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### 杭州雷杜科技有限公司 HANGZHOU LEIDU TECHNOLOGY CO., LTD.

地址: 中国·浙江 杭州市余杭区未来科技城文一西路1378号  
1378 West Wenyi Road, Future Technology City, Yuhang District,  
Hangzhou City, Zhejiang Province, China  
电话/TEL: 0086-0571-87386872 0086-0571-88613361  
0-18806770015  
传真/FAX: 0086-0571-87386872 0086-0571-88613661  
网址/HTTP: //www.yndgearbox.com  
邮箱/E-mail: WW2WL@163.com

### 北京办事处 Beijing Office

地址: 北京市海淀区新都公寓  
Xindu Apartment, Haidian District, Beijing  
电话/TEL: 0086-010-82955707  
0-17794588868

### 郑州办事处 Zhengzhou Office

地址: 郑州市高新区玉兰街16号龙汇国际  
Longhui Interational, No.16, Yulan Sterrt,  
High-tech Zone, Zhengzhou  
电话/TEL: 0086-0371-63294858 55059702  
0-17764584685

### 山东办事处 Shandong Office

地址: 山东省淄博市高新技术开发区裕民路268号  
No.268, Yumin Road, High-Tech Zone, Zibo City,  
Shandong  
电话/TEL: 0086-0533-7747 888  
0-17764550541  
传真/FAX: 0086-0533-7868 118

### 湖南办事处 Hunan Office

地址: 湖南省长沙市芙蓉区张公岭龟山路410号  
No.410, Guishan Road, Zhanggongling,  
Furong District, Changsha, Hunan  
电话/TEL: 0086-0731-83108109  
0-17764558808

### 广东办事处 Guangdong Office

地址: 深圳市宝安区自由路愉盛综合大厦  
Yusheng Comprehensive Building, Free Road,  
Bao'an District, Shenzhen  
电话/TEL: 0-18958075595

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生产基地: 浙江杭州  
Production base: Hangzhou, Zhejiang



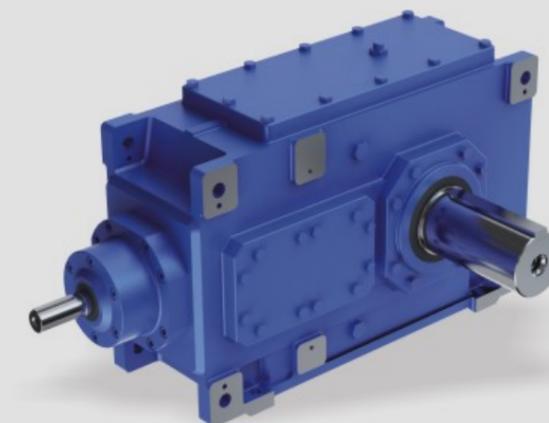
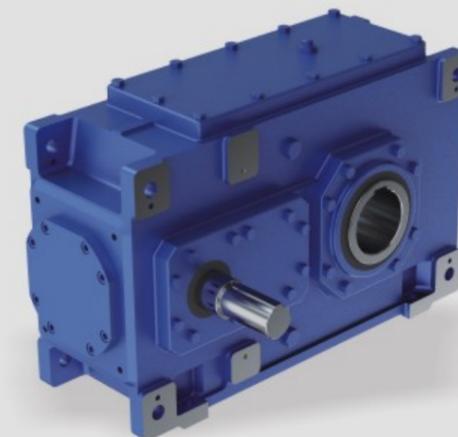
齿轮箱 / 行星齿轮减速机选型手册

杭州雷杜科技有限公司



H/B GEAR UNITS  
P SERIES PLANETARY  
GEARBOX

## H/B工业齿轮箱 P系列行星齿轮减速机



杭州雷杜科技有限公司  
Hangzhou Leidu Technology Co., Ltd.



## 企业简介 Company

杭州雷杜科技有限公司是一家集产品研发、技术服务、生产经营为一体的专业传动科技型企业。致力于提供更有竞争力的传动解决方案和服务，为客户创造更大的价值！

公司主要产品有R、S、K、F四大系列硬齿面减速机，RV/WP系列蜗轮蜗杆减速机，UD/MB系列无级减速机，P系列精密行星减速机，H/B系列大功率减速机，C/G系列齿轮马达及SWL系列丝杆升降机等。产品广泛应用于环保设备、筑路机械、仓储物流，食品机械、印刷包装、汽车检测、立体车库、石油化工、冶金、陶瓷、玻璃、印染纺织、木工机械等传动设备的各个行业。

围绕“品质至上、服务为先”的战略方针，认真贯彻执行国际质量认证体系，核心产品自主研发并获得多项“国家知识产权局”授予的专利称号，部分产品已列入省技术创新计划项目之中。公司与多家科研机构建立战略合作，并列入“杭州师范大学”教学科研实习基地。年取得了企业自营进出口权，产品远销欧美、东南亚等国家和地区。

“雷杜”自创立至今始终遵循“诚信、专业、高效、共赢”的科学的和管理和服务理念，真诚期待与您共同携手，开拓美好科技未来。

Hangzhou Leidu Technology Co., Ltd. is a professional transmission technology enterprise integrating product research and development, technical services, production and operation. Committed to providing more competitive transmission solutions and services, to create greater value for customers!

The company's main products are R, S, K, F series geared motor, RV/WP series worm reducer, UD/MB series stepless reducer, P series precision planetary reducer, H/B series high-power reducer, C/G series gear motor and SWL series screw elevator. Products are widely used in environmental protection equipment, road building machinery, storage and logistics, food machinery, printing and packaging, automotive testing, three-dimensional garage, petrochemical, metallurgy, ceramics, glass, printing and dyeing textile, woodworking machinery and other transmission equipment industries.

Around the strategic policy of "quality first, service first", we earnestly implement the international quality certification system. The core products are independently developed and awarded many patent titles by the State Intellectual Property Office. Some of the products have been listed in the provincial technical innovation program. The company has established strategic cooperation with several scientific research institutions and has been listed as the teaching and scientific research practice base of Hangzhou Normal University. In, the company gained the right of self import and export, and its products were exported to Europe and America, Southeast Asia and other countries and regions.

Since its inception, Leidu has always followed the scientific management and service concept of "integrity, professionalism, efficiency and win-win" and sincerely looks forward to working with you to open up a bright future of science and technology.

企业理念  
Corporate concept

CORPORATE CONCEPT

**诚:** 推心置腹，言而有信；精诚所至，始终如一；  
**志:** 志不立，天下无可成之事；有志者，事竟成；  
**恒:** 锲而不舍，金石可镂；欲稍得成，从恒下手；  
**专:** 凡为一事，事皆贵专；以专而精，以纷而散；  
**实:** 实事求是，精益求精，差之毫厘，失之千里；  
**勤:** 刻苦求进，勤学善思；懒惰误己，勤奋兴财；

**Sincerity:** Put your heart in your mouth, believe in your words, and be honest and consistent.

**Ambition:** Nothing can be done without ambition; if there is a will, there will be competition.

**Eternal:** Perseverance, stone can be carved; want to get a little bit, from constant hands.

**Profession:** Everything is for the sake of one thing; it is specialized and refined, and scattered in different ways.

**Pragmatism:** Seeking truth from facts, strives for perfection, and makes a difference.

**Industrious:** Diligently seeking progress, diligent learning and good thinking; laziness and wrong self, diligence and prosperity.

产品介绍  
Product introduction

## R、S、K、F系列斜齿轮减速电机 R,S,K,F series helical gear motors



R系列斜齿轮减速电机  
R series helical geared motor



S系列斜齿轮-蜗轮蜗杆减速电机  
S series helical-worm geared motor



K系列斜齿轮-伞齿轮减速电机  
K series helical-bevel geared motor



F系列平行轴-斜齿轮减速电机  
F series parallel shaft-helical geared motor

通用减速机系列 General reducer series	
<b>安装方式:</b> 底角, 法兰, 扭力臂。 <b>Mounting arrangements:</b> foot, flange, torque arm.	
功率 Power(KW)	0.12-200
速比 Ratio	1.3-33000
最大输出扭矩 Output torque(KN.M)	top to 50

## HB系列重载齿轮箱 HB series heavy duty gearboxes



H系列斜齿轮减速机  
H series helical gearbox



B系列斜齿轮-锥齿轮减速机  
B series bevel-helical gearbox

通用减速机系列 General reducer series.	
模块化设计, 安装方式多样。可配置逆止器单向传动, 以及串联辅助传动。 Highly standard modular designed. No strict limitation to the mounting arrangement. Can be configured to one-way transmission by backstop. Available to install with auxiliary drive.	
功率 Power(KW)	4-6000
速比 Ratio	1.25-450
最大输出扭矩 Output torque(KN.M)	top to 950

# 齿轮减速机 GEARED REDUCER

产品介绍  
Product introduction

## 重载行星减速机 Heavy duty planetary reducers



N系列行星减速机  
N series planetary reducer



P系列行星减速机  
P series planetary reducer

通用减速机系列 General reducer series	
单位承载能力极高。 Very high unit capacity.	
功率 Power(KW)	0.37-12000
速比 Ratio	25-4000
最大输出扭矩 Output torque(KN.M)	top to 2600

## 橡塑行业专用减速机 Special reducers for rubber and plastic industry



单螺杆挤出机减速机  
Special reducer for single screw extruder



压延机专用减速机  
Special reducer for calendaring machine



平双螺杆挤出机减速机  
Special reducer for twin screws extruder



密炼机专用减速机  
Special reducer for internal mixer

专用减速机系列 Special reducer series.	
常用于橡塑行业炼胶，挤出，压延设备。 Commonly used in rubber mixer, extruder, calendaring machine of rubber and plastic industry.	
功率 Power(KW)	55-2500
速比 Ratio	8-35
最大输出扭矩 Output torque(KN.M)	top to 300

# 齿轮减速机 GEARED REDUCER

## 蜗轮蜗杆减速机 Worm gear motors



RV系列蜗轮减速机 RV series worm gear motor  
VF系列蜗轮减速机 VF series worm gear motor  
WP系列蜗轮减速机 WP series worm gear motor  
UD系列无极变速器 UD series variable speed machine  
T系列螺旋伞齿轮转向箱 T series spiral bevel gear reducer  
SWL系列蜗轮丝杆升降机 SWL series worm gear screw reducer

通用减速机系列 General reducer series	
铝合金壳体的蜗轮传动减速机。 结构紧凑，多方位安装，免维护。 Aluminum alloy shell, compact structure, multiple installation, maintenance free.	
功率 Power(KW)	0.06-15
速比 Ratio	7.5-100
最大输出扭矩 Output torque(N.M)	top to 1760

## 摆线针轮减速机 Cycloidal pinwheel reducers



BWD系列摆线减速机 BWD series cycloidal pinwheel reducer  
BLD系列摆线减速机 BLD series cycloidal pinwheel reducer  
卧式微型摆线减速机 Horizontal micro cycloidal pinwheel reducer  
立式微型摆线减速机 Vertical micro cycloidal pinwheel reducer

通用减速机系列 General reducer series	
结构紧凑，通过摆线针轮传递动力。 Compact structure. Cycloidal pinwheel transmission.	
功率 Power(KW)	0.12-90
速比 Ratio	7-650000
最大输出扭矩 Output torque(KN.M)	top to 30

## 圆柱齿轮减速机 Cylindrical gear reducers



ZDY系列圆柱齿轮减速机 ZDY series cylindrical gear reducer  
ZLY系列圆柱齿轮减速机 ZLY series cylindrical gear reducer  
ZSY系列圆柱齿轮减速机 ZSY series cylindrical gear reducer  
ZFY系列圆柱齿轮减速机 ZFY series cylindrical gear reducer

通用减速机系列 General reducer series	
按行业标准生产，并可配置逆止器单向传动以及串联辅助传动。 Can be configured to one-way transmission by backstop. Available to install with auxiliary drive.	
功率 Power(KW)	1.1-6000
速比 Ratio	1.25-500
最大输出扭矩 Output torque(KN.M)	top to 520

# 齿轮减速机 GEARED REDUCER

产品介绍  
Product introduction

## 三项异步电机 Three-phase asynchronous motors



YE2系列高效电机  
YE2 series high efficiency motor



YBX3系列防爆电机  
YBX3 series premium efficiency flameproof motor



YEJ系列制动电机  
YEJ series braking motor



YVF2系列变频电机  
YVF2 series variable frequency motor

通用电动机系列 General motor series	
常规工业动力。 Conventional industrial power.	
功率 Power(KW)	0.12-315
机座号 Stand No.	63-355
电源频率(Hz) Power frequency	50/60

## 微型减速电机 Micro and small gear motors



CH系列减速电机  
CH series gear motor



CV系列减速电机  
CV series gear moto



直流减速电机  
Direct current gear motor



精密行星减速机  
High precision planetary reducer

通用减速机系列 General reducer series	
质量轻，噪音低，效率高，寿命长等。 Light weight, low noise, high efficiency, long life etc.	
功率 Power(KW)	0.006-7.5
速比 Ratio	2-200
最大输出扭矩 Output torque(N.M)	top to 7400

# 齿轮减速机 GEARED REDUCER

产品介绍  
Product introduction

## 双轴桨叶式混合机专用减速机 Special reducer for twin shafts paddle mixe



双轴桨叶式混合机专用减速机  
Special reducer for twin shafts paddle mixer



双轴桨叶式混合机  
Twin shafts paddle mixer

专用减速机系列 Special reducer series.	
该款减速机专为双轴桨叶式混合机设计，减速机与混合机直联，最大程度的节省了安装空间和生产成本，因而设备运行更加平稳，高效。 The reducer is designed for twin shafts paddle mixer, connect with the mixer directly, saving the installation space and production cost at maximum degree, so the equipment runs more smoothly and efficiently.	
功率 Power(KW)	15-90
速比 Ratio	33-50
最大输出扭矩 Output torque(KN.M)	70

## 焊接滚轮架专用减速机 Special reducer for welding rotator



焊接滚轮架专用减速机  
Special reducer for welding rotator



焊接滚轮架  
Welding rotator

专用减速机系列 Special reducer series	
适用于自调式双驱动滚轮架，移动式焊接滚轮架等各种自动焊接的滚轮架驱动。 The reducers apply to bolt adjustable rotator, self aligning rotator, lead screw adjustable rotator, and fit up rotator, etc.	
功率 Power(KW)	0.18-22
速比 Ratio	300-3400
最大输出扭矩 Output torque(KN.M)	180

产品图片  
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齿轮箱 Gear Units  
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型号表示 主减速机型号/辅传减速机型号<sup>1)</sup>

Designation of Types Main gear unit type/Auxiliary gear motor type<sup>1)</sup>

例 Example: B3DH13-71-B-CW/KF107-Y18.5-28.59

主减速机型号说明 Explanation of main gear unit type

型号说明	上例说明	Explanation of types	Explanation of the above example
<p>系列类型: B 直交轴系列</p> <p>传动级数: 3 三级</p> <p>输出轴结构形式: S 实心轴 H 空心轴 D 带胀紧盘空心轴</p> <p>安装方式: H 卧式带底脚</p> <p>规格代号: 4~18</p> <p>公称传动比: 公称传动比<math>i_N</math> (见选型参数表)</p> <p>装配布置形式: B、D (见249页)</p> <p>输入轴旋转方向 (面向输入轴方向看): CW 顺时针 CCW 逆时针</p>	<p>直交轴系列</p> <p>三级传动</p> <p>带胀紧盘 空心轴输出</p> <p>卧式带底脚安装</p> <p>13机座号</p> <p>公称传动比<math>i_N=71</math></p> <p>装配布置形式为B</p> <p>输入轴为 顺时针方向</p>	<p>Types: B Bevel-helical</p> <p>Numben of stages: 3 3-stage</p> <p>Output shaft design: S Solid shaft H Hollow shaft D Hollow shaft for shrink disk</p> <p>Mouting positions: H Horizontal</p> <p>Size: sizes 4~18</p> <p>Nominal ratio: Nominal ratio <math>i_N</math> (see selection table)</p> <p>Design for assemble: B, D (see page 249)</p> <p>Direction of rotation of input shaft: (viewing on input shaft) CW Clockwise, CCW Counter clockwise.</p>	<p>Bevel-helical</p> <p>3-stage</p> <p>Hollow shaft for shrink disk output</p> <p>Horizontal</p> <p>size 13</p> <p>Nominal ratio <math>i_N=71</math></p> <p>Design B</p> <p>Direction of rotation of input shaft is clockwise</p>

辅传减速机型号说明<sup>2)</sup> Explanation of anxilary gear motor type<sup>2)</sup>

型号说明	上例说明	Explanation of types	Explanation of the above example
<p>减速电机类型: 螺旋锥齿轮减速电机</p> <p>结构形式: F轴伸法兰式</p> <p>机座号: 37...167</p> <p>电机: 电机功率</p> <p>传动比: 见236页</p>	<p>螺旋锥齿轮减速电机</p> <p>轴伸法兰式</p> <p>107机座号</p> <p>18.5kW普通电机</p> <p>传动比: 28.59</p>	<p>Gear units type: Helical-bevel gear motor</p> <p>Structure: F Flange mounted solid output shaft</p> <p>Size: 37...167</p> <p>Motor: motor power</p> <p>Ratio: see page 236</p>	<p>Helical-bevel gear motor</p> <p>Flange-mounted solid shaft output</p> <p>Size 107</p> <p>18.5kW Ordinary motor</p> <p>Ratio: 28.59</p>

注: 1)使用国产及国外逆止器、超越离合器时, 尺寸略有不同(见241~248页减速机外形尺寸), 请特别说明。  
2)主减速机规格确定后, 依据辅传驱动为空载和载荷不同工作情况, 辅传减速机型号基本确定, 见236页。

Note: 1) Please specially designate whether domestic or imported backstop and overrunning clutch are used, as the domensions are slightly different (see page 241~248 gear units monuting dimensions for detail).  
2) Auxiliary gear motor type is basically determined depend on the auxiliary drive working under maintenance or under load condition after main gear unit has been selected (see page 236).



## 注意事项

务必遵循以下原则：

样本中的附图只属范例，并不要求严格一致。所有尺寸可能改进。

所注重量仅为平均值，不要求严格一致。

为防止发生事故，所有旋转部件应按安全规定加罩防护。

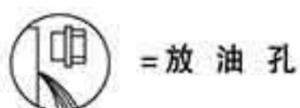
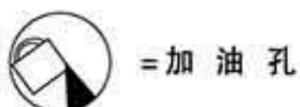
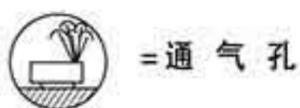
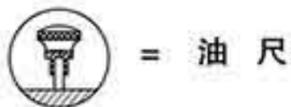
试车前，必须认真阅读操作说明。主减速机出厂时未加注润滑油。因此应按规定加注润滑油。

给出的加油量只作为参考值，实际油量应以油尺上的标记为准。

通常，辅传减速电机在出厂前已加注润滑油。

采用国产逆止器、超越离合器时，需给逆止器和联接法兰之内的超越离合器加注润滑脂（2号锂基润滑脂可满足要求），并定期更换。采用国外逆止器、超越离合器时，需向联接法兰内加注润滑油（采用与主减速机同样规格润滑油）以润滑超越离合器，油位以略低于连接法兰视孔即可。

有关外形尺寸图中的符号说明如下：



基础螺栓的性能等级为8.8级。

## Attention

Following items are absolutely to be observed:

Illustrations are examples only and are not strictly bonding. Dimensions are subject to change.

The weights are mean values and not strictly binding.

To prevent accidents, all rotating parts should be guarded according to local and national safety regulations.

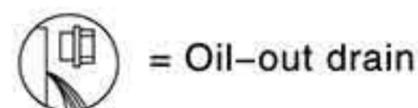
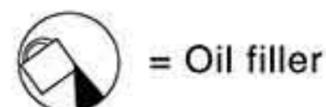
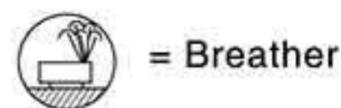
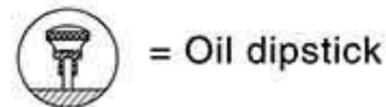
Prior to commissioning, the operating instructions must be observed. The gear units are delivered ready for operation but without oil filling. So specified oil should be filled.

Oil quantities given are guide values only. The exact quantity of oil depends on the marks on the dipstick.

Normally, auxiliary gear motors are filled with lubricant at the factory before dispatch.

If domestic backstop and overrunning clutch are used, please lubricate them with grease (No. 2lithium grease can meet requirement), and change periodically. If imported backstop and overrunning clutch are used, please fill lubrication into the connecting flange to lubricate the overrunning clutch, as the backstop is lubricated with splash oil.

Explanations of symbols used in the dimensioned drawings:



Foundation bolts of min. property class 8.8.



## 选型指南

## 1. 确定减速机规格

## 1.1 计算传动比

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

1.2 确定减速机的额定功率，应满足(原动机为电机，每小时启动次数≤5次)

$$P_N \geq P_2 \times f_1 \times f_3$$

1.3 校核最大转矩，如峰值工作转矩，启动转矩或制动转矩，应满足(单向载荷，每小时峰值负荷次数≤5次)

$$P_N \geq \frac{T_A \times n_1}{9550} \times 0.5$$

根据 $i_N$ 和 $P_N$ 在额定功率表中确定减速机规格。

1.4 检查实际传动比 $i$ 是否满足要求，实际传动比 $i$ 见226页。

## 2. 确定润滑方式

减速机采用浸油飞溅润滑。  
可按客户要求提供强制润滑。

3. 确定热功率 $P_G$ 

3.1 减速机不带辅助冷却装置，应满足

$$P_2 \leq P_G = P_{G1} \times f_6 \times f_7$$

3.2 减速机带冷却风扇装置时，应满足

$$P_2 \leq P_G = P_{G2} \times f_6 \times f_7$$

3.3 更高的热功率，可按要求提供外部油冷却器冷却。

## Guidelines for the Selection

## 1. Determination of gear unit type and size

## 1.1 Find the transmission ratio

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

1.2 Determine nominal power rating of the gear unit (driven by electric motor, and start less than five times per hour)

$$P_N \geq P_2 \times f_1 \times f_3$$

1.3 Check for maximum torque, e.g. peak operating-, starting-or braking torque (unilateral loading, and endure peak load less than five times per hour)

$$P_N \geq \frac{T_A \times n_1}{9550} \times 0.5$$

Gear unit sizes are given in rating tables depending on  $i_N$  and  $P_N$ .

1.4 Check whether the actual ratio  $i$  as per tables on page 226 is acceptable.

## 2. Determination of oil supply

All parts to be lubricated are lying in the oil or are splash lubricated. Forced lubrication on request.

3. Determination of required thermal capacity  $P_G$   
3.1 Gear unit without auxiliary cooling sufficient, if

$$P_2 \leq P_G = P_{G1} \times f_6 \times f_7$$

3.2 Gear unit with fan sufficient, if

$$P_2 \leq P_G = P_{G2} \times f_6 \times f_7$$

3.3 For higher thermal capacities, cooling by external oil cooler on request.



## 符号表

$E_D$  = 每小时工作周期, 以%表示, 例如  $E_D=80\%$

$f_1$  = 工作机系数 (表1), 见235页

$f_3$  = 减速机安全系数 (表3), 见235页

$f_6$  = 环境温度系数 (表6), 见235页

$f_7$  = 海拔高度系数 (表7), 见235页

$i$  = 实际传动比

$i_N$  = 额定传动比

$i_S$  = 要求传动比

$n_1$  = 输入转速 ( $\text{min}^{-1}$ )

$n_2$  = 输出转速 ( $\text{min}^{-1}$ )

$n_3$  = 辅传驱动 (50Hz;  $n_1=1500\text{min}^{-1}$ ) 输入时的主减速机 (B3) 输出轴上的输出转速 ( $\text{min}^{-1}$ )

$P_G$  = 需要的热功率

$P_{G1}$  = 无辅助冷却装置时的热功率, 见238~240页

$P_{G2}$  = 带冷却风扇装置时的热功率, 见238~240页

$P_N$  = 减速机的额定功率 (kW), 见选型表237页

$P_2$  = 工作机的额定功率 (kW)

$t$  = 环境温度 ( $^{\circ}\text{C}$ )

$T_A$  = 输入轴最大扭矩, 例如峰值工作扭矩, 起动扭矩或制动扭矩 (Nm)

$T_{2N}$  = 额定输出扭矩 (kNm), 见177页

$T_3$  = 辅传驱动输入时的主减速机 (B3) 输出轴上有输出扭矩 (kNm), 见236页

## Key to Symbols

$E_D$  = Operation cycle per hour in %, e.g.  $E_D=80\%$

$f_1$  = Factor for driven machine (table 1), page 235

$f_3$  = Safety factor (table 3), page 235

$f_6$  = Factor for ambient temperature (table 6), page 235

$f_7$  = Factor for ambient (table 7), page 235

$i$  = Actual ratio

$i_N$  = Nominal ratio

$i_S$  = Required ratio

$n_1$  = Input speed ( $\text{min}^{-1}$ )

$n_2$  = Output speed ( $\text{min}^{-1}$ )

$n_3$  = Output speed ( $\text{min}^{-1}$ ) on main gear unit output shaft (B3), in case of input via auxiliary drive (50Hz;  $n_1 = 1500\text{min}^{-1}$ )

$P_G$  = Required thermal capacity

$P_{G1}$  = Thermal capacity for gear units without auxiliary cooling, page 238~240

$P_{G2}$  = Thermal capacity for gear units with fan cooling, page 238~240

$P_N$  = Nominal power rating of gear unit (kW), see rating table at page 237

$P_2$  = Power rating of driven machine (kW)

$t$  = Ambient temperature ( $^{\circ}\text{C}$ )

$T_A$  = Max. torque occurring on input shaft, e.g. peak operating-, starting- or braking torque (Nm)

$T_{2N}$  = Nominal output torque (kNm), page 177

$T_3$  = Output torque (kNm) on main gear unit output shaft (B3), in case of input via auxiliary drive, page 236



## 计算实例

已知条件:

原动机

电动机:  $P_1=75\text{kW}$ 电机转速:  $n_1=1500\text{min}^{-1}$ 最大起动扭矩:  $T_A=720\text{Nm}$ 

工作机

斗式提升机:  $P_2=62\text{kW}$ 转速:  $n_2=26\text{min}^{-1}$ 

日工作小时数: 12小时/天

每小时起动次数: 7

辅传驱动: 载荷驱动

每小时工作周期:  $E_D=100\%$ 环境温度:  $30^\circ\text{C}$ 室外安装: 风速  $\geq 4\text{m/s}$ 

海拔高度: 海平面

减速机类型

直交轴减速机

安装方式: 水平安装

输出轴: 右面

输出轴的旋转方向: CCW

要求:

选择减速机类型和规格

1. 选择减速机类型和规格

1.1 确定传动比

$$i_s = \frac{n_1}{n_2} = \frac{1500}{26} = 57.7 \quad i_N = 56$$

1.2 确定减速机额定功率

$$P_N \geq P_2 \times f_1 \times f_3 = 62 \times 1.5 \times 1.25 \\ = 116.25\text{kW}$$

从功率表中选择: 类型B3, 规格10, 额定功率  $P_N=122\text{kW}$ 带辅传驱动KF87-Y5.5-36.52,  $n_3=2.0\text{min}^{-1}$  及  $T_3=25.1\text{kNm}$ 。

1.3 校核起动扭矩

$$P_N \geq \frac{T_A \times n_1}{9550} \times 0.5 = \frac{720 \times 1500}{9550} \times 0.5 \\ = 56.6\text{kW}$$

$$P_N = 122\text{kW} > 56.6\text{kW}$$

2. 确定热功率

2.1 按B3不带冷却装置时热功率计算:

$$P_G = P_{G1} \times f_6 \times f_7 = 72 \times 0.88 \times 1.0 = 63.36\text{kW}$$

$$P_2 = 62\text{kW} < P_G = 63.36\text{kW}$$

可选用不带冷却装置的减速机。

## Calculation Example

Known criteria:

PRIME MOVER

Electric motor:  $P_1=75\text{kW}$ Motor speed:  $n_1=1500\text{min}^{-1}$ Max. starting torque:  $T_A=720\text{Nm}$ 

DRIVEN MACHINE

Bucket elevator:  $P_2=62\text{kW}$ Speed:  $n_2=26\text{min}^{-1}$ 

Daily service hours: 12h/day

Starts per hour: 7

Auxiliary drive: operation under load

Operating cycle per hour:  $E_D=100\%$ Ambient temperature:  $30^\circ\text{C}$ Outdoor installation: wind velocity  $\geq 4\text{m/s}$ 

Altitude: sea level

GEAR UNIT DESIGN

Bevel-helican gear unit

Mounting position: horizontal

Output shaft: right hand side

Rotate direction of of output shaft: CCW

Required

Type and size of gear unit

1. Selection of gear unit type and size

1.1 Calculation of transmission ratio

$$i_s = \frac{n_1}{n_2} = \frac{1500}{26} = 57.7 \quad i_N = 56$$

1.2 Determination of the gear unit nominal power rating

$$P_N \geq P_2 \times f_1 \times f_3 = 62 \times 1.5 \times 1.25 \\ = 116.25\text{kW}$$

Selected from power rating table: type B3, gear unit size 10, with  $P_N=122\text{kW}$ With auxiliary drive KF87-Y5.5-36.52,  $n_3=2.0\text{min}^{-1}$  and  $T_3=25.1\text{kNm}$ 。

1.3 Checking the starting torque

$$P_N \geq \frac{T_A \times n_1}{9550} \times 0.5 = \frac{720 \times 1500}{9550} \times 0.5 \\ = 56.6\text{kW}$$

$$P_N = 122\text{kW} > 56.6\text{kW}$$

2. Determination of thermal capacity

2.1 Thermal capacity for gear units without auxiliary cooling, acc. to table for type B3

$$P_G = P_{G1} \times f_6 \times f_7 = 72 \times 0.88 \times 1.0 = 63.36\text{kW}$$

$$P_2 = 62\text{kW} < P_G = 63.36\text{kW}$$

A GEAR UNIT WITHOUT AUXILIARY COOLING IS SUFFICIENT!



