KPCF04-HS**		44
500	32.0	**43.75**	1.75	1400	8000	1200	**KPCZ04-HS**		44
500	36.1	**38.73**	1.97	1400	8000	1200			
500	40.4	**34.62**	2.21	1400	7950	1200			
500	49.5	**28.30**	2.70	1400	7430	1200			
480	64.3	**21.78**	3.37	1400	6810	1200			
480	81	**17.33**	4.23	1400	6310	1200			
460	93	**15.06**	4.86	1400	6020	1200			
460	113	**12.37**	5.68	1400	5640	1200			
440	136	**10.28**	6.54	1400	5300	1200			
260	177	**7.93**	5.01	1400	4860	1200			
260	222	**6.31**	6.29	1400	4510	1200			
230	255	**5.48**	6.41	1400	4300	1200			
230	311	**4.50**	7.80	1400	4030	1200			
200	374	**3.74**	8.17	1400	3780	1200			
820	25.0	**56.08**	2.33	1400	9000	1200	**KPC05**	AD2	47
820	29.0	**48.29**	2.59	1400	9000	1200	**KPCF05**	AD2	47
820	33.2	**42.23**	2.97	1400	8910	1200	**KPCZ05**	AD2	47
820	37.5	**37.38**	3.35	1400	8550	1600	**KPC05**	AD3	47
820	41.9	**33.42**	3.75	1400	8240	1600	**KPCF05**	AD3	47
820	46.5	**30.12**	4.16	1400	7960	1600	**KPCZ05**	AD3	47
820	56.2	**24.92**	5.02	1400	7470	1600			
810	66.6	**21.03**	5.88	1400	7060	1600			
810	83.7	**16.72**	7.40	1400	6540	1600			
710	110.0	**12.73**	8.52	1400	5970	1600	**KPC05**	AD4	47
690	121	**11.57**	9.11	1400	5780	3000	**KPCF05**	AD4	47
660	140	**10.02**	10.1	1400	5510	3000	**KPCZ05**	AD4	47
630	161	**8.72**	11.0	1400	5260	3000			
610	184	**7.62**	12.2	1400	5030	3000			
560	222	**6.31**	13.6	1400	4730	3000			
540	256	**5.47**	15.1	1400	4510	3000			
520	294	**4.76**	16.7	1400	4300	3000			
500	337	**4.16**	18.4	1400	4110	3000			
1550	23.8	**58.78**	4.20	1400	13000	1200	**KPC06**	AD2	50
1550	27.2	**51.56**	4.59	1400	13000	1200	**KPCF06**	AD2	50
							KPCZ06	AD2	50
1550	30.6	**45.79**	5.17	1400	13000	1600	**KPC06**	AD3	50
1550	34.1	**41.06**	5.76	1400	12470	1600	**KPCF06**	AD3	50
1550	37.7	**37.13**	6.37	1400	12060	1600	**KPCZ06**	AD3	50
1550	45.2	**30.94**	7.65	1400	11350	1800			
1550	53.2	**26.30**	9.00	1400	10750	1800			
1490	66.1	**21.17**	10.7	1400	10000	1800			
1380	83.9	**16.68**	12.6	1400	9240	3000			
1330	93.1	**15.03**	13.5	1400	8920	3000	**KPC06**	AD4	50
1270	106	**13.18**	14.7	1400	8540	3000	**KPCF06**	AD4	50
1230	120	**11.63**	16.2	1400	8190	3000	**KPCZ06**	AD4	50
1200	136	**10.31**	17.8	1400	7870	3000			
1180	159	**8.81**	20.5	1400	7470	3000			
1150	174	**8.04**	21.8	1400	7240	3000			
1050	198	**7.06**	22.7	1400	6930	3000			
1000	225	**6.23**	24.5	1400	6650	3000			
950	254	**5.52**	26.3	1400	6390	3000			
900	297	**4.71**	29.2	1400	6060	3000			

7. 外形尺寸图表 / OUTLINE DIMENSION SHEET

KPC01..MX..



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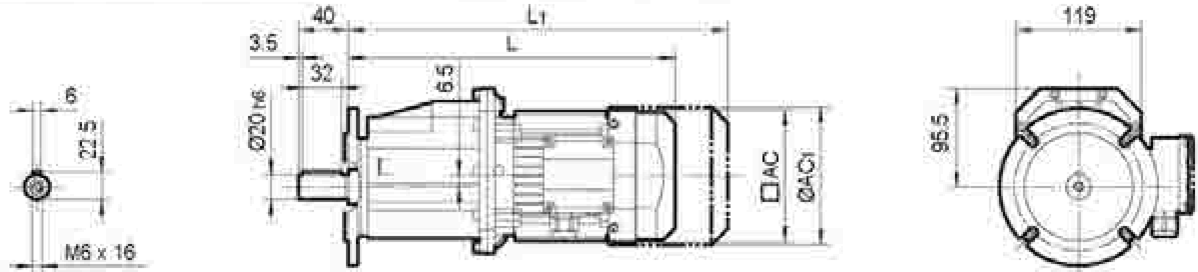

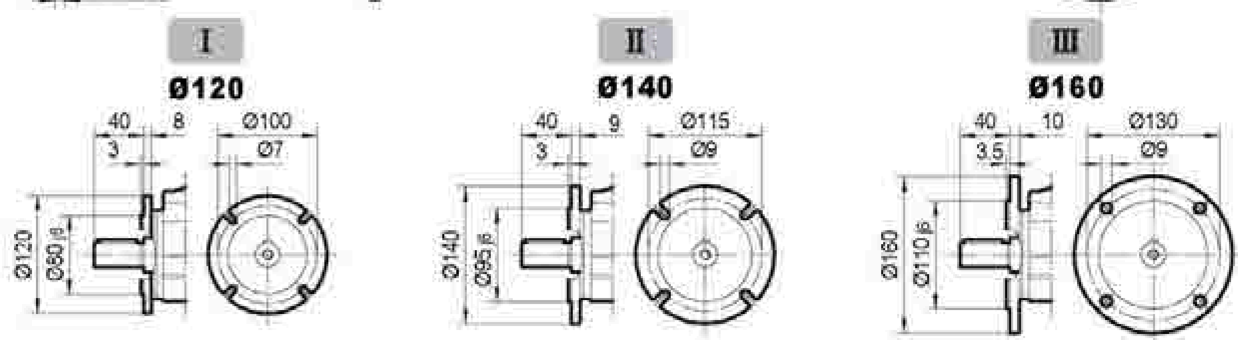

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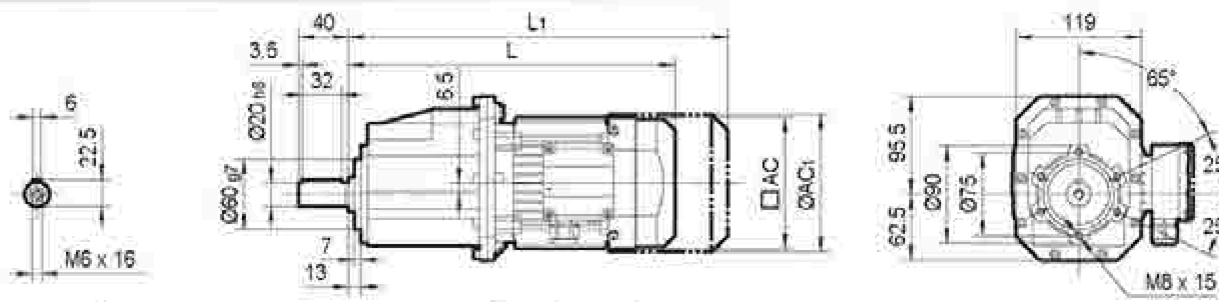
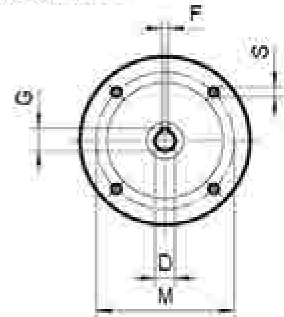


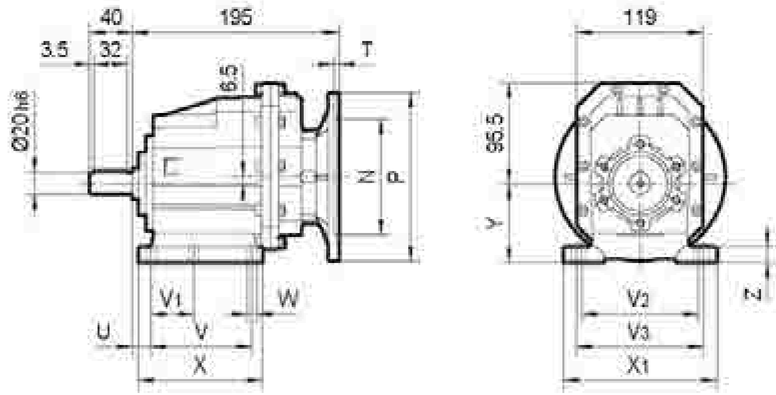
电机型号 Motor Type	L	L1	AC	AC1	AD	AD1
MX63	305	360	132	132	105	105
MX71	320	384	134	148	122	127
MX80	355	419	134	148	122	127
MX90	386	471	182	203	154	161

底脚代号 Foot Code	U	V	V1	V2	V3	W	X	X1	Y	Z
B01	18	87	50	110	—	9	118	130	85	15
M01	18	80	—	110	120	9	118	145	75	15
B02	18	107.5	60	130	—	11	136	155	95	17
M02	25	85	—	110	120	9	112	145	75	15

KPC01..P(IEC)

输入 / INPUT





KPCF01..P(IEC)

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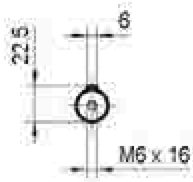

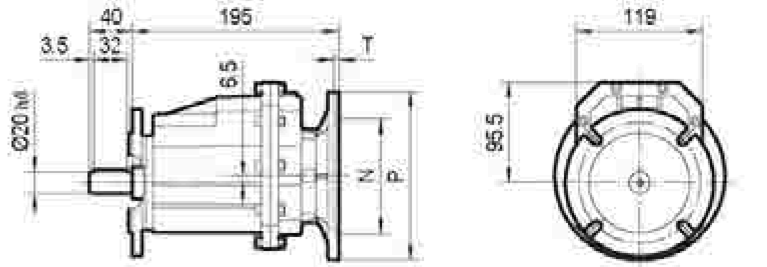

I
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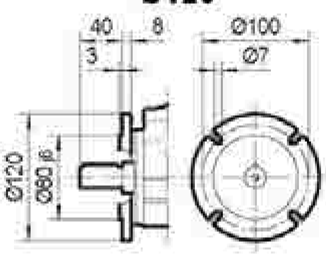

II
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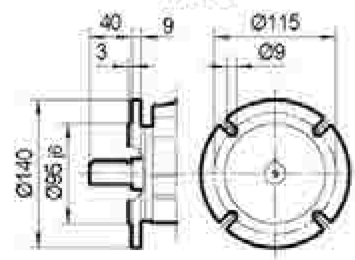

III
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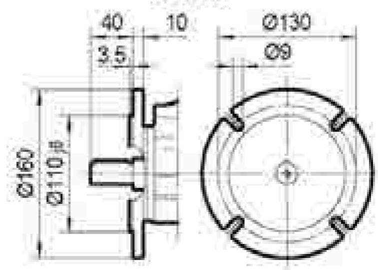

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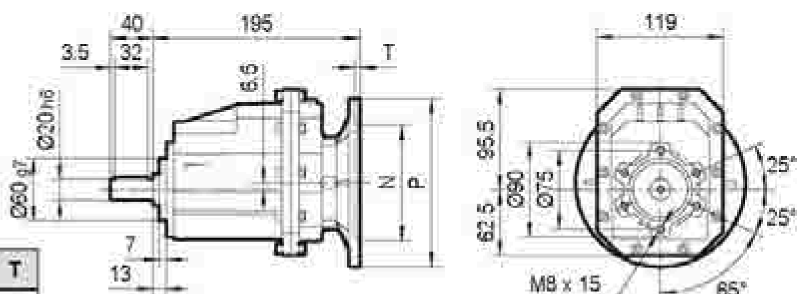
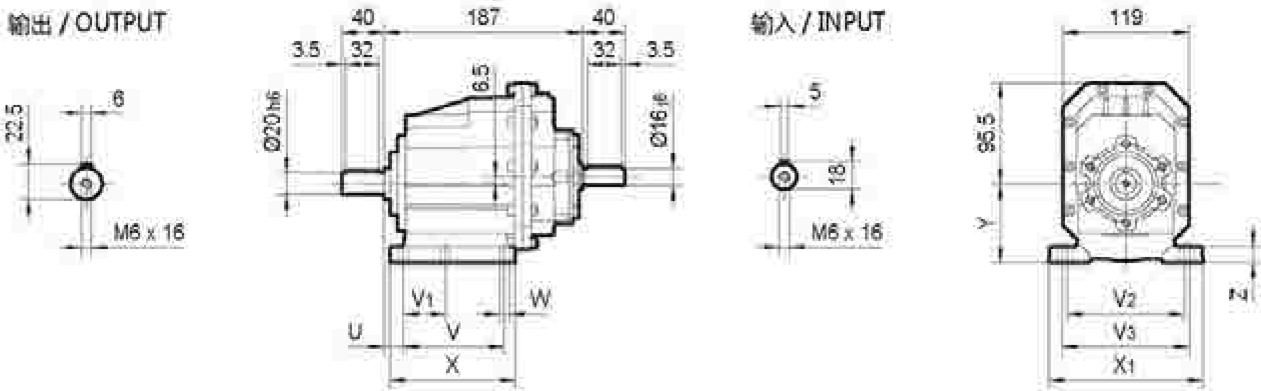


IEC	D_{E8}	F	G	P	M	N	S	T
P63B5	11	4	12.8	140	115	95	9	4
P71B5	14	5	16.3	160	130	110	9	4
P71B14	14	5	16.3	105	85	70	7	4
P80B5	19	6	21.8	200	165	130	11	4
P80B14	19	6	21.8	120	100	80	7	4
P90B5	24	8	27.3	200	165	130	11	4
P90B14	24	8	27.3	140	115	95	9	4

底脚代号 Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B01	18	87	50	110	—	9	118	130	85	15
M01	18	80	—	110	120	9	118	145	75	15
B02	18	107.5	60	130	—	11	136	155	95	17
M02	25	85	—	110	120	9	112	145	75	15

KPC01..HS



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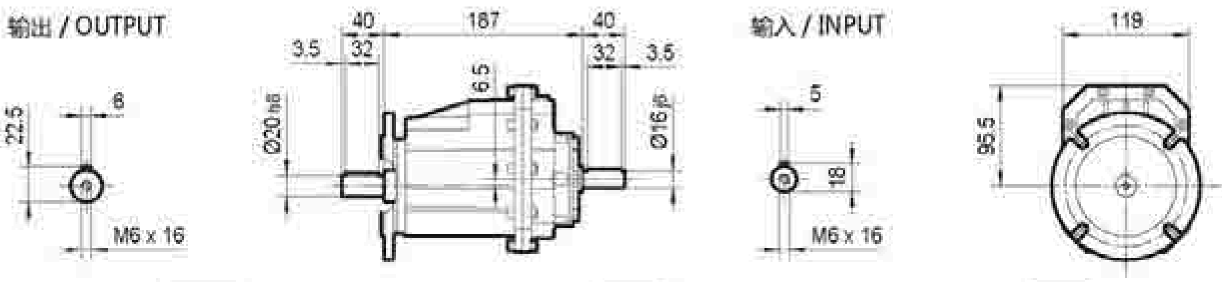