## 服务系数 Service Factors

工作机 Driven machines	日工作小时数 Effective daily operating period under load in hours			工作机 Driven machines	日工作小时数 Effective daily operating period under load in hours		
	≤0.5	0.5~10	>10		≤0.5	0.5~10	>10
输送机** Conveyors**				货用电梯* Goods lifts*	-	1.2	1.5
斗式输送机 Bucket conveyors	-	1.4	1.5	客用电梯* Passenger lifts*	-	1.5	1.8
升降卷扬机 Hauling winches	1.4	1.6	1.6	刮板式输送机 Apron conveyors	-	1.2	1.5
提升机 Hoists	-	1.5	1.8	自动扶梯 Escalators	1.0	1.2	1.4
提式输送机 ≤150kW Belt conveyors ≤150kW	1.0	1.2	1.3	轨道车辆 Railway Vehicles	-	1.5	-
带式输送机 >150kW Belt conveyors >150kW	1.1	1.3	1.4				

注：\*) 按最大扭矩确定额定功率；  
\*\*) 检验热功率是绝对有必要的。

Note:\*) Designed power corresponding to max. torque;  
\*\*) A check for thermal capacity is absolutely essential.

重要性与安全要求	一般设备，减速机失效仅引起单机停产且易更换备件	重要设备，减速机失效引起起机组、生产线或全厂停产	高度安全要求，减速机失效引起设备、人身事故
Importance and safety request	Ordinary equipment, malfunction only cause accident of single machine and easily replaced.	Important equipment, malfunction cause the accident of assembling unit, production-line or whole factory.	Safety request highly, malfunction cause the accident of equipment and personal injury.
$f_3$	1.25-1.5	1.5-1.75	1.75-2.0

不带辅助冷却装置或仅带冷却风扇 Without auxiliary cooling or with fan cooling					
环境温度 Ambient temperature	每小时工作周期 (ED) 百分比 % Operating cycle per hour (ED) in %				
	100	80	60	40	20
10°C	1.11	1.31	1.60	2.14	3.64
20°C	1.00	1.18	1.44	1.93	3.28
30°C	0.88	1.04	1.27	1.70	2.89
40°C	0.75	0.89	1.08	1.45	2.46
50°C	0.63	0.74	0.91	1.22	2.07

不带辅助冷却装置或仅带冷却风扇 Without auxiliary cooling or with fan cooling					
系数 Factor	海拔高度 (m) Altitude (meters)				
	高达 Up to 1000	高达 Up to 2000	高达 Up to 3000	高达 Up to 4000	高达 Up to 5000
$f_7$	1.0	0.95	0.90	0.85	0.80

B



## 辅传驱动

类型B3...

规格4...18

依据不同的使用要求，每种规格的减速机有两种辅传驱动型式：

## 1) 空载驱动

斗式提升机空载(空斗)时，辅传减速机驱动斗式提升机以较低转速同向转动。

## 2) 载荷驱动

斗式提升机满载(满斗)时，辅传减速机驱动斗式提升机发较低转速同向转动。

## 辅传驱动结构设计

辅传减速机为KF系列带直联电机的锥齿轮减速电机，通过中间法兰与主减速机相联接，超越离合器与主减速机相连实现自动离合。超越离合器在中间法兰内部，有独立油润滑和加润滑脂润滑两种方式。KF锥齿轮减速电机也为独立油润滑方式，出厂前已加注润滑油。

## Auxiliary Drive

Types B3...

Sizes 4...18

Dependent on the case of application, for each gear unit size two different auxiliary drives are available:

## 1) Maintenance Drive

The motor of the auxiliary drive is dimensioned in such a way that the bucket elevator can be operated with empty buckets at low speed in the same direction of rotation.

## 2) Operation under load

The motor of the auxiliary drive is dimensioned in such a way that the bucket elevator can be operated with full buckets at low speed in the same direction of rotation.

## Design of auxiliary drives

The auxiliary drive is a bevel-helical gear motor type KF, which is flanged to the main gear unit by means of an intermediate flange and is coupled to the main gear units via an overrunning clutch. The overrunning clutch is located in the intermediate flange, and lubricated with its own oil or grease. The bevel-helical gear motor type KF has an own oil filling and is supplied filled with oil.

B

主减速机 Main gear Unit	空载驱动 Maintenance drive						载荷驱动 Operation under load					
	1) $n_3$ [min <sup>-1</sup> ]	1) $T_3$ [kNm]	2) 齿轮减速电机 Geared motor	$P_M$ [kW]	输出轴 $d \times l$ [mm]	$i$	1) $n_3$ [min <sup>-1</sup> ]	1) $T_3$ [kNm]	2) 齿轮减速电机 Geared motor	$P_M$ [kW]	输出轴 $d \times l$ [mm]	$i$
4	2.5	2.7	KF47-Y0.75-35.39	0.75	30×60	35.39	2.5	3.9	KF57-Y1.1-35.7	1.1	35×70	35.7
5	2.5	5.3	KF57-Y1.5-35.7	1.5	35×70	35.7	3.3	6.5	KF67-Y2.2-27.28	2.2	40×80	27.28
6	2.0	6.6	KF57-Y1.5-35.7	1.5	35×70	35.7	2.7	8.1	KF67-Y2.2-27.28	2.2	40×80	27.28
7	3.0	6.6	KF67-Y2.2-30.22	2.2	40×80	30.22	3.1	11.5	KF77-Y4-29.27	4	50×100	29.27
8	2.4	8.3	KF67-Y2.2-30.22	2.2	40×80	30.22	2.5	14.5	KF77-Y4-29.27	4	50×100	29.27
9	2.9	9.4	KF77-Y3-30.89	3.0	50×100	30.89	2.5	20.0	KF87-Y5.5-36.52	5.5	60×120	36.52
10	2.3	11.7	KF77-Y3-30.89	3.0	50×100	30.89	2.0	25.1	KF87-Y5.5-36.52	5.5	60×120	36.52
11	2.3	11.8	KF77-Y3-40.04	3.0	50×100	40.04	2.7	36.0	KF97-Y11-34.23	11	70×140	34.23
12	1.8	15.0	KF77-Y3-40.04	3.0	50×100	40.04	2.2	45.8	KF97-Y11-34.23	11	70×140	34.23
13	2.1	17.3	KF87-Y4-44.02	4.0	60×120	44.02	3.3	51.0	KF107-Y18.5-28.59	18.5	90×170	28.59
14	1.7	21.7	KF87-Y4-44.02	4.0	60×120	44.02	2.6	63.9	KF107-Y18.5-28.59	18.5	90×170	28.59
15	2.1	16.9	KF87-Y4-44.02	4.0	60×120	44.02	3.5	78.0	KF127-Y30-27.67	30	110×210	27.67
16	1.9	19.2	KF87-Y4-44.02	4.0	60×120	44.02	3.0	88.5	KF127-Y30-27.67	30	110×210	27.67
17	2.1	17.2	KF87-Y4-44.02	4.0	60×120	44.02	3.4	97.5	KF127-Y37-27.67	37	110×210	27.67
18	1.8	20.0	KF87-Y4-44.02	4.0	60×120	44.02	2.9	113.2	KF127-Y37-27.67	37	110×210	27.67
减速机布置形式 Design of gear units												
主减速机B布置形式: D Design of main gear unit B: D 齿轮减速电机KF输出轴方向: A Output shaft direction of gear motor KF: A						主减速机B布置形式: B Design of main gear unit B: B 齿轮减速电机KF输出轴方向: B Output shaft direction of gear motor KF: B						

注: 1) 辅传驱动输入时主减速机输出轴上转速、转矩(50Hz,  $n_1=1500\text{min}^{-1}$ );

2) 齿轮减速电机KF规格。

Note: 1) Output speed and torque on main gear unit output shaft in case of input via auxiliary drive (50Hz,  $n_1=1500\text{min}^{-1}$ );

2) Gear motor KF size.



直交轴减速器

Bevel-helical gear units

额定功率

Nom. power ratings

类型 B3...

Type B3...

规格 4...18

Sizes 4...18

			额定功率 $P_N$					Nominal power ratings $P_N$									
$i_N$	$n_1$ r/min	$n_2$ r/min	规 格					SIZES					kW				
			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
25	1500	60	41	69	91	129	160	214	270	377	471	553	685	961	1087	1257	1508
	1000	40	28	46	61	86	107	142	180	251	314	369	457	641	725	838	1005
	750	30	21	35	46	64	80	107	135	188	236	276	342	481	543	628	754
28	1500	54	37	62	82	116	144	192	243	339	424	498	616	865	978	1131	1357
	1000	36	25	41	55	77	96	128	162	226	283	332	411	577	652	754	905
	750	27	19	31	41	58	72	96	122	170	212	249	308	433	489	565	679
31.5	1500	48	33	55	73	103	128	171	216	302	377	442	548	769	870	1005	1206
	1000	32	22	37	49	69	85	114	144	201	251	295	365	513	580	670	804
	750	24	17	28	36	52	64	85	108	151	188	221	274	385	435	503	603
35.5	1500	42	29	48	64	90	112	150	189	264	330	387	479	673	761	880	1055
	1000	28	19	32	43	60	75	100	126	176	220	258	320	449	507	586	704
	750	21	15	24	32	45	56	75	95	132	165	194	240	336	380	440	528
40	1500	38	26	44	58	82	101	135	171	239	298	350	434	609	688	796	955
	1000	25	17	29	38	54	67	89	113	157	196	230	285	401	453	524	628
	750	18.8	13	22	29	40	50	67	85	118	148	173	215	301	341	394	472
45	1500	33	23	38	50	71	88	117	149	207	259	304	377	529	598	691	829
	1000	22	15	25	33	47	59	78	99	138	173	203	251	352	399	461	553
	750	16.7	12	19	25	36	45	59	75	105	131	154	191	268	303	350	420
50	1500	30	21	35	46	64	80	107	135	188	236	276	342	481	543	628	754
	1000	20	14	23	30	43	53	71	90	126	157	184	228	320	362	419	503
	750	15	10.4	17	23	32	40	53	68	94	118	138	171	240	272	314	377
56	1500	27	19	31	41	58	72	96	122	170	212	249	308	433	489	565	679
	1000	17.9	12	21	27	38	48	64	81	112	141	165	204	287	324	375	450
	750	13.4	9.3	15	20	29	36	48	60	84	105	123	153	215	243	281	337
63	1500	24	17	28	36	50	64	85	108	151	188	221	274	385	435	503	603
	1000	15.9	11	18	24	33	42	57	72	100	125	147	181	255	288	333	400
	750	11.9	8.2	14	18	25	32	42	54	75	93	110	136	191	216	249	299
71	1500	21	14.5	24	32	44	56	75	95	132	165	194	240	336	380	440	528
	1000	14.1	9.7	16	21	30	38	50	63	89	111	130	161	226	255	295	354
	750	10.6	7.3	12	16	22	28	38	48	67	83	98	121	170	192	222	266

B



卧式安装减速器要求强制润滑



Forced lubrication required on horizontal gear units



直交轴减速器

热功率

类型 B3...

规格 4...18

$n_1=750\text{min}^{-1}$

Bevel-helical gear units

Thermal capacities

Type B3...

Sizes 4...18

$n_1=750\text{min}^{-1}$

B

		热功率 $P_G$							Thermal capacities $P_G$							kW	
$i_N$		热功率取决于冷却方式: $P_{G1}$ : 无辅助冷却装置; $P_{G2}$ : 带冷却风扇 Thermal capacity dependent on kind of cooling: $P_{G1}$ : without auxiliary cooling; $P_{G2}$ : fan cooling;															
		规格								Sizes							
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
25	$P_{G1}$	28.1	39.4	45.9	61.7	71.2	83.7	90.9	115	144	151	179	216	237	254	276	
	$P_{G2}$	43.6	63.9	73.5	100	114	141	151	213	264	282	335	402	443	526	574	
28	$P_{G1}$	27	38.1	45.1	58.6	68.8	79.8	88.5	109	137	144	172	211	224	252	264	
	$P_{G2}$	41.7	61.4	72.2	94.8	110	133	147	202	251	266	318	389	412	513	536	
31.5	$P_{G1}$	25.5	36.1	42.6	55.6	66.3	76.3	84.6	104	129	136	163	198	219	238	260	
	$P_{G2}$	39.5	58	68.1	89.8	106	126	140	191	235	252	298	362	401	479	523	
35.5	$P_{G1}$	24	34	41.1	52.8	63	72.5	80.6	100	123	132	155	191	205	231	247	
	$P_{G2}$	36.9	54.3	65.4	84.8	100	120	132	182	222	241	283	348	372	460	488	
40	$P_{G1}$	21	29.5	39	46.2	60.1	67.8	76.9	94.9	117	124	148	181	198	221	239	
	$P_{G2}$	32.1	46.8	61.9	73.6	95.4	111	126	170	209	227	267	327	358	434	469	
45	$P_{G1}$	20.5	28.7	36.6	44.9	57	62.3	73	87	112	114	141	168	187	205	228	
	$P_{G2}$	31.3	45.6	57.8	71	90	101	119	156	200	207	256	300	336	401	444	
50	$P_{G1}$	20.7	28.6	31.9	44.2	49.9	61.2	68.3	87	106	116	134	172	173	213	211	
	$P_{G2}$	31.5	45	50.1	69.6	78.1	98.8	111	153	187	207	240	302	309	407	409	
56	$P_{G1}$	19.1	26.3	31.1	41	48.4	56.5	63	79.1	97.4	107	123	157	177	197	220	
	$P_{G2}$	28.9	41.5	48.7	64.7	75.6	91.4	101	139	171	189	218	275	310	372	414	
63	$P_{G1}$	18.3	25.3	30.9	39.7	47.8	54.5	61.8	76.3	96.6	103	125	150	162	189	202	
	$P_{G2}$	27.9	39.9	48.1	62.4	74.3	88.2	98.8	133	168	181	219	262	282	355	379	
71	$P_{G1}$	17	24.1	28.5	37.8	44.3	51	57.3	70.6	88.6	96	115	143	155	178	194	
	$P_{G2}$	25.9	37.9	44.3	59.5	68.9	82.5	91.7	123	152	169	199	247	269	333	361	

注: 表中数值按:  
每小时工作周期: 100%  
在室内大空间安装\*  
海拔高度至1000m

Note: Values refer to:  
Operating cycle: 100%  
Installation in a large hall\*  
Altitude up to 1000m

\*)室内小空间 (风速 < 1.4 m/s) 和室外 (风速 ≥ 4 m/s), 请垂询。

\*)Calculation consult us when small confined space(wind velocity < 1.4 m/s) or in the open (wind velocity ≥ 4 m/s)



直交轴减速器

热功率

类型 B3...

规格 4...18

$n_1=1000\text{min}^{-1}$

Bevel-helical gear units

Thermal capacities

Type B3...

Sizes 4...18

$n_1=1000\text{min}^{-1}$

		热功率 $P_G$ Thermal capacities $P_G$ kW															
$i_N$		热功率取决于冷却方式: $P_{G1}$ : 无辅助冷却装置; $P_{G2}$ : 带冷却风扇 Thermal capacity dependent on kind of cooling: $P_{G1}$ : without auxiliary cooling; $P_{G2}$ : fan cooling;															
		规格								Sizes							
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
25	$P_{G1}$	30.1	41.8	48.6	65	74.7	87.3	94.3	117	144	149	176	204	222	234	250	
	$P_{G2}$	51.7	75.5	86.9	119	134	166	178	250	309	329	390	466	513	607	661	
28	$P_{G1}$	29	40.6	48	62.1	72.7	83.9	92.7	113	140	144	172	205	216	239	248	
	$P_{G2}$	49.4	72.7	85.5	112	130	157	174	238	295	312	373	453	480	596	621	
31.5	$P_{G1}$	27.5	38.6	45.5	59.2	70.3	80.6	89.1	108	133	139	165	196	215	232	250	
	$P_{G2}$	46.8	68.7	80.6	106	125	149	165	225	276	296	350	423	468	557	608	
35.5	$P_{G1}$	25.9	36.4	44	56.4	67	76.9	85.3	105	128	135	159	192	205	228	241	
	$P_{G2}$	43.8	64.3	77.5	100	119	141	156	215	262	284	332	407	435	538	569	
40	$P_{G1}$	22.6	31.7	41.8	49.4	64.1	72.1	81.6	99.6	122	128	152	183	199	220	236	
	$P_{G2}$	38.1	55.5	73.3	87.1	112	131	149	201	246	267	315	383	419	508	548	
45	$P_{G1}$	22.1	30.9	39.3	48	60.9	66.4	77.7	91.6	117	119	147	171	190	206	228	
	$P_{G2}$	37.2	54	68.5	84.1	106	120	140	184	236	244	301	352	395	470	520	
50	$P_{G1}$	22.4	30.8	34.4	47.6	53.6	65.5	73.1	92.4	112	122	141	178	179	219	216	
	$P_{G2}$	37.4	53.3	59.4	82.5	92.5	117	131	181	221	244	283	356	363	478	481	
56	$P_{G1}$	20.7	28.5	33.6	44.3	52.1	60.7	67.7	84.5	103	113	131	165	186	205	228	
	$P_{G2}$	34.4	49.3	57.8	76.7	89.6	108	120	164	203	223	258	325	365	438	488	
63	$P_{G1}$	19.9	27.4	33.4	42.8	51.5	58.7	66.5	81.7	103	109	133	159	171	198	211	
	$P_{G2}$	33.1	47.3	57.1	74.1	88.1	104	117	158	198	214	259	309	333	419	447	
71	$P_{G1}$	18.4	26.1	30.8	40.8	47.8	55	61.7	75.7	94.8	103	122	151	164	187	204	
	$P_{G2}$	30.7	44.9	52.6	70.5	81.7	97.8	108	146	180	201	236	292	318	393	426	

注: 表中数值按:  
每小时工作周期: 100%  
在室内大空间安装\*  
海拔高度至1000m

Note: Values refer to:  
Operating cycle: 100%  
Installation in a large hall\*  
Altitude up to 1000m

\*)室内小空间 (风速 < 1.4 m/s) 和室外 (风速 ≥ 4 m/s), 请垂询。

\*)Calculation consult us when small confined space(wind velocity < 1.4 m/s) or in the open (wind velocity ≥ 4 m/s)

B



直交轴减速器

热功率

类型 B3...

规格 4...18

$n_1=1500\text{min}^{-1}$

Bevel-helical gear units

Thermal capacities

Type B3...

Sizes 4...18

$n_1=1500\text{min}^{-1}$

B

		热功率 $P_G$										Thermal capacities $P_G$						kW	
$i_N$		热功率取决于冷却方式: $P_{G1}$ : 无辅助冷却装置; $P_{G2}$ : 带冷却风扇 Thermal capacity dependent on kind of cooling: $P_{G1}$ : without auxiliary cooling; $P_{G2}$ : fan cooling;																	
		规 格									S izes								
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18			
25	$P_{G1}$	31.9	43.3	50.1	66.2	75.2	86.9	92.8	109	130	128	150	153	160					
	$P_{G2}$	66.7	96.6	110	151	170	209	223	307	375	395	466	537	585	681	732			
28	$P_{G1}$	30.9	42.5	50	64.1	74.4	85	93.1	109	131	131	155	168	172	183	182			
	$P_{G2}$	63.9	93.3	109	143	165	199	220	296	363	380	452	535	562	689	711			
31.5	$P_{G1}$	29.4	40.7	47.8	61.7	72.7	82.7	90.7	106	129	131	154	170	183	190	199			
	$P_{G2}$	60.7	88.5	103	136	160	190	210	282	344	365	430	508	558	658	712			
35.5	$P_{G1}$	27.8	38.6	46.4	59.1	69.8	79.6	87.7	105	125	130	151	173	181	196	203			
	$P_{G2}$	56.8	83	99.8	129	152	181	199	271	328	353	412	495	526	644	677			
40	$P_{G1}$	24.3	33.7	44.3	52	67.1	75	84.4	100	121	125	147	168	180	194	204			
	$P_{G2}$	49.4	71.6	94.6	112	144	168	191	255	310	334	392	469	510	614	657			
45	$P_{G1}$	23.8	32.9	41.8	50.8	64	69.4	80.8	93.2	118	117	144	160	176	187	203			
	$P_{G2}$	48.3	69.8	88.5	108	137	154	180	234	298	306	377	434	484	572	629			
50	$P_{G1}$	24.2	33	36.8	50.7	56.9	69.3	77	95.8	115	124	142	174	174	210	204			
	$P_{G2}$	48.7	69.2	76.9	106	119	151	169	232	281	310	358	445	453	593	594			
56	$P_{G1}$	22.4	30.7	36.2	47.5	55.7	64.8	72	88.9	108	117	135	167	186	203	225			
	$P_{G2}$	44.8	64	75.1	99.5	116	140	155	211	260	285	330	411	461	552	612			
63	$P_{G1}$	21.6	29.5	36	46.1	55.2	62.8	71	86.3	108	114	138	162	173	199	211			
	$P_{G2}$	43.2	61.6	74.2	96.2	114	135	151	203	255	275	332	393	422	529	563			
71	$P_{G1}$	20	28.2	33.3	43.9	51.4	59	65.9	80.2	99.9	107	127	155	167	190	205			
	$P_{G2}$	40	58.5	68.4	91.7	106	126	140	189	232	258	302	372	404	498	539			

注: 表中数值按:  
每小时工作周期: 100%  
在室内大空间安装\*  
海拔高度至1000m

Note: Values refer to:  
Operating cycle: 100%  
Installation in a large hall\*  
Altitude up to 1000m

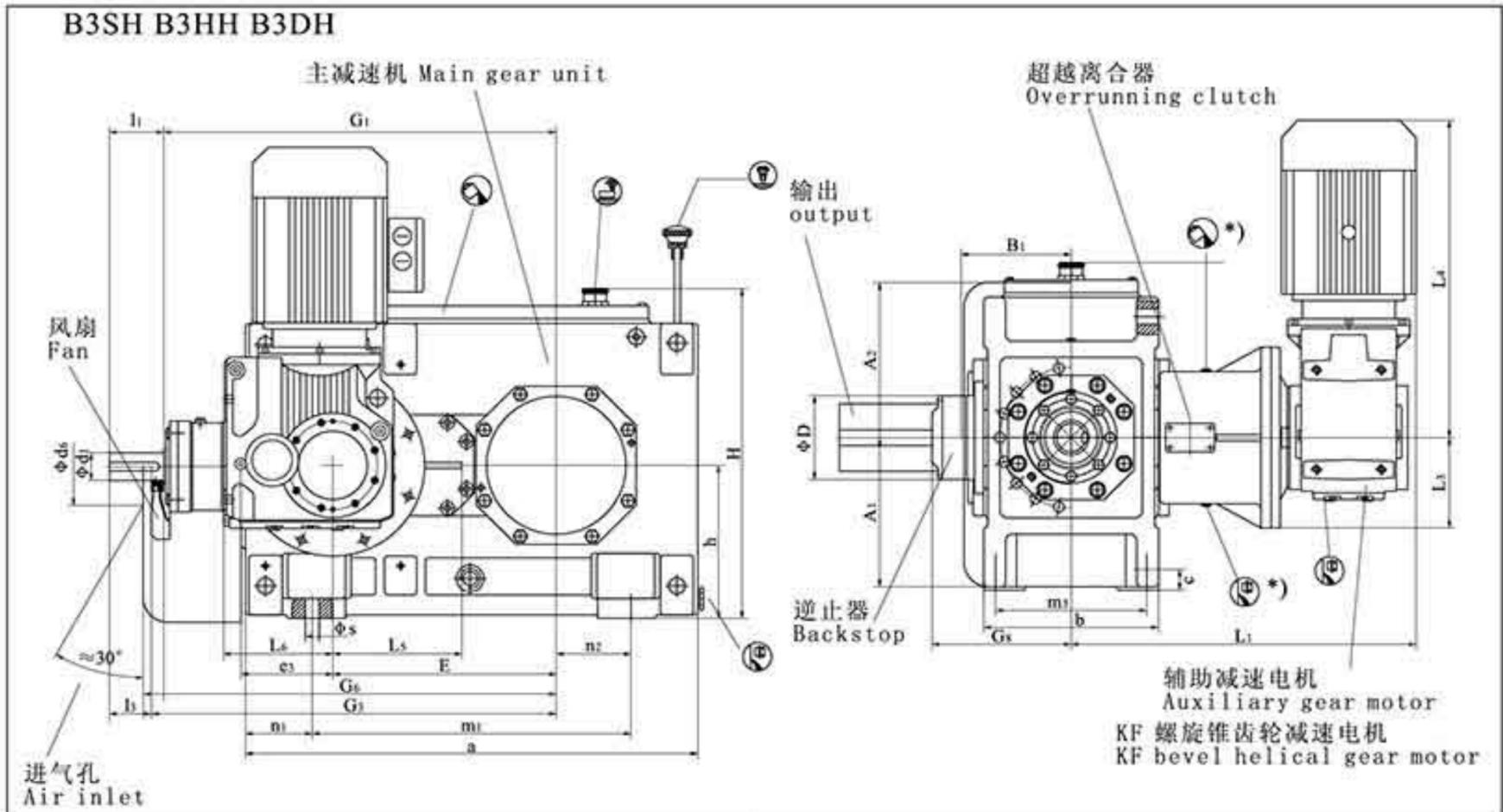
\*)室内小空间 (风速 < 1.4 m/s) 和室外 (风速 ≥ 4 m/s), 请垂询。

\*)Calculation consult us when small confined space(wind velocity < 1.4 m/s) or in the open (wind velocity ≥ 4 m/s)



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
空载驱动 Maintenance Drive

三级 Three Stage  
类型 Type B3...  
规格 Sizes 4...12



B

<p>主减速机B布置形式: D Design of main gear unit B: D 齿轮减速机KF输出轴方向: A Output shaft direction of gear motor KF: A</p>		<p>主减速机B布置形式: B Design of main gear unit B: B 齿轮减速机KF输出轴方向: B Output shaft direction of gear motor KF: B</p>	
<p>B3SH</p>	<p>B3HH</p>	<p>B3SH</p>	<p>B3HH</p>
<p>B3DH</p>	<p>B3DH</p>		
<p>输出轴 Output Shaft</p>			
<p>B3SH 实心轴 Solid shaft</p>	<p>B3HH 空心轴 Hollow shaft</p>	<p>B3DH 带胀紧盘的实心轴 Hollow shaft for shrink disk</p>	

1)  $k6 \leq \Phi 25$   $\Phi 28 \leq k6 \leq \Phi 100$   $n6 > \Phi 100$

有关平键和中心孔, 参见第3页

2) 键槽GB/T1095-1979

\*) 仅当采用国外超越离合器时加注润滑油, 若采用国产逆止器、超越离合器时则加注润滑脂。

\*) Fill lubrication only when selecting imported overrunning clutch, if domestic backstop and overrunning clutch are used please fill grease.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
空载驱动 Maintenance Drive

三级 Three Stage  
类型 Type B3...  
规格 Sizes 4...12

B

规格 Size	辅传减速机 Auxiliary gear motor	尺寸 mm Input shaft											G <sub>1</sub>	G <sub>3</sub>	
		i <sub>N</sub> =25-45			i <sub>N</sub> =25-56			i <sub>N</sub> =50-71			i <sub>N</sub> =63-71				
		d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>			l <sub>3</sub>
4	KF47-Y0.75-35.39	30	70	50				25	60	40				500	520
5	KF57-Y1.5-35.7	35	80	60				28	60	40				575	595
6	KF57-Y1.5-35.7				35	80	60				28	60	40	610	630
7	KF67-Y2.2-30.22	45	100	80				35	80	60				690	710
8	KF67-Y2.2-30.22				45	100	80				35	80	60	735	755
9	KF77-Y3-30.89	55	110	80				40	100	70				800	830
10	KF77-Y3-30.89				55	110	80				40	100	70	850	880
11	KF77-Y3-40.04	70	135	105				50	110	80				960	990
12	KF77-Y3-40.04				70	135	105				50	110	80	1030	1060

规格 Size	尺寸 mm Gear units											h	H	
	a	A <sub>1</sub>	A <sub>2</sub>	b	B <sub>1</sub>	c	d <sub>6</sub>	e <sub>3</sub>	E	G <sub>6</sub>	G <sub>5</sub> <sup>5)</sup>			
4	565	195	200	215	143	28	110	110	270	530	193	188*	200	445
5	640	220	235	255	168	28	130	130	315	605	218	213*	230	512
6	720	220	235	255	168	28	130	130	350	640	218	213*	230	512
7	785	275	275	300	193	35	165	160	385	720	273	266*	280	602
8	890	275	275	300	193	35	165	160	430	765	273	266*	280	617
9	925	315	325	370	231	40	175	185	450	845	347	327*	320	697
10	1025	315	325	380	231	40	175	185	500	895	347	327*	320	697
11	1105	370	385	430	263	50	190	225	545	1010	397	342*	370	817
12	1260	370	385	430	263	50	190	225	615	1080	397	342*	370	825

规格 Size	尺寸 mm Gear units											D <sup>5)</sup>	
	m <sub>1</sub>	m <sub>3</sub>	n <sub>1</sub>	n <sub>2</sub>	s	L <sub>1</sub> <sup>5)</sup>		L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	D <sup>5)</sup>	
4	355	180	105	85	19	447	447*	103	459	137	112	132	132*
5	430	220	105	100	19	512	507*	125	502	165	132	160	150*
6	510	220	105	145	19	512	507*	125	502	165	132	160	150*
7	545	260	120	130	24	555	555*	150	536	210	140	195	190*
8	650	260	120	190	24	555	555*	150	536	210	140	195	190*
9	635	320	145	155	28	655	650*	160	556	255	180	230	210*
10	735	320	145	205	28	655	650*	160	556	255	180	230	210*
11	775	370	165	180	35	702	692*	180	556	315	180	280	210*
12	930	370	165	265	35	702	692*	180	556	315	180	280	210*

规格 Size	尺寸 mm Output shaft									润滑油 lubrication		重量 weight	
	B3SH			B3HH		B3DH				KF	B3	KF <sup>3)</sup>	B3/KF <sup>4)</sup>
	d <sub>2</sub> <sup>1)</sup>	G <sub>2</sub>	l <sub>2</sub>	D <sub>2</sub>	G <sub>4</sub>	D <sub>3</sub>	D <sub>4</sub>	G <sub>4</sub>	G <sub>5</sub>	(L)	(L)	(kg)	(kg)
4	80	140	170	80	140	85	85	140	205	2.2	10	36	262
5	100	165	210	95	165	100	100	165	240	3	16	52	402
6	110	165	210	105	165	110	110	165	240	3	17	52	457
7	120	195	210	115	195	120	120	195	280	3.6	30	66	649
8	130	195	250	125	195	130	130	195	285	3.6	33	66	734
9	140	235	250	135	235	140	145	235	330	6	45	92	1017
10	160	235	300	150	235	150	155	235	350	6	48	92	1147
11	170	270	300	165	270	165	170	270	400	6	79	92	1582
12	180	270	300	180	270	180	185	270	405	6	84	92	1857

3) KF减速机重量 (不含润滑油重量), 其余相关数据详见122页;

4) 主减速机与辅传减速机组合总重量 (不含润滑油重量);

5) 不带\*列为采用国产逆止器、超越离合器时尺寸, 带\*列为选用国外逆止器、超越离合器时尺寸。

3) Weight of gear motor KF (oil weight not included), other detailed data refer to Page 122;

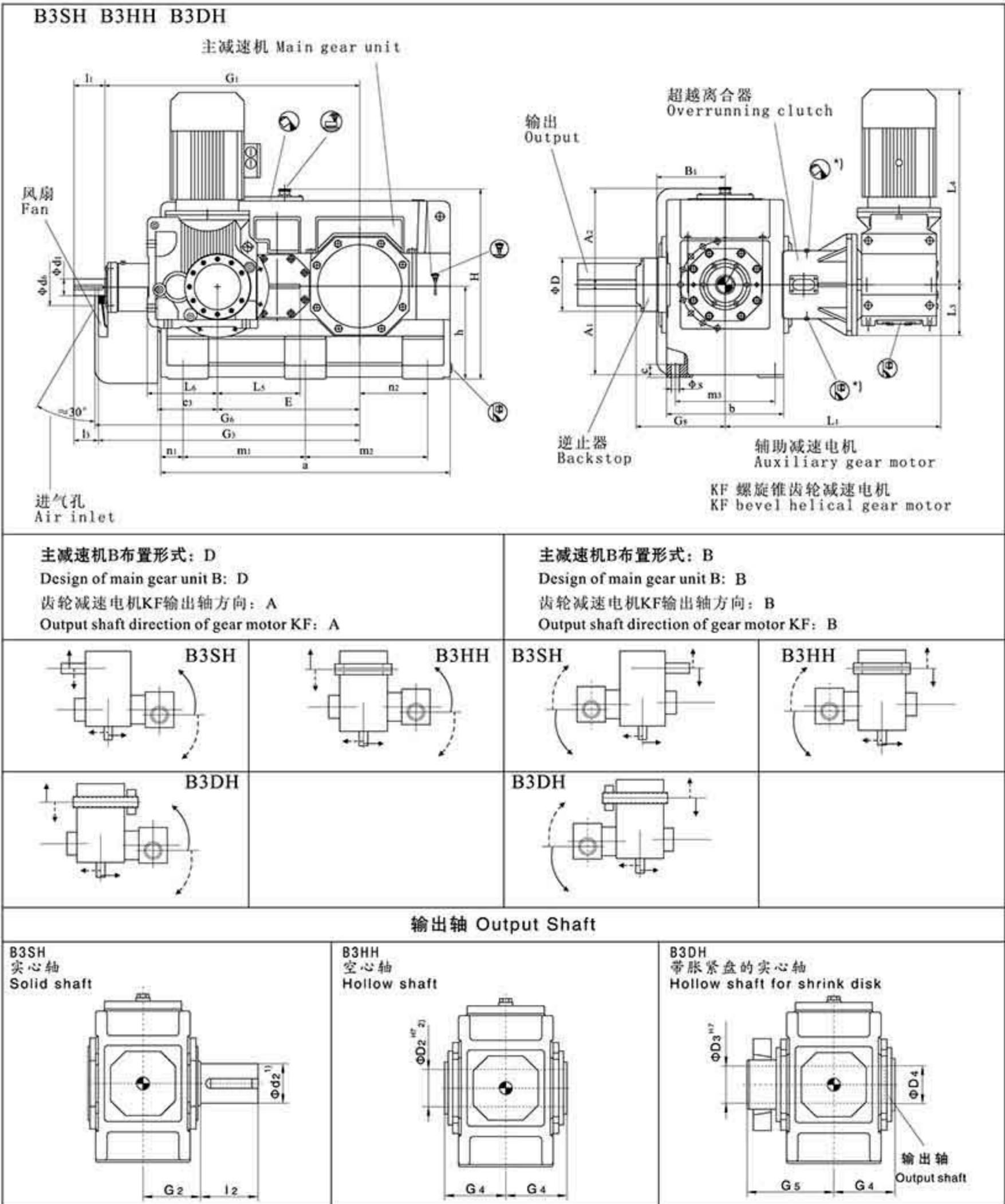
4) Gross weight of combination of main gear unit and auxiliary gear motor (oil weight not included).

5) Without \* is the dimension using domestic back stop and overrunning clutch and with \* is the dimension using imported backstop and overrunning clutch.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
空载驱动 Maintenance Drive

三级 Three Stage  
类型 Type B3...  
规格 Sizes 13...18



**B**

1)  $k6 \leq \phi 25$   $\phi 28 \leq k6 \leq \phi 100$   $n6 > \phi 100$

有关平键和中心孔, 参见第3页

2) 键槽 GB/T1095-1979

\*) 仅当采用国外超越离合器时加注润滑油, 若采用国产逆止器、超越离合器时则加注润滑脂。

\*) Fill lubrication only when selecting imported overrunning clutch, if domestic backstop and overrunning clutch are used please fill grease.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
空载驱动 Maintenance Drive

三级 Three Stage  
类型 Type B3...  
规格 Sizes 13...18

规格 Size	辅传减速电机 Auxiliary gear motor	尺寸 mm 输入轴															Dimensions in mm Input shaft							
		i <sub>N</sub> =25-45			i <sub>N</sub> =25-50			i <sub>N</sub> =25-56			i <sub>N</sub> =50-71			i <sub>N</sub> =56-71			i <sub>N</sub> =63-71			G <sub>1</sub>	G <sub>3</sub>			
		d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>					
13	KF87-Y4-44.02	80	165	130						60	140	105								1125	1160			
14	KF87-Y4-44.02								80	165	130									60	140	105	1195	1230
15	KF87-Y4-44.02	90	165	130						70	140	105											1367	1402
16	KF87-Y4-44.02				90	165	130								70	140	105						1413	1448
17	KF87-Y4-44.02	110	205	165						80	170	130											1560	1600
18	KF87-Y4-44.02				110	205	165								80	170	130						1620	1660

B

规格 Size	尺寸 mm 减速机										Dimensions in mm Gear units				
	a	A <sub>1</sub>	A <sub>2</sub>	b	B <sub>1</sub>	c	d <sub>6</sub>	e <sub>3</sub>	E	G <sub>6</sub>	G <sub>5</sub> <sup>5)</sup>		h	H	
13	1290	425	475	550	325	60	210	265	635	1180	453	433*	440	935	
14	1430	425	475	550	325	60	210	265	705	1250	453	433*	440	935	
15	1550	485	520	625	365	70	210	320	762	1420	500	476*	500	1035	
16	1640	485	520	625	365	70	210	320	808	1470	500	476*	500	1035	
17	1740	535	570	690	395	80	230	370	860	1620	532	508*	550	1145	
18	1860	535	570	690	395	80	230	370	920	1680	532	508*	550	1145	

规格 Size	尺寸 mm 减速机							Dimensions in mm Gear units						
	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	n <sub>1</sub>	n <sub>2</sub>	s	L <sub>1</sub> <sup>5)</sup>		L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	D <sup>5)</sup>	
13	545	545	475	100	305	35	805	790*	190	628	362	212	320	290*
14	545	685	475	100	375	35	805	790*	190	628	362	212	320	290*
15	655	655	535	120	365	42	850	835*	200	628	443	212	400	290*
16	655	745	535	120	410	42	850	835*	200	628	443	212	400	290*
17	735	735	600	135	390	42	882	867*	225	628	520	212	400	290*
18	735	855	600	135	450	42	882	867*	225	628	520	212	400	290*

规格 Size	尺寸 mm 输出轴					Dimensions in mm Output shaft					润滑油 lubrication		重量 weight	
	B3SH			B3HH		B3DH				KF	B3	KF <sup>3)</sup>	B3/KF <sup>4)</sup>	
	d <sub>2</sub> <sup>1)</sup>	G <sub>2</sub>	l <sub>2</sub>	D <sub>2</sub>	G <sub>4</sub>	D <sub>3</sub>	D <sub>4</sub>	G <sub>4</sub>	G <sub>5</sub>	(L)	(L)	(kg)	(kg)	
13	200	335	350	190	335	190	195	335	480	11.9	145	126	2547	
14	210	335	350	210	335	210	215	335	480	11.9	155	126	2917	
15	230	380	410	230	380	230	235	380	550	11.9	230	126	3902	
16	240	380	410	240	380	240	245	380	550	11.9	240	126	4127	
17	250	415	410	250	415	250	260	415	600	11.9	315	126	5168	
18	270	415	470	275	415	280	285	415	600	11.9	325	126	5673	

3) KF减速机重量(不含润滑油重量),其余相关数据详见122页;

4) 主减速机与辅传减速机组合总重量(不含润滑油重量);

5) 不带\*列为采用国产逆止器、超越离合器时尺寸,带\*列为选用国外逆止器、超越离合器时尺寸。

3) Weight of gear motor KF (oil weight not included), other detailed data refer to Page 122;

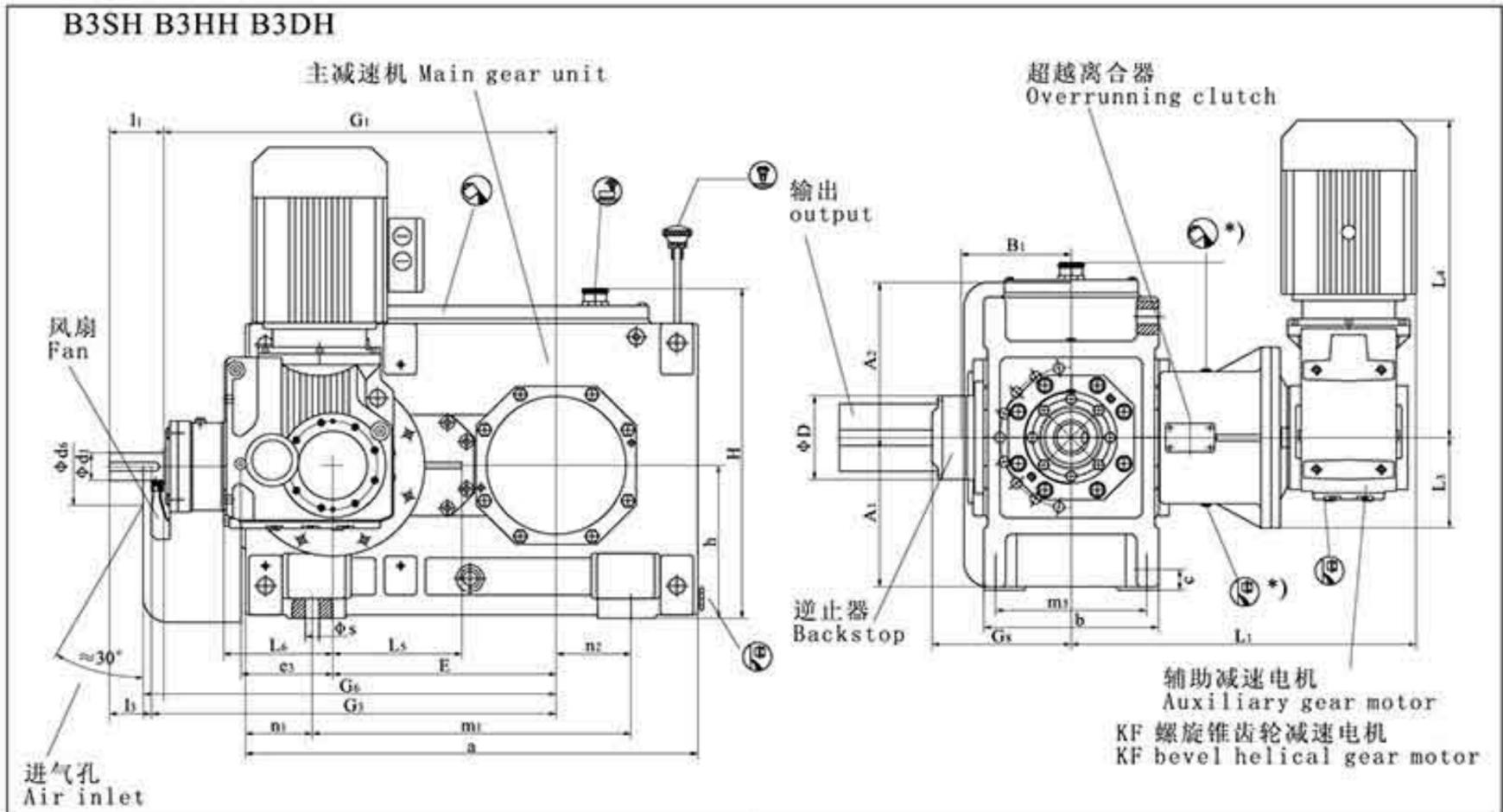
4) Gross weight of combination of main gear unit and auxiliary gear motor (oil weight not included).

5) Without \* is the dimension using domestic back stop and overrunning clutch and with \* is the dimension using imported backstop and overrunning clutch.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
载荷驱动 Operation under load

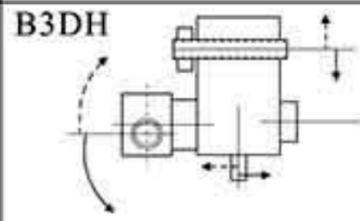
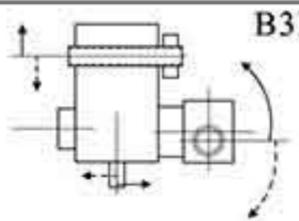
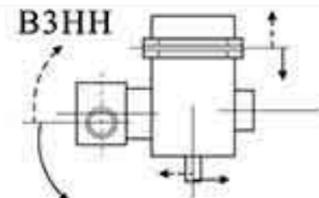
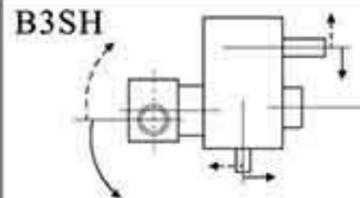
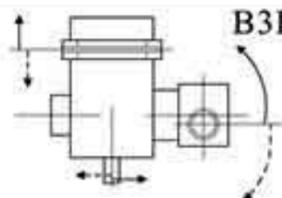
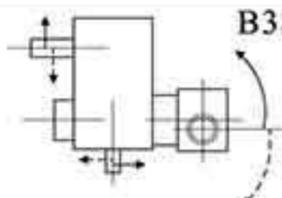
三级 Three Stage  
类型 Type B3...  
规格 Sizes 4...12



**B**

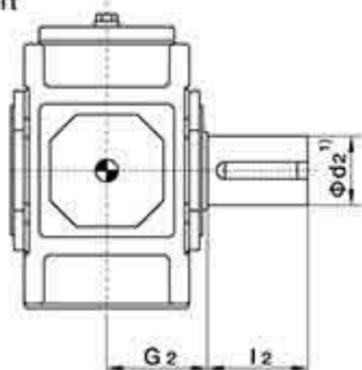
主减速机B布置形式: D  
Design of main gear unit B: D  
齿轮减速机KF输出轴方向: A  
Output shaft direction of gear motor KF: A

主减速机B布置形式: B  
Design of main gear unit B: B  
齿轮减速机KF输出轴方向: B  
Output shaft direction of gear motor KF: B

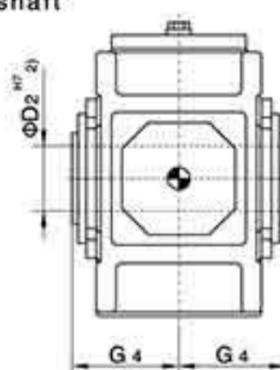


**输出轴 Output Shaft**

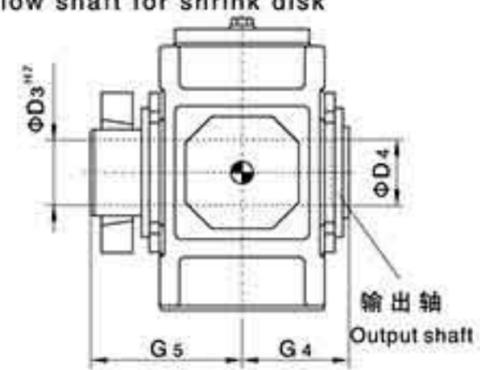
**B3SH**  
实心轴  
Solid shaft



**B3HH**  
空心轴  
Hollow shaft



**B3DH**  
带胀紧盘的实心轴  
Hollow shaft for shrink disk



1)  $k6 \leq \phi 25$   $\phi 28 \leq k6 \leq \phi 100$   $n6 > \phi 100$

有关平键和中心孔, 参见第3页

2) 键槽GB/T1095-1979

\*) 仅当采用国外超越离合器时加注润滑油, 若采用国产逆止器、超越离合器时则加注润滑脂。

\*) Fill lubrication only when selecting imported overrunning clutch, if domestic backstop and overrunning clutch are used please fill grease.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
载荷驱动 Operation Under Load

三级 Three Stage  
类型 Type B3...  
规格 Sizes 4...12

B

规格 Size	辅传减速机 Auxiliary gear motor	尺寸 mm Input shaft											G <sub>1</sub>	G <sub>3</sub>	
		i <sub>N</sub> =25-45			i <sub>N</sub> =25-56			i <sub>N</sub> =50-71			i <sub>N</sub> =63-71				
		d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>			l <sub>3</sub>
4	KF57-Y1.1-35.7	30	70	50				25	60	40				500	520
5	KF67-Y2.2-27.28	35	80	60				28	60	40				575	595
6	KF67-Y2.2-27.28				35	80	60				28	60	40	610	630
7	KF77-Y4-29.27	45	100	80				35	80	60				690	710
8	KF77-Y4-29.27				45	100	80				35	80	60	735	755
9	KF87-Y5.5-36.52	55	110	80				40	100	70				800	830
10	KF87-Y5.5-36.52				55	110	80				40	100	70	850	880
11	KF97-Y11-34.23	70	135	105				50	110	80				960	990
12	KF97-Y11-34.23				70	135	105				50	110	80	1030	1060

规格 Size	尺寸 mm Gear units											h	H	
	a	A <sub>1</sub>	A <sub>2</sub>	b	B <sub>1</sub>	c	d <sub>6</sub>	e <sub>3</sub>	E	G <sub>6</sub>	G <sub>5</sub> <sup>5)</sup>			
4	565	195	200	215	143	28	110	110	270	530	193	188*	200	445
5	640	220	235	255	168	28	130	130	315	605	218	213*	230	512
6	720	220	235	255	168	28	130	130	350	640	218	213*	230	512
7	785	275	275	300	193	35	165	160	385	720	273	266*	280	602
8	890	275	275	300	193	35	165	160	430	765	273	266*	280	617
9	925	315	325	370	231	40	175	185	450	845	347	327*	320	697
10	1025	315	325	380	231	40	175	185	500	895	347	327*	320	697
11	1105	370	385	430	263	50	190	225	545	1010	397	342*	380	817
12	1260	370	385	430	263	50	190	225	615	1080	397	342*	380	825

规格 Size	尺寸 mm Gear units											D <sup>5)</sup>	
	m <sub>1</sub>	m <sub>3</sub>	n <sub>1</sub>	n <sub>2</sub>	s	L <sub>1</sub> <sup>5)</sup>		L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	D <sup>5)</sup>	
4	355	180	105	85	19	479	474*	125	447	137	132	132	132*
5	430	220	105	100	19	528	523*	125	536	165	140	160	150*
6	510	220	105	145	19	528	523*	125	536	165	140	160	150*
7	545	260	120	130	24	636	636*	125	693	210	180	195	190*
8	650	260	120	190	24	636	636*	125	693	210	180	195	190*
9	635	320	145	155	28	743	723*	175	674	255	212	230	210*
10	735	320	145	205	28	743	723*	175	674	255	212	230	210*
11	775	370	165	180	35	869	849*	225	806	315	265	280	210*
12	930	370	165	265	35	869	849*	225	806	315	265	280	210*

规格 Size	尺寸 mm Output shaft									润滑油 lubrication		重量 weight	
	B3SH			B3HH		B3DH				KF	B3	KF <sup>3)</sup>	B3/KF <sup>4)</sup>
	d <sub>2</sub> <sup>1)</sup>	G <sub>2</sub>	l <sub>2</sub>	D <sub>2</sub>	G <sub>4</sub>	D <sub>3</sub>	D <sub>4</sub>	G <sub>4</sub>	G <sub>5</sub>	(L)	(L)	(kg)	(kg)
4	80	140	170	80	140	85	85	140	205	3	10	50	283
5	100	165	210	95	165	100	100	165	240	3.6	16	66	424
6	110	165	210	105	165	110	110	165	240	3.6	17	66	479
7	120	195	210	115	195	120	120	195	280	6	30	98	689
8	130	195	250	125	195	130	130	195	285	6	33	98	774
9	140	235	250	135	235	140	145	235	330	11.9	45	150	1105
10	160	235	300	150	235	150	155	235	350	11.9	48	150	1235
11	170	270	300	165	270	165	170	270	400	21.5	79	248	1821
12	180	270	300	180	270	180	185	270	405	21.5	84	248	2096

3) KF减速机重量 (不含润滑油重量), 其余相关数据详见122页;

4) 主减速机与辅传减速机组合总重量 (不含润滑油重量);

5) 不带\*列为采用国产逆止器、超越离合器时尺寸, 带\*列为选用国外逆止器、超越离合器时尺寸。

3) Weight of gear motor KF (oil weight not included), other detailed data refer to Page 122;

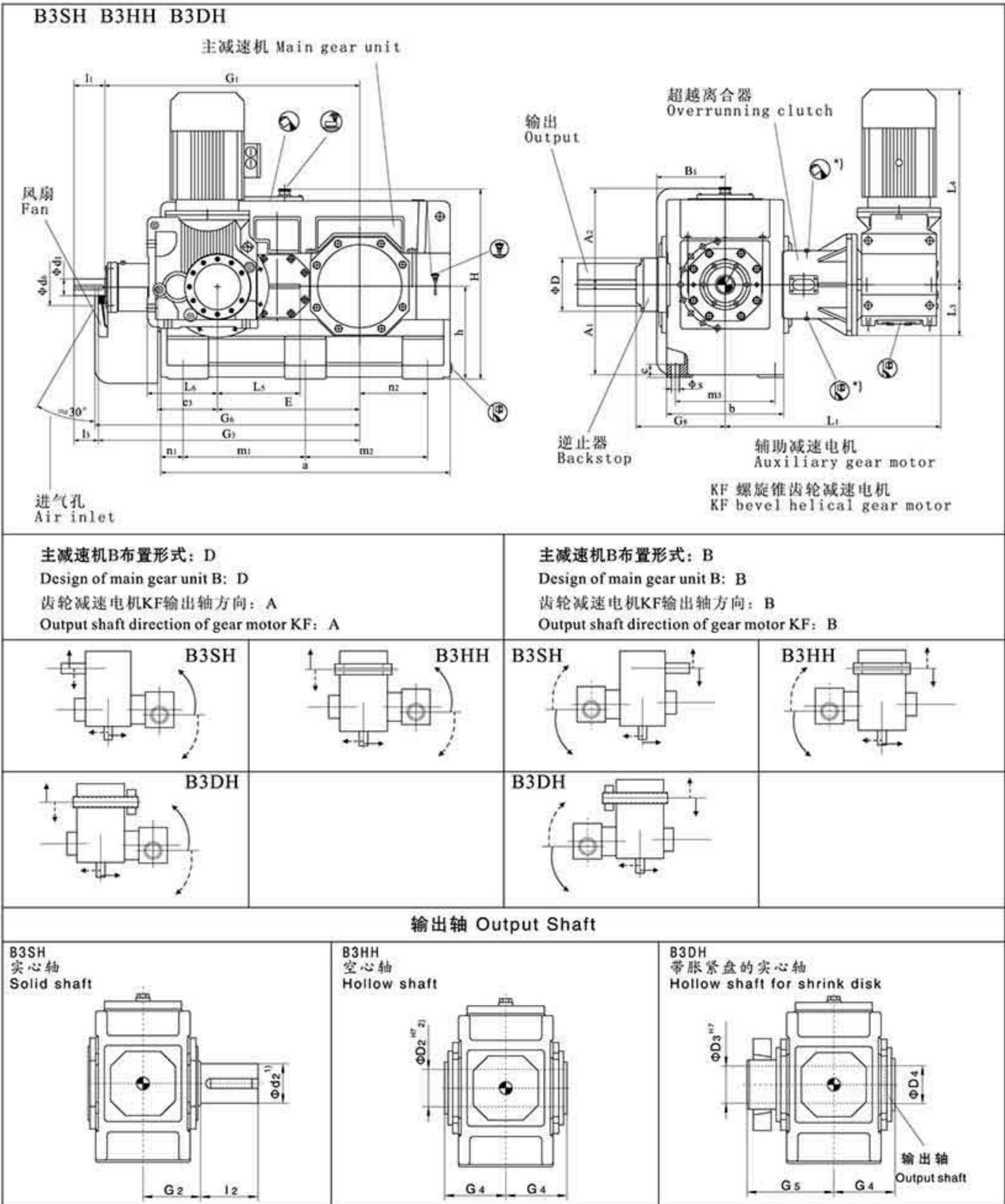
4) Gross weight of combination of main gear unit and auxiliary gear motor (oil weight not included).