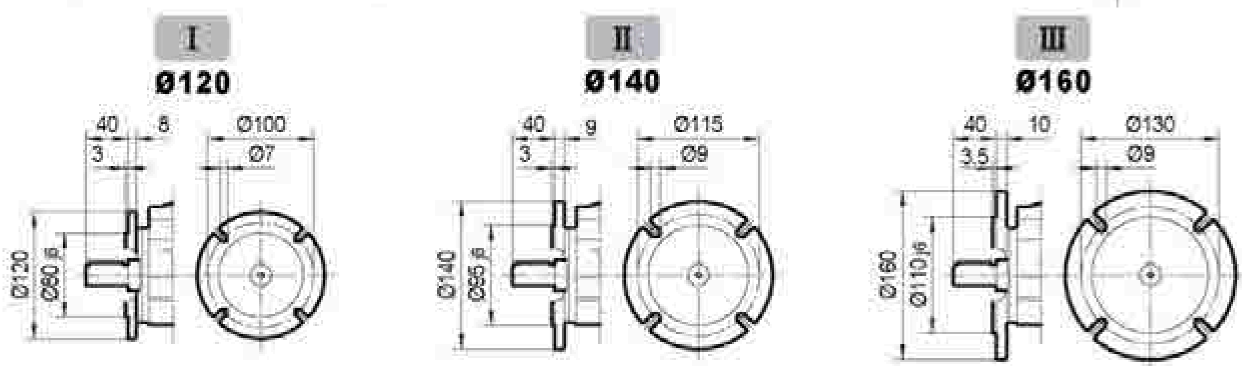

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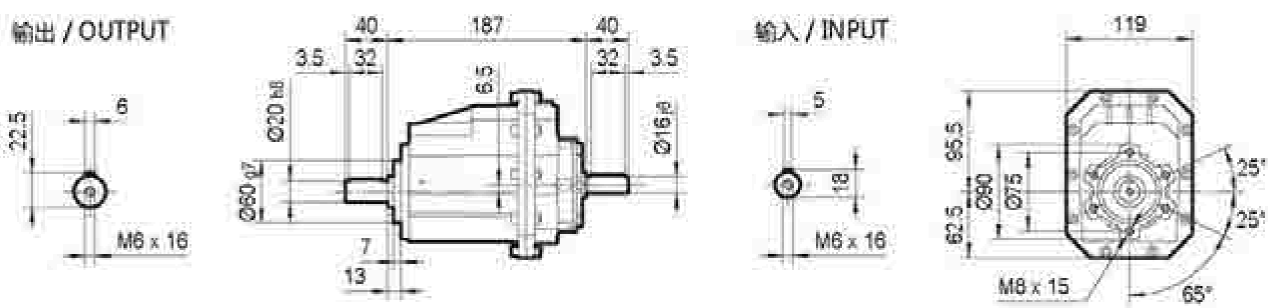
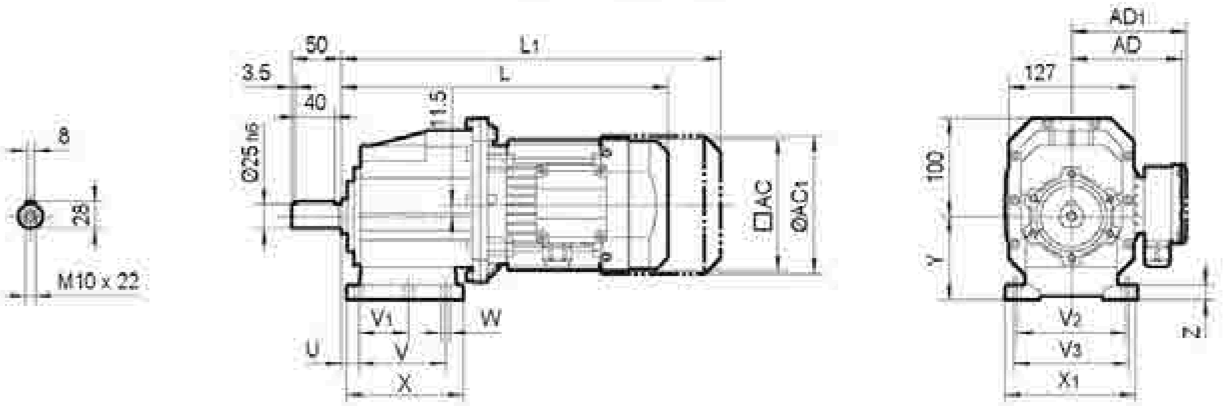


底脚代号 Foot Code	U	V	V1	V2	V3	W	X	X1	Y	Z
B01	18	87	50	110	—	9	118	130	85	15
M01	18	80	—	110	120	9	118	145	75	15
B02	18	107.5	60	130	—	11	136	155	95	17
M02	25	85	—	110	120	9	112	145	75	15

KPC02..MX..



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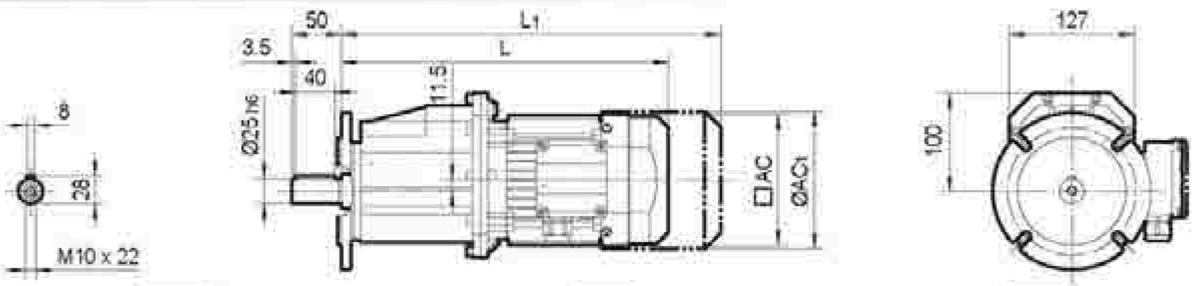

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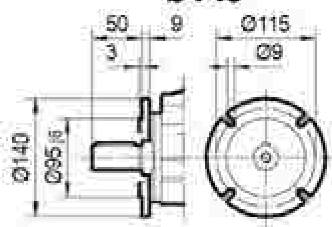
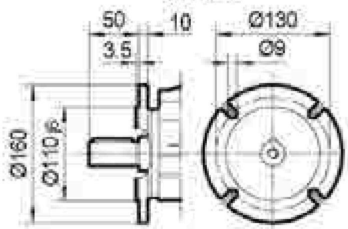


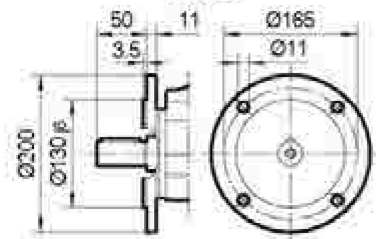
II

Ø160



III

Ø200



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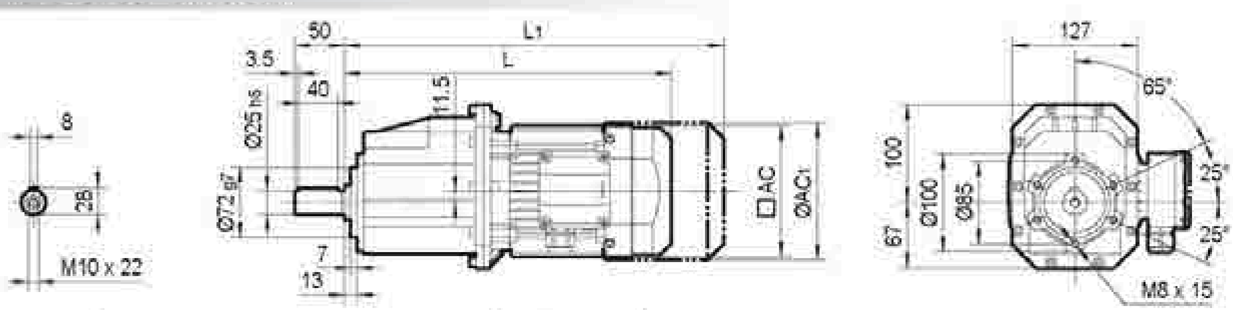
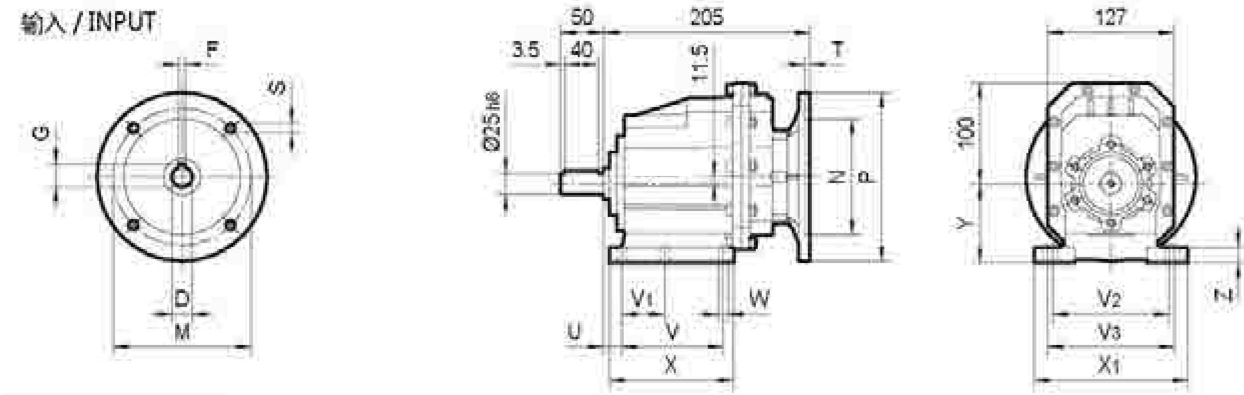


电机型号 Motor Type	L	L_1	AC	AC_1	AD	AD_1
MX63	315	370	132	132	105	105
MX71	330	394	134	148	122	127
MX80	365	429	134	148	122	127
MX90	396	481	182	203	154	161

底脚代号 Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B02	18	107.5	60	130	—	11	136	155	100	17
M02	25	85	—	110	120	9	112	145	80	15
B01	18	87	50	110	—	9	118	130	90	15
M01	18	80	—	110	120	9	118	145	80	15

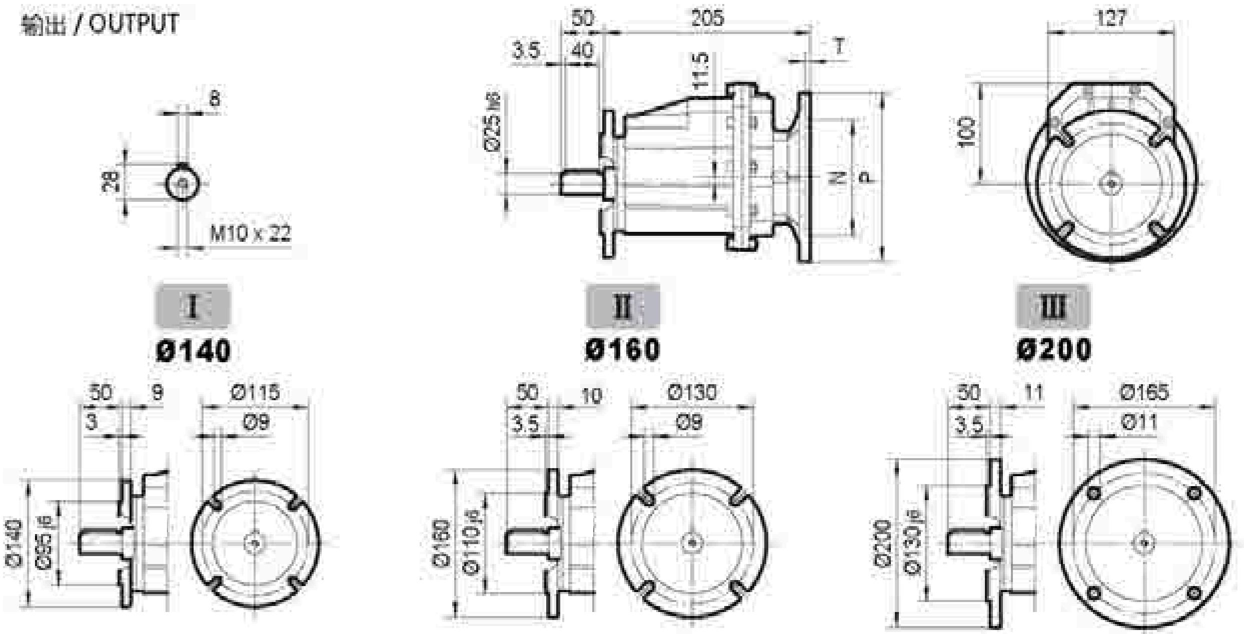
KPC02..P(IEC)..

输入 / INPUT



KPCF02..P(IEC)

输出 / OUTPUT



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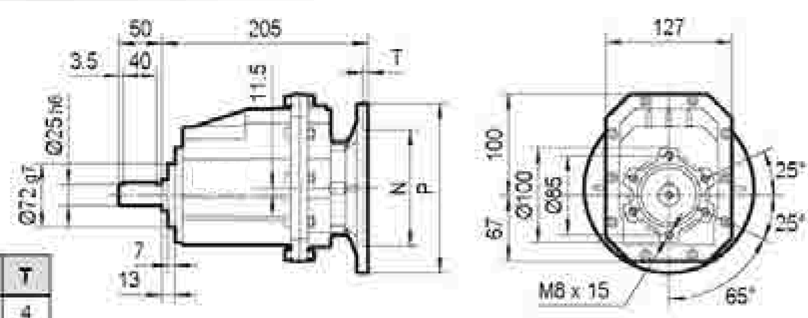
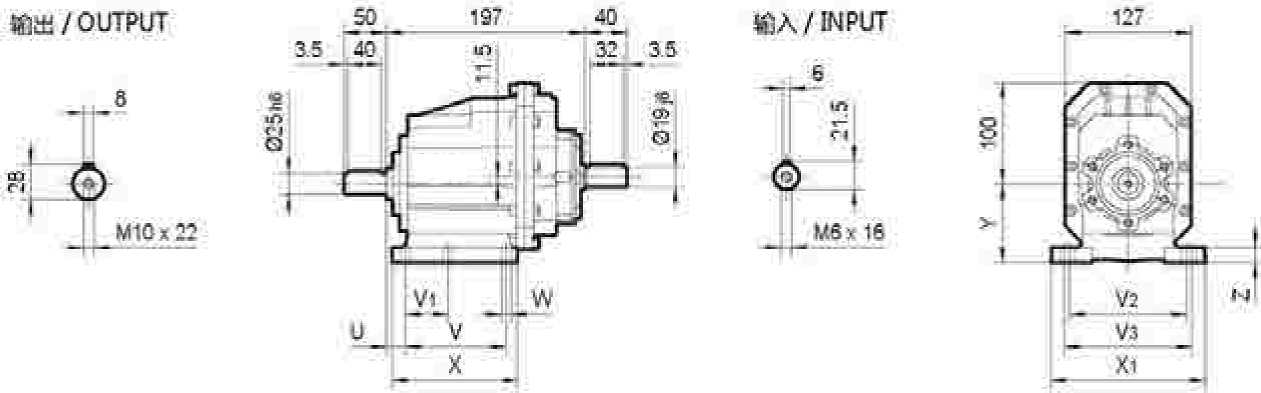