5) Without \* is the dimension using domestic back stop and overrunning clutch and with \* is the dimension using imported backstop and overrunning clutch.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
载荷驱动 Operation under load

三级 Three Stage  
类型 Type B3...  
规格 Sizes 13...18



**B**

1)  $k6 \leq \phi 25$   $\phi 28 \leq k6 \leq \phi 100$   $n6 > \phi 100$

有关平键和中心孔, 参见第3页

2) 键槽 GB/T1095-1979

\*) 仅当采用国外超越离合器时加注润滑油, 若采用国产逆止器、超越离合器时则加注润滑脂。

\*) Fill lubrication only when selecting imported overrunning clutch, if domestic backstop and overrunning clutch are used please fill grease.



直交轴减速机 Bevel-helical Gear Units  
带辅传 With Auxiliary Drive  
载荷驱动 Operation Under Load

三级 Three Stage  
类型 Type B3...  
规格 Sizes 13...18

规格 Size	辅传减速机 Auxiliary gear motor	尺寸 mm 输入轴															Dimensions in mm Input shaft					
		i <sub>N</sub> =25-45			i <sub>N</sub> =25-50			i <sub>N</sub> =25-56			i <sub>N</sub> =50-71			i <sub>N</sub> =56-71			i <sub>N</sub> =63-71			G <sub>1</sub>	G <sub>3</sub>	
		d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>	d <sub>1</sub> <sup>1)</sup>	l <sub>1</sub>	l <sub>3</sub>			
13	KF107-Y18.5-28.59	80	165	130						60	140	105								1125	1160	
14	KF107-Y18.5-28.59							80	165	130								60	140	105	1195	1230
15	KF127-Y30-27.67	90	165	130						70	140	105									1367	1402
16	KF127-Y30-27.67				90	165	130							70	140	105					1413	1448
17	KF127-Y37-27.67	110	205	165						80	170	130									1560	1600
18	KF127-Y37-27.67				110	205	165							80	170	130					1620	1660

B

规格 Size	尺寸 mm 减速机										Dimensions in mm Gear units				
	a	A <sub>1</sub>	A <sub>2</sub>	b	B <sub>1</sub>	c	d <sub>6</sub>	e <sub>3</sub>	E	G <sub>6</sub>	G <sub>5</sub> <sup>5)</sup>		h	H	
13	1290	425	475	550	325	60	210	265	635	1180	453	433*	440	900	
14	1430	425	475	550	325	60	210	265	705	1250	453	433*	440	900	
15	1550	485	520	625	365	70	210	320	762	1420	500	476*	500	1000	
16	1640	485	520	625	365	70	210	320	808	1470	500	476*	500	1000	
17	1740	535	570	690	395	80	230	370	860	1620	532	508*	550	1110	
18	1860	535	570	690	395	80	230	370	920	1680	532	508*	550	1110	

规格 Size	尺寸 mm 减速机							Dimensions in mm Gear units						
	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	n <sub>1</sub>	n <sub>2</sub>	s	L <sub>1</sub> <sup>5)</sup>		L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	D <sup>5)</sup>	
13	545	545	475	100	305	35	1024	986*	225	934	362	315	320	290*
14	545	685	475	100	375	35	1024	986*	225	934	362	315	320	290*
15	655	655	535	120	365	42	1181	1161*	275	1048	443	375	400	290*
16	655	745	535	120	410	42	1181	1161*	275	1048	443	375	400	290*
17	735	735	600	135	390	42	1223	1203*	275	1068	513	375	400	290*
18	735	855	600	135	450	42	1223	1203*	275	1068	513	375	400	290*

规格 Size	尺寸 mm 输出轴					Dimensions in mm Output shaft					润滑油 lubrication		重量 weight	
	B3SH			B3HH		B3DH				KF	B3	KF <sup>3)</sup>	B3/KF <sup>4)</sup>	
	d <sub>2</sub> <sup>1)</sup>	G <sub>2</sub>	l <sub>2</sub>	D <sub>2</sub>	G <sub>4</sub>	D <sub>3</sub>	D <sub>4</sub>	G <sub>4</sub>	G <sub>5</sub>	(L)	(L)	(kg)	(kg)	
13	200	335	350	190	335	190	190	335	205	11.9	145	126	2547	
14	210	335	350	210	335	210	215	335	240	11.9	155	126	2917	
15	230	380	410	230	380	230	235	380	240	11.9	230	126	3902	
16	240	380	410	240	380	240	245	380	280	11.9	240	126	4127	
17	250	415	410	250	415	250	260	415	285	11.9	315	126	5168	
18	270	415	470	275	415	280	285	415	350	11.9	325	126	5673	

3) KF减速机重量(不含润滑油重量), 其余相关数据详见122页;

4) 主减速机与辅传减速机组合总重量(不含润滑油重量);

5) 不带\*列为采用国产逆止器、超越离合器时尺寸, 带\*列为选用国外逆止器、超越离合器时尺寸。

3) Weight of gear motor KF (oil weight not included), other detailed data refer to Page 122;

4) Gross weight of combination of main gear unit and auxiliary gear motor (oil weight not included).

5) Without \* is the dimension using domestic back stop and overrunning clutch and with \* is the dimension using imported backstop and overrunning clutch.



### 逆止器 Backstops

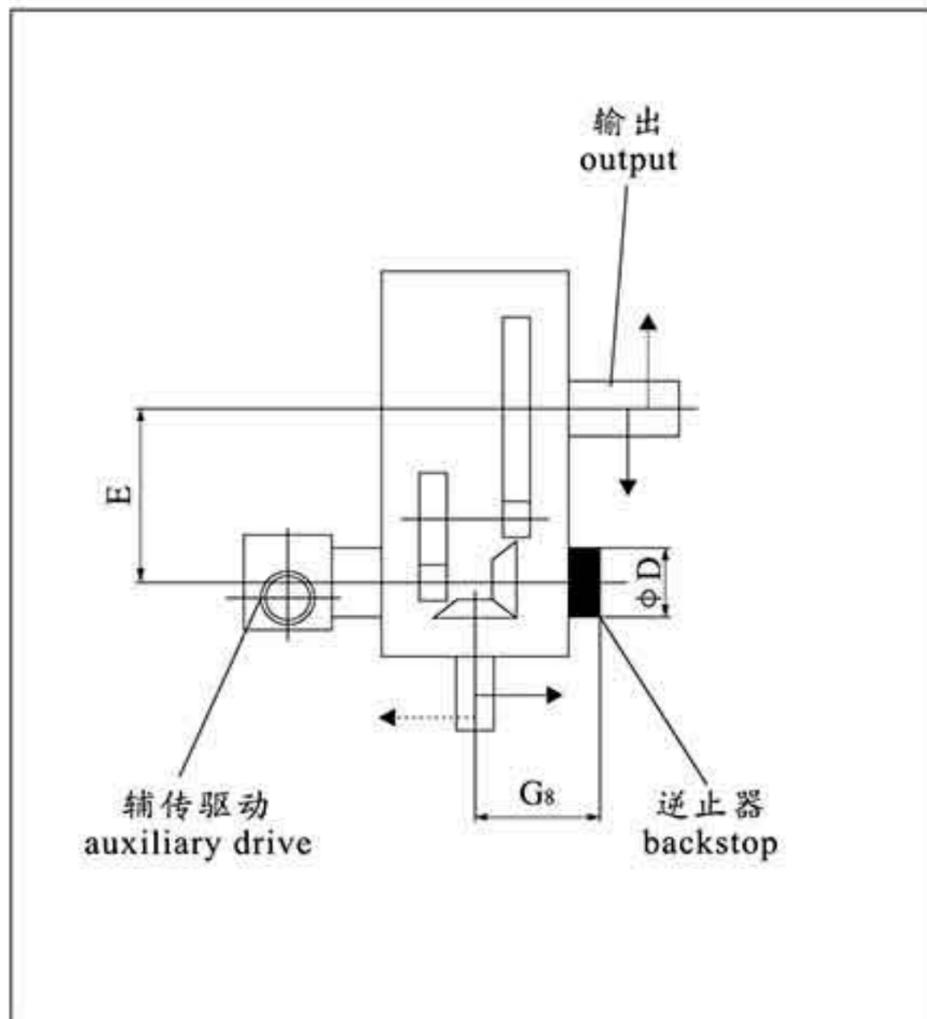
标准逆止器布置及输入输出转向关系  
Standard backstop arrangement and dependence of direction of rotation

类型 Type	布置形式 Design 规格 Sizes 4 ... 18	
	B	D
B3SH		
B3HH		
B3DH		

B

型号 Type

规格 Sizes	E mm	G <sub>8</sub> mm		D mm	
4	270	193	188*	132	132*
5	315	218	213*	150	160*
6	350	218	213*	150	160*
7	385	273	266*	190	195*
8	430	273	266*	190	195*
9	450	347	327*	210	230*
10	500	347	327*	210	230*
11	545	397	342*	210	280*
12	615	397	342*	210	280*
13	635	453	433*	290	320*
14	705	453	433*	290	320*
15	762	500	476*	290	400*
16	808	500	476*	290	400*
17	860	532	508*	290	400*
18	920	532	508*	290	400*



注：不带\*列为采用国产逆止器、超越离合器时尺寸，带\*列为选用国外逆止器、超越离合器时尺寸。

Note: Without \* is the dimension using domestic backstop and overrunning clutch and with \* is the dimension using imported backstop and overrunning clutch.

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## 产品概述/型号表示方法

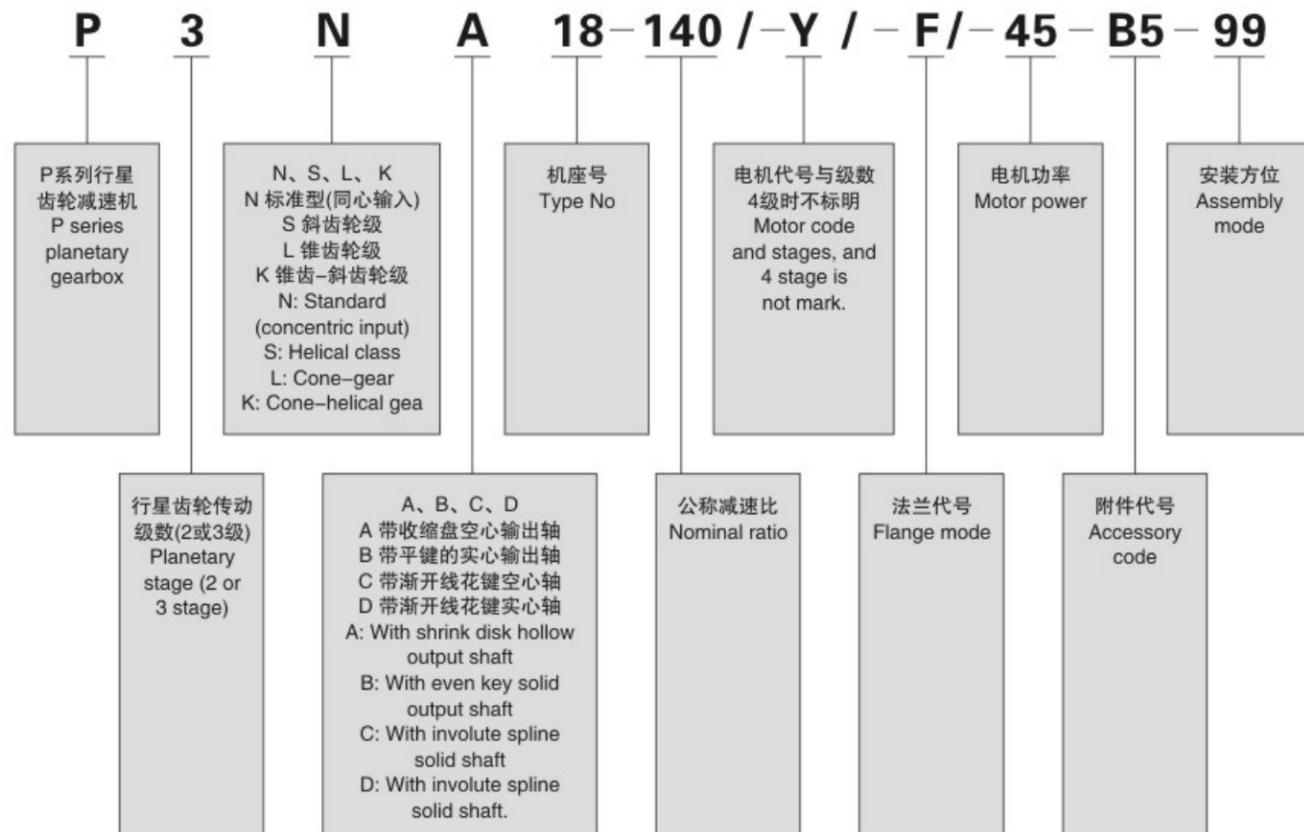
### Product Summary and Designation of Types

#### 产品概述 Product summary

- 1) 采用模块化设计, 可根据客户要求的变化组合。
- 2) 箱体采用球墨铸铁, 大大提高了箱体的刚性及抗震性。
- 3) 箱体内的太阳行星轮, 内齿圈及螺旋锥齿轮均采用可控气氛渗碳火处理, 得到高硬耐磨表面, 热处理后全部磨齿, 降低了噪音, 提高了整机的效率及使用寿命。
- 4) 输入方式: 同心轴输入, 斜齿轮输入, 锥齿轮-斜齿轮输入, 锥齿轮输入。
- 5) 输出方式: 内花键式, 空心轴收缩盘式, 外花键式, 实心轴平键。
- 6) 安装形式: 水平安装, 垂直安装, 扭力臂安装。
- 7) P系列产品有9-34型规格, 行星传动级数有2级和3级, 速比为25-4000, 和CR、K、R系列组合可得到更大速比。

- 1) Adopt the module design; its match could vary from the customers' requirement.
- 2) The casting house could adopt the cast-iron QT, it could enhance the house rigidity and anti-shake.
- 3) The sun planetary gear inside the house, inner gear cycle, and screw-cone gear could adopt the controllable gas gear could gas fire treatment way to get the high Hard wear-resistant surface, after it, getting the grind gear to lower the noise, and enhance the efficiency and life expectancy of whole unit.
- 4) Input mode: the concentric shaft input, helical gear input; cone-helical gear input, cone-gear input.
- 5) Output mode: inner spline, hollow shaft shrink, outer spline, solid shaft with the even key.
- 6) Assembly mode: Horizontal, vertical, torque arm.
- 7) P series product covers 9-34 type specification, the planetary gear has 2 and 3 stage, ratio range 25-4000 gear match with CR、K、R series matched units could get the bigger ratio.

#### 型号规格表示方法 Type formula



## 选型及举例

### Selection Table and Example

序号	说明	代号	参数计算									
1	被驱动设备系数	f1	查10页f1表									
2	原动机系数	f2	原动机系数		f2							
			电机, 液压马达, 汽轮机		1.0							
			4-6缸活塞发动机, 周期变化1:100至1:200		1.25							
			1-3缸活塞发动机, 周期变化1:100		1.5							
3	齿轮箱许用输入转速	N1	≤1500									
4	确定减速比	i	i=n1/n2									
5	确定齿轮箱类型选择传动效率	η	type	η	type	η						
			P2N	94%	P3N	92%						
			P2L	93%	P3S	91%						
			P2S	93%	P3K	89%						
			P2K	91%								
6	以被驱动设备所需的扭矩或功率, 确定齿轮箱的输入功率	P1	P1=T2·n1/(9550·i·η)或P1=P2/η									
7	根据计数, 查传动能力表, 确定齿轮箱规格	T <sub>2N</sub> P <sub>1N</sub>	T <sub>2N</sub> ≥T2·f1·f2或P <sub>1N</sub> ≥P1·f1·f2 如果不满足条件: 3.33·P1≥P <sub>1N</sub> , 请向我们咨询。									
8	峰值扭矩校核*	T <sub>A</sub>	P <sub>1N</sub> ≥T <sub>A</sub> ·n1·f3/9550	f3	每小时峰值负荷次数							
				单向载荷	1-5	6-30	31-100	>100				
				交变载荷	0.5	0.65	0.7	0.85				
9	输出轴的径向力轴向力校核	Fr, Fa	查9页P系列Fr表									
10	计算功率利用率确定其系数	f <sub>14</sub>	功率利用率 = P1/P <sub>1N</sub> · 100% 确定其系数f <sub>14</sub> .	功率利用率	30%	40%	50%	60%	70%	80%	90%	100%
11	热容量校核	P <sub>G</sub>	P1≤PG=PG1·f4·f14 若不能满足上式, 则齿轮箱需外加补足冷却装置(根据工况要求, 可采用冷却水冷却油, 风冷等形式)	环境温度系数f4								
				环境温度	每小时工作周期(ED)百分比%							
				100	100	80	60	40	20			
				10°C	1.14	1.20	1.32	1.54	2.04			
				20°C	1.00	1.36	1.16	1.35	1.79			
30°C	0.87	0.93	1.00	1.18	1.56							
40°C	0.71	0.75	0.82	0.96	1.27							
50°C	0.55	0.58	0.64	0.74	0.98							
12	确定润滑方式		V1, V3, V11, V31安装方位为浸油润滑; B51强制润滑; 其他安装方位为飞溅润滑为油泵									
13	根据输入, 输出方式, 安装方位等确定具体型号所需附件											

\*峰值扭矩: 最大负载扭矩, 是指启动, 制动或最大脉动载荷所引起的最大扭矩。(一般工况条件下峰值扭矩为启动或制动时的最大扭矩)

选型及举例  
Selection Table and Example

No	Statements	Code	Parameters calculation										
1	Coefficient of driven machine	f1	10 page and table f1										
2	Prime motor coefficient	f2	Prime motor coefficient										
			Motor, hydraulic motor, turbine										
			4-6 jar piston engine, cycle change 1:100 to 1:200										
			1-3 jar piston engine, cycle change 1:100										
3	Gear permissible coefficient	N1	≤1500										
4	Gear ratio	i	i=n1/n2										
5	Confirm the gear units type And select transmission efficiency	η	type	η	type	η							
			P2N	94%	P3N	92%							
			P2L	93%	P3S	91%							
			P2S	93%	P3K	89%							
			P2K	91%									
6	Select the gear units input power according To the driving machine torque	P1	P1=T2 · n1/(9550 · i · η) or P1=P2/η										
7	According to the counts, Match the transmission capacity table. Then select the type,	T <sub>2N</sub> P <sub>1N</sub>	T <sub>2N</sub> ≥T2 · f1 · f2 or P <sub>1N</sub> ≥P1 · f1 · f2 If the conditions are not satisfied: 3.33 · P1≥P <sub>1N</sub> , please contact us.										
8	Peak torque calibration*	T <sub>A</sub>	P <sub>1N</sub> ≥T <sub>A</sub> · n1 · f3/9550	Peak load times per hour									
				f3	1-5	6-30	31-100	> 100					
				Single load.	0.5	0.65	0.7	0.85					
				Alternate load	0.7	0.95	1.10	1.25					
9	Output shaft radial force, and axial calibration	Fr, Fa	Check 9 page P series Fr table.										
10	Calculate the power usage rate and confirm the factor	f <sub>14</sub>	Power usage rate =P1/P <sub>1N</sub> · 100% Determine the coefficient: f <sub>14</sub>	Power usage rate	30%	40%	50%	60%	70%	80%	90%	100%	
				F <sub>14</sub>	0.66	0.77	0.83	0.90	0.90	0.95	1.0	1.0	
11	Thermal capacity calibration	P <sub>G</sub>	P <sub>1</sub> ≤P <sub>G</sub> =P <sub>G1</sub> · f <sub>4</sub> · f <sub>14</sub> Gearbox need to add the oil cooling, select the water cooling, oil cooling, and wind cooling form according to service facto	F4 environment									
				Environment temperature	Work cycle percentage per hour								
					100	80	60	40	20				
				10°C	1.14	1.20	1.32	1.54	2.04				
				20°C	1.00	1.36	1.16	1.35	1.79				
				30°C	0.87	0.93	1.00	1.18	1.56				
40°C	0.71	0.75	0.82	0.96	1.27								
50°C	0.55	0.58	0.64	0.74	0.98								
12	Fabrication mode		V1, V3, V11, V31 assembly mode is oil-soaked fabrication. B51 forced fabrication, other mode is splash fabrication, oil pump.										
13	Select the matched type accessory according to the input, output mode, and assembly mode.												

\* Peak torque the maximum load torque, is the maximum torque when it starts, brakes, and maximum impulses.

选型举例  
Selection Example

输送设备，输入转速为1000r/min，最大起动扭矩为2000N·m，输出转速为12.5r/min，输出扭矩为68000N·m，每天工作12h，负载持续率为60%，环境温度为0~20℃，大车间安装，风速约为5m/s，海拔高度为1000m以下，水平式法兰安装，偏心平行轴输入、输出、双轴型、实心轴普通平键输出。

Output equipment, input speed is 1000r/min, the maximum start torque is 2000N.m, the output speed 12.5r/min, output torque is 68000N.m, 12h per day, load efficiency is 60%, the environment temperature is 0~20 Celsius degree, big working room, wind speed is 5m/s, the height is below 100m, horizontal assembly, concentric parallel shaft input, output double shaft, the solid shaft common even output

解答:  
f1=1.5  
f2=1  
n1=1000  
i=1000/12.5=80

根据速比及输入，输出轴要求可选P2S型  
η=0.93  
P1=T2 · n1/(9550 · i · η)  
=68000 × 1000/(9550 × 80 × 0.93)=95.7kW  
T<sub>2N</sub>≥T2 × f1 × f2=68000N · m × 1.5 × 1=102kM · m  
P<sub>1N</sub>≥P1 × f1 × f2=96.7 × 1.5 × i=143.55kW  
初选P2SB14-80-B5-99  
其P<sub>1N</sub>=153KW PG<sub>1</sub>=94KW i<sub>ex</sub>=78.827

校核:  
3.33 × P<sub>2</sub>≥P<sub>1N</sub>  
3.33 × 95.7=318.681KW > P<sub>1N</sub>满足要求。

峰值扭矩校核:  
P<sub>1N</sub>=153KW≥T<sub>A</sub> · N1 · f3/9550  
=2000 × 1000 × 0.5/9550=104.71kW满足要求。

热容量校核:  
公称功率利用率=P1/P<sub>1N</sub>=95.7/153=0.625=62.5%  
查P系列选型表得f<sub>14</sub>=0.9f<sub>4</sub>=1.16  
PG<sub>1</sub> × f<sub>4</sub> × f<sub>14</sub>=94 × 1.16 × 0.9=100.32KW > P1  
因此无须外加辅助冷却装置就可满足设备要求。  
根据设备要求，安装方位为B5

润滑方式:  
飞溅润滑

选定型号为: P2SB14-80-B5-99

Answer:  
f1=1.5  
f2=1  
n1=1000  
i=1000/12.5=80

According to the ratio, input and output shaft requirement, select the P2S  
η=0.93  
P1=T2 · n1/(9550 · i · η)  
=68000 × 1000/(9550 × 80 × 0.93)=95.7kW  
T<sub>2N</sub>≥T2 × f1 × f2=68000N · m × 1.5 × 1=102kM · m  
P<sub>1N</sub>≥P1 × f1 × f2=96.7 × 1.5 × i=143.55kW  
First select: P2SB14-80-B5-99  
P<sub>1N</sub>=153KW PG<sub>1</sub>=94KW i<sub>ex</sub>=78.827

Calibration: 3.33 × P<sub>2</sub>≥P<sub>1N</sub>  
3.33 × 95.7=318.681KW > P<sub>1N</sub> It meets the requirement.

Peak load calibration:  
P<sub>1N</sub>=153KW≥T<sub>A</sub> · N1 · f3/9550  
=2000 × 1000 × 0.5/9550=104.71kW. It meets the requirement.

Thermal calibration:  
Nominal power usage rate=P1/P<sub>1N</sub>=95.7/153=0.625=62.5%  
Check P series table: f<sub>14</sub>=0.9f<sub>4</sub>=1.16  
PG<sub>1</sub> × f<sub>4</sub> × f<sub>14</sub>=94 × 1.16 × 0.9=100.32KW > P1  
So it is not necessary to add the oil cooling, it could meet the requirement.  
Select the B5 assembly mode

Fabrication mode: Splash fabrication.

So the final type: P2SB14-80-B5-99



被驱动设备系列f1  
Driven Coefficient on Equipment f1

Driven coefficient on equipment				f1			
Working machine	Day running time With load(hours)			Working machine	Day running time With load(hours)		
	0.5	>0.5-10	>10		0.5	>0.5-10	>10
<b>Sewage treatment machinery</b>				<b>Transportation</b>			
Thickener(rotation in center)	-	-	1.2	Bucket conveyor	-	1.4	1.5
Filter Press	1.0	1.3	1.5	Winch	1.4	1.6	1.6
Flocculator	0.8	1.0	1.3	conveyors Hoist	-	1.5	1.8
Aerator	-	1.8	2.0	conveyors ≥150kw	1.0	1.2	1.3
Raking equipment	1.0	1.2	1.3	Freight elevator*	1.1	1.3	1.4
Combined longitudinal and rotary rakes	1.0	1.3	1.5	Passenger elevator*	-	1.2	1.5
Thickener	-	1.1	1.3	Scraper conveyor	-	1.5	1.8
Screw pump	-	1.3	1.5	Esalator	1.0	1.2	1.4
Turbine	-	-	2.0	Track running gear	-	1.5	-
Pump				<b>Frequency devices</b>	-	1.8	2.0
Centrifugal pump	1.0	1.2	1.3	<b>Reciprocating compressors</b>	-	1.8	1.9
Dissolved integrand pump	-	-	-				
A piston	1.3	1.4	1.8				
> A piston	1.2	1.4	1.5				
<b>Dredge</b>				<b>Lifting machinery**</b>			
Bucket conveyor	-	1.6	1.6	Slewing mechanism*	1.0	1.4	1.8
dump device	-	1.3	1.5	Tilt mechanism	1.0	1.1	1.4
Cartepillar Walking structure	1.2	1.6	1.8	Walking structure	1.1	1.6	2.0
Bucket excavator				Lifting structure	1.0	1.1	1.4
For picking	-	1.7	1.7	Jib crane	1.0	1.2	1.6
For coarse material	-	2.2	2.2				
Shredder	-	2.2	2.2	<b>Cooling tower</b>			
Walking structure*	-	2.4	1.8	Cooling tower fan	-	-	2.0
				Fans (Axial and Centrifugal)	-	1.4	1.5
<b>Plate bending machine</b>	-	1.0	1.0	<b>Food Industry</b>			
				Sugar industry			
<b>Chemical Industry</b>				Sugarcane shredder	-	-	1.7
Extruder	-	-	1.6	Sugarcane grinders	-	-	1.7
paste mixer	-	1.8	1.8	Beet sugar production			
Rubber-ray machine	-	1.5	1.5	Beet pulpier	-	-	1.2
Cooling cylinder	-	1.3	1.4	Squeeze Machine, Mechanical actuator			
Mixer				Cold machine, cooking machine	-	-	1.4
For Homogeneous medium	1.0	1.3	1.4	Beet washing machine	-	-	1.5
Inhomogeneous media	1.4	1.6	1.7	Beet shredder	-	-	1.5
Blender				<b>Paper Machinery</b>			
For Homogeneous medium density	1.0	1.3	1.5	All types***	-	1.8	2.0
Inhomogeneous medium	1.2	1.4	1.6	The pulpier driver device			
Uneven gas absorption	1.4	1.6	1.8	<b>Centrifugal Compressor</b>	-	1.4	1.5
Ovens	1.0	1.3	1.5				
Centrifuge	1.0	1.2	1.3	<b>Funicular</b>			
<b>Metal processing equipment</b>				Freight cableway	-	1.3	1.4
A replica machine	1.0	1.0	1.2	Back and forth system cableway	-	1.6	1.8
Pusher	1.0	1.2	1.2	T-bar lift	-	1.3	1.4
Winding machine	-	1.6	1.6	Continuous cableway	-	1.4	1.6
Cooling bed traverse frame	-	1.5	1.5				
Roller leveler	-	1.6	1.6	<b>Cement Industry</b>			
Roller				Concrete agitator	-	1.5	1.5
Continuous	-	1.5	1.5	Crusher*	-	1.2	1.4
Gap-type	-	2.0	2.0	Rotary kiln	-	-	2.0
Reversible pipe rolling mill	-	1.8	1.8	Tube mill	-	-	2.0
Shears				Made powder machine	-	1.6	1.6
Continuous*	-	1.5	1.5	Roller press	-	-	2.0
Crank type*	1.0	1.0	1.0				
The Continuous Casting chicken drive device	-	1.4	1.4				
Mill							
Reversible open-Pei machine	-	2.5	2.5				
The reversible plate Pei mill	-	1.8	1.8				
Reversible wire rod mill	-	2.0	2.0				
Reversing plate mill	-	1.8	1.8				
Roll gap adjustment drive	0.9	1.0	-				

1. The confirmation of rated power of working machine-P2:  
 \*) According to max torque to confirm the rated power;  
 \*\*) According to Cross-load to classify;  
 \*\*\*) Inspection heat capacity is absolutely necessary.  
 2. All the listed the various coefficients are empirical value, the prerequisite for using these coefficients is the mechanical equipment in line with the usual design specifications and load conditions, if in special circumstances, please contact us.  
 3. Machinery is for those which not listed in this table, please contact us.