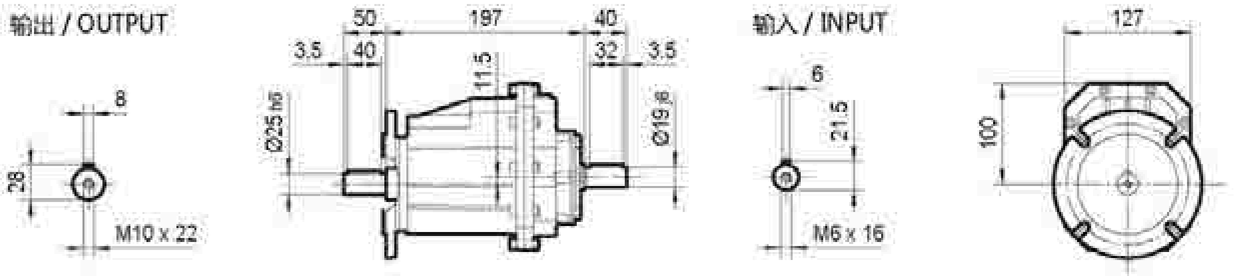
IEC	D_{E8}	F	G	P	M	N	S	T
P63B5	11	4	12.8	140	115	95	9	4
P71B5	14	5	16.3	160	130	110	9	4
P71B14	14	5	16.3	105	85	70	7	4
P80B5	19	6	21.8	200	165	130	11	4
P80B14	19	6	21.8	120	100	80	7	4
P90B5	24	8	27.3	200	165	130	11	4
P90B14	24	8	27.3	140	115	95	9	4

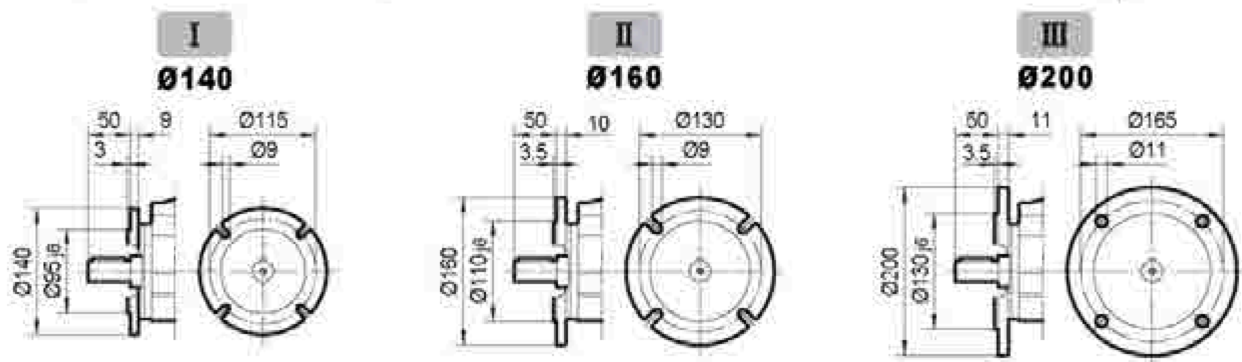
底脚代号 Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B02	18	107.5	60	130	—	11	136	155	100	17
M02	25	85	—	110	120	9	112	145	80	15
B01	18	87	50	110	—	9	118	130	90	15
M01	18	80	—	110	120	9	118	145	80	15

KPCZ02..HS

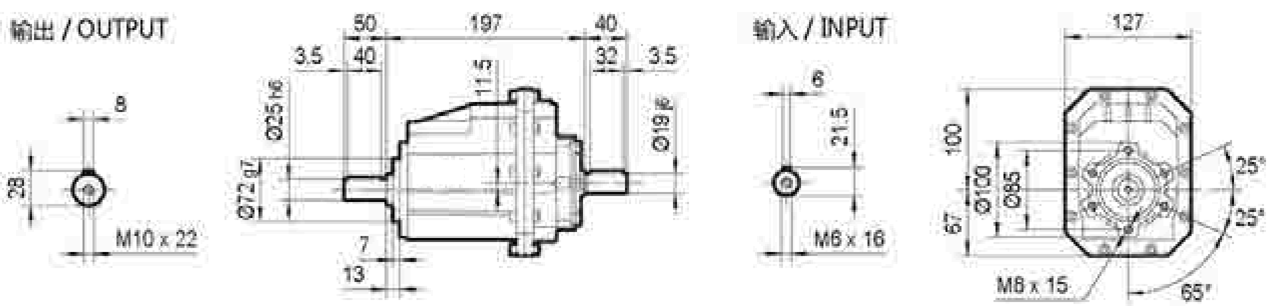


KPCF02..HS



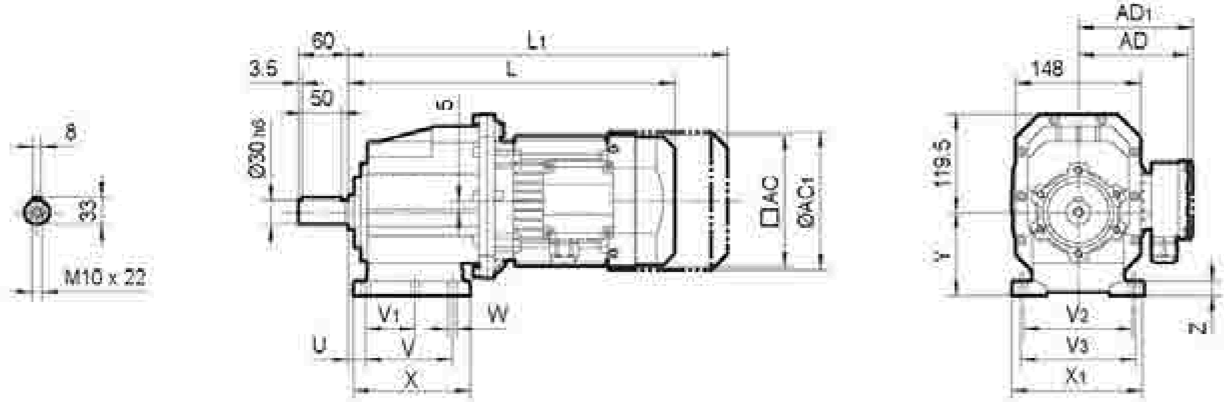


KPCZ02..HS



底脚代号 Foot Code	U	V	V1	V2	V3	W	X	X1	Y	Z
B02	18	107.5	60	130	—	11	136	155	100	17
M02	25	85	—	110	120	9	112	145	80	15
B01	18	87	50	110	—	9	118	130	90	15
M01	18	80	—	110	120	9	118	145	80	15

KPC03..MX..



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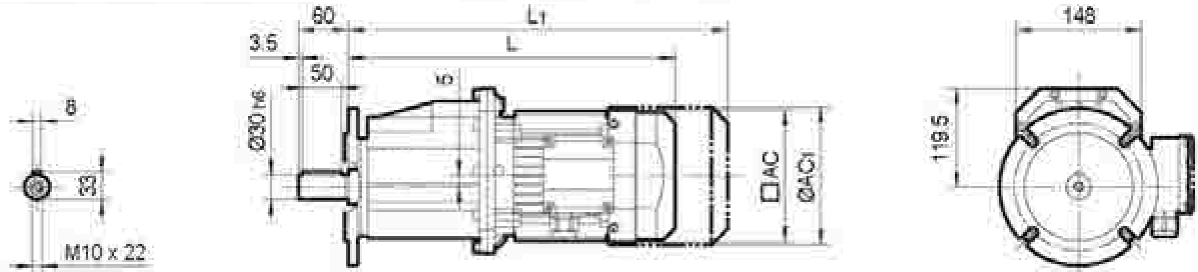

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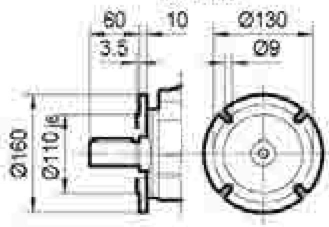
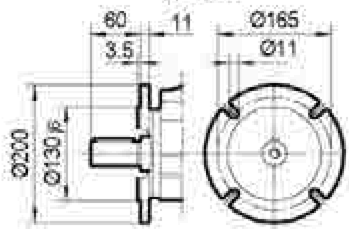
Ø160



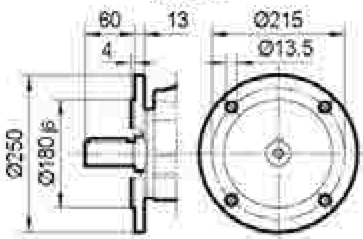
II

Ø200

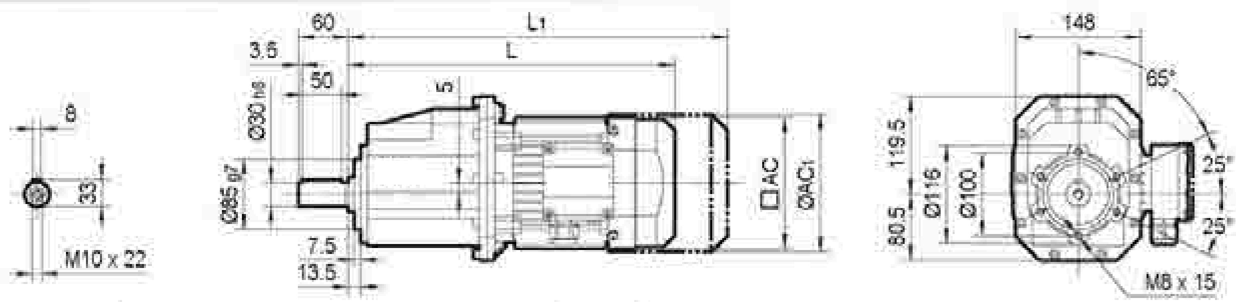


III

Ø250



KPCZ03..MX..

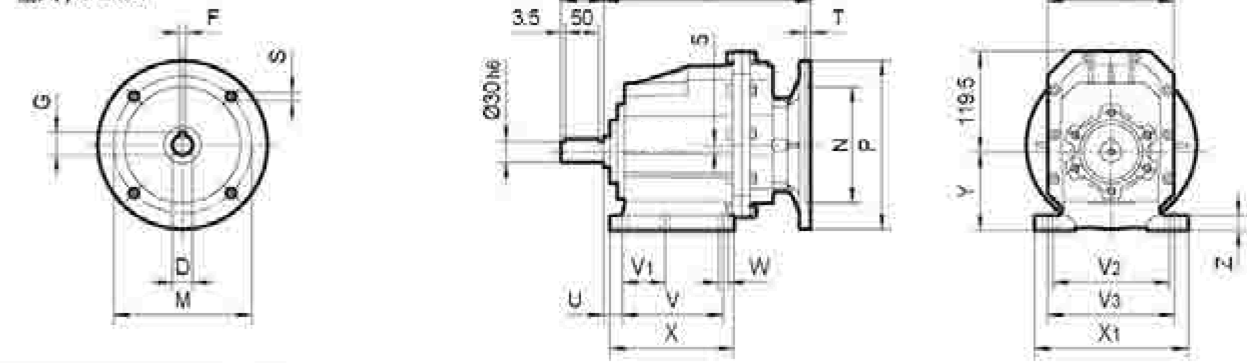


电机型号 Motor Type	L	L_1	AC	AC_1	AD	AD_1
MX71	345	409	134	148	122	127
MX80	380	444	134	148	122	127
MX90	411	496	182	203	154	161
MX100M	451	536	182	203	154	161
MX100L	481	566	182	203	154	161
MX112	492	572	206	221	179	182

底脚代号 Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B03	18	130	70	160	—	11	156	190	110	20
M03	30	100	—	135	150	11	150	190	110	18
B04	20.5	130	—	170	—	14	168	205	105	20
M04	32	110	—	170	185	14	150	230	110	20

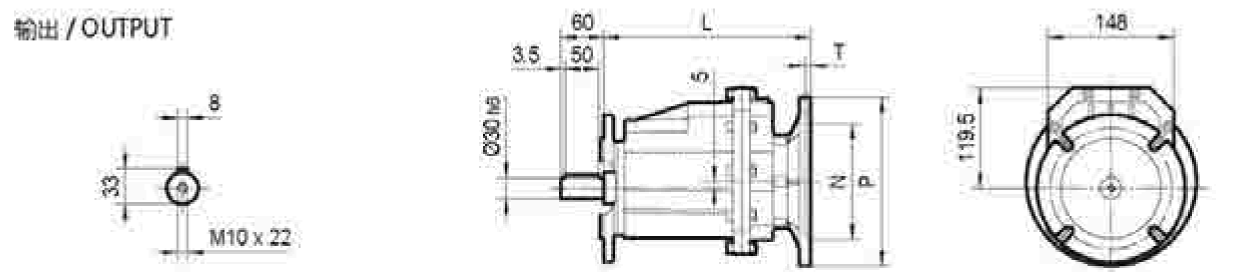
KPC03..P(IEC)

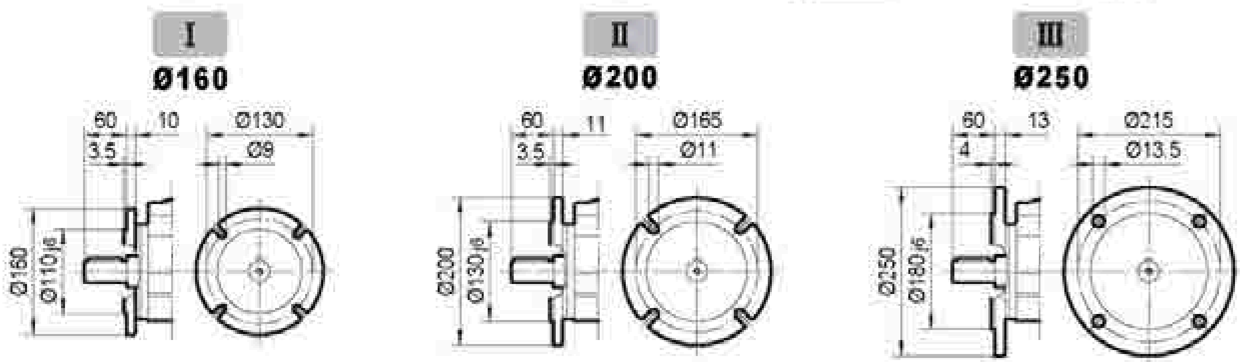
输入 / INPUT



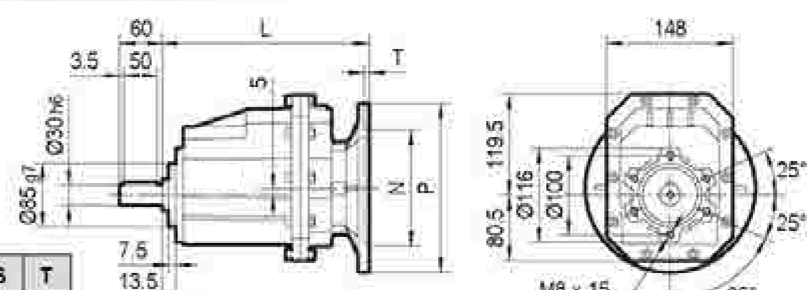
KPCF03..P(IEC)

输出 / OUTPUT





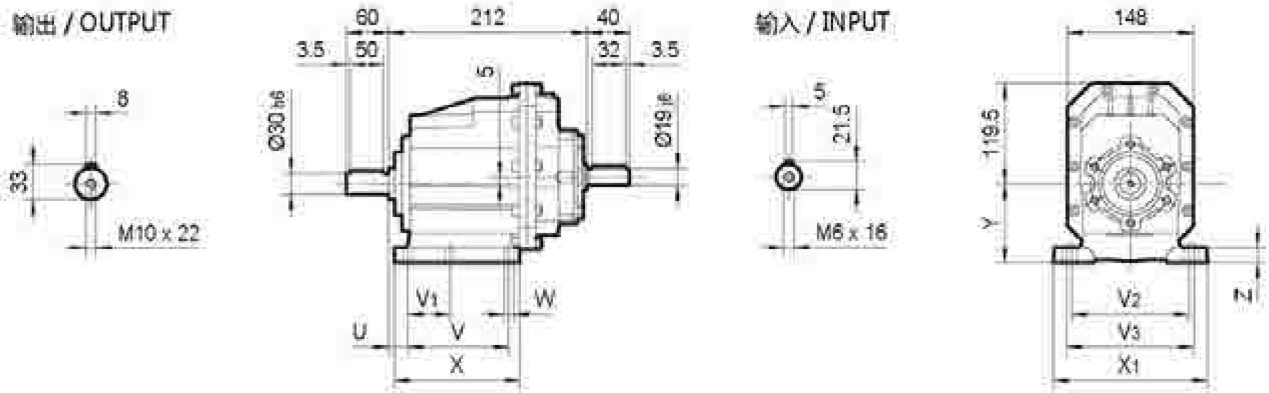
KPCZ03..P(IEC)