传动能力表  
Selection Table

1. P2N和P2S传动能力表:(i=25~125) P2N and P2S selection table:(i=25~125)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P2-9			P2-10			P2-11			P2-12			P2-13			P2-14		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	60	25	22	25.634	137	31	25.634	129	42	25.875	174	60	24.983	249	83	24.958	344	117	24.958	485
1000	40				91			129			174			249			344			485
750	30				68			96			131			187			258			364
1500	54	28	22	28.058	123	31	28.058	116	42	28.233	235	60	27.26	336	83	27.318	310	117	27.318	437
1000	36				82			116			157			224			310			437
750	27				62			87			118			168			232			327
1500	48	31.5	22	31.142	109	31	31.142	103	42	31.207	209	60	30.13	298	83	30.321	275	117	30.321	388
1000	32				73			103			139			199			275			388
750	24				55			77			104			149			206			291
1500	42	35.5	22	35.201	96	31	35.201	90	42	35.072	183	60	33.863	261	83	34.272	241	117	34.272	340
1000	28				64			90			122			174			241			340
750	21				48			67			91			131			181			255
1500	38	40	22	40.781	87	31	40.781	80	42	40.302	165	60	38.912	236	83	39.706	215	117	39.706	303
1000	25				57			80			109			155			215			303
750	19				43			61			83			118			163			230
1500	33.3	45	22	45.601	77	31	45.601	72	42	43.209	147	60	41.719	209	83	43.797	193	117	43.797	272
1000	22.2				51			72			98			140			193			272
750	16.7				38			54			73			105			145			204
1500	30.0	50	22	51.544	69	31	51.544	65	42	48.561	132	60	46.887	188	83	49.505	174	117	49.505	245
1000	20.0				46			65			88			126			174			245
750	15.0				35			49			66			94			130			184
1500	26.8	56	22	59.715	62	31	59.715	58	42	55.802	118	60	53.878	168	83	57.353	155	117	57.353	219
1000	17.9				41			58			79			112			155			219
750	13.4				31			43			59			84			116			164
1500	23.8	63	22	61.953	55	31	61.953	52	42	63.399	105	60	61.213	150	83	59.977	138	117	59.977	194
1000	15.9				37			52			70			100			138			194
750	11.9				27			39			52			75			103			146
1500	21.1	71	22	71.775	49	31	71.775	46	42	72.853	93	60	70.34	133	83	69.485	122	117	69.485	173
1000	14.1				32			46			62			88			122			173
750	10.6				24			34			46			66			92			129
1500	18.8	80	22	78.782	43	31	78.782	41	42	81.303	82	60	78.499	118	83	78.827	109	117	78.827	153
1000	12.5				29			41			50			79			109			153
750	9.4				22			30			41			59			81			115
1500	16.7	90	22	91.272	38	31	91.272	36	42	93.426	73	60	90.205	105	83	91.324	97	117	91.324	136
1000	11.1				26			36			49			70			97			136
750	8.3				19			27			37			52			72			102
1500	15.0	100	22	99.735	35	31	99.735	32	42	99.678	66	60	96.241	94	83	95.963	87	117	95.963	123
1000	10.0				23			32			44			63			87			123
750	7.5				17			24			33			47			65			92
1500	13.4	112	22	115.55	31	31	115.55	29	42	114.54	59	60	110.59	84	83	111.18	78	117	111.18	109
1000	8.9				21			29			39			56			78			109
750	6.7				15			22			29			42			58			82
1500	12.0	125	22	124.74	28	31	124.74	26	42	123.14	53	60	118.9	75	83	119.12	70	117	119.12	147
1000	8.0				18			26			35			50			70			147
750	6.0				14			19			26			38			52			74

### P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2N和P2S传动能力表:(i=25~125)(续前页) P2N and P2S selection table:(i=25~125)

P2-16			P2-17			P2-18			P2-19			P2-20			P2-21			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
160	24.75	995	202	24.75	1256	244	24.958	1012	295	26.622	1223	354	26.622	1468	392	26.622	1625	25	60	1500
		663			837			759			917			1101			1219		40	1000
		497			628														30	750
160	27.09	895	202	27.09	1131	244	27.318	910	295	29.139	1101	354	29.139	1321	392	29.139	1463	28	54	1500
		597			754			683			825			991			1097		36	1000
		448			565														27	750
160	20.068	796	202	20.068	1005	244	30.321	809	295	32.342	978	354	32.342	1174	392	32.342	1300	31.5	48	1500
		531			670			607			734			881			975		32	1000
		398			502														24	750
160	33.987	696	202	33.987	879	244	34.272	708	295	36.557	856	354	36.557	1027	392	36.557	1138	35.5	42	1500
		464			586			531			642			770			853		28	1000
		348			440														21	750
160	39.375	630	202	39.375	796	244	39.706	632	295	42.353	764	354	42.353	917	392	42.353	1016	40	38	1500
		415			523			480			581			697			772		25	1000
		315			398														19	750
160	42.318	558	202	42.318	705	244	42.867	568	295	45.725	686	354	45.725	824	392	46.357	912	45	33.3	1500
		372			470			426			515			618			684		22.2	1000
		279			353														16.7	750
160	47.833	503	202	47.833	635	244	48.454	511	295	51.684	618	354	51.684	741	392	52.399	821	50	30.0	1500
		335			423			383			463			556			616		20.0	1000
		251			317														15.0	750
160	55.417	449	202	55.417	567	244	56.136	456	295	59.878	552	354	59.878	662	392	60.706	733	56	26.8	1500
		299			378			342			414			496			550		17.9	1000
		224			283														13.4	750
160	61.438	399	202	61.438	504	244	60.32	406	295	64.341	490	354	64.341	588	392	66.084	651	63	23.8	1500
		266			336			304			368			441			489		15.9	1000
		199			252														11.9	750
160	71.178	354	202	71.178	447	244	69.882	360	295	74.541	435	354	74.541	522	392	76.561	578	71	21.1	1500
		236			298			270			326			392			434		14.1	1000
		177			223														10.6	750
160	78.788	314	202	78.788	397	244	78.976	319	295	84.841	386	354	84.841	463	392	84.746	513	80	18.8	1500
		209			264			240			290			347			385		12.5	1000
		157			198														9.4	750
160	91.278	279	202	91.278	353	244	91.496	284	295	97.596	343	354	97.596	412	392	98.182	456	90	16.7	1500
		186			235			213			257			309			342		11.1	1000
		140			176														8.3	750
160	96.594	251	202	96.594	317	244	95.963	255	295	102.36	309	354	102.36	371	392	103.9	410	100	15.0	1500
		168			212			192			232			278			308		10.0	1000
		126			159														7.5	750
160	111.91	224	202	111.91	283	244	111.18	228	295	118.59	276	354	118.59	331	392	120.37	366	112	13.4	1500
		150			189			171			207			248			275		8.9	1000
		112			142														6.7	750
160	120.59	201	202	120.59	254	244	119.12	204	295	127.06	247	354	127.06	297	392	129.41	328	125	12.0	1500
		134			169			153			185			222			246		8.0	1000
		101			127														6.0	750

### P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2N和P2S传动能力表:(i=25~125)(续前页) P2N and P2S selection table:(i=25~125)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P2-22			P2-23			P2-24			P2-25			P2-26			P2-27									
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)							
1500	60	25	450	26.622	1866	513	26.872	2127	592	26.872	2454	684	26.872	2863	763	26.872	3163	852	26.622	3532							
1000	40																				1399	1595	1841	2127	2372	2649	
750	30																										
1500	54	28	450	29.139	1679	513	29.321	1914	592	29.321	2209	684	29.321	2552	763	29.321	2847	852	29.139	3179							
1000	36																				1259	1436	1657	1914	2135	2384	
750	27																										
1500	48	31.5	450	32.342	2239	513	32.409	1701	592	32.409	1963	684	32.409	2268	763	32.409	2530	852	32.342	2826							
1000	32																				1119	1276	1473	1701	1898	2129	
750	24																										
1500	42	35.5	450	36.557	1959	513	36.424	1489	592	36.424	1718	684	36.424	1985	763	36.424	2214	852	36.557	2472							
1000	28																				979	1117	1288	1489	1661	1854	
750	21																										
1500	38	40	450	42.353	1772	513	41.855	1329	592	41.855	1534	684	41.855	1772	763	41.855	1977	852	42.353	2208							
1000	25																				886	1010	1166	1329	1534	1661	1854
750	19																										
1500	33.3	45	450	46.357	1571	513	45.373	1194	592	45.373	1377	684	45.373	1592	763	45.373	1775	852	46.948	1982							
1000	22.2																				785	895	1033	1194	1332	1487	
750	16.7																										
1500	30.0	50	450	52.399	1414	513	50.993	1074	592	50.993	1240	684	50.993	1432	763	50.993	1598	852	53.067	1784							
1000	20.0																				707	806	930	1074	1198	1338	
750	15.0																										
1500	26.8	56	450	60.706	1262	513	58.597	959	592	58.597	1107	684	58.597	1279	763	58.597	1427	852	61.48	1593							
1000	17.9																				631	719	830	959	1070	1195	
750	13.4																										
1500	23.8	63	450	66.084	1122	513	64.442	853	592	64.442	984	684	64.442	1137	763	64.442	1268	852	66.345	1416							
1000	15.9																				561	639	738	853	951	1062	
750	11.9																										
1500	21.1	71	450	76.561	995	513	74.051	757	592	74.051	873	684	74.051	1009	763	74.051	1125	852	76.863	1256							
1000	14.1																				498	567	655	757	844	942	
750	10.6																										
1500	18.8	80	450	84.746	883	513	82.781	1007	592	82.781	1162	684	82.781	1343	763	82.781	1498	852	84.241	1115							
1000	12.5																				442	504	581	671	775	886	
750	9.4																										
1500	16.7	90	450	98.182	785	513	95.124	895	592	95.124	1033	684	95.124	1194	763	95.124	1332	852	97.596	991							
1000	11.1																				524	597	689	796	888	974	
750	8.3																										
1500	15.0	100	450	103.9	707	513	101.6	806	592	101.6	930	684	101.6	1074	763	101.6	1198	852	102.36	892							
1000	10.0																				471						

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2N和P2S传动能力表:(i=25~125)(续前页) P2N and P2S selection table:(i=25~125)

P2-28			P2-29			P2-30			P2-31			P2-32			P2-33			P2-34			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
950	26.622	3938	1060	26.622	4394	1200	26.622	4975	1330	26.872	5514	1500	26.872	6218	1680	26.622	6965	1920	26.622	7960	25	60	1500
		2954			3296			3731			4135			4664			5223			5970		40	1000
950	29.139	3544	1060	29.139	3955	1200	29.139	4477	1330	29.321	4962	1500	29.321	5597	1680	29.139	6268	1920	29.139	7164	28	54	1500
		2658			2966			3358			3722			4197			4701			5373		36	1000
950	32.342	4726	1060	32.342	5273	1200	32.342	5970	1330	32.409	6616	1500	32.409	7462	1680	32.342	8358	1920	32.342	9551	31.5	48	1500
		3151			3515			3980			4411			4975			5572			6368		32	1000
		2363			2637			2985			3308			3731			4179			4776		24	750
950	36.557	4135	1060	36.557	4614	1200	36.557	5223	1330	36.424	5789	1500	36.424	6529	1680	36.557	7313	1920	36.557	8385	35.5	42	1500
		2757			3076			3482			3860			4353			4875			5572		28	1000
		2068			2307			2612			2895			3265			3656			4179		21	750
950	42.353	3741	1060	42.353	4175	1200	42.353	4726	1330	41.855	5238	1500	41.855	5907	1680	42.353	6616	1920	42.353	7562	40	38	1500
		2461			2746			3109			3446			3886			4353			4975		25	1000
		1871			2087			2363			2619			2954			3308			3781		19	750
950	46.948	2210	1060	46.948	2466	1200	46.948	2792	1330	45.575	3095	1500	45.575	3490	1680	46.948	3909	1920	46.948	4467	45	33.3	1500
		1658			1850			2094			2321			2618			2932			3351		22.2	1000
950	53.067	1989	1060	53.067	2220	1200	53.067	2513	1330	51.221	2785	1500	51.221	3141	1680	53.067	3518	1920	53.067	4021	50	30.0	1500
		1492			1665			1885			2089			2356			2639			3016		20.0	1000
950	61.48	1776	1060	61.48	1982	1200	61.48	2244	1330	58.858	2487	1500	58.858	2805	1680	61.48	3141	1920	61.48	3590	56	26.8	1500
		1332			1486			1683			1865			2103			2356			2692		17.9	1000
950	66.345	1579	1060	66.345	1762	1200	66.345	1994	1330	66.102	2210	1500	66.102	2493	1680	66.345	2792	1920	66.345	3191	63	23.8	1500
		1184			1321			1496			1658			1870			2094			2393		15.9	1000
950	76.863	1401	1060	76.863	1563	1200	76.863	1770	1330	75.958	1961	1500	75.958	2212	1680	76.863	2478	1920	76.863	2831	71	21.1	1500
		1051			1172			1327			1471			1659			1858			2124		14.1	1000
950	84.241	1243	1060	84.241	1387	1200	84.241	1571	1330	83.932	1741	1500	83.932	1963	1680	84.241	2199	1920	84.241	2513	80	18.8	1500
		933			1041			1178			1306			1472			1649			1885		12.5	1000
950	97.596	1105	1060	97.596	1233	1200	97.596	1396	1330	96.448	1547	1500	96.448	1745	1680	97.596	1954	1920	97.596	2234	90	16.7	1500
		829			925			1047			1160			1309			1466			1675		11.1	1000
950	102.36	995	1060	102.36	1110	1200	102.36	1256	1330	104.3	1393	1500	104.3	1571	1680	104.69	1759	1920	104.69	2010	100	15.0	1500
		746			832			942			1044			1178			1319			1508		10.0	1000
950	118.59	888	1060	118.59	991	1200	118.59	1122	1330	119.96	1243	1500	119.96	1402	1680	121.28	1571	1920	121.28	1795	112	13.4	1500
		666			743			841			933			1052			1178			1346		8.9	1000
950	127.06	796	1060	127.06	888	1200	127.06	1005	1330	127.56	1114	1500	127.56	1256	1680	129.08	1407	1920	129.08	1608	125	12.0	1500
		597			666			754			836			942			1055			1206		8.0	1000

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

2. P3N和P3S传动能力表:(i=140~900) P3N and P3S selection table: (i=140~900)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P3-9			P3-10			P3-11			P3-12			P3-13			P3-14		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	10.7	140	22	146.81	24.8	31	146.81	34.9	42	147.12	47.3	60	142.04	68	83	142.94	94	117	142.94	132
1000	7.1				16.5			23.3			31.5			45			62			88
750	5.4				12.4			17.5			23.7			34			47			66
1500	9.4	160	22	165.95	21.7	31	165.95	30.6	42	165.34	41.4	60	159.64	59	83	161.57	82	117	161.57	115
1000	6.3				14.5			20.4			27.6			39			55			77
750	4.7				10.8			15.3			20.7			30			41			58
1500	8.3	180	22	192.25	19.3	31	192.25	27.2	42	189.99	36.8	60	183.44	53	83	187.19	73	117	187.19	103
1000	5.6				12.9			18.1			24.5			35			48			68
750	4.2				9.6			13.6			18.4			26			36			51
1500	7.5	200	22	210.43	17.3	31	210.43	24.4	42	207.96	33.1	60	200.79	47	83	204.88	65	117	204.88	92
1000	5.0				11.6			16.3			22.1			32			44			62
750	3.8				8.7			12.2			16.6			24			33			46
1500	6.7	225	22	233.57	15.4	31	233.57	21.7	42	230.82	29.4	60	222.86	42	83	227.41	58	117	227.41	82
1000	4.4				10.3			14.5			19.6			28			39			55
750	3.3				7.7			10.9			14.7			21			29			41
1500	6.0	250	22	264.01	13.9	31	264.01	19.6	42	260.9	26.5	60	251.90	38	83	257.04	52	117	257.04	74
1000	4.0				9.3			13.0			17.7			25			35			49
750	3.0				6.9			9.8			13.2			19			26			37
1500	5.4	280	22	305.86	12.4	31	305.86	17.5	42	302.26	23.7	60	291.84	34	83	297.79	47	117	297.79	66
1000	3.6				8.3			11.6			15.8			23			31			44
750	2.7				6.2			8.7			11.8			17			23			33
1500	5.4	280	22	305.86	13.5	31	305.86	17.6	42	295.82	24	60	285.62	34	83	287.42	47	117	287.42	67
1000	3.6				8.3			12			16			23			31			44
750	2.7				6.3			8.8			12			17			24			33
1500	4.8	315	22	333.68	11	31	333.68	16	42	332.46	21	60	320.99	30	83	324.88	42	117	324.88	59
1000	3.2				7.4			10.5			14			20			28			39
750	2.4				5.6			7.8			11			15			21			30
1500	4.2	355	22	386.58	10	31	386.58	14	42	382.03										



# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P3N和P3S传动能力表:(i=140~900)(续前页) P3N and P3S selection table: (i=140~900)

P3-28			P3-29			P3-30			P3-31			P3-32			P3-33			P3-34			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
950	152.47	714 535	1060	152.47	796 597	1200	152.47	901 676	1330	152.79	999 749	1500	152.79	1127 845	1680	153.90	1262 946	1920	153.90	1442 1082	140	10.7 7.1 5.4	1500 1000 750
950	172.34	624 468	1060	172.34	697 522	1200	172.34	789 591	1330	171.71	874 656	1500	171.71	986 739	1680	173.96	1104 828	1920	173.96	1262 946	160	9.4 6.3 4.7	1500 1000 750
950	199.66	555 416	1060	199.66	619 464	1200	199.66	701 526	1330	197.32	777 583	1500	197.32	876 657	1680	201.54	981 736	1920	201.54	1122 841	180	8.3 5.6 4.2	1500 1000 750
950	218.54	499 375	1060	218.54	557 418	1200	218.54	631 473	1330	215.97	699 524	1500	215.97	789 591	1680	219.91	883 662	1920	219.91	1009 757	200	5.0 3.8 2.7	1000 750 500
950	242.57	666 444 333	1060	242.57	743 495 372	1200	242.57	841 561 421	1330	239.71	932 622 466	1500	239.71	1051 701 526	1680	243.07	1178 785 589	1920	243.07	1346 897 673	225	6.7 4.4 3.3	1500 1000 750
950	274.18	599 400 300	1060	274.18	669 446 334	1200	274.18	757 505 379	1330	270.95	839 559 420	1500	270.95	946 631 473	1680	273.18	1060 707 530	1920	273.18	1211 808 606	250	6.0 4.0 3.0	1500 1000 750
950	317.65	535 357 268	1060	317.65	597 398 299	1200	317.65	676 451 338	1330	313.91	749 499 375	1500	313.91	845 563 422	1680	313.91	946 631 473	1920	313.91	1082 721 541	280	5.4 3.6 3.7	1500 1000 750
950	296.01	541 361 270	1060	296.01	603 402 302	1200	296.01	683 455 342	1330	300.72	757 505 379	1500	300.72	854 569 427	1680	292.05	956 638 476	1920	292.05	1093 729 546	280	5.4 3.6 2.7	1500 1000 750
950	334.59	481 320 240	1060	334.59	536 358 268	1200	334.59	607 405 304	1330	337.97	673 449 336	1500	337.97	759 506 379	1680	330.11	850 567 425	1920	330.11	971 648 486	315	4.8 3.2 2.4	1500 1000 750
950	387.63	427 284 213	1060	387.63	467 317 238	1200	387.63	539 359 269	1330	388.37	597 398 299	1500	388.37	673 449 337	1680	382.45	754 503 377	1920	382.45	862 575 431	355	4.2 2.8 2.1	1500 1000 750
950	416.52	379 252 189	1060	416.52	422 282 211	1200	416.52	478 319 239	1330	426.24	530 353 265	1500	426.24	598 398 299	1680	417.18	669 446 335	1920	417.18	765 510 383	400	3.8 2.5 1.9	1500 1000 750
950	482.56	336 224 168	1060	482.56	375 250 188	1200	482.56	425 283 213	1330	489.80	471 314 236	1500	489.80	531 354 266	1680	483.31	595 397 298	1920	483.31	680 453 340	450	3.3 2.2 1.7	1500 1000 750
950	545.35	303 202 151	1060	545.35	338 225 169	1200	545.35	383 255 191	1330	546.60	424 283 212	1500	546.60	478 319 239	1680	535.90	536 357 268	1920	535.90	612 408 306	500	3.0 2.0 1.5	1500 1000 750
950	631.81	270 180 135	1060	631.81	302 201 151	1200	631.81	342 228 171	1330	628.12	379 252 189	1500	628.12	427 285 213	1680	620.86	478 319 239	1920	620.86	546 364 273	560	2.7 1.8 1.3	1500 1000 750
950	662.65	240 160 120	1060	662.65	268 179 134	1200	662.65	304 202 152	1330	670.15	336 224 168	1500	670.15	379 253 190	1680	657.74	425 283 213	1920	657.74	483 324 243	630	2.4 1.6 1.2	1500 1000 750
950	767.70	213 142 107	1060	767.70	238 159 119	1200	767.70	269 180 135	1330	770.08	299 199 149	1500	770.08	337 224 168	1680	762.02	377 251 189	1920	762.02	431 287 215	710	2.1 1.4 1.1	1500 1000 750
950	822.54	189 126 95	1060	822.54	211 141 106	1200	822.54	239 159 120	1330	827.92	265 177 132	1500	827.92	299 199 149	1680	819.53	335 223 167	1920	819.53	383 255 191	800	1.9 1.3 0.9	1500 1000 750
950	952.94	168 112 84	1060	952.94	188 125 94	1200	952.94	213 142 106	1330	959.17	236 157 118	1500	959.17	266 177 133	1680	941.73	298 198 149	1920	941.73	340 227 170	900	1.7 1.1 0.8	1500 1000 750

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

3. P2L传动能力表:(i=31.5~100) P2L selection table: (i=31.5~100)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P2-9			P2-10			P2-11			P2-12			P2-13		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	47.6	31.5	22	32.5353	111	31	32.5353	156	42	32.8413	212	60	31.7089	302	83	31.6775	418
1000	31.7				74			104			141			202			279
750	23.8				55			78			106			151			209
1500	42.3	35.5	22	35.6114	98	31	35.6114	139	42	35.8344	188	60	34.5987	268	83	34.6723	345
1000	28.2				66			92			125			179			247
750	21.1				49			69			94			134			173
1500	37.5	40	22	39.5264	87	31	39.5264	123	42	39.6083	167	60	38.2424	238	83	38.4842	306
1000	25.0				58			82			111			159			204
750	18.8				44			62			83			119			153
1500	33.3	45	22	43.882	78	31	43.882	109	42	43.4177	148	60	41.9206	212	83	42.1856	293
1000	22.2				52			73			99			141			195
750	16.7				39			55			74			106			146
1500	30.0	50	22	50.4204	70	31	50.4204	98	42	50.5248	133	60	48.7826	191	83	49.0910	264
1000	20.0				47			66			89			127			176
750	15.0				35			49			67			95			132
1500	26.8	56	22	55.7278	62	31	55.7278	88	42	55.8432	119	60	53.9176	170	83	54.2585	235
1000	17.9				42			59			79			113			157
750	13.4				31			44			60			85			118
1500	23.8	63	22	60.4521	55	31	60.4521	78	42	60.5773	106	60	58.4884	151	83	62.3263	209
1000	15.9				37			52			71			101			139
750	11.9				28			39			53			76			105
1500	21.1	71	22	69.6115	49	31	69.6115	69	42	69.7557	94	60	67.3503	134	83	67.7761	186
1000	14.1				33			46			63			89			124
750	10.6				25			35			47			67			93
1500	18.8	80	22	79.0528	44	31	79.0528	62	42	79.9667	83	60	77.2092	119	83	77.6973	165
1000	12.5				29			41			56			79			110
750	9.4				22			31			42			60			82
1500	16.7	90	22	86.2394	39	31	86.2394	55	42	86.418	74	60	83.438	106	83	83.9656	146
1000	11.1				26			36			49			71			98
750	8.3				19			27			37			53			73
1500	15.0	100	22	98.2171	35	31	98.2171	49	42	98.4205	67	60	95.0266	95	83	95.6575	132
1000	10.0				23			33			44			64			88
750	7.5				17			25			33			48			66

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2L传动能力表:(i=31.5~100)(续前页) P2L selection table: (i=31.5~100)

P2-14			P2-16			P2-17			P2-18			P2-19			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
117	31.6775	510	160	31.4135	806	202	31.4135	865	244	31.4286	1230	295	33.5237	1487	31.5	47.6	1500
		340			538			577			820			991		31.7	1000
		255			403			433			615			743		23.8	750
117	34.6723	478	160	34.3835	716	202	34.3835	858	244	34.3999	1091	295	36.6933	1319	35.5	42.3	1500
		324			477			572			728			880		28.2	1000
		243			358			429			546			660		21.1	750
117	38.4842	432	160	38.1635	635	202	38.1635	802	244	38.1819	969	295	40.7272	1171	40	35.5	1500
		288			423			535			646			781		25.0	1000
		216			318			401			484			585		18.8	750
117	42.1856	413	160	41.834	565	202	41.834	713	244	41.149	861	295	46.0254	1041	45	33.3	1500
		275			376			475			574			694		22.2	1000
		206			282			356			430			520		16.7	750
117	49.091	372	160	48.6818	508	202	48.6818	641	244	49.091	775	295	52.3636	937	50	30.0	1500
		248			339			428			517			625		20.0	1000
		186			254			321			378			468		15.0	750
117	54.2585	332	160	53.8063	454	202	53.8063	573	244	54.8664	692	295	58.524	836	56	26.8	1500
		221			302			382			461			558		17.9	1000
		166			227			286			346			418		13.4	750
117	62.3263	295	160	61.8069	403	202	61.8069	509	244	62.3263	615	295	66.4812	743	63	23.8	1500
		197			269			339			410			496		15.9	1000
		147			202			255			307			372		11.9	750
117	67.7761	262	160	67.2113	358	202	67.2113	452	244	67.7761	546	295	72.2943	660	71	21.1	1500
		174			239			301			364			440		14.1	1000
		131			179			226			273			330		10.6	750
117	77.6973	232	160	77.0498	318	202	77.0498	401	244	77.6973	484	295	82.8769	585	80	18.8	1500
		155			212			267			323			390		12.5	1000
		116			159			200			242			293		9.4	750
117	83.9656	206	160	83.2658	282	202	83.2658	356	244	83.9656	430	295	89.563	520	90	16.7	1500
		138			188			238			287			347		11.1	1000
		103			141			178			215			260		8.3	750
117	95.6275	186	160	94.8305	254	202	94.8305	321	244	95.6275	387	295	102.0023	468	100	15.0	1500
		124			169			214			258			312		10.0	1000
		93			127			160			194			234		7.5	750

注: 必须采用强制润滑。 Note: Must use forced lubrication.