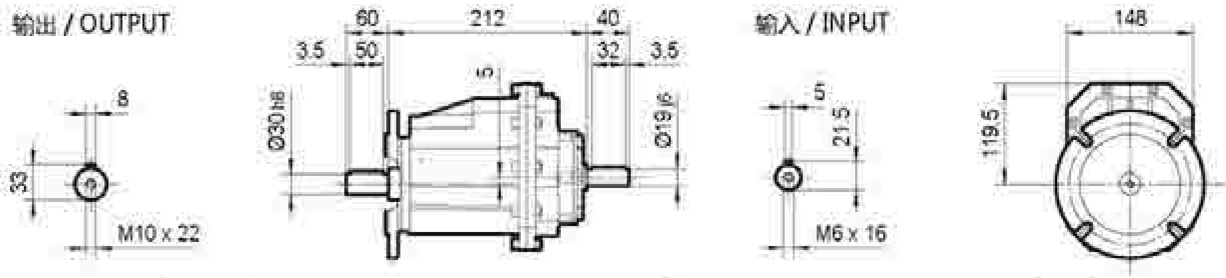
IEC	D_{E8}	F	G	P	L	M	N	S	T
P71B5	14	5	16.3	160	220	130	110	9	4
P80B5	19	6	21.8	200	220	165	130	11	4
P80B14	19	6	21.8	120	220	100	80	7	4
P90B5	24	8	27.3	200	220	165	130	11	4
P90B14	24	8	27.3	140	220	115	95	9	4
P100/112B5	28	8	31.3	250	237	215	180	13.5	4.5
P100/112B14	28	8	31.3	160	237	130	110	9	4.5

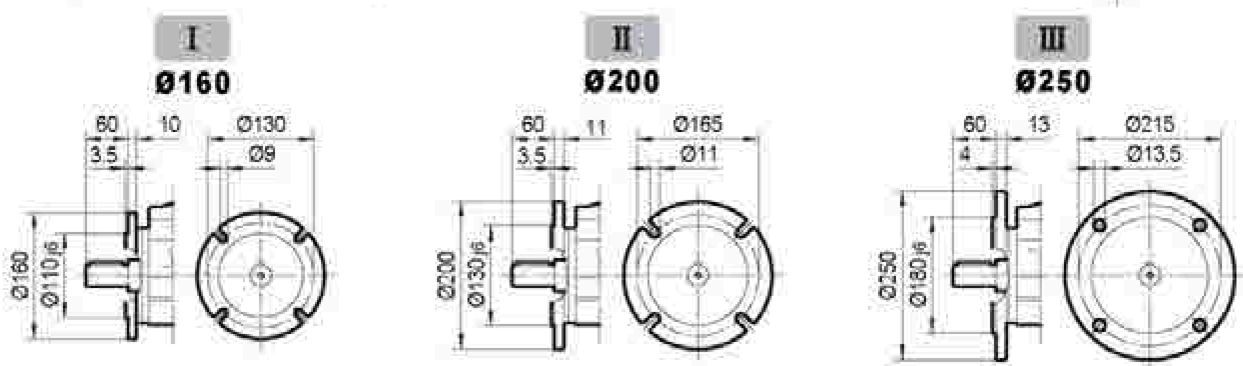
Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B03	18	130	70	160	—	11	156	190	110	20
M03	30	100	—	135	150	11	150	190	110	18
B04	20.5	130	—	170	—	14	168	205	105	20
M04	32	110	—	170	186	14	150	230	110	20

KPC03..HS

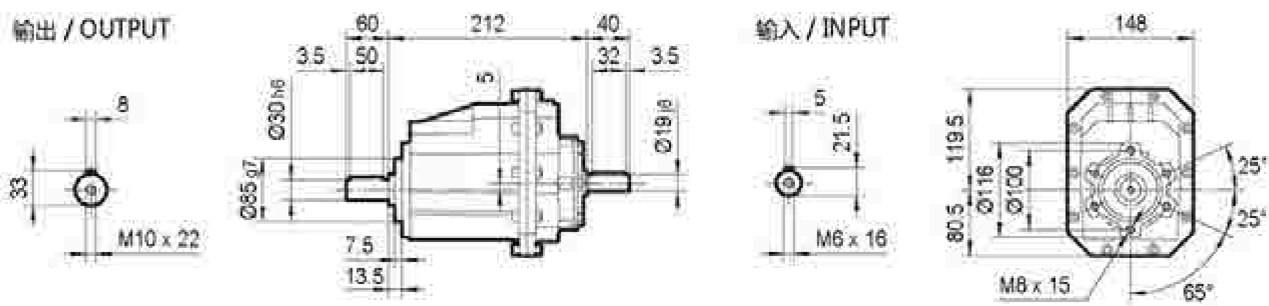


KPCF03..HS



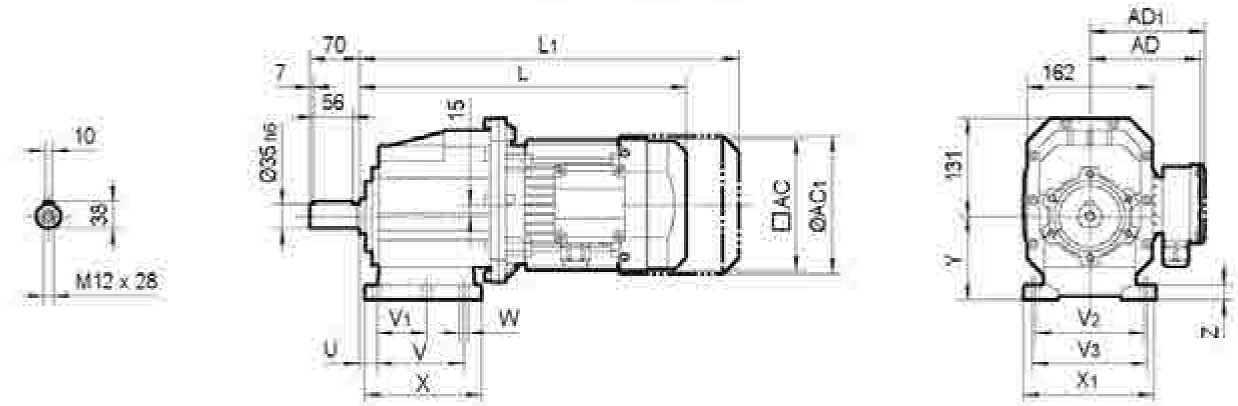


KPCZ03..HS

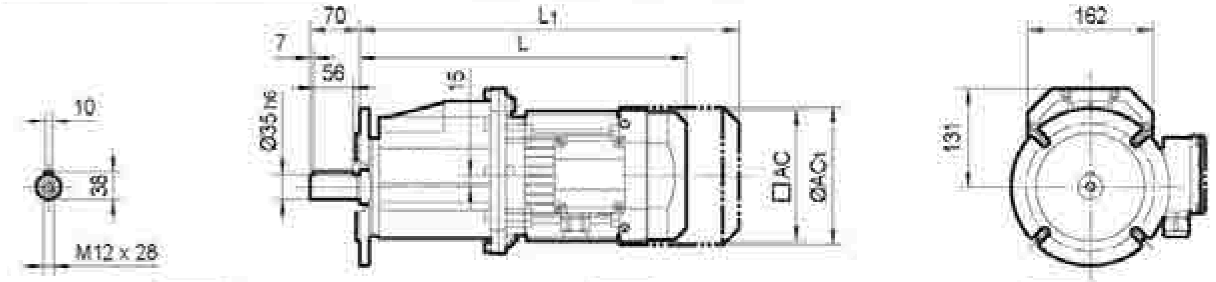


底脚代号 Foot Code	U	V	V1	V2	V3	W	X	X1	Y	Z
B03	18	130	70	160	—	11	156	190	110	20
M03	30	100	—	135	150	11	150	190	110	18
B04	20.5	130	—	170	—	14	168	205	105	20
M04	32	110	—	170	185	14	150	230	110	20

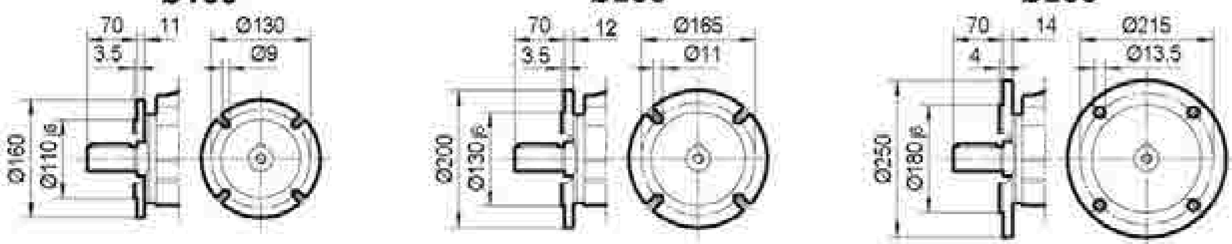
KPC04..MX..



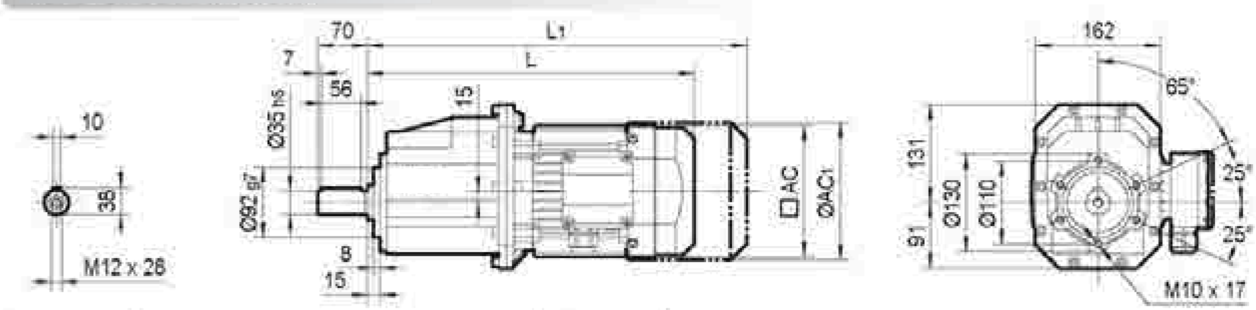
KPCF04..MX..



I **Ø160** **II** **Ø200** **III** **Ø250**



KPCZ04..MX..

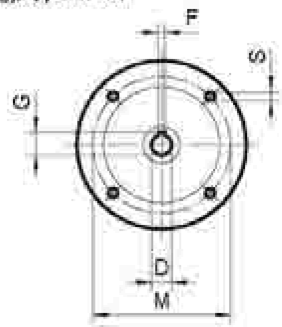


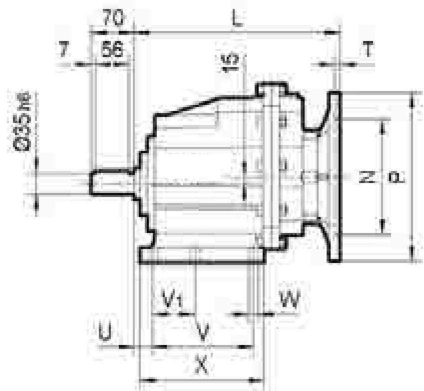
电机型号 Motor Type	L	L_1	AC	AC_1	AD	AD_1
MX80	393	457	134	148	122	127
MX90	424	509	182	203	154	161
MX100M	464	549	182	203	154	161
MX100L	494	579	182	203	154	161
MX112	505	585	206	221	179	182

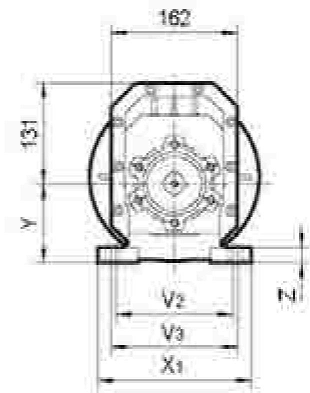
底脚代号 Foot Code	U	V	V_1	V_2	V_3	W	X	X_1	Y	Z
B04	23.5	130	—	170	—	14	168	205	115	20
M04	35	110	—	170	185	14	150	230	120	20
B03	21	130	70	160	—	11	156	190	120	20
M03	33	100	—	135	150	11	150	190	120	18
B05	19.5	149.5	—	180	—	14	185	215	130	20

KPC04..P(IEC)

输入 / INPUT

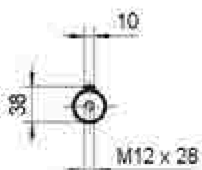


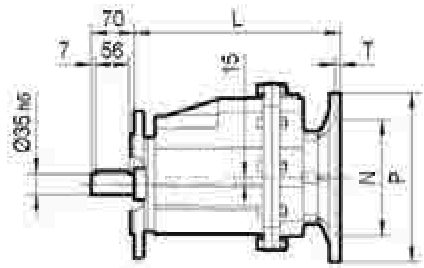


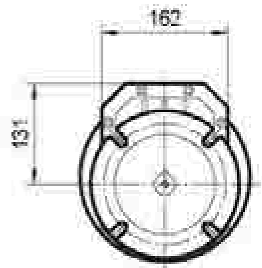


KPCF04..P(IEC)

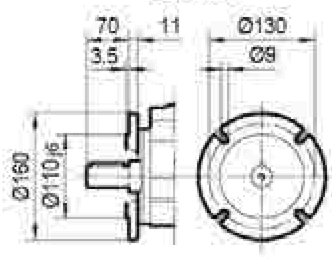
输出 / OUTPUT



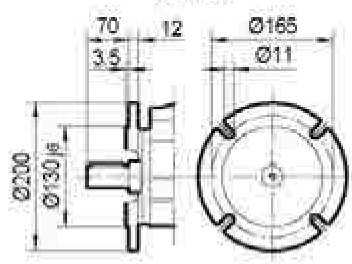




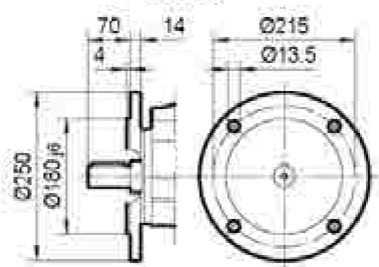
I
Ø160



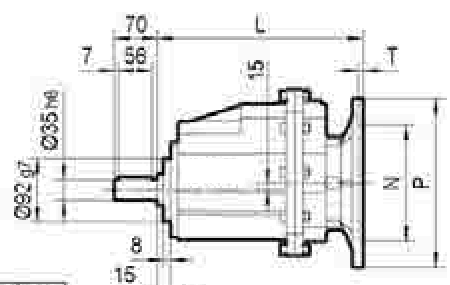
II
Ø200

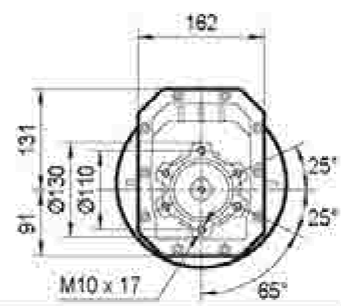


III
Ø250



KPCZ04..P(IEC)