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

3. P2L传动能力表:(i=31.5~100) P2L selection table: (i=31.5~100)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P2-20			P2-21			P2-22			P2-23			P2-24			P2-25		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	47.6	31.5	354	33.5237	1517	392	33.5237	1976	450	33.5237	2268	513	33.8391	1724	592	33.8391	1989	684	33.8391	2298
1000	31.7				1011			1317			1512			1293			1492			1724
750	23.8				758			988			1134			1293			1492			1724
1500	42.3	35.5	354	36.6933	1504	392	36.6933	1753	450	36.6933	2013	513	36.9231	1530	592	36.9231	1712	684	36.9231	2040
1000	28.2				1003			1169			1342			1147			1284			1530
750	21.1				752			877			1006			1147			1284			1530
1500	37.5	40	354	40.7272	1405	392	40.7272	1556	450	40.7272	1786	513	40.8116	1358	592	40.8116	1567	684	40.8116	1810
1000	25.0				937			1037			1191			1018			1175			1358
750	18.8				703			778			883			1018			1175			1358
1500	33.3	45	354	46.0254	1249	392	46.0254	1383	450	46.0254	1588	513	46.1208	1207	592	46.1208	1393	684	46.1208	1690
1000	22.2				833			922			1059			905			1044			1207
750	16.7				625			692			794			905			1044			1207
1500	30.0	50	354	52.3636	1124	392	52.3636	1245	450	52.3636	1429	513	52.472	1086	592	52.472	1253	684	52.1365	1448
1000	20.0				749			830			953			815			940			1086
750	15.0				562			622			714			815			940			1086
1500	26.8	56	354	58.524	1004	392	58.524	1111	450	58.524	1276	513	58.6452	970	592	58.6452	1119	684	58.6452	1293
1000	17.9				669			741			851			727			839			970
750	13.4				502			556			638			727			839			970
1500	23.8	63	354	66.4812	892	392	66.4812	988	450	66.4812	1134	513	66.6189	1293	592	66.6189	1492	684	66.6189	1724
1000	15.9				595			659			756			646			746			1149
750	11.9				446			494			567			646			746			862
1500	21.1	71	354	72.2943	792	392	72.2943	877	450	72.2943	1006	513	72.4441	1147	592	72.4441	1324	684	72.4441	1530
1000	14.1				528			584			671			574			662			1020
750	10.6				396			438			503			574			662			765
1500	18.8	80	354	82.8769	703	392	82.8769	778	450	82.8769	893	513	83.0486	1018	592	83.0486	1175	684	83.0486	1358
1000	12.5				468			519			595			509			587			905
750	9.4				351			389			447			509			587			679
1500	16.7	90	354	89.563	625	392	89.563	692	450	89.563	794	513	89.7486	905	592	89.7486	1044	684	89.7486	1207
1000	11.1				416			461			529			453			522			804
750	8.3				312			346			397			453			522			603
1500	15.0	100	354	102.0023	562	392	102.0023	622	450	102.0023	714	513	102.2136	815	592	102.2136	940	684	102.2136	1086
1000	10.0				375			415			476			407			470			724
750	7.5				281			311			357			407			470			543

注: 必须采用强制润滑。 Note: Must use forced lubrication.

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2L传动能力表:(i=31.5 ~100)(续前页) P2L selection table: (i=31.5~100)

P2-26			P2-27			P2-28			P2-29			P2-30			P2-31-P2-34			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)	
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)				
763	33.8391	2564	852	33.5237	2863	950	33.5237	2937	1060	33.5237	1200	33.5237							47.6	1500	
		1923			2147			2203											31.5	31.7	1000
763	36.9231	2275	852	36.6933	2540	950	36.6933	2833	1060	36.6933	1200	36.6933							42.3	1500	
		1706			1905			2124											35.5	28.2	1000
763	40.8116	2019	852	40.7272	2255	950	40.7272	2514	1060	40.7272	1200	40.7272							37.5	1500	
		1514			1691			1885											40	25.0	1000
763	45.1208	1795	852	46.0254	2004	950	46.0254	2235	1060	46.0254	1200	46.0254							33.3	1500	
		1346			1503			1676											45	22.2	1000
763	52.1365	1615	852	52.0288	1804	950	52.0288	2011	1060	52.0288	1200	52.0288							30.0	1500	
		1211			1353			1508											50	20.0	1000
763	58.6452	1442	852	58.524	1610	950	58.524	1796	1060	58.524	1200	58.524							26.8	1500	
		1082			1208			1347											56	17.9	1000
763	66.6189	1923	852	66.4812	2147	950	66.4812	2394	1060	66.4812	1200	66.4812							23.8	1500	
		1282			1432			1596											63	15.9	1000
		961			1074			1197												11.9	750
763	72.4441	1706	852	72.2943	1905	950	72.2943	2124	1060	72.2943	1200	72.2943							21.1	1500	
		1138			1270			1416											71	14.1	1000
		853			953			1062												10.6	750
763	83.0486	1514	852	82.8769	1691	950	82.8769	1885	1060	82.8769	1200	82.8769							18.8	1500	
		1010			1127			1257											80	12.5	1000
		757			845			943												9.4	750
763	89.7486	1346	852	89.563	1503	950	89.563	1676	1060	89.563	1200	89.563							16.7	1500	
		897			1002			1117											90	11.1	1000
		673			752			838												8.3	750
763	102.2136	1211	852	102.0023	1353	950	102.0023	1508	1060	102.0023	1200	102.0023							15.0	1500	
		808			902			1006											100	10.0	1000
		606			676			754												7.5	750

注: ■ 必须采用强制润滑。 Note: ■ Must use forced lubrication.

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

4. P2K传动能力表:(i=112 ~560) P2K selection table:(i=112~560)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P2-9			P2-10			P2-11			P2-12			P2-13			P2-14		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	13.4	112	22	111.25	30.9	31	111.25	43.6	42	111.83	59.0	60	107.97	84	83	107.97	117	117	107.76	164
1000	8.9				20.6			29.0			39.4			56			78			110
750	6.7				15.5			21.8			29.5			42			58			82
1500	12.0	125	22	125.75	27.7	31	125.75	39.0	42	125.68	52.9	60	121.35	76	83	121.8	105	117	121.8	147
1000	8.0				18.5			26.0			35.3			50			70			98
750	6.0				13.9			19.5			26.4			38			52			74
1500	10.7	140	22	145.69	24.7	31	145.69	34.9	42	144.42	47.2	60	139.44	67	83	141.11	93	117	141.11	132
1000	7.1				16.5			23.2			31.5			45			62			88
750	5.4				12.4			17.4			23.6			34			47			66
1500	9.4	160	22	157.28	21.6	31	157.28	30.5	42	155.27	41.3	60	149.91	59	83	151.19	82	117	151.19	115
1000	6.3				14.4			20.3			27.5			39			54			77
750	4.7				10.8			15.3			20.7			30			41			58
1500	8.3	180	22	175.77	19.2	31	175.77	27.1	42	173.52	36.7	60	167.54	52	83	167.85	73	117	167.85	102
1000	5.6				12.8			18.1			24.5			35			48			68
750	4.2				9.6			13.6			18.4			26			36			51
1500	7.5	200	22	203.53	17.3	31	203.53	24.4	42	200.92	33.1	60	193.99	47	83	192.86	65	117	192.86	92
1000	5.0				11.5			16.3			22.0			31			44			61
750	3.8				8.7			12.2			16.5			24			33			46
1500	6.7	225	22	223.22	15.4	31	223.22	21.7	42	200.36	29.4	60	212.76	42	83	213.16	58	117	213.16	82
1000	4.4				10.3			14.5			19.6			28			39			55
750	3.3				7.7			10.8			14.7			21			29			41
1500	6.0	250	22	242.15	13.9	31	242.15	19.5	42	239.04	26.4	60	230.8	39	83	231.23	52	117	231.23	74
1000	4.0				9.2			13.0			17.6			25			35			49
750	3.0				6.9			9.8			13.2			19			26			37
1500	5.4	280	22	278.84	12.4	31	278.84	17.4	42	275.26	23.6	60	265.77	34	83	266.26	47	117	266.26	66
1000	3.6				8.2			11.6			15.7			22			31			44
750	2.7				6.2			8.7			11.8			17			23			33
1500	4.7	320	22	316.65	10.8	31	316.65	15.3	42	312.6	20.7	60	301.82	30	83	302.38	41	117	302.38	58
1000	3.1				7.2			10.2			13.8			20			28			38
750	2.3				5.4			7.6			10.3			15			20			29
1500	4.2	360	22	345.44	9.6	31	345.44	13.6	42	341.01	18.4	60	329.25	26	83	329.86	36	117	329.86	51
1000	2.8				6.4			9.0			12.2			17			24			34
750	2.1				4.8			6.8			9.2			13			18			26
1500	3.8	400	22	393.42	8.7	31	393.42	12.2	42	388.38	16.5	60	374.98	24	83	375.68	33	117	375.68	46
1000	2.5				5.8			8.1			11.0			16			22			31
750	1.9				4.3			6.1			8.3			12			16			23
1500	3.3	450	22	442.27	7.7	31	442.27	10.8	42	436.6	14.7	60	421.54	21	83	422.33	29	117	422.33	41
1000	2.2				5.1			7.2			9.8			14			19			27
750	1.7				3.8			5.4			7.3			10			15			20
1500	3.0	500	22	484.63	6.9	31	487.63	9.8	42	481.38	13.2	60	464.78	19	83	465.64	26	117	465.64	37
1000	2.0				4.6			6.5			8.8			13			17			25
750	1.5				3.5			4.9			6.6			9			13			18
1500	2.7	560			按客户要求供货															
1000	1.8				According to customer requirements supply commodity															
750	1.3																			

P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P2K传动能力表:(i=112~560)(续前页) P2K selection table:(i=112~560)

P2-16			P2-17			P2-18			P2-19			P2-20			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
160	108.47	225	220	108.47	284	244	107.76	343	295	114.94	415	354	114.94	498	112	13.4	1500
		150			189			229			276			332		8.9	1000
		112			142			171			207			249		6.7	750
160	122.6	201	220	122.6	254	244	121.8	307	295	129.92	372	354	129.92	446	125	12.0	1500
		134			170			205			248			297		8.0	1000
		101			127			154			186			223		6.0	750
160	142.04	180	220	142.04	227	244	141.11	274	295	150.52	332	354	150.52	398	140	10.7	1500
		120			151			183			221			265		7.1	1000
		90			114			137			166			199		5.4	750
160	153.05	157	220	153.05	199	244	151.19	240	295	161.27	290	354	161.27	348	160	9.4	1500
		105			132			160			193			232		6.3	1000
		79			99			120			145			174		4.7	750
160	167.77	140	220	167.77	177	244	165.73	213	295	176.78	258	354	176.78	310	180	8.3	1500
		93			118			142			172			206		5.6	1000
		70			88			107			129			155		4.2	750
160	195.23	126	220	195.23	159	244	192.86	192	295	205.71	232	354	205.71	279	200	7.5	1500
		84			106			128			155			186		5.0	1000
		63			79			96			116			139		3.8	750
160	215.79	112	220	215.79	141	244	213.16	171	295	227.37	206	354	227.37	248	225	6.7	1500
		75			94			114			138			165		4.4	1000
		56			71			85			103			124		3.3	750
160	234.08	101	220	234.08	127	244	244.85	154	295	261.18	186	354	261.18	223	250	6.0	1500
		67			85			102			124			149		4.0	1000
		50			64			77			93			111		3.0	750
160	269.55	90	220	269.55	114	244	266.26	137	295	284.01	166	354	284.01	199	280	5.4	1500
		60			76			91			111			133		3.6	1000
		45			57			69			83			100		2.7	750
160	309	79	220	309	99	244	305.24	120	295	325.59	145	354	325.59	174	320	4.7	1500
		52			66			80			97			116		3.1	1000
		39			50			60			73			87		2.3	750
160	333.93	70	220	333.93	88	244	329.86	107	295	351.86	129	354	351.86	155	360	4.2	1500
		47			59			71			86			103		2.8	1000
		35			44			53			64			77		2.1	750
160	380.31	63	220	380.31	79	244	375.68	96	295	400.72	116	354	400.72	139	400	3.8	1500
		42			53			64			77			93		2.5	1000
		31			40			48			58			70		1.9	750
160	427.53	56	220	427.53	71	244	422.33	85	295	450.48	103	354	450.48	124	450	3.3	1500
		37			47			57			69			83		2.2	1000
		28			35			43			52			62		1.7	750
160	471.38	50	220	471.38	64	244	465.64	77	295	496.68	93	354	496.68	111	500	3.0	1500
		34			42			51			62			74		2.0	1000
		25			32			38			46			56		1.5	750
按客户要求供货 According to customer requirements supply commodity															560	2.7	1500
																1.8	1000
																1.3	750

P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

5. P3K传动能力表:(i=560~4000) P3K Selection table: (i=560~4000)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P3-9			P3-10			P3-11			P3-12			P3-13		
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)
1500	2.68	560	22	566.22	6.3	31	566.22	9	42	567.4	12	60	547.83	17	83	551.29	24
1000	1.79				4.2			6			8			11			16
750	1.34				3.1			4.4			6			9			12
1500	2.38	630	22	640.02	5.6	31	640.02	7.8	42	637.68	11	60	615.69	15	83	623.14	21
1000	1.59				3.7			5.2			7			10			14
750	1.19				2.8			3.9			5			8			11
1500	2.11	710	22	700.53	5.0	31	700.53	7	42	697.96	9	60	673.9	14	83	682.06	19
1000	1.41				3.3			4.5			6			9			12
750	1.06				2.5			3.5			5			7			9
1500	1.88	800	22	777.54	4.4	31	777.54	6	42	774.7	8	60	747.98	12	83	757.04	17
1000	1.25				2.9			4			6			8			11
750	0.94				2.2			3			4			6			8
1500	1.67	900	22	878.88	3.9	31	878.88	5.5	42	875.66	7.5	60	845.46	11	83	855.70	15
1000	1.11				2.6			3.7			5			7			10
750	0.83				2.0			2.7			3.7			5			7
1500	1.50	1000	22	982.19	3.5	31	982.19	5	42	978.6	6.7	60	944.85	10	83	956.3	13
1000	1.00				2.3			3.3			4.5			6			9
750	0.75				1.8			2.5			3.4			5			7
1500	1.34	1120	22	1137.3	3.1	31	1137.3	4.4	42	1133.1	6	60	1094	9	83	1107.3	12
1000	0.89				2.1			2.9			4			6			8
750	0.67				1.6			2.2			3			4.5			6
1500	1.20	1250	22	1247.3	2.8	31	1247.3	4.0	42	1242.8	5.4	60	1199.9	8	83	1214.4	11
1000	0.80				1.9			2.6			3.6			5			7
750	0.60				1.4			2.0			2.7			4			5
1500	1.07	1400	22	1351.1	2.5	31	1351.1	3.5	42	1348.1	4.8	60	1301.6	7	83	1317.4	4.9
1000	0.71				1.7			2.4			3.2			5			6
750	0.54				1.3			1.8			2.4			3.5			4.5
1500	0.94	1600	22	1558.1	2.2	31	1558.1	3.1	42	1552.4	4.2	60	1498.9	6	83	1517	8
1000	0.63				1.5			2.1			2.8			4			6
750	0.47				1.1			1.5			2.1			3			4
1500	0.83	1800	22	1769.4	2.0	31	1769.4	2.8	42	1762.9	3.7	60	1702.1	5	83	1722.8	7
1000	0.56				1.3			1.8			2.5			4			5
750	0.42				1.0			1.4			1.9			2.7			3.7
1500	0.75	2000	22	1930.3	1.8	31	1930.3	2.5	42	1923.2	3.4	60	1856.9	4.8	83	1879.4	6.6
1000	0.50				1.2			1.7			2.2			3.2			4
750	0.38				0.9			1.2			1.7			2.4			3.3
1500	0.67	2240	22	2198.4	1.6	31	2198.4	2.2	42	2190.3	3.0	60	2114.8	4.3	83	2140.4	5.9
1000	0.45				1.0			1.5			2.0			2.9			3.9
750	0.33				0.8			1.1			1.5			2.1			3.0
1500	0.60	2500	22	2471.3	1.4	31	2471.3	2.0	42	2462.3	2.7	60	2377.4	3.8	83	2406.1	5.3
1000	0.40				0.9			1.3			1.8			2.6			3.5
750	0.30				0.7			1.0			1.3			1.9			2.7
1500	0.54	2800	22	2724.8	1.3	31	2724.8	1.8	42	2714.8	2.4	60	2621.2	3.4	83	2652.9	4.7
1000	0.36				0.8			1.2			1.6			2.3			3.2
750	0.27				0.6			0.9			1.2			1.7			2.4
1500	0.48	3150	22	3105	1.1	31	3104.9	1.6	42	3093.6	2.1	60	2986.9	3.0	83	3023.1	4.2
1000	0.32				0.7			1.0			1.4			2.0			2.8
750	0.24				0.6			0.8			1.1			1.5			2.1
1500	0.42	3550	22	3597.2	1.0	31	3597.2	1.4	42	3584.1	1.9	60	3460.5	2.7	83	3502.4	3.7
1000	0.28				0.7			0.9			1.3			1.8			2.5
750	0.21				0.5			0.7			0.9			1.4			1.9
1500	0.38	4000	22	4167.5	0.9	31	4167.5	1.2	42	4118.5	1.7	60	3976.5	2.4	83	4057.6	3.3
1000	0.25				0.6			0.8			1.1			1.6			2.2
750	0.19				0.4			0.6			0.8			1.2			1.7

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P3K传动能力表:(i=560~4000)(续前页) P3KSelection table: (i=560~4000)

P3-14			P3-16			P3-17			P3-18			P3-19			i <sub>N</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
117	551.29	33	160	551.25	46	202	551.25	58	244	544.28	70	295	580.56	84	2.68	1500	
		22			30			29			46			56	1.79	1000	
		17			23			35			42			56	1.34	750	
117	623.14	30	160	623.09	41	202	623.09	51	244	615.21	62	295	656.22	75	2.38	1500	
		20			27			29			41			50	1.59	1000	
		15			20			26			31			37	1.19	750	
117	682.06	26	160	679.88	36	202	679.88	45	244	673.37	55	295	718.27	66	2.11	1500	
		18			24			27			30			44	1.41	1000	
		13			18			23			27			33	1.06	750	
117	757.04	23	160	751.48	32	202	751.48	40	244	747.4	49	295	797.23	59	1.88	1500	
		16			21			20			27			39	1.25	1000	
		12			16			20			24			29	0.94	750	
117	855.70	21	160	844.56	28	202	844.56	36	244	844.81	43	295	901.13	52	1.67	1500	
		14			19			22			24			29	1.11	1000	
		10			14			18			22			26	0.83	750	
117	956.3	19	160	943.84	26	202	943.84	32	244	937.9	39	295	1000.4	47	1.50	1500	
		12			17			19			22			31	1.00	1000	
		9			13			16			19			24	0.75	750	
117	1107.3	17	160	1092.4	23	202	1092.9	29	244	1077.6	35	295	1149.5	42	1.34	1500	
		11			15			19			23			28	0.86	1000	
		8			11			14			17			21	0.67	750	
117	1214.4	15	160	1198.6	20	202	1198.6	26	244	1191.1	31	295	1270.5	38	1.20	1500	
		10			14			19			21			25	0.80	1000	
		7			10			13			16			19	0.60	750	
117	1317.4	13	160	1300.2	18	202	1300.2	23	244	1292.1	28	295	1378.2	34	1.07	1500	
		9			12			15			19			22	0.71	1000	
		7			9			12			14			17	0.54	750	
117	1517	12	160	1497.3	16	202	1497.3	20	244	1487.8	24	295	1587	29	0.94	1500	
		8			11			13			16			20	0.63	1000	
		6			8			10			12			15	0.47	750	
117	1722.8	10	160	1700.3	14	202	1700.3	18	244	1689.6	22	295	1802.3	26	0.83	1500	
		7			9			12			14			17	0.56	1000	
		5.2			7.1			9			11			13	0.42	750	
117	1879.4	9.4	160	1854.9	12.8	202	1854.9	16	244	1843.2	19	295	1966.1	24	0.75	1500	
		6.2			8.5			11			13			16	0.50	1000	
		4.7			6.4			8			10			12	0.38	750	
117	2140.4	8.3	160	2112.5	11.4	202	2112.5	14	244	2099.2	17	295	2239.2	21	0.67	1500	
		5.6			7.6			10			12			14	0.45	1000	
		4.2			5.7			7.2			8.7			10.5	0.33	750	
117	2406.1	7.5	160	2374.8	10.2	202	2374.8	12.9	244	2359.9	16	295	2517.2	19	0.60	1500	
		5.0			6.8			10.4			12.6			15.1	0.40	1000	
		3.7			5.1			7.8			9.4			11.3	0.30	750	
117	2652.9	6.7	160	2618.4	9.1	202	2618.4	12	244	2601.9	14	295	2775.4	17	0.54	1500	
		4.5			6.1			7.7			9.3			11.2	0.36	1000	
		3.3			4.6			5.8			7.0			8.4	0.27	750	
117	3023.1	5.9	160	2983.8	8.1	202	2983.8	10.2	244	2965	12	295	3162.6	15	0.48	1500	
		4.0			5.4			6.8			8.3			10	0.32	1000	
		3.0			4.1			5.1			6.2			7.5	0.24	750	
117	3502.4	5.3	160	3428.7	7.2	202	3428.7	9.1	244	3435	11	295	3664	13	0.42	1500	
		3.5			4.8			6.1			7.3			8.9	0.28	1000	
		2.6			3.6			4.6			5.5			6.6	0.21	750	
117	4057.6	4.7	160	3972.2	6.4	202	3972.2	8.1	244	3979.6	9.7	295	4244.9	12	0.38	1500	
		3.1			4.3			5.4			6.5			7.9	0.25	1000	
		2.3			3.2			4.0			4.9			5.9	0.19	750	

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P3K传动能力表:(i=560~4000)(续前页) P3KSelection table: (i=560~4000)

n <sub>1</sub> (r/min)	n <sub>2N</sub> (r/min)	i <sub>N</sub>	P3-20			P3-21			P3-22			P3-23			P3-24			P3-25				
			T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)		
1500	2.68	560	354	580.56	101	392	580.56	112	450	580.56	128	513	593.88	146	592	593.88	169	684	593.88	195		
1000	1.79				67			75			86			98			113			130	150	174
750	1.34				51			56			64			73			84			98	116	137
1500	2.38	630	354	656.22	90	392	656.22	99	450	656.22	114	513	667.44	130	592	667.44	150	684	667.44	174		
1000	1.59				60			66			76			87			100			116	137	
750	1.19				45			50			57			65			75			87	103	121
1500	2.11	710	354	718.27	80	392	718.27	88	450	718.27	101	513	730.55	115	592	730.55	133	684	730.55	154		
1000	1.41				53			59			68			77			89			103	121	
750	1.06				40			44			51			58			67			77	91	108
1500	1.88	800	354	797.23	71	392	797.23	78	450	797.23	90	513	810.87	102	592	810.87	118	684	810.87	137		
1000	1.25				47			52			60			68			79			91	108	
750	0.94				35			39			45			51			59			68	81	96
1500	1.67	900	354	901.13	63	392	901.13	70	450	901.13	80	513	916.54	91	592	916.54	105	684	916.54	121		
1000	1.11				42			46			53			61			70			81	96	
750	0.83				31			35			40			46			53			61	73	87
1500	1.50	1000	354	1000.4	57	392	1000.4	63	450	1000.4	72	513	1004.7	82	592	1004.7	95	684	1004.7	109		
1000	1.00				38			42			48			55			63			73	85	
750	0.75				28			31			36			41			47			55	65	78
1500	1.34	1120	354	1149.5	51	392	1149.5	56	450	1149.5	64	513	1169.1	73	592	1169.1	84	684	1169.1	98		
1000	0.89				34			37			43			49			56			65	78	
750	0.67				25			28			32			37			42			49	58	70
1500	1.20	1250	354	1270.5	45	392	1270.5	50	450	1270.5	58	513	1292.2	66	592	1292.2	76	684	1292.2	87		
1000	0.80				30			33			38			44			50			58	70	
750	0.60				23			25			29			33			38			44	52	63
1500	1.07	1400	354	1378.2	40	392	1378.2	45	450	1378.2	51	513	1401.8	59	592	1401.8	68	684	1401.8	81		
1000	0.71				27			30			34			39			45			52	63	
750	0.54				20			22			26			29			34			39	47	58
1500	0.94	1600	354	1587	35	392	1587	39	450	1587	45	513	1614.2	51	592	1614.2	59	684	1614.2	71		
1000	0.63				24			26			30			34			39			46	56	
750	0.47				18			20			22			26			30			34	41	50
1500	0.83	1800	354	1802.3	31	392	1802.3	35	450	1802.3	40	513	1850.4	46	592	1850.4	53	684	1850.4	68		
1000	0.56				21			23			27			30			35			41	50	
750	0.42				16			17			20			23			26			30	36	44
1500	0.75	2000	354	1966.1	28	392	1966.1	31	450	1966.1	36	513	1999.7	41	592	1999.7	47	684	1999.7	58		
1000	0.5																					

# P系列行星齿轮减速机 PLANETARY GEARBOX

传动能力表  
Selection Table

P3K传动能力表:(i=560~4000)(续前页) P3KSelection table: (i=560~4000)

P3-26			P3-27			P3-28			P3-29			P3-30			P3-31-P3-34			i <sub>n</sub>	n <sub>2N</sub> (r/min)	n <sub>1</sub> (r/min)
T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)	T <sub>2N</sub> (kN·m)	i <sub>ex</sub>	P <sub>1N</sub> (kW)			
763	593.88	218	852	580.56	243	950	580.56	271	1060	580.56	303	1200	580.56	342				560	2.68	1500
		145		162				181			202			228					1.79	1000
		109		122				136			151			171					1.34	750
763	667.44	194	852	656.22	216	950	656.22	241	1060	656.22	269	1200	656.22	304				630	2.38	1500
		129		144				161			179			203					1.59	1000
		97		108				121			134			152					1.19	750
763	730.55	175	852	718.27	192	950	718.27	214	1060	718.27	239	1200	718.27	270				710	2.11	1500
		115		128				143			159			180					1.41	1000
		86		96				107			119			135					1.06	750
763	810.87	152	852	797.23	170	950	797.23	190	1060	797.23	212	1200	797.23	240				800	1.88	1500
		102		113				127			141			160					1.25	1000
		76		85				95			106			120					0.94	750
763	916.54	136	852	901.13	151	950	901.13	169	1060	901.13	188	1200	901.13	213				900	1.67	1500
		90		101				112			125			142					1.11	1000
		68		76				84			94			107					0.83	750
763	1004.7	122	852	987.8	136	950	987.8	152	1060	987.8	169	1200	987.8	192				1000	1.50	1500
		81		91				101			113			128					1.00	1000
		61		68				76			85			96					0.75	750
763	1169.1	109	852	1149.5	122	950	1149.5	136	1060	1149.5	151	1200	1149.5	171				1120	1.34	1500
		73		81				90			101			114					0.86	1000
		54		61				68			76			86					0.67	750
763	1992.2	98	852	1270.5	109	950	1270.5	121	1060	1270.5	136	1200	1270.5	153				1250	1.20	1500
		65		73				81			90			102					0.80	1000
		49		54				61			68			77					0.60	750
763	1401.8	87	852	1459.5	97	950	1459.5	108	1060	1459.5	121	1200	1459.5	137				1400	1.07	1500
		58		65				72			81			91					0.71	1000
		44		49				54			61			68					0.54	750
763	1614.2	76	852	1587	85	950	1587	95	1060	1587	106	1200	1587	120				1600	0.94	1500
		51		57				63			71			80					0.63	1000
		38		43				47			53			60					0.47	750
763	1850.4	68	852	1819.3	76	950	1819.3	84	1060	1819.3	94	1200	1819.3	107				1800	0.83	1500
		45		50				56			63			71					0.56	1000
		34		38				42			47			53					0.42	750
763	1999.7	61	852	1966.1	68	950	1966.1	76	1060	1966.1	85	1200	1966.1	96				2000	0.75	1500
		41		45				51			56			64					0.50	1000
		30		34				38			42			48					0.38	750
763	2277.5	54	852	2239.2	61	950	2239.2	68	1060	2239.2	76	1200	2239.2	86				2240	0.67	1500
		36		41				45			50			57					0.45	1000
		27		30				34			38			43					0.33	750
763	2560.2	49	852	2517.2	54	950	2517.2	61	1060	2517.2	68	1200	2517.2	77				2500	0.60	1500
		33		36				40			45			51					0.40	1000
		24		27				30			34			38					0.30	750
763	2822.8	44	852	2775.4	49	950	2775.4	54	1060	2775.4	61	1200	2775.4	68				2800	0.54	1500
		29		32				36			40			45					0.36	1000
		22		24				27			30			34					0.27	750
763	3216.7	39	852	3162.6	43	950	3162.6	48	1060	3162.6	54	1200	3162.6	61				3150	0.48	1500
		26		29				32			36			41					0.32	1000
		19		22				24			27			30					0.24	750
763	3726.7	34	852	3664	38	950	3664	43	1060	3664	48	1200	3664	54				3550	0.42	1500
		23		26				29			32			36					0.28	1000
		17		19				21			24			27					0.21	750
763	4282.4	30	852	4244.9	34	950	4244.9	38	1060	4244.9	42	1200	4244.9	48				4000	0.38	1500
		20		23				25			28			32					0.25	1000
		15		17				19			21			24					0.19	750