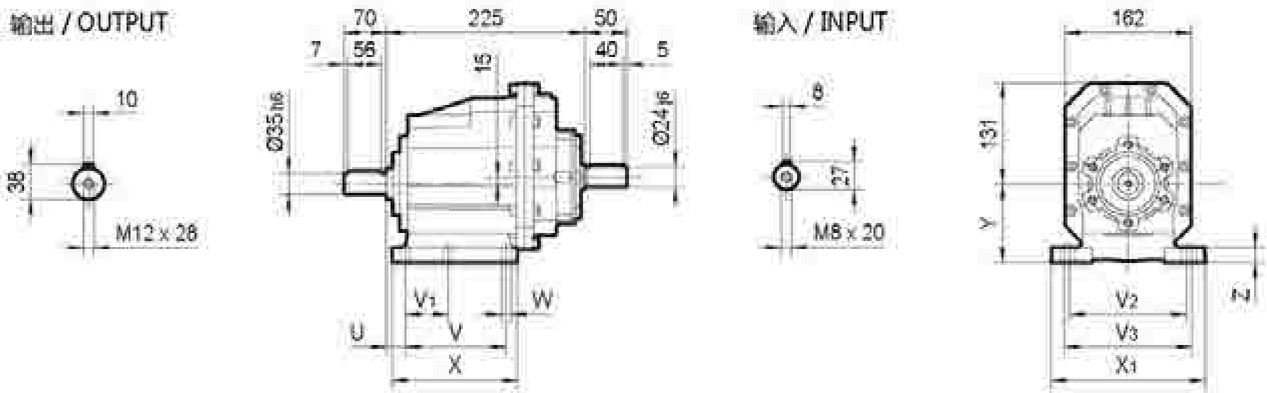




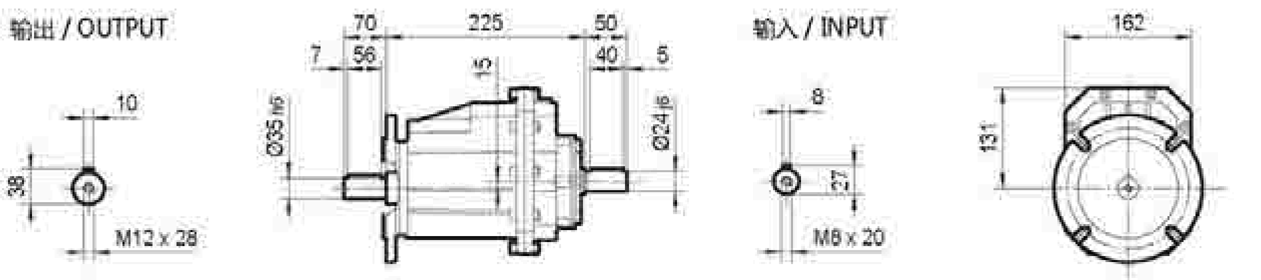
IEC	D_{E8}	F	G	P	L	M	N	S	T
P80B5	19	6	21.8	200	233	165	130	11	4
P80B14	19	6	21.8	120	233	100	80	7	4
P90B5	24	8	27.3	200	233	165	130	11	4
P90B14	24	8	27.3	140	233	115	95	9	4
P100/112B5	28	8	31.3	250	250	215	180	13.5	4.5
P100/112B14	28	8	31.3	160	250	130	110	9	4.5

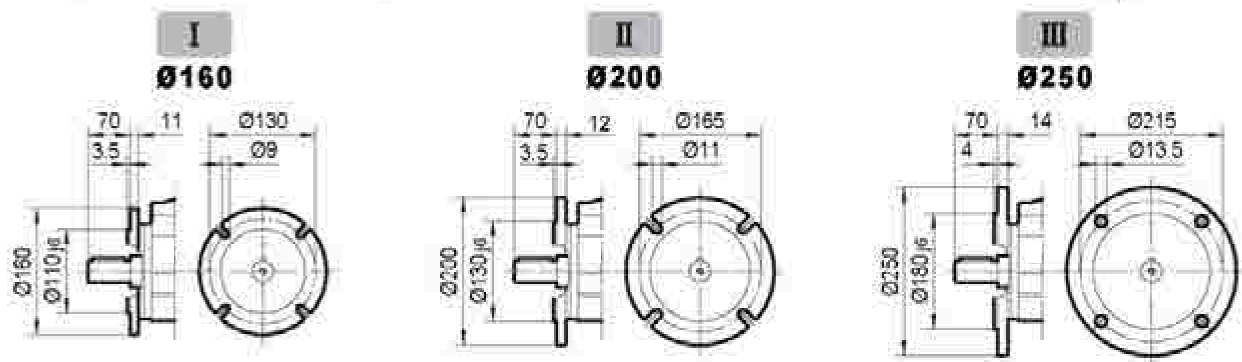
Foot Code	U	V	V_1	V_2	V_3	W	X	X1	Y	Z
B04	23.5	130	—	170	—	14	168	205	115	20
M04	35	110	—	170	185	14	150	230	120	20
B03	21	130	70	160	—	11	156	190	120	20
M03	33	100	—	135	150	11	150	190	120	18
B05	19.5	149.5	—	180	—	14	185	215	130	20

KPC04..HS

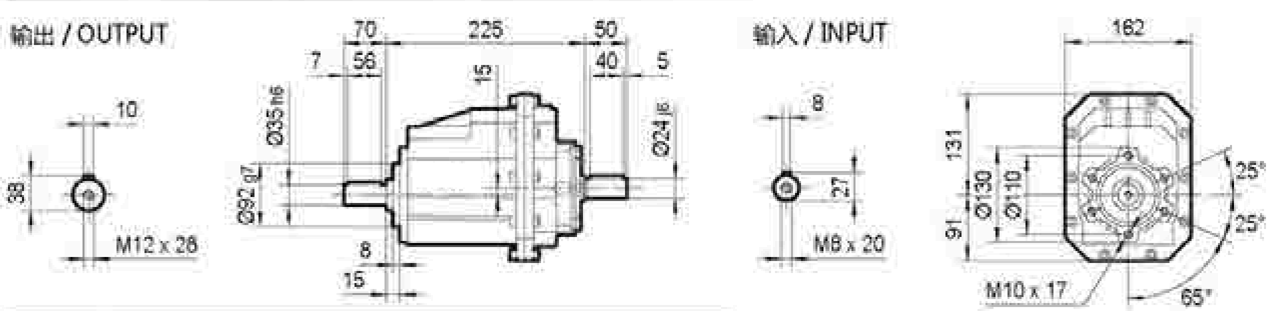


KPCF04..HS



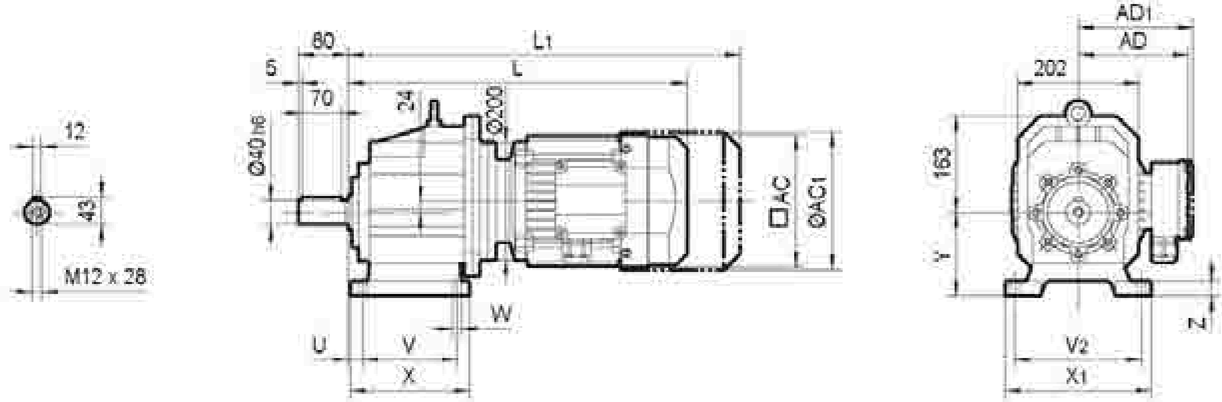


KPCZ04..HS

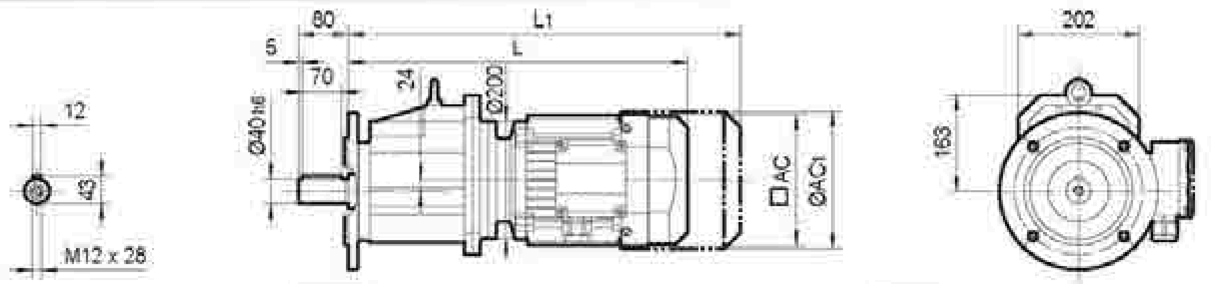


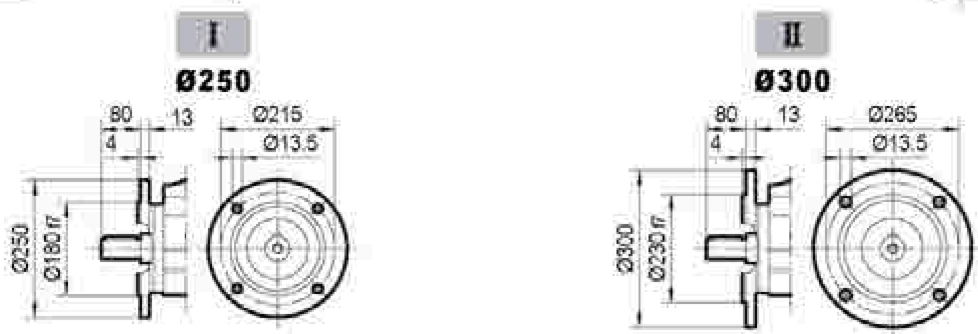
底脚代号 Foot Code	U	V	V1	V2	V3	W	X	X1	Y	Z
B04	23.5	130	—	170	—	14	168	205	115	20
M04	35	110	—	170	185	14	150	230	120	20
B03	21	130	70	160	—	11	156	190	120	20
M03	33	100	—	135	150	11	150	190	120	18
B05	19.5	149.5	—	180	—	14	185	215	130	20

KPC05..MX..

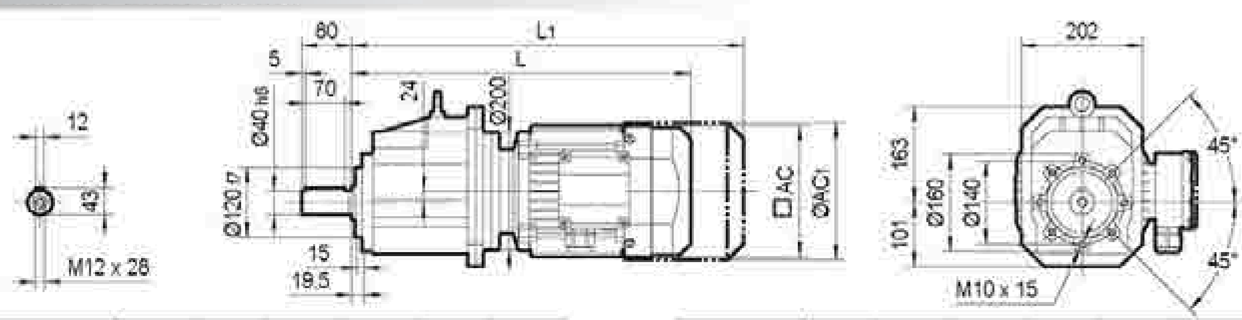


KPCF05..MX..





KPCZ05..MX..

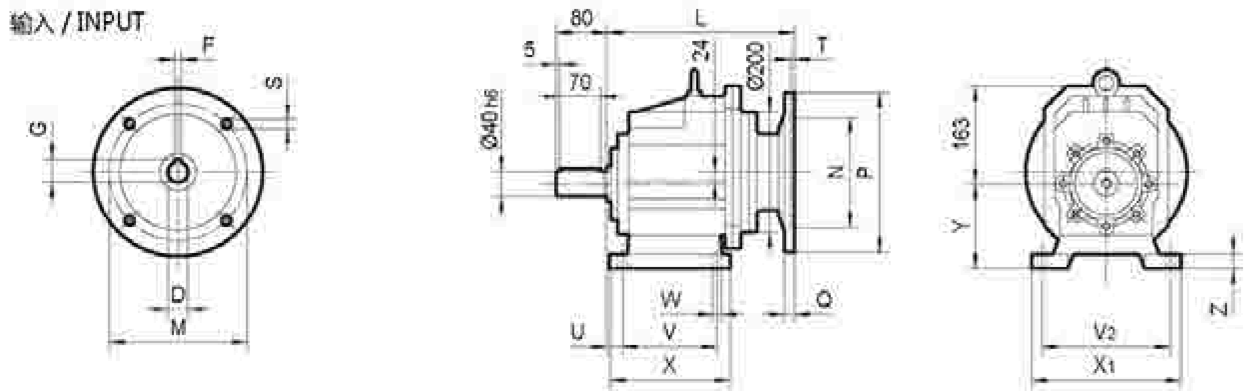


电机型号 Motor Type	L	L1	AC	AC1	AD	AD1
MX90	477	562	182	203	154	161
MX100M	517	602	182	203	154	161
MX100L	547	632	182	203	154	161
MX112	561	641	206	221	179	182
MX132S	606	686	206	221	179	182
MX132M	628	740	252	275	230	230

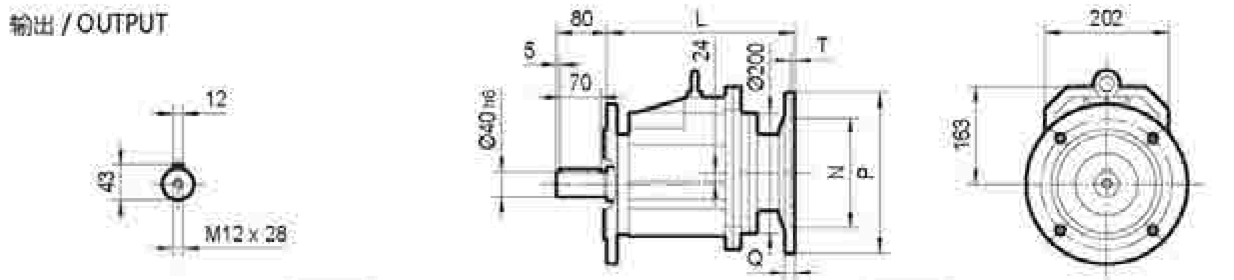
电机型号 Motor Type	L	L1	AC	AC1	AD	AD1
MX132ML	688	800	252	275	230	230
MX160M	688	800	252	275	230	230

底脚代号 Foot Code	U	V	V2	W	X	X1	Y	Z
B0501	25	156	225	18	200	270	155	22
R0502	35	205	170	17.5	245	220	140	20

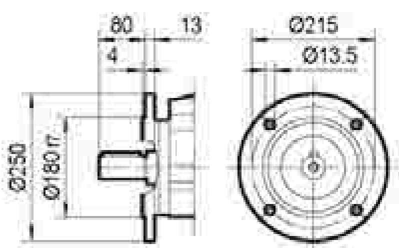
KPC05..TAM(IEC)..



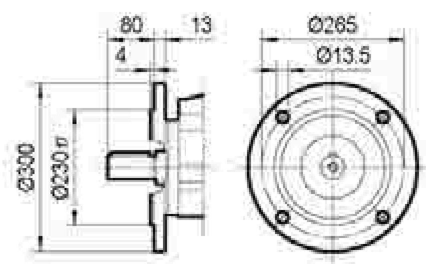
KPCF05..TAM(IEC)..



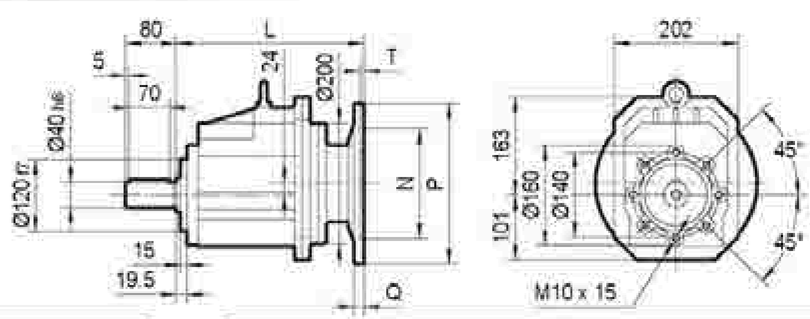
I
Ø250



II
Ø300



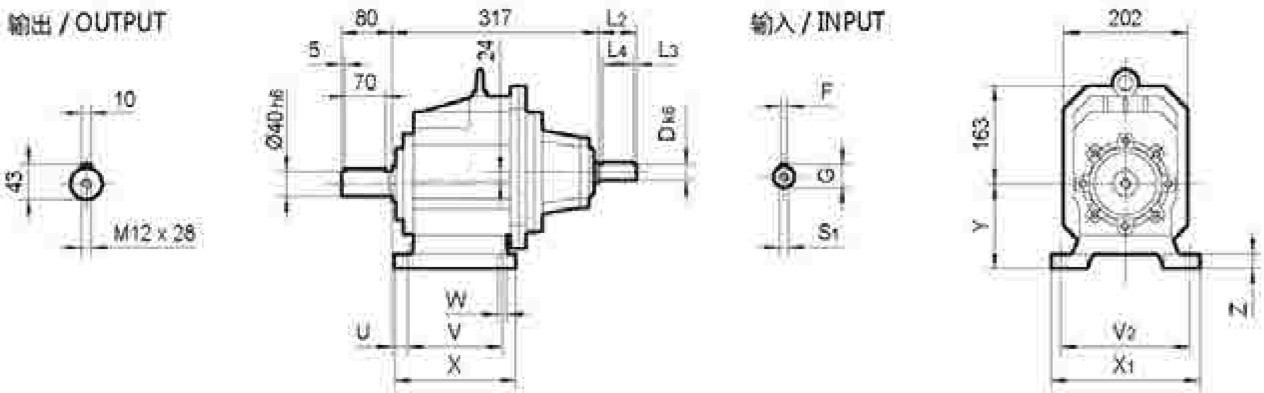
KPCZ05..TAM(IEC)..



IEC	D_{E8}	F	G	L	M	N	P	Q	S	T
TAM90	24	8	27.3	285	165	130	200	12	11	4.5
TAM100	28	8	31.3	294	215	180	250	15	13.5	5
TAM112	28	8	31.3	294	215	180	250	15	13.5	5
TAM132	38	10	41.3	325	265	230	300	16	13.5	5

底脚代号 Foot Code	U	V	V_2	W	X	X_1	Y	Z
B0501	25	156	225	18	200	270	155	22
R0502	35	205	170	17.5	245	220	140	20

KPC05..AD..



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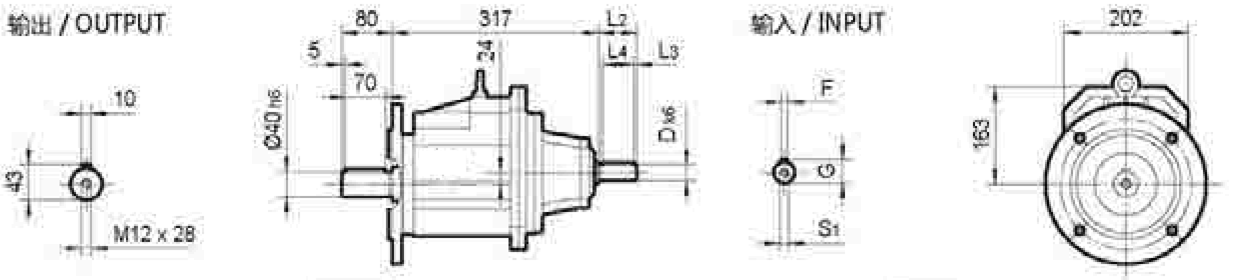
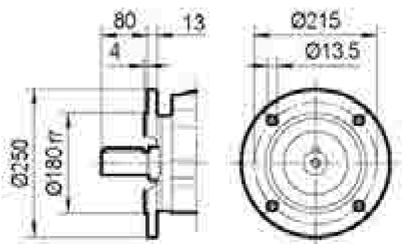
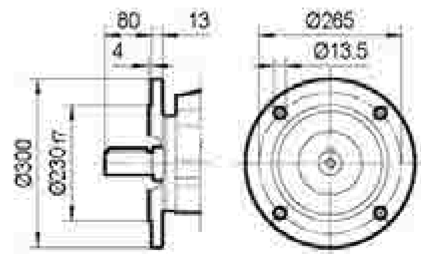


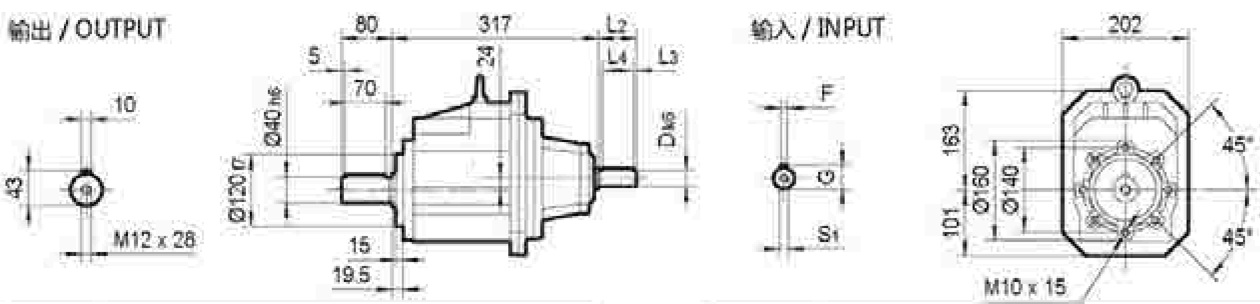
I
Ø250



II
Ø300



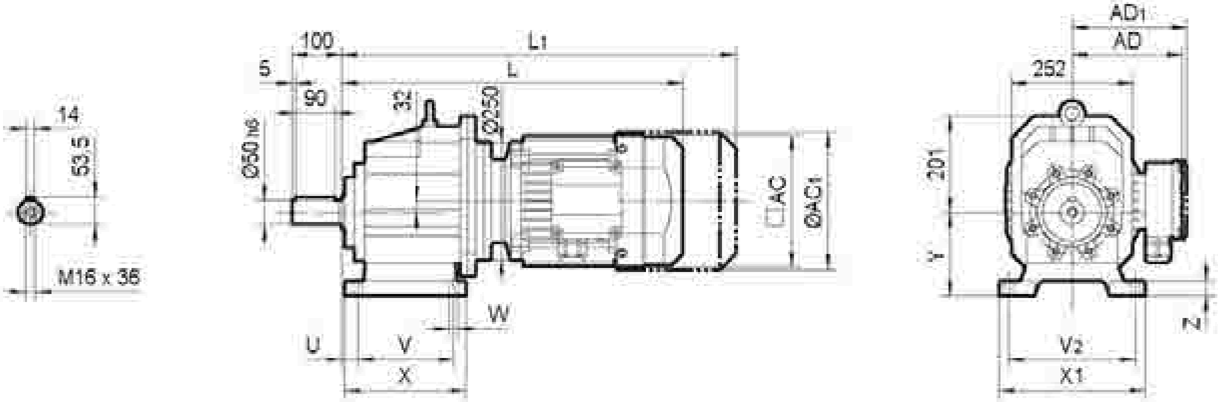
KPCZ05..AD..



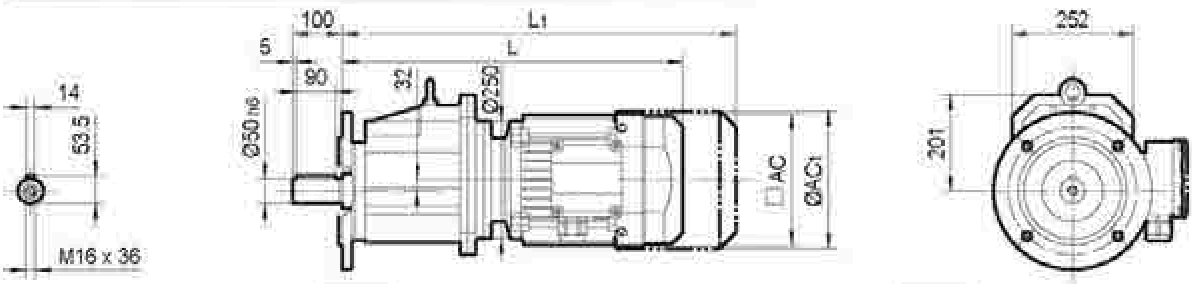
Foot Code	U	V	V2	W	X	X1	Y	Z
B0501	25	156	225	18	200	270	155	22
R0502	35	205	170	17.5	245	220	140	20

AD..	D	F	G	L2	L3	L4	S1
AD2	19	6	21.5	40	4	32	M6x16
AD3	24	8	27	50	5	40	M8x19
AD4	38	10	41	80	5	70	M12x28

KPC06..MX..

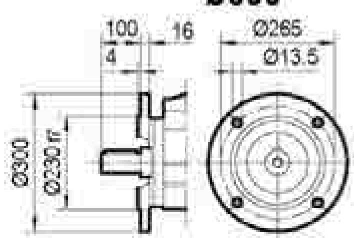


KPCF06..MX..



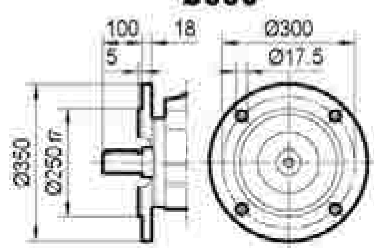
I

Ø300

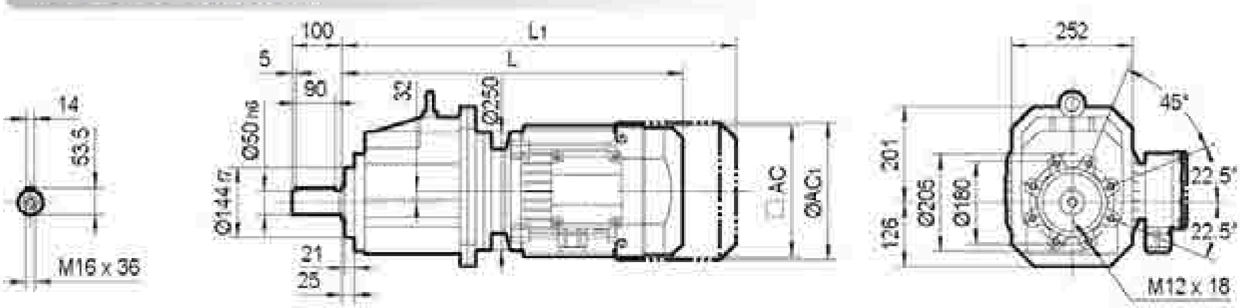


II

Ø350



KPCZ06..MX..



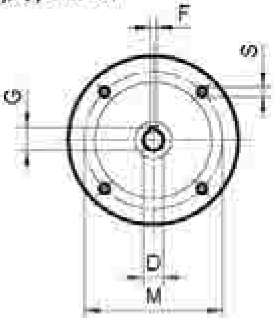
电机型号 Motor Type	L	L1	AC	AC1	AD	AD1
MX90	518	603	182	203	154	161
MX100M	558	643	182	203	154	161
MX100L	588	673	182	203	154	161
MX112	602	682	206	221	179	182
MX132S	647	727	206	221	179	182
MX132M	669	781	252	275	230	230

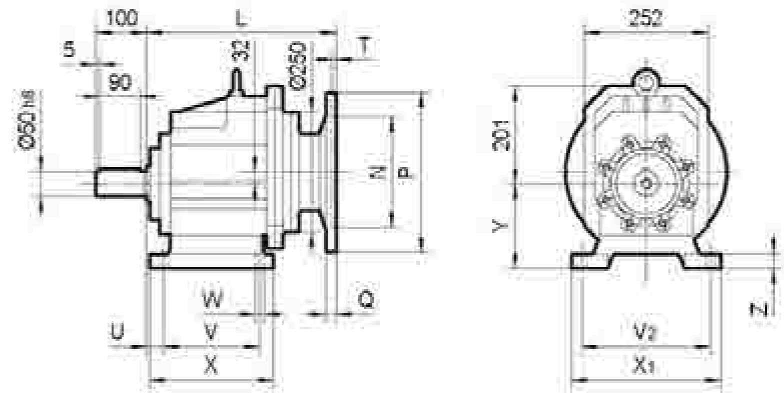
电机型号 Motor Type	L	L1	AC	AC1	AD	AD1
MX132ML	729	841	252	275	230	230
MX160M	729	841	252	275	230	230

底脚代号 Foot Code	U	V	V2	W	X	X1	Y	Z
B0601	25	180	250	18	232	300	195	25
R0602	40	260	215	17.5	310	280	180	25

KPC06..TAM(IEC)..

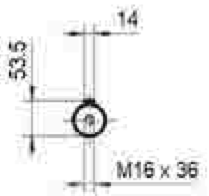
输入 / INPUT

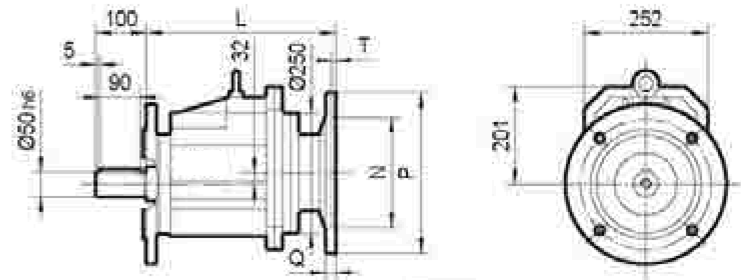




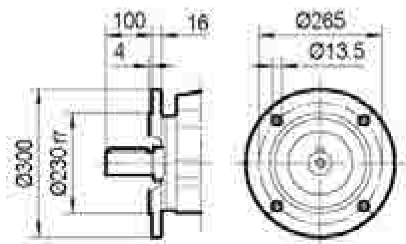
KPCF06..TAM(IEC)..