# P系列行星齿轮减速机 PLANETARY GEARBOX

额定热容量  
Thermal Capacity

1. P2N.热容量(卧式安装):

风速 P <sub>G1</sub>	机座号																	
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	
狭小空间安装 风速≥0.5m/s	21	26	32	42	49	65	75	92	100	119	142	174	201	242	278	326	366	
大厅或大车间安装 风速≥1.4m/s	29	37	45	60	69	92	106	130	147	169	201	246	285	343	406	462	519	
室外安装 风速≥3.7m/s	39	50	60	80	93	125	143	175	191	228	272	333	386	464	505	626	702	

2. P2S.热容量(卧式安装):

风速 P <sub>G1</sub>	机座号																	
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	
狭小空间安装 风速≥0.5m/s	15	20	24	32	36	49	56	69	75	89	106	130	151	182	215	245	275	
大厅或大车间安装 风速≥1.4m/s	22	28	34	45	52	69	79	97	106	127	151	185	214	257	305	347	389	
室外安装 风速≥3.7m/s	29	38	45	60	70	94	107	132	143	171	204	250	289	348	412	469	527	

3. P3N.热容量(卧式安装):

风速 P <sub>G1</sub>	机座号																	
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	
狭小空间安装 风速≥0.5m/s	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	228	256	
大厅或大车间安装 风速≥1.4m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	323	362	
室外安装 风速≥3.7m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	437	490	

4. P3S.热容量(卧式安装):

风速 P <sub>G1</sub>	机座号																	
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	
狭小空间安装 风速≥0.5m/s	12	15	18	24	28	40	43	53	57	69	82	100	116	139	165	188	211	
大厅或大车间安装 风速≥1.4m/s	17	21	26	34	40	53	61	75	81	97	116	142	164	197	234	166	298	
室外安装 风速≥3.7m/s	23	29	35	46	54	72	82	101	110	131	156	192	222	267	316	360	404	

## P系列行星齿轮减速机 PLANETARY GEARBOX

### 额定热容量 Thermal Capacity

#### 5. P2L.热容量(卧式安装):

风速 PG1	机座号															
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31-34
狭小空间安装 风速≥0.5m/s	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	按客户 要求供货
大厅或大车间安装 风速≥1.4m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	
室外安装 风速≥3.7m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	

#### 6. P2K.热容量(卧式安装):

风速 PG1	机座号									
	9	10	11	12	13	14	16	17	18	19/20
狭小空间安装 风速≥0.5m/s	12	15	18	24	28	38	44	53	58	69
大厅或大车间安装 风速≥1.4m/s	17	22	26	35	40	54	62	76	82	98
室外安装 风速≥3.7m/s	23	29	35	47	54	73	83	102	111	133

#### 7. P3K.热容量(卧式安装):

风速 PG1	机座号															
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/34
狭小空间安装 风速≥0.5m/s	10	12	15	20	23	31	35	43	47	56	67	82	95	109	125	按客户 要求供货
大厅或大车间安装 风速≥1.4m/s	14	17	21	28	33	44	50	61	66	79	95	116	106	125	144	
室外安装 风速≥3.7m/s	19	24	28	38	44	59	67	82	90	107	128	157	166	195	225	

注: 以上表格数据均为卧式热容量, 其他安装型式请来电咨询。

## P系列行星齿轮减速机 PLANETARY GEARBOX

### 额定热容量 Thermal Capacity

#### 1. P2N. thermal capacity ( horizontal assembly):

Wind speed PG1	Type no																
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small room to installation Wind speed≥0.5m/s	21	26	32	42	49	65	75	92	100	119	142	174	201	242	278	326	366
Big working room installation Wind speed≥1.4m/s	29	37	45	60	69	92	106	130	147	169	201	246	285	343	406	462	519
Outdoor installation Wind speed≥3.7m/s	39	50	60	80	93	125	143	175	191	228	272	333	386	464	505	626	702

#### 2. P2S. thermal capacity ( horizontal assembly):

Wind speed PG1	Type no																
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small room to installation Wind speed≥0.5m/s	15	20	24	32	36	49	56	69	75	89	106	130	151	182	215	245	275
Big working room installation Wind speed≥1.4m/s	22	28	34	45	52	69	79	97	106	127	151	185	214	257	305	347	389
Outdoor installation Wind speed≥3.7m/s	29	38	45	60	70	94	107	132	143	171	204	250	289	348	412	469	527

#### 3. P3N. thermal capacity ( horizontal assembly):

Wind speed PG1	Type no																
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small room to installation Wind speed≥0.5m/s	14	18	22	29	34	46	52	64	70	83	99	121	241	169	200	228	256
Big working room installation Wind speed≥1.4m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	323	362
Outdoor installation Wind speed≥3.7m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	437	490

#### 4. P3S. thermal capacity ( horizontal assembly):

Wind speed PG1	Type no																
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small room to installation Wind speed≥0.5m/s	12	15	18	24	28	40	43	53	57	69	82	100	116	139	165	188	211
Big working room installation Wind speed≥1.4m/s	17	21	26	34	40	53	61	75	81	97	116	142	164	197	234	166	298
Outdoor installation Wind speed≥3.7m/s	23	29	35	46	54	72	82	101	110	131	156	192	222	267	316	360	404

额定热容量  
Thermal Capacity

5. P2L. thermal capacity ( horizontal assembly):

Wind speed	Type no		P <sub>G1</sub>													
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31-34
Small room to installation Wind speed ≥ 0.5m/s	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	According to customer requirements supply commodity
Big working room installation Wind speed ≥ 1.4m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	
Outdoor installation Wind speed ≥ 3.7m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	

6. P2K. thermal capacity ( horizontal assembly):

Wind speed	Type no		P <sub>G1</sub>							
	9	10	11	12	13	14	16	17	18	19/20
Small room to installation Wind speed ≥ 0.5m/s	12	15	18	24	28	38	44	53	58	69
Big working room installation Wind speed ≥ 1.4m/s	17	22	26	35	40	54	62	76	82	98
Outdoor installation Wind speed ≥ 3.7m/s	23	29	35	47	54	73	83	102	111	133

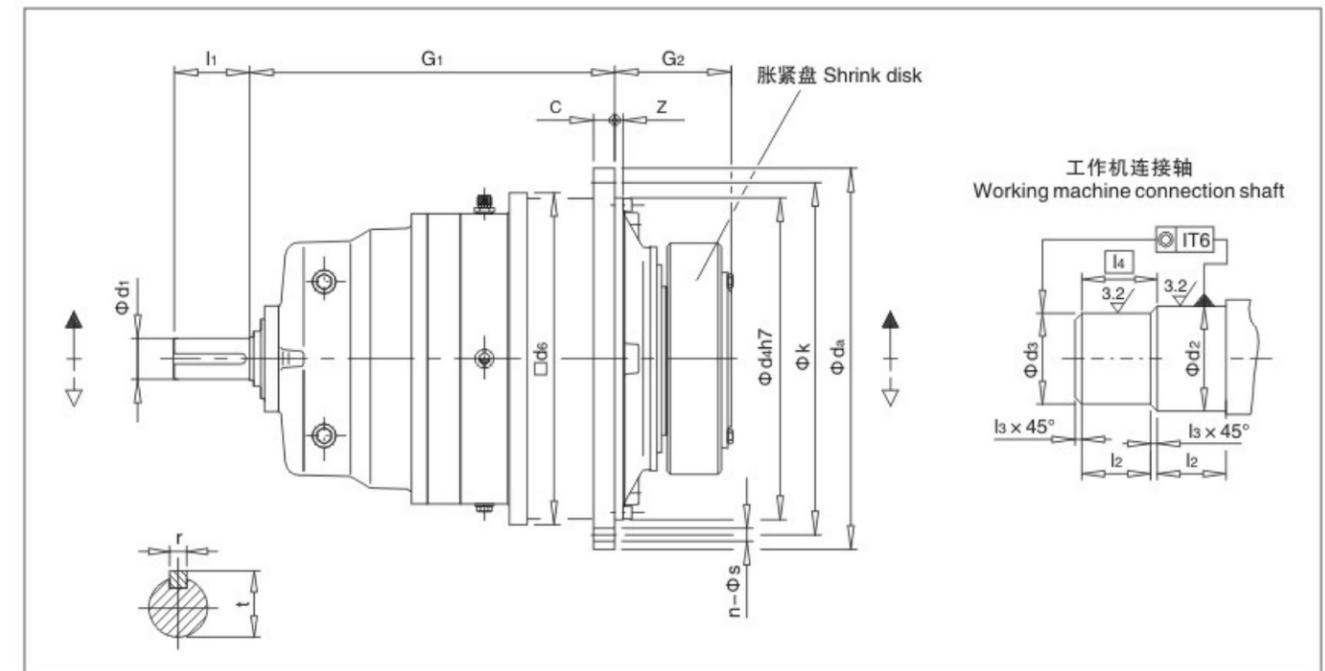
6. P3K. thermal capacity ( horizontal assembly):

Wind speed	Type no		P <sub>G1</sub>													
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/34
Small room to installation Wind speed ≥ 0.5m/s	10	12	15	20	23	31	35	43	47	56	67	82	95	109	125	According to customer requirements supply commodity
Big working room installation Wind speed ≥ 1.4m/s	14	17	21	28	33	44	50	61	66	79	95	116	106	125	144	
Outdoor installation Wind speed ≥ 3.7m/s	19	24	28	38	44	59	67	82	90	107	128	157	166	195	225	

Note: the above table data are horizontal heat capacity, the other mounting type call advisory

外形尺寸图表  
Out Dimensions Table

P2NA i<sub>N</sub> = 25...40



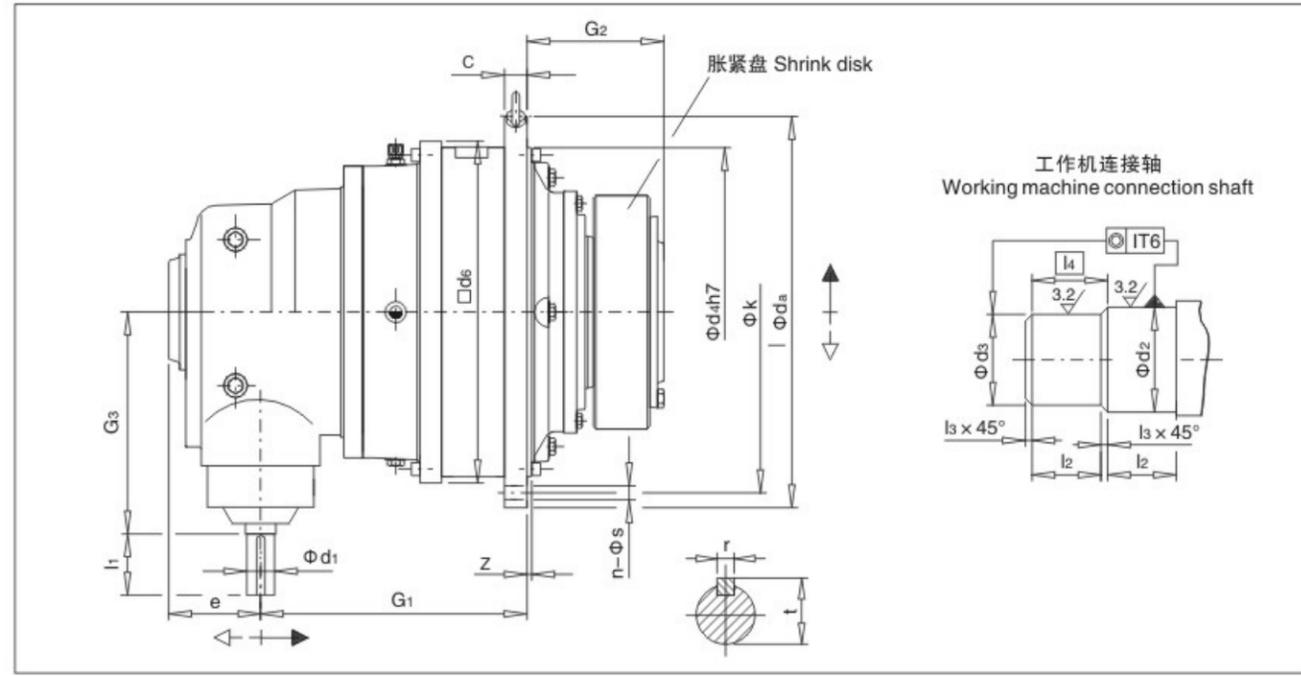
P2NA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size				d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	c	d <sub>a</sub>	d <sub>4</sub>	d <sub>6</sub>	G <sub>1</sub>	G <sub>2</sub>	k	z	法兰孔 尺寸 Flange hole	重量 Weight (kg)	油量 Oil liter (l)	
		d <sub>1</sub>	l <sub>1</sub>	r	t																	n
9	22000	55	90	16	59	120	115	65	2.5	67.5	24	428	350	356	469	165	388	6 ± 1.5	18	24	145	6
10	31000	55	90	16	59	130	125	70	2.5	72.5	28	472	394	400	489	174	436	6 ± 1.5	18	28	195	8
11	42000	70	120	20	74.5	140	135	82.5	2.5	85	32	525	425	436	579	204	485	6 ± 1.5	22	20	280	12
12	60000	70	120	20	74.5	160	155	90	2.5	92.5	34	605	495	510	593	224	555	9 ± 1.5	26	20	425	16
13	83000	80	140	25	85	180	175	95	2.5	97.5	39	645	535	554	714	241	595	11 ± 1.5	26	24	540	20
14	117000	80	140	25	85	210	205	105	2.5	107.5	42	720	610	629	737	278	665	9	26	32	805	32
16	160000	95	160	25	100	230	225	110	2.5	112.5	44	770	660	680	851	285	715	10	26	36	1030	40
17	202000	95	160	25	100	250	245	120	2.5	122.5	50	895	750	775	877	294	830	10	33	24	1500	56
18	244000	110	180	28	116	260	255	120	2.5	122.5	50	930	785	815	1006	303	865	10	33	32	1900	66
19	295000	110	180	28	116	280	275	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2000	82
20	354000	110	180	28	116	300	295	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2100	75
21	392000	120	210	32	127	310	305	152	2.5	154.5	62	1115	935	960	1046	354	1025	24	39	32	2650	110
22	450000	120	210	32	137	330	325	152	2.5	154.5	62	1115	935	930	1046	354	1025	24	39	32	2800	95
23	513000	130	210	32	137	350	345	164	2.5	166.5	68	1210	1025	1056	1150	380	1120	28	39	36	3450	150
24	592000	130	210	32	137	360	355	164	2.5	166.5	68	1210	1025	1056	1150	380	1120	28	39	36	3900	125
25	684000	140	240	36	148	380	375	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	4750	190
26	763000	140	240	36	148	400	395	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	5150	160
27	852000	150	240	36	158	430	425	191	2.5	193.5	81	1460	1215	1248	1379	453	1345	31	52	32	61000	245
28	950000	150	240	36	158	450	445	191	2.5	193.5	81	1460	1215	1248	1379	453	1345	31	52	32	6550	205
29	1060000	160	270	40	169	460	450	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	7800	305
30	1200000	160	270	40	169	480	470	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	8300	255
31	1330000	170	270	40	179	480	470	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10200	380
32	1500000	170	270	40	179	510	500	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10700	315
33	1680000	180	310	40	179	530	520	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	12350	460
34	1920000	180	310	45	190	570	560	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	13150	380

- 注: 1 当d<sub>1</sub> ≤ 100时公差为m6, 当d<sub>1</sub> > 100时公差为n6;  
 2 当尺寸d<sub>2</sub>或d<sub>3</sub> ≤ 160时, 公差为h6;  
 当尺寸d<sub>2</sub>或d<sub>3</sub> > 160时, 公差为g6;  
 3 重量不包括胀紧盘和润滑油。  
 1. When d<sub>1</sub> ≤ 100, tolerance is m6, d<sub>1</sub> > 100, tolerance is n6;  
 2. When d<sub>2</sub> or d<sub>3</sub> ≤ 160, tolerance is h6;  
 When d<sub>2</sub> or d<sub>3</sub> > 16, tolerance is g6;  
 3. Weight is not including shrink disk and fabrication oil.

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

P2LA  $i_N = 31.5 \dots 100$



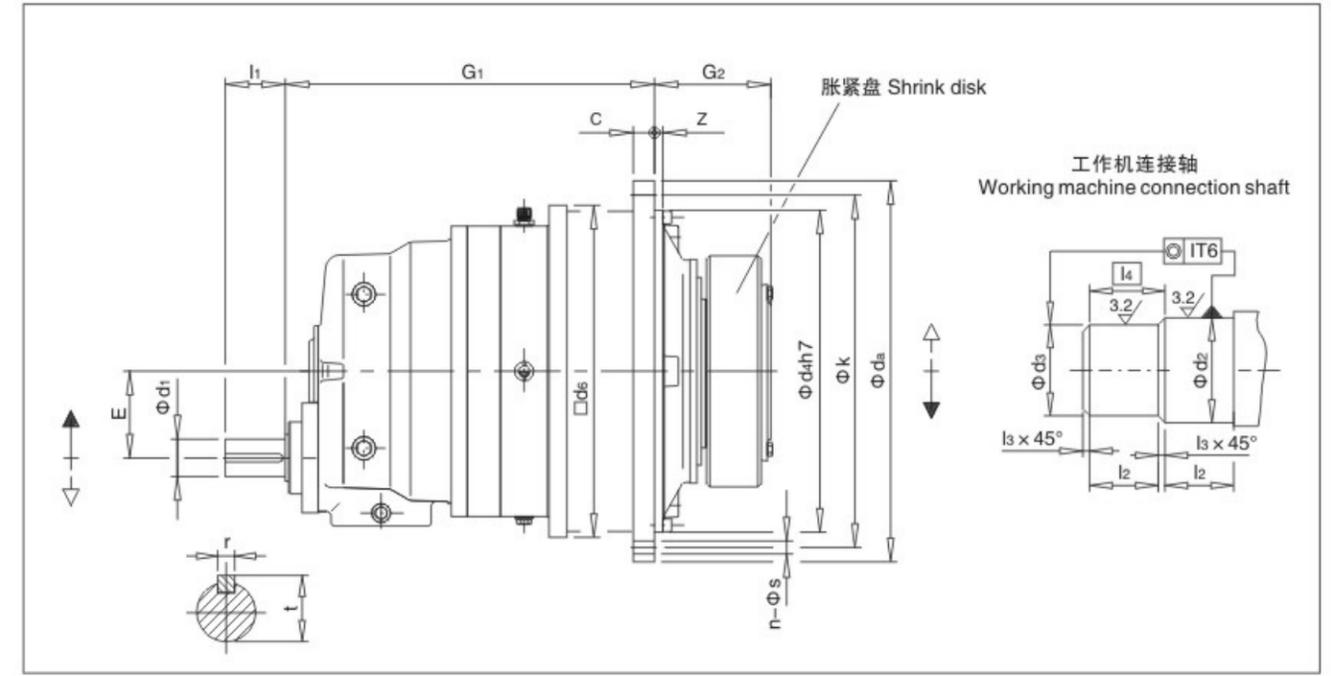
P2LA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size								d2	d3	l2	l3	l4	c	da	d4	d6	e	G1	G2	G3	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)
		$i_N \leq 90$				$i_N \geq 100$																			s	n		
		d1	l1	r	t	d1	l1	r	t																			
9	22000	50	100	14	53.5	40	80	12	43	130	115	65	2.5	67.5	24	428	350	356	185	425	165	305	388	6 ± 1.5	18	24	159	6
10	31000	50	100	14	53.5	40	80	12	43	130	125	70	2.5	72.5	28	472	394	400	185	445	174	305	436	6 ± 1.5	18	28	215	8
11	42000	60	110	18	64	50	100	14	53.5	140	135	82.5	2.5	85	32	525	425	436	210	501	204	350	485	6 ± 1.5	22	20	310	12
12	60000	60	110	18	64	50	100	14	53.5	160	155	90	2.5	92.5	34	605	495	510	210	515	224	350	555	9 ± 1.5	26	20	470	16
13	83000	75	135	20	79.5	60	110	18	64	180	175	95	2.5	97.5	39	645	535	554	250	619	241	415	595	11 ± 1.5	26	24	595	20
14	117000	75	135	20	79.5	60	110	18	64	210	205	105	2.5	107.5	42	720	610	629	250	642	278	415	665	9	26	32	890	32
16	160000	85	165	22	90	70	140	20	74.5	230	225	110	2.5	112.5	44	770	660	680	295	705	285	490	715	10	26	36	1137	40
17	202000	85	165	22	90	70	140	20	74.5	250	245	120	2.5	122.5	50	895	750	775	295	731	294	490	830	10	33	24	1660	56
18	244000	95	165	25	100	75	140	20	79.5	260	255	120	2.5	122.5	50	930	785	815	350	882	303	605	865	10	33	32	2100	66
19	295000	95	165	25	100	75	140	20	79.5	280	275	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2200	82
20	354000	95	165	25	100	75	140	20	79.5	300	295	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2300	75
21	392000	115	205	32	122	90	170	25	95	310	305	152	2.5	154.5	62	1115	935	960	400	996	354	700	1025	24	39	32	2930	110
22	450000	115	205	32	122	90	170	25	95	330	325	152	2.5	154.5	62	1115	935	930	400	996	354	700	1025	24	39	32	3100	95
23	513000	115	205	32	122	90	170	25	95	350	345	164	2.5	166.5	68	1210	1025	1056	400	1055	380	700	1120	28	39	36	3800	150
24	592000	115	205	32	122	90	170	25	95	360	355	164	2.5	166.5	68	1210	1025	1056	400	1055	380	700	1120	28	39	36	4300	125
25	684000	140	245	36	148	110	210	28	116	380	375	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	52500	190
26	763000	140	245	36	148	110	210	28	116	400	395	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	5660	160
27	852000	140	245	36	148	110	210	28	116	430	425	191	2.5	193.5	81	1460	1215	1248	475	1272	453	835	1345	31	52	32	6680	245
28	950000	140	245	36	148	110	210	28	116	450	445	191	2.5	193.5	81	1460	1215	1248	475	1272	453	835	1345	31	52	32	7180	205
29	1060000	150	245	40	169	115	210	32	122	460	450	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	8500	305
30	1200000	150	245	40	169	115	210	32	122	480	470	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	9070	255
31-34	按客户要求供货 According to customer requirements supply commodity																											

注: 1 当  $d1 \leq 100$  时公差为  $m6$ , 当  $d1 > 100$  时公差为  $n6$ ;  
2 当尺寸  $d2$  或  $d3 \leq 160$  时, 公差为  $h6$ ;  
当尺寸  $d2$  或  $d3 > 160$  时, 公差为  $g6$ ;  
3 重量不包括胀紧盘和润滑油。  
1. When  $d1 \leq 100$ , tolerance is  $m6$ ,  $d1 > 100$ , tolerance is  $n6$ ;  
2. When  $d2$  or  $d3 \leq 160$ , tolerance is  $h6$ ;  
When  $d2$  or  $d3 > 160$ , tolerance is  $g6$ ;  
3. Weight is not including shrink disk and fabrication oil.

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

P2SA  $i_N = 45 \dots 125$



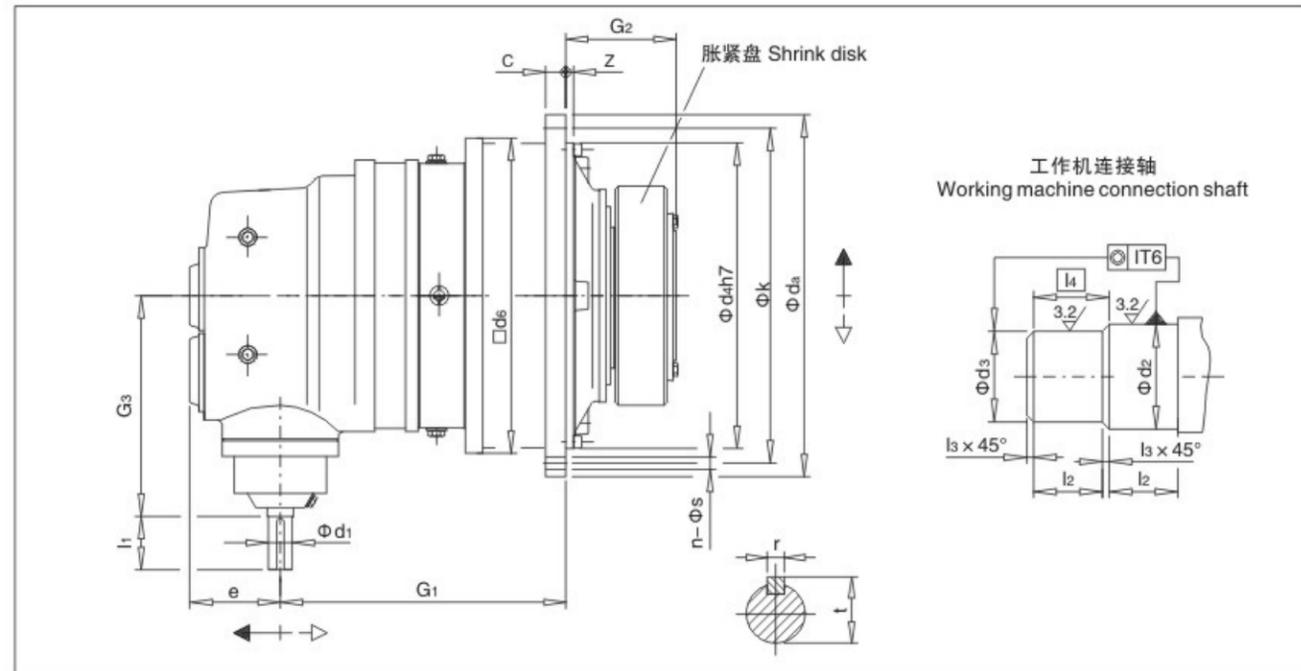
P2SA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size								d2	d3	l2	l3	l4	c	da	d4	d6	E	G1	G2	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)
		d1	l1	r	t	s	n																				
		d1	l1	r	t																						
9	22000	38	60	10	41	120	115	65	2.5	67.5	24	428	350	356	90	469	165	388	6 ± 1.5	18	24	160	6				
10	31000	38	60	10	41	130	125	70	2.5	72.5	28	472	394	400	90	489	174	436	6 ± 1.5	18	28	220	8				
11	42000	55	90	16	59	140	135	82.5	2.5	85	32	525	425	436	115	579	204	485	6 ± 1.5	22	20	310	12				
12	60000	55	90	16	59	160	155	90	2.5	92.5	34	605	495	510	115	593	224	555	9 ± 1.5	26	20	470	16				
13	83000	70	120	20	74.5	180	175	95	2.5	97.5	39	645	535	554	140	714	241	595	11 ± 1.5	26	24	600	20				
14	117000	70	120	20	74.5	210	205	105	2.5	107.5	42	720	610	629	140	737	278	665	9	26	32	900	32				
16	160000	80	140	25	85	230	225	110	2.5	112.5	44	770	660	680	170	851	285	715	10	26	36	1150	40				
17	202000	80	140	25	85	250	245	120	2.5	122.5	50	895	750	775	170	877	294	830	10	33	24	1650	56				
18	244000	90	160	25	95	260	255	120	2.5	122.5	50	930	785	815	200	1006	303	865	10	33	32	1950	66				
19	295000	90	160	25	95	280	275	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2400	82				
20	354000	90	160	25	95	300	295	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2500	75				
21	392000	100	180	28	106	310	305	152	2.5	154.5	62	1115	935	960	230	1076	354	1025	24	39	32	2900	110				
22	450000	100	180	28	106	330	325	152	2.5	154.5	62	1115	935	930	230	1076	354	1025	24	39	32	3100	95				
23	513000	120	210	32	127	350	345	164	2.5	166.5	68	1210	1025	1056	265	1175	380	1120	28	39	36	3800	150				
24	592000	120	210	32	127	360	355	164	2.5	166.5	68	1210	1025	1056	265	1175	380	1120	28	39	36	4100	125				
25	684000	130	210	32	137	380	375	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	4950	190				
26	763000	130	210	32	137	400	395	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	5350	160				
27	852000	140	240	36	148	430	425	191	2.5	193.5	81	1460	1215	1248	320	1429	453	1345	31	52	32	6800	245				
28	950000	140	240	36	148	450	445	191	2.5	193.5	81	1460	1215	1248	320	1429	453	1345	31	52	32	7200	205				
29	1060000	150	240	36	158	460	450	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	8500	305				
30	1200000	150	240	36	158	480	470	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	9000	255				
31	1330000	160	270	40	169	480	470	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	10500	380				
32	1500000	160	270	40	169	510	500	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	11200	315				
33	1680000	170	270	40	179	530	520	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	12700	460				
34	1920000	170	270	40	179	570	560	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	13500	380				