输出 / OUTPUT





I
Ø300



II
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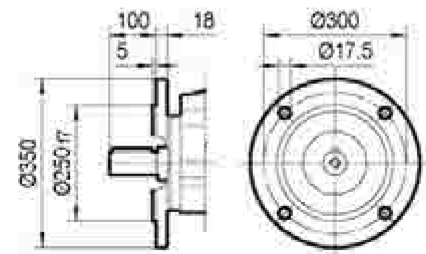

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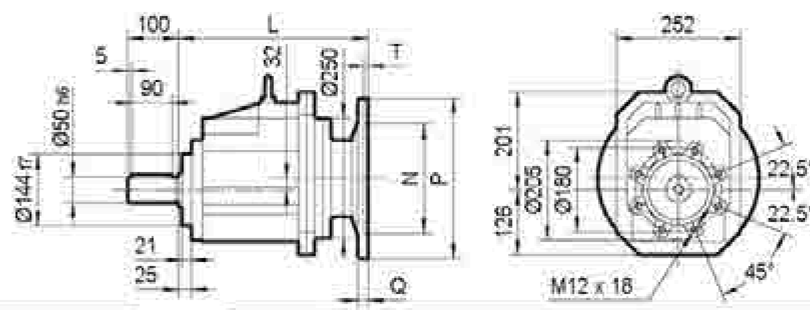
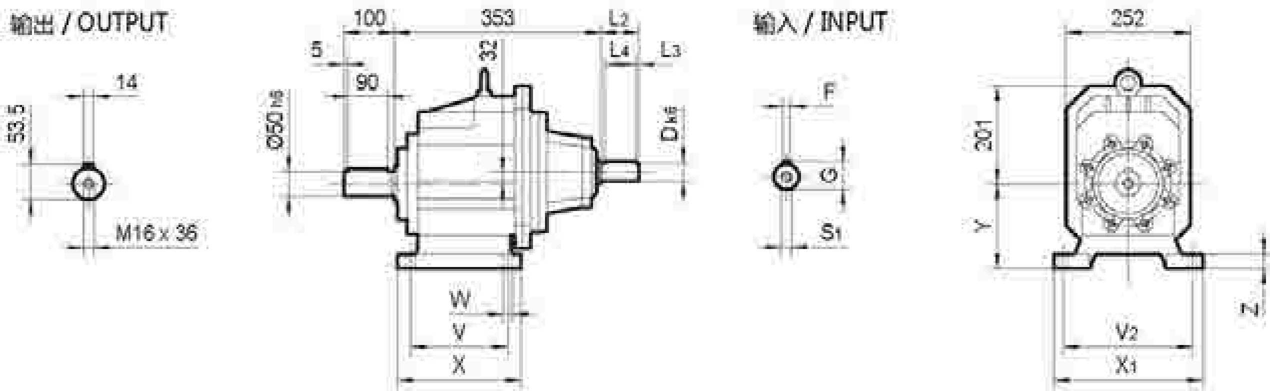


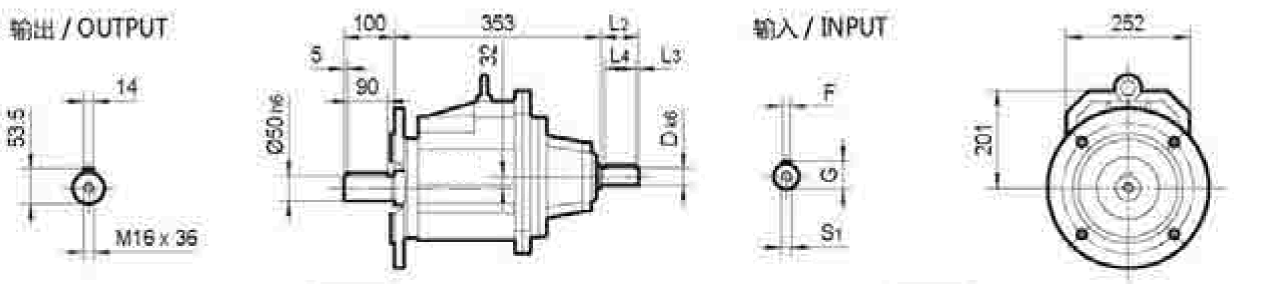
IEC	D_{E8}	F	G	L	M	N	P	Q	S	T
TAM90	24	8	27.3	321	165	130	200	12	11	4.5
TAM100	28	8	31.3	330	215	180	250	15	13.5	5
TAM112	28	8	31.3	330	215	180	250	15	13.5	5
TAM132	38	10	41.3	361	265	230	300	16	13.5	5
TAM160	42	12	45.3	399	300	250	350	18	17.5	6

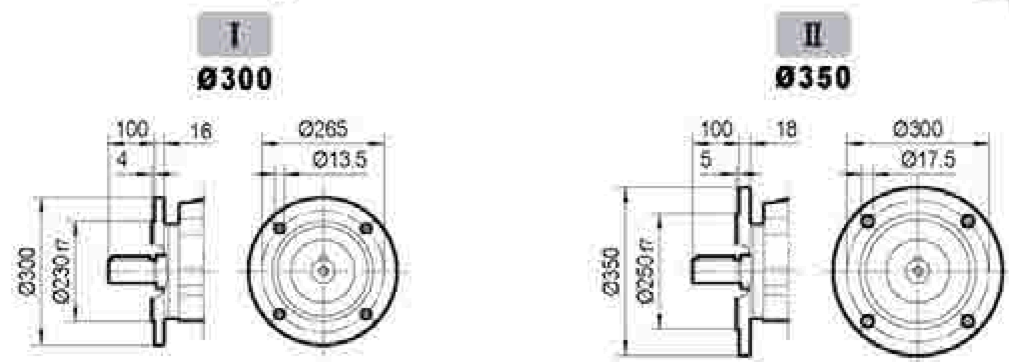
Foot Code	U	V	V_2	W	X	X_1	Y	Z
B0601	25	180	250	18	232	300	195	25
R0602	40	260	215	17.5	310	280	180	25

KPC06..AD..

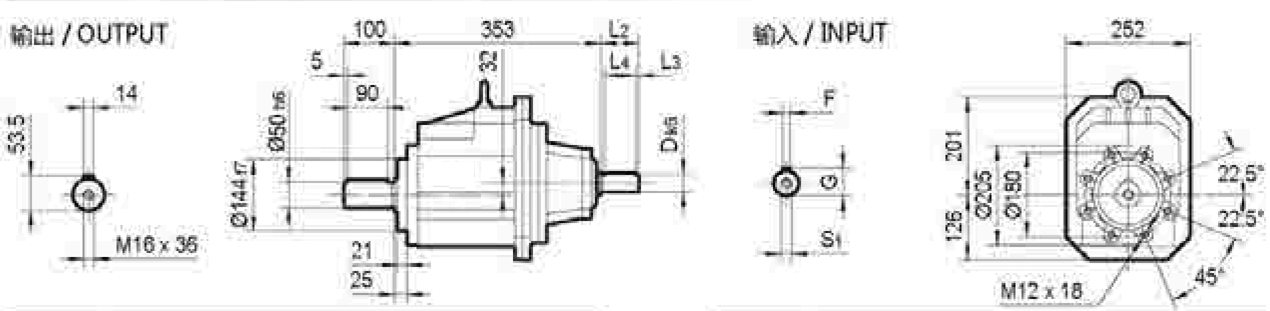


KPCF06..AD..





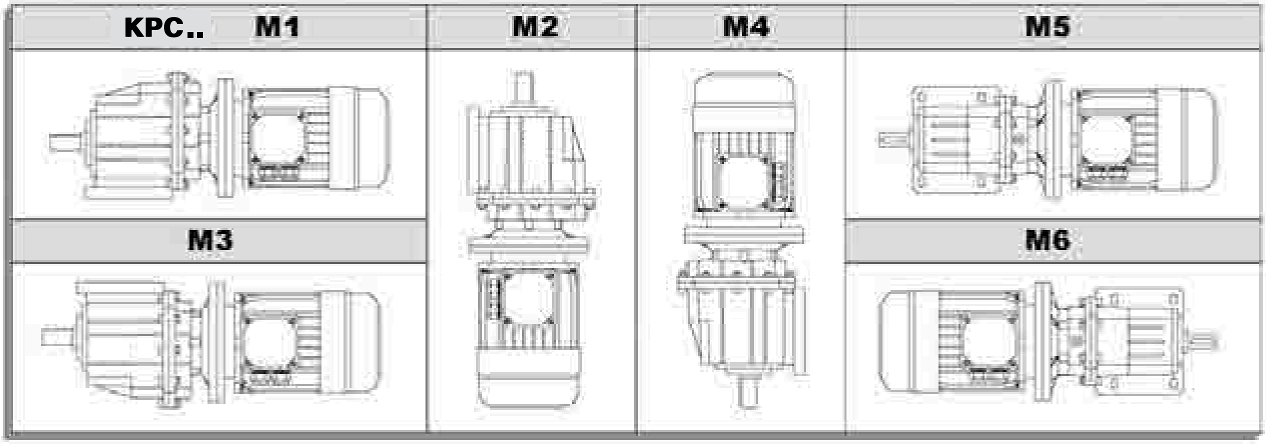
KPCZ06..AD..

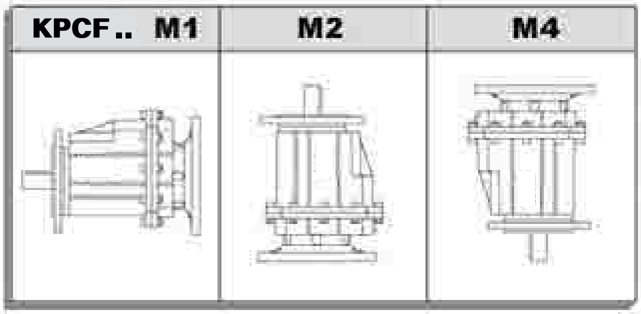


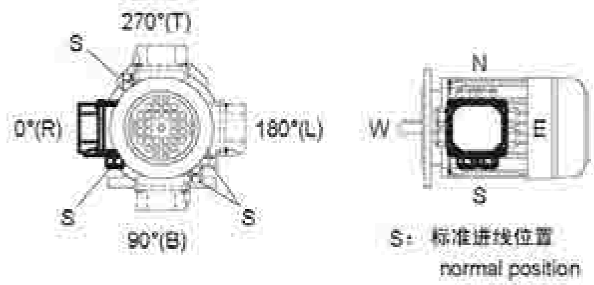
底脚代号 Foot Code	U	V	V2	W	X	X1	Y	Z
B0601	25	180	250	18	232	300	195	25
R0602	40	260	215	17.5	310	280	180	25

AD..	D	F	G	L2	L3	L4	S1
AD2	19	6	21.5	40	4	32	M6x16
AD3	28	8	31	60	5	50	M8x19
AD4	38	10	41	80	5	70	M12x28

8. 安装方位和接线盒位置 / MOUNTING POSITION AND TERMINAL BOX ORIENTATION







9. 润滑油 / LUBRICATION

9.1 概述

如果没有特殊要求，本公司所提供的减速器均按商定的安装方式的加注了润滑油，所以您在订货时需要指定与安装方式相关的参数（M1~ M6，→ "安装方式及重要的订货提供参数" 章节）。在后期调整安装方式时，您必须根据改变后的安装方式相应地调节注油量（→ 润滑油注入量）。

9.1 General information

Unless a special arrangement is made, TONGYU supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position (M1 ... M6, → Sec. "Mounting Positions and Important Order Information") specified when ordering the drive. You must adapt the lubricant fill in case of any subsequent changes made to the mounting position (→ Lubricant fill quantities).

9.2 滚动轴承润滑脂

减速器和电动机的滚动轴承在出厂时就加注了润滑脂。对于配有润滑油加注装置的滚动轴承，建议在更换机油时也更换润滑脂。下列润滑脂更换时参考：

9.2 Anti-friction bearing greases

The lubricant table on the following page shows the permitted lubricants for TONGYU gear units. Please note the following key to the lubricant table:

	环境温度	制造厂家	型 号	润滑油类型
减速器滚动轴承	-20°C ~ +60°C	Mobil	Mobilux EP 2	矿物油
	-40°C ~ +80°C	Mobil	Mobiltemp SHC 100	合成油
电机滚动轴承	-20°C ~ +80°C	Esso	Unirex EQ3	矿物油
	-20°C ~ +60°C	Shell	Alvania RL3	矿物油
	-45°C ~ 25°C	Shell	Aero Shell Grease 16	合成油

需要下列润滑脂加注量：

- 如果是高速运转的轴承(电动机和减速器输入端)：轴承腔中加入三分之一的润滑脂。
- 如果是低速运转的轴承（减速器中和减速器输出端）：轴承腔中加入三分之二的润滑脂。

The following grease quantities are required:

- For fast-running bearings (motor and gear unit input end): Fill the cavities between the rolling elements one third full with grease.
- For slow-running bearings (in gear units and at gear unit output end): Fill the cavities between the rolling elements two thirds full with grease.

9.3 润滑油型号 / Types of lubrication

	°C -50 0 +50 +100	ISO	SHELL	MOBIL	BP	润滑油类型 lubrication type
KPC..	标准 Standard -10 +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR-XP 220	矿物油 Mineral oil
	-20 +25	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	-30 +10	VG 68-46 VG 32	Shell Tellus T 32	Mobil D.T.E. 13M		
	-40 -20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E. 11M	BP Energol HLP-HM 15	
	-40 +80	VG 220	Shell Omala HD 220	Mobil SHC 630		合成油 Synthetic oil
	-40 +40	VG 150	Shell Omala HD 150	Mobil SHC 629		
	-40 +10	VG 32		Mobil SHC 624		

9.4 润滑油加注量 / Lubricant fill quantity

减速器型号 Gear units	加注量 Fill quantity in liters				单位 unit：升(L)	
	M1	M2	M3	M4	M5	M6
KPC..01..	0.4	0.6	0.4	0.3	0.3	0.3
KPC..02..	0.5	0.7	0.5	0.4	0.4	0.4
KPC..03..	0.8	1.1	0.8	0.6	0.6	0.6
KPC..04..	1.2	1.6	1.0	1.0	0.9	0.9
KPC..05..	2.4	3.0	2.0	2.1	1.5	1.5
KPC..06..	4.6	5.5	4.0	4.4	3.0	3.0

表格规定的加注量为参考值，准确值的变化与传动比有关。KPC 系列减速器在出厂前已加注了长寿命的润滑油，可长期使用，一般不需要换油。

The fill quantity in the table is referenced, the exact value velating to the ratio. All KPC Series helical gear units are filled with life lubrication before deliveny, do not need to change it in general.

10. 安装方法 / INSTALLATION METHODS

10.1 安装前准备工作

1). 检查减速电机铭牌上的规定与电源是否一致。

2). 对于标准减速器，环境温度必须与润滑剂表中相应的润滑剂表相一致。

3). 动力安装不允许在油、爆炸气体、水蒸汽、酸性腐蚀和放射线环境下进行。

4). 输出轴和法兰表面必须彻底清除掉防锈剂、污染物或者类似脏物。必须使用常用的溶剂。不得让溶剂进入到轴密封环的密封唇上，否则会损坏密封材料！

5). 支承结构必须满足平稳、防震、刚性好，不发生扭曲特性。

10.2 减速器的安装

1). 减速器安装时将底脚或法兰交错拧紧，注意其允许承受的横向力和轴向力！

2). 输出轴上安装传动件时，传动件如皮带轮，联轴器，小齿轮等绝对不能使用锤子敲击的方法套装到输出轴上，否则有可能损伤轴承，外壳以及轴。

3). 启动机器之前，检查放油塞是否利于操作，油镜是否利于观察油位，油位与减速器的安装位置是否一致，透气塞方位是否恰当。

10.1 Preparation before the installation

1). Check if the data on the nameplates of the gearmotor matches the voltage supply system.

2). For standard gear unit, the ambient temperature must be in accordance with the corresponding lubricant table.

3). The drive must not be assembled in conditions such as oil, gas, vapors, acids, radiation and so on.

4). Output shaft and flange surfaces must thoroughly cleaned to ensure they are free of anti-corrosion agents, contamination or similar. Use a commercially available solvent. Do not let the solvent come into contact with the sealing lip of the oil seals, or will damage the material!

5). The supporting structure must have the following characteristics: level, vibration damping and torsionally rigid.

10.2 The installation of the gear units

1). Do not tighten the housing legs and mounting flanges against one another and ensure that you comply with the permitted radial load and axial load.

2). Never drive belt pulleys, couplings, pinions, etc. onto the shaft end by hitting them with a hammer. This will damage the bearing, housing and the shaft.

3). Prior to startup, check that if the oil level is as specified for the mounting position. if the oil checking and drain screw and the breather valves are free accessible.

11. 故障排除 / CORRECT THE MALFUNCTION

故障	可能的原因	解决办法
异常、均匀的运转噪声。	A. 滚动/碾压噪声：轴承损坏。 B. 冲击型噪声： 齿轮啮合不均匀	A. 检测润滑油， 更换轴承。 B. 请向客户服务部咨询。
异常、不均匀的运转噪声。	机油中有异物。	• 检测润滑。 • 停止运转传动装置，向客户服务部咨询。
机油泄漏 1)。 • 在减速器盖上。 • 在电机凸缘上。 • 在电机轴密封圈上。 • 在减速器凸缘上。 • 在输出端轴密封圈上。	A. 减速器底座上的橡胶密封发生渗漏。 B. 密封圈损坏。 C. 减速器没有排气。	A. 拧紧各个外盖上的螺钉并且观察减速器。如果机油继续泄露，请向客户服务部咨询。 B. 请向客户服务部咨询。 C. 给减速器排气（参见 " 安装方式 "）。
机油从排气阀旁渗出。	A. 机油太多。 B. 传动装置安装方式错误。 C. 频繁冷起动（机油起泡沫）和 / 或者较高的油位。	A. 修正油量（ 参见" 润滑油"）。 B. 正确安装排气阀并且矫正油位（参见" 安装方式"）。
尽管电机在运转或者传动轴已经被驱动，但是传动轴不转动。	减速器中的轴轮毂联接断裂。	将减速器或减速电机送修。

1) 在磨合试运转阶段（24 小时的运转时间内），轴密封圈有可能出现短期内的漏油/ 油脂的现象。

Problem	Possible cause	Remedy
Unusual, regular running noise	A. Meshing/grinding noise: Bearing damage. B. Knocking noise: Irregularity in the gearing	A. Check the oil, change bearings B. Contact customer service
Unusual, irregular running noise	Foreign bodies in the oil	• Check the oil • Stop the drive, contact customer service
Oil leaking1) • From the gear cover plate • From the motor flange • From the motor oil seal • From the gear unit flange • From the output end oil seal	A. Rubber seal on the gear cover plate leaking B. Seal defective C. Gear unit not vented	A. Tighten the bolts on the gear cover plate and observe the gear unit. Oil still leaking:Contact customer service B. Contact customer service C. Vent the gear unit (see "Mounting Positions")
Oil leaking from breaking valve	A. Too much oil B. Drive operated in incorrect mounting position C. Frequent cold starts(oil foams) and/or high oillevel	A. Correct the oil level (see Sec. "Inspection and Maintenance") B. Mount the breather valve correctly (see Sec."Mounting Positions")and correct the oil level(see"Lubricants")
Output shaft does not turn although the motor is running or the input shaft is rotated	Connection between shaft and hub in gear unit interrupted	Send in the gear unit/gearmotor for repair

1) Short-term oil/grease leakage at the oil seal is possible in the run-in phase (24 hours running time).

12. 减速器负载特征表(参考件) CHARGE CHARACTERISTIC CHART (FOR REFERENCE)

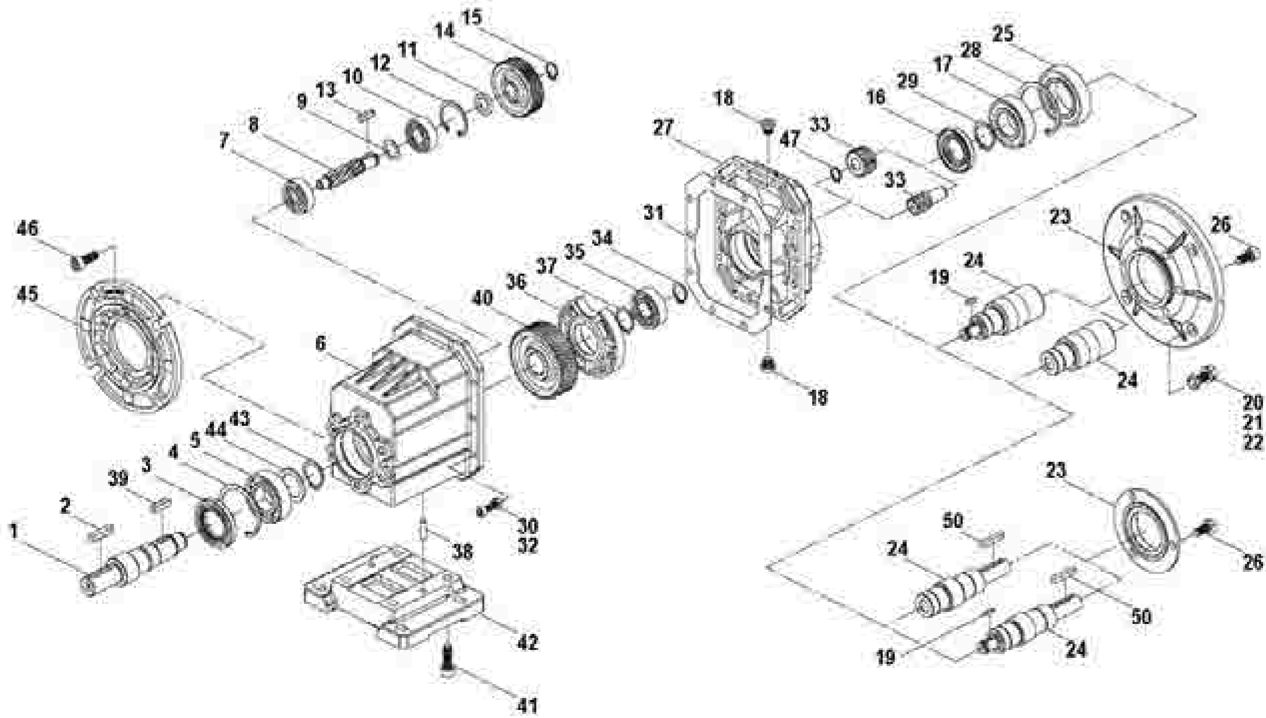
风机类 AIR BLOWERS		卷扬机齿轮传动装置 Hoist gear assembly	A
风机(轴向和径向) Air blower(axial or radial)	A	吊杆起落齿轮传动装置 Derrick gear assembly	B
冷却塔风扇 Fan of cooling tower	B	转向齿轮传动装置 Steering gear assembly	B
引风机 Induced draught fan	B	行走齿轮传动装置 Moving gear assembly	C
螺旋活塞式风机 Rotary piston type fan	B	挖泥机类 LAND DREDGER	
蜗轮式风机 Turbo-fan	A	筒式传送机 Drum-type coveyer	C
建筑机械类 CONSTRUCTION MACHINERY		筒式转动机 Drum-type rotation wheel	C
混凝土搅拌机 Concrete mixer	B	挖泥头 Dredger head	C
卷扬机 Hoist	B	机动绞车 Powered crab	B
路面建筑机械 Road building machinery	B	泵 Pump	B
钻孔机 Boring mill	B	泵转向齿轮传动装置 Pump turning gear assembly	B
化工机械类 CHEMICAL MACHINERY		行走齿轮传动装置（履带）Moving gear assemhly (apron wheel)	C
搅拌机(液体) Mixer (liquid)	A	行走齿轮传动装置（铁轨）Moving gear assembly (track)	B
搅拌机(半液体) Mixer (half liquid)	B	食品工业机械类 FOODSTUFF PROCESSING MACHINERY	
离心机(重型) Centrifuge (heavy)	B	灌注及装箱机器 Placer or box filler	A
离心机(轻型) Centrifuge(light)	A	甘蔗压榨机 Cane crusher	A
冷却滚筒 ** Cooling rolling drum	B	甘蔗切断机 ** Cane cutter	B
干燥滚筒 ** Dry rolling drum	B	甘蔗粉碎机 ** Cane crasher	C
搅拌机 Mixer	B	搅拌机 Mixer	B
压缩机类 COMPRESSOR		酱状物吊筒 Paste bucket	B
活塞式压缩机 Piston type compressor	C	装包机 Packager	A
涡轮式压缩机 Turbo-compressor	B	糖甜菜切断机 Beet slicer	B
传送运输机类 TRANSMISSION FREIGHTER		糖和甜菜清洗机 Beet washing machine	B
平板传送机 Pan conveyer	B	发动机及转换器类 MOTOR AND CONVERSION EQUIPMENTS	
平衡块升降机 Balance lifter	B	频率转换器 Frequency converter	C
槽式传送机 Trough conveyer	B	发动机 Motor	C
带式传送机(大件) Ribbon conveyer (large piece)	C	焊接发动机 Welding motor	C
带式传送机(碎料) Ribbon coveyer (small piece)	B	洗衣机类 WASHING MACHINE	
筒式面粉传送机 Drum-type flour conveyer	A	滚筒 Rolling drum	B
链式传送机 Chain conveyer	B	洗衣机 Washing machine	B
环式传送机 Ring type conveyer	B	金属滚轧机类 METAL ROLLER MACHINE	
货物升降机 Lifter	B	钢坯剪断机 ** Steel cutter	C
卷扬机 Hoist	B	链式输送机 ** Chain conveyer	B
连杆式传送机 Crank-connecting conveyer	B	冷轧机 ** Cold mill	C
载入升降机 Lifter	B	连铸成套设备 Continuous casting equipments	B
螺旋式传送机 Worm conveyer	B	冷床 ** Cold bed	B
钢带式传送机 Steel-band conveyer	B	剪料机头 ** Cropper	C
链式槽型传送机 Chain reed-type conveyer	B	交叉转弯输送机 ** Cross steering transmitter	B
绞车运输机 Crab freighter	B	除锈机 ** Deruster	C
起重机类 HOIST		重型和中型板轧机 ** Heavy and medium steel mill	C
转臂式起重传动齿轮装置 Bracket swing gear assembly	B	摔坯切轧机 ** Bar mill	C

棒坯转运机类 BAR TRANSMISSION EQUIPMENTS	B
棒坯推料机 Bar pusher	B
推床 Push bed	B
剪板机 ** Shears	C
板材提升降台 ** Lumber elevator platform	B
轧辊调整装置 ROLL ADJUSTING EQUIPMENTS	B
辊式矫直机 Roller leveling machine	B
轧钢机辊道 (重型)** Mill rolling way (heavy)	C
轧钢机辊道 (轻型)** Mill rolling way (light)	B
薄板轧机 ** Sheet rolling mill	C
修整剪切机 ** Trimming shears	B
焊管机 Pipe welder	C
焊管机(带材和线材)Soldering machine(belt material and wire rod)	B
线材拉拔机 Wire drawbench	B
金属加工机床类 METAL PROCESSING MACHINE TOOLS	
动力轴 Power shaft	A
锻造机 ** Forging machine	C
锻锤 Drop hammer	C
机床及附助装置 Machine tool and necessary	A
机床及主要传动装置 Machine tool and main driving equipment	B
金属刨床 Metal facing machine	C
板材矫直机床 Plate-leveling machine tool	C
冲床 Backing-out punch	C
冲压机床 Press machine tool	C
剪床 Cutting machine	B
薄板弯曲机床 Sheet bending machine tool	B
石油工业机械类 PETROLEUM PROCESSING MACHINERY	
输油管油泵 ** Pump of oil pipe line	B
转子钻井设备 Rotary drilling equipment	C
制纸机类 PAPERING MACHINE	
压光机 ** Glazing press	C
多层纸板机 ** Multilayer paper board machine	C
干燥滚筒 ** Drying cylinder	C
上光滚筒 ** Glazing cylinder	C
搅浆机 ** Masher	C
搅浆撕碎机 ** Mashing and breaking machine	C
吸水滚 ** Suction roll	C
湿纸滚压机 ** Wet paper roller machine	C
吸水滚压机木 ** Water absorbing roller machine	C
威罗机 Welon machine	C

泵类 PUMPS	
离心泵(稀液体) Centrifugal pump (thin liquid)	A
离心泵(半液体) Centrifugal pump (half liquid)	B
活塞泵 Displacement pump	C
柱塞泵 Plunger pump	C
压力泵 Force pump	C
塑料机械类 PLASTIC EQUIPMENTS	
压光机 ** Glazing press	B
挤压机 ** Ejecting press	B
螺旋压出机 ** Spiral extruding machine	B
混合机 ** Mixing machine	B
橡胶机械类 RUBBER EQUIPMENT	
压光机 ** Glazing press	B
挤压机 ** Ejecting press	C
混合搅拌机 ** Mixing stir machine	B
捏合机 Kneading machine	B
滚压机 ** Roller machine	C
石料、瓷土料加工机械类 STONE PORCELAIN CLAY PROCESSING EQUIPMENTS	
球磨机 Ball crusher	B
挤压料碎机 ** Ejecting press and breaker	C
破碎机 Breaker	C
压砖机 Brick press	C
辗料碎机 ** Beating crusher	C
转炉 ** Converter	C
筒型磨机 ** Cylinder mill	C
纺织机械类 TEXTILE MACHINERY	
送料机 Feeding machine	B
织布机 Loom machine	B
印染机 Dyeing machine	B
精制筒 Purified drum	B
威罗机 Welon machine	B
水处理设备类 WASTER TREATMENT EQUIPMENTS	
鼓风机 ** Air blast	B
螺杆泵 Screw pump	B
木料加工机床 WOOD PROCESSING MACHINE TOOL	
剥皮机 Barker	C
刨床 Facing machine	B
锯床 Saw bench	C
木材加工机床 Wood processing machine tool	A

注：A—均匀冲击负载；B—中等冲击负载；C—重冲击负载；**—用于24小时工作制。
Note: A - Uniform load; B - Moderate shock load; C - Heavy shock load; ** - for 24hour system.

产品构造原理 / *Basic structure*



1	输出轴	25	轴承
2	键	26	内六角螺钉
3	油封	27	输入盖
4	孔用挡圈	28	孔用挡圈
5	轴承	29	轴用挡圈
6	齿轮箱体	30	六角螺母
7	轴承	31	密封垫
8	主动齿轮轴	32	内六角螺钉
9	挡圈	33	主动齿轮
10	轴承	34	轴用挡圈
11	间隔环	35	轴承
12	孔用挡圈	36	支承座
13	键	37	轴用挡圈
14	从动齿轮	38	圆柱销
15	轴用挡圈	39	键
16	油封	40	从动齿轮
17	轴承	41	内六角螺钉
18	油塞	42	底座
19	键	43	轴用挡圈
20	六角头螺栓	44	垫圈
21	垫圈	45	输出法兰
22	六角螺母	46	内六角花形螺钉
23	输入法兰	47	轴用挡圈
24	输入轴	50	键

1	Output shaft	25	Bearing
2	Key	26	Socket head cap screw
3	Oil seal	27	Input cover
4	Hole circlip	28	Hole circlip
5	Bearing	29	Shaft circlip
6	Gear box	30	Hex nut
7	Bearing	31	Housing gasket
8	Pinion shaft	32	Socket head cap screw
9	Circlips retaining rings	33	Pinion
10	Bearing	34	Shaft circlip
11	Spacer ring	35	Bearing
12	Hole circlip	36	Support seat
13	Key	37	Shaft circlip
14	Gear	38	Cylindrical pin
15	Shaft circlip	39	Key
16	Oil seal	40	Gear
17	Bearing	41	Socket head cap screw
18	Oil plug	42	Foot
19	Key	43	Shaft circlip
20	Hex head bolt	44	Washer
21	Washer	45	Output flange
22	Hex nut	46	Hex socket screws
23	Intput flange	47	Shaft circlip
24	Intput shaft	50	Key