注: 1 当  $d1 \leq 100$  时公差为  $m6$ , 当  $d1 > 100$  时公差为  $n6$ ;  
2 当尺寸  $d2$  或  $d3 \leq 160$

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

P2KA  $i_N = 112...500$



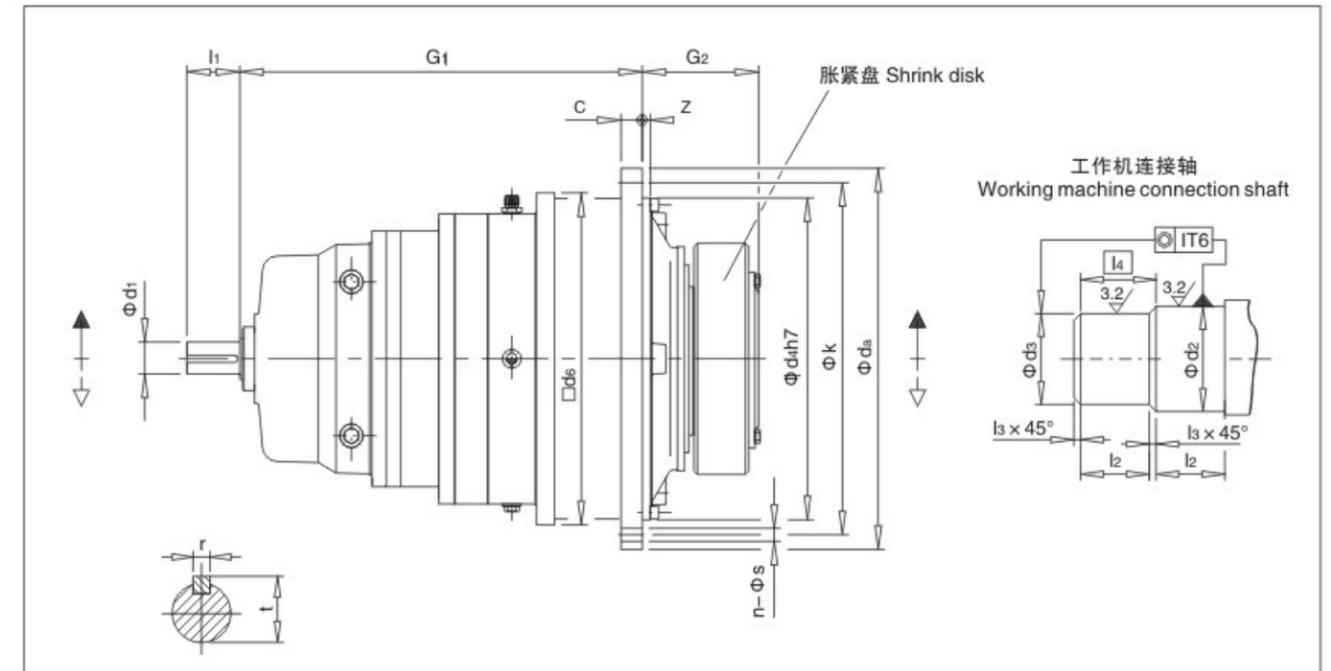
P2KA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size								d2	d3	l2	l3	l4	c	da	d4	d6	e	G1	G2	G3	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)
		$i_N \leq 2000$				$i_N \geq 2240$																			s	n		
		d1	l1	r	t	d1	l1	r	t																			
9	22000	35	70	10	38	30	60	8	33	120	115	65	2.5	67.5	24	428	350	356	119	339	165	320	388	6 ± 1.5	18	24	165	6
10	31000	35	70	10	38	30	60	8	33	130	125	70	2.5	72.5	28	472	394	400	119	359	174	320	436	8 ± 1.5	18	28	227	8
11	42000	45	80	14	48.5	35	60	10	38	140	135	82.5	2.5	85	32	525	425	436	137	419	204	375	485	8 ± 1.5	22	20	320	12
12	60000	45	80	14	48.5	35	60	10	38	160	155	90	2.5	92.5	34	605	495	510	137	433	224	375	555	9 ± 1.5	26	20	464	16
13	83000	50	100	14	53.5	40	80	12	43	180	175	95	2.5	97.5	39	645	535	554	172	518.5	241	445	595	11 ± 1.5	26	24	618	20
14	117000	50	100	14	53.5	40	80	12	43	210	205	105	2.5	107.5	42	720	610	629	172	541.5	278	445	665	9	26	32	927	32
16	160000	60	110	18	64	50	100	14	53.5	230	225	110	2.5	112.5	44	770	660	680	194	632	285	520	715	10	26	36	1184	40
17	202000	60	110	18	64	50	100	14	53.5	250	245	120	2.5	122.5	50	895	750	775	194	658	294	520	830	10	33	24	1700	56
18	244000	75	135	20	79.5	60	110	18	64	260	255	120	2.5	122.5	50	930	785	815	240	741.5	303	615	865	10	33	32	2010	73
19	295000	75	135	20	79.5	60	110	18	64	280	275	135	2.5	137.5	56	980	840	870	240	764.5	327.5	615	915	12	33	36	2470	82
20	354000	75	135	20	79.5	60	110	18	64	300	295	135	2.5	137.5	56	980	840	870	240	764.5	327.5	615	915	12	33	36	2550	75
21-26	按客户要求供货 According to customer requirements supply commodity																											

- 注: 1 当  $d_1 \leq 100$  时公差为 m6, 当  $d_1 > 100$  时公差为 n6;  
2 当尺寸  $d_2$  或  $d_3 \leq 160$  时, 公差为 h6;  
当尺寸  $d_2$  或  $d_3 > 160$  时, 公差为 g6;  
3 重量不包括胀紧盘和润滑油。
1. When  $d_1 \leq 100$ , tolerance is m6,  $d_1 > 100$ , tolerance is n6;  
2. When  $d_2$  or  $d_3 \leq 160$ , tolerance is h6;  
When  $d_2$  or  $d_3 > 160$ , tolerance is g6;  
3. Weight is not including shrink disk and fabrication oil.

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

P3NA  $i_N = 140...280$



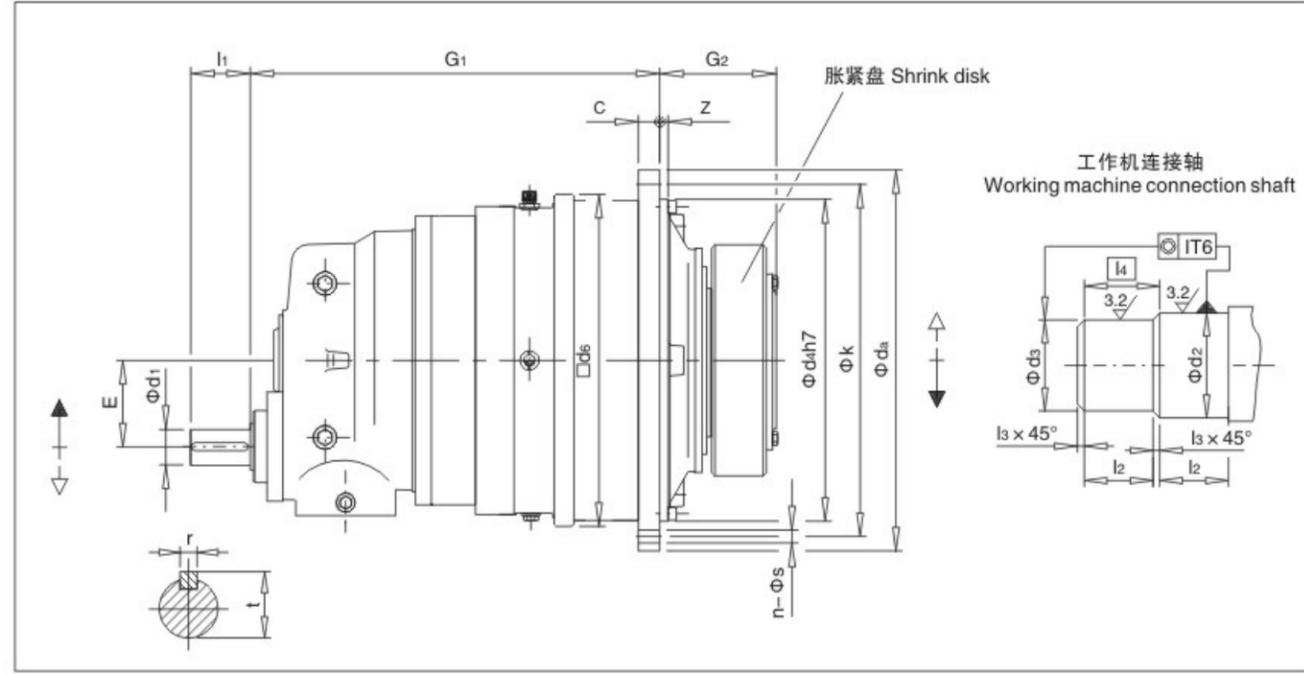
P3NA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size								d2	d3	l2	l3	l4	c	da	d4	d6	E	G1	G2	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)
		d1	l1	r	t	s	n																				
		9	22000	55	90			16	59															120	115		
10	31000	55	90	16	59	130	125	70	2.5	72.5	28	472	394	400	90	585	174	436	6 ± 1.5	18	28	205	9				
11	42000	55	90	16	59	140	135	82.5	2.5	85	32	525	425	436	90	616	204	485	6 ± 1.5	22	20	295	13				
12	60000	55	90	16	59	160	155	90	2.5	92.5	34	605	495	510	90	630	224	555	9 ± 1.5	26	20	447	17				
13	83000	55	90	16	59	180	175	95	2.5	97.5	39	645	535	554	90	688	241	595	11 ± 1.5	26	24	567	21				
14	117000	55	90	16	59	210	205	105	2.5	107.5	42	720	610	629	90	711	278	665	9	26	32	850	33				
16	160000	70	120	20	74.5	230	225	110	2.5	112.5	44	770	660	680	115	853	285	715	10	26	36	1085	42				
17	202000	70	120	20	74.5	250	245	120	2.5	122.5	50	895	750	775	115	879	294	830	10	33	24	1580	60				
18	244000	80	140	25	85	260	255	120	2.5	122.5	50	930	785	815	140	1013.5	303	865	10	33	32	2000	70				
19	295000	80	140	25	85	280	275	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2100	85				
20	354000	80	140	25	85	300	295	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2200	75				
21	392000	80	140	25	85	310	305	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	2785	115				
22	450000	80	140	25	85	330	325	152	2.5	154.5	62	1115	935	930	140	1093	354	1025	24	39	32	2950	105				
23	513000	95	160	25	100	350	345	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	3625	155				
24	592000	95	160	25	100	360	355	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	4100	135				
25	684000	95	160	25	100	380	375	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5000	195				
26	763000	95	160	25	100	400	395	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5400	170				
27	852000	110	180	28	116	430	425	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	6400	250				
28	950000	110	180	28	116	450	445	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	6875	220				
29	1060000	110	180	28	116	460	450	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8190	310				
30	1200000	110	180	28	116	480	480	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8715	280				
31	1330000	120	210	32	127	480	480	232	5	237.0	94	1665	1400	1443	230	1585	540	1545	36	62	32	10700	390				
32	1500000	120	210	32	127	510	510	232	5	237.0	94	1665	1400	1443	230	1585	540	1545	36	62	32	11200	360				
33	1680000	130	210	32	137	530	530	242	5	247.0	100	1755	1495	1536	265	1710	573	1635	36	62	36	12950	470				
34	1920000	130	210	32	137	570	570	242	5	247.0	100	1755	1495	1536	265	1710	573	1635	36	62	36	13800	430				

- 注: 1 当  $d_1 \leq 100$  时公差为 m6, 当  $d_1 > 100$  时公差为 n6;  
2 当尺寸  $d_2$  或  $d_3 \leq 160$  时, 公差为 h6;  
当尺寸  $d_2$  或  $d_3 > 160$  时, 公差为 g6;  
3 重量不包括胀紧盘和润滑油。
1. When  $d_1 \leq 100$ , tolerance is m6,  $d_1 > 100$ , tolerance is n6;  
2. When  $d_2$  or  $d_3 \leq 160$ , tolerance is h6;  
When  $d_2$  or  $d_3 > 160$ , tolerance is g6;  
3. Weight is not including shrink disk and fabrication oil.

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

P3SA  $i_N = 280 \dots 900$



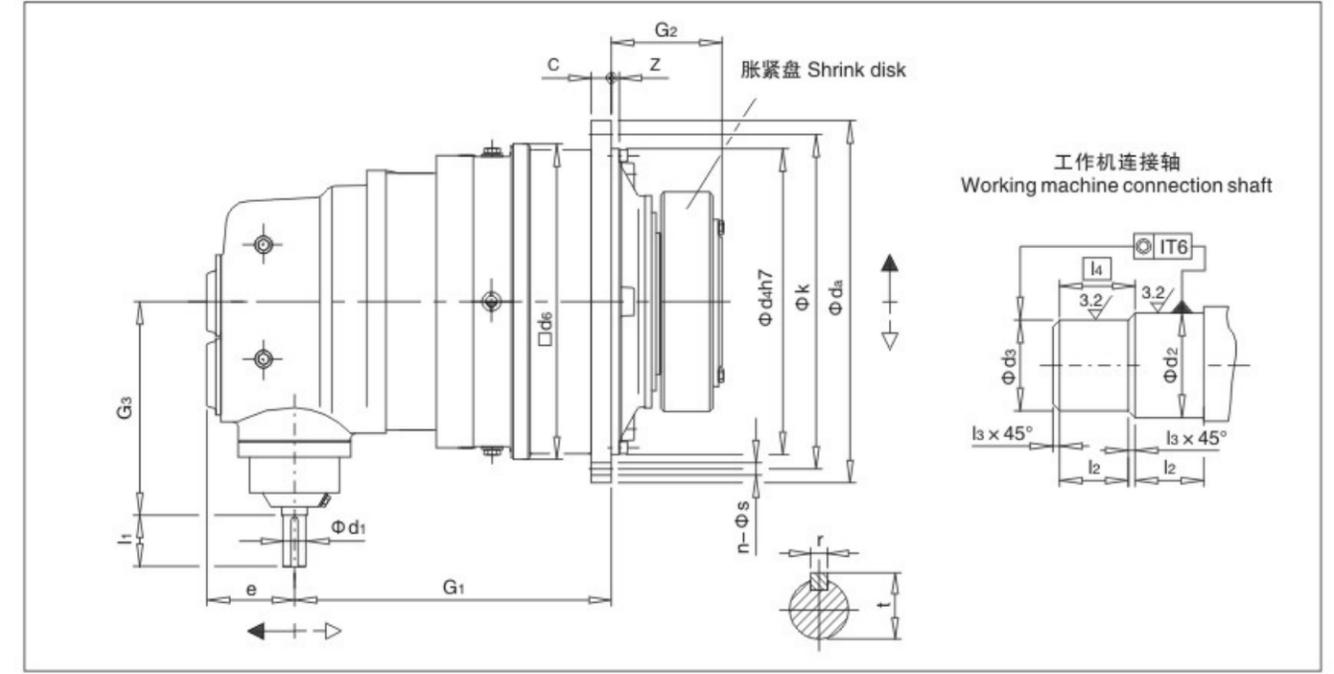
P3SA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size				d2	d3	l2	l3	l4	c	da	d4	d6	E	G1	G2	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)
		d1	l1	r	t															s	n		
9	22000	38	60	10	41	120	115	65	2.5	67.5	24	428	350	356	90	565	165	388	6 ± 1.5	18	24	170	7
10	31000	38	60	10	41	130	125	70	2.5	72.5	28	472	394	400	90	585	174	436	8 ± 1.5	18	28	230	9
11	42000	38	60	10	41	140	135	82.5	2.5	85	32	525	425	436	90	616	204	485	8 ± 1.5	22	20	310	13
12	60000	38	60	10	41	160	155	90	2.5	92.5	34	605	495	510	90	500	224	555	9 ± 1.5	26	20	160	17
13	83000	38	60	10	41	180	175	95	2.5	97.5	39	645	535	554	90	568	241	595	11 ± 1.5	26	24	584	21
14	117000	38	60	10	41	210	205	105	2.5	107.5	42	720	610	629	90	711	278	665	9	26	32	875	33
16	160000	55	90	16	59	230	225	110	2.5	112.5	44	770	660	680	115	853	285	715	10	26	36	1115	42
17	202000	55	90	16	59	250	245	120	2.5	122.5	50	895	750	775	115	879	294	830	10	33	24	1625	60
18	244000	70	120	20	74.5	260	255	120	2.5	122.5	50	930	785	815	140	1013.5	303	865	10	33	32	2060	70
19	295000	70	120	20	74.5	280	275	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2160	85
20	354000	70	120	20	74.5	300	295	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2260	75
21	392000	70	120	20	74.5	310	305	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	2870	115
22	450000	70	120	20	74.5	330	325	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	3040	105
23	513000	80	140	25	85	350	345	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	3730	155
24	592000	80	140	25	85	360	355	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	4220	135
25	684000	80	140	25	85	380	375	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5150	195
26	763000	80	140	25	85	400	395	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5560	170
27	852000	90	160	25	95	430	425	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	6580	250
28	950000	90	160	25	95	450	445	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	7080	220
29	1060000	90	160	25	95	460	450	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8400	310
30	1200000	90	160	25	95	480	470	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8970	280
31	1330000	100	180	28	100	480	470	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11000	390
32	1500000	100	180	28	106	510	500	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11500	360
33	1680000	120	210	32	127	530	520	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	13300	470
34	1920000	120	210	32	127	570	560	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	14200	430

注: 1 当  $d1 \leq 100$  时公差为 m6, 当  $d1 > 100$  时公差为 n6;  
2 当尺寸  $d2$  或  $d3 \leq 160$  时, 公差为 h6;  
当尺寸  $d2$  或  $d3 > 160$  时, 公差为 g6;  
3 重量不包括胀紧盘和润滑油。  
1. When  $d1 \leq 100$ , tolerance is m6,  $d1 > 100$ , tolerance is n6;  
2. When  $d2$  or  $d3 \leq 160$ , tolerance is h6;  
When  $d2$  or  $d3 > 160$ , tolerance is g6;  
3. Weight is not including shrink disk and fabrication oil.

# P系列行星齿轮减速机 PLANETARY GEARBOX

外形尺寸图表  
Out Dimensions Table

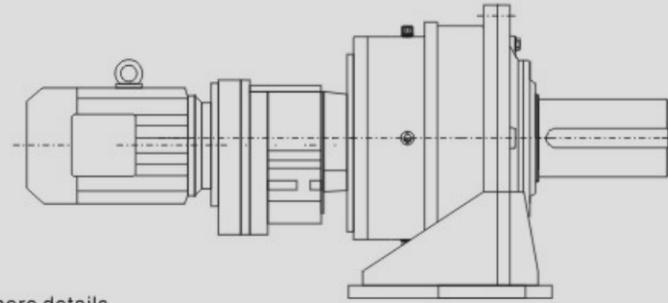
P3KA  $i_N = 560 \dots 4000$



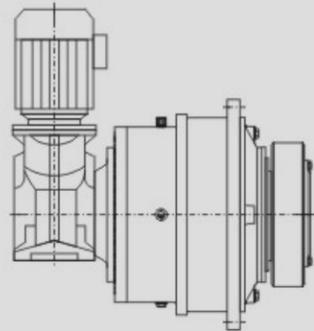
P3KA 机座号 Type No	额定输出 扭矩 Nominal output torque T2N (N·M)	输入轴尺寸 Input shaft size				d2	d3	l2	l3	l4	c	da	d4	d6	e	G1	G2	G3	k	z	法兰孔 尺寸 Flange hole		重量 Weight (kg)	油量 Oil liter (l)				
		d1	l1	r	t																s	n						
																									s	n		
9	22000	35	70	10	38	30	60	8	33	120	115	65	2.5	67.5	24	428	350	356	119	435	165	320	388	6 ± 1.5	18	24	180	7
10	31000	35	70	10	38	30	60	8	33	130	125	70	2.5	72.5	28	472	394	400	119	455	174	320	436	8 ± 1.5	18	28	240	9
11	42000	35	70	10	38	30	60	8	33	140	135	82.5	2.5	85	32	525	425	436	119	486	204	320	485	8 ± 1.5	22	20	315	15
12	60000	35	70	10	38	30	60	8	33	160	155	90	2.5	92.5	34	605	495	510	119	500	224	320	555	9 ± 1.5	26	20	470	20
13	83000	35	70	10	38	30	60	8	33	180	175	95	2.5	97.5	39	645	535	554	119	568	241	320	595	11 ± 1.5	26	24	595	21
14	117000	35	70	10	38	30	60	8	33	210	205	105	2.5	107.5	42	720	610	629	119	581	278	320	665	9	26	32	890	33
16	160000	45	80	14	48.5	35	60	10	38	230	225	110	2.5	112.5	44	770	660	680	137	693	285	375	715	10	26	36	1137	42
17	202000	45	80	14	48.5	35	60	10	38	250	245	120	2.5	122.5	50	895	750	775	137	719	294	375	830	10	33	24	1660	60
18	244000	50	100	14	53.5	40	80	12	43	260	255	120	2.5	122.5	50	930	785	815	172	818	303	445	865	10	33	32	2100	70
19	295000	50	100	14	53.5	40	80	12	43	280	275	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2200	85
20	354000	50	100	14	53.5	40	80	12	43	300	295	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2300	75
21	392000	50	100	14	53.5	40	80	12	43	310	305	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	2930	115
22	450000	50	100	14	53.5	40	80	12	43	330	325	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	3100	105
23	513000	60	110	18	64	50	100	14	53.5	350	345	164	2.5	166.5	68	1210	1025	1056	194	1003	380	520	1120	28	39	36	3800	155
24	592000	60	110	18	64	50	100	14	53.5	360	355	164	2.5	166.5	68	1210	1025	1056	194	1003	380	520	1120	28	39	36	4300	135
25	684000	60	110	18	64	50	100	14	53.5	380	375	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5250	195
26	763000	60	110	18	64	50	100	14	53.5	400	395	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5660	170
27	852000	75	135	20	79.5	60	110	18	64	430	425	191	2.5	193.5	81	1460	1215	1248	240	1205.5	453	615	1345	31	52	32	6680	250
28	950000	75	135	20	79.5	60	110	18	64	450	445	191	2.5	193.5	81	1460	1215	1248	240	1205.5	453	615	1345	31	52	32	7180	220
29	1060000	75	135	20	79.5	60	110	18	64	460	450	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	8500	310
30	1200000	75	135	20	79.5	60	110	18	64	480	470	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	9170	280

注: 1 当  $d1 \leq 100$  时公差为 m6, 当  $d1 > 100$  时公差为 n6;  
2 当尺寸  $d2$  或  $d3 \leq 160$  时, 公差为 h6;  
当尺寸  $d2$  或  $d3 > 160$  时, 公差为 g6;  
3 重量不包括胀紧盘和润滑油。  
1. When  $d1 \leq 100$ , tolerance is m6,  $d1 > 100$ , tolerance is n6;  
2. When  $d2$  or  $d3 \leq 160$ , tolerance is h6;  
When  $d2$  or  $d3 > 160$ , tolerance is g6;  
3. Weight is not including shrink disk and fabrication oil.

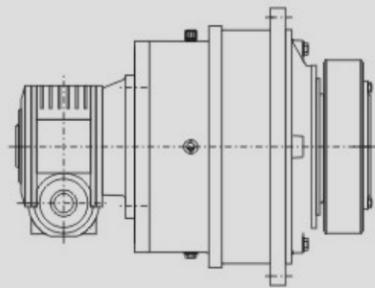
组合型  
Matched Units



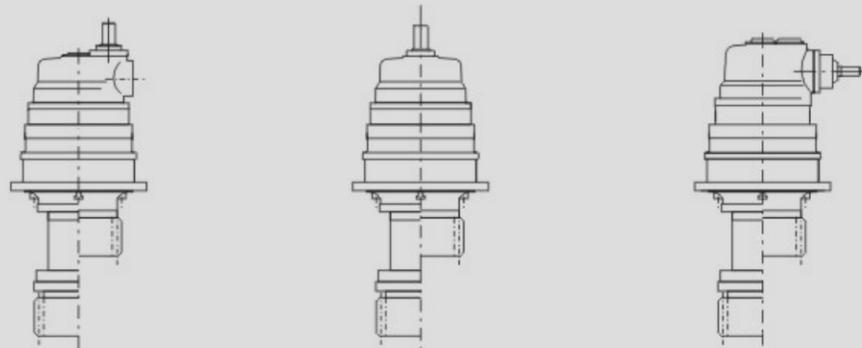
P../R组合, 详情来电咨询  
P../Rmatch, please inquiry for more details.



P../K组合, 详情来电咨询  
P../Kmatch, please inquiry for more details.

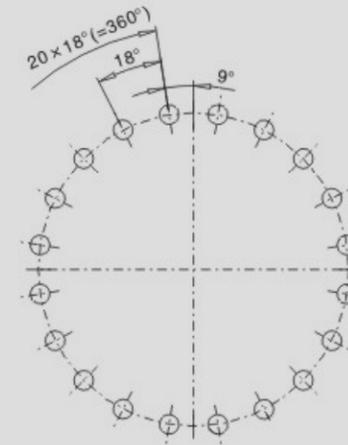


P../RV(160-250)组合, 详情来电咨询  
P../RV match, please inquiry for more details.

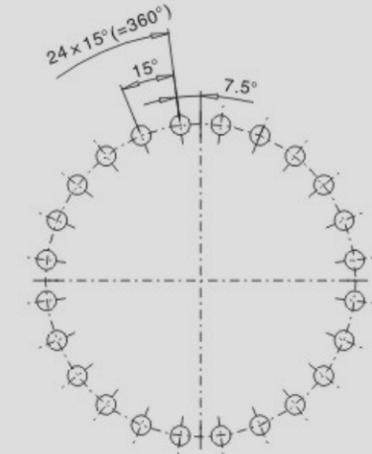


P../R组合, 详情来电咨询  
P../Rmatch, please inquiry for more details.

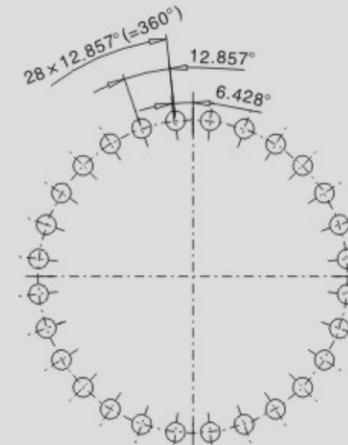
输出法兰孔布置图  
Output Flange Hole



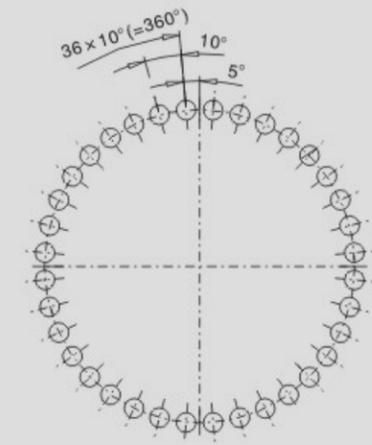
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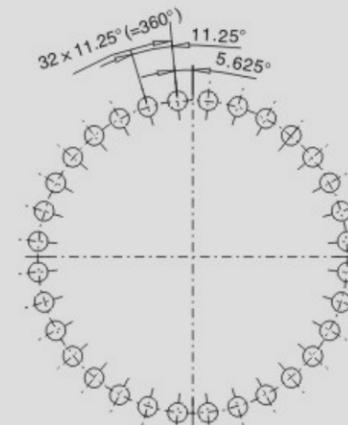
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P...10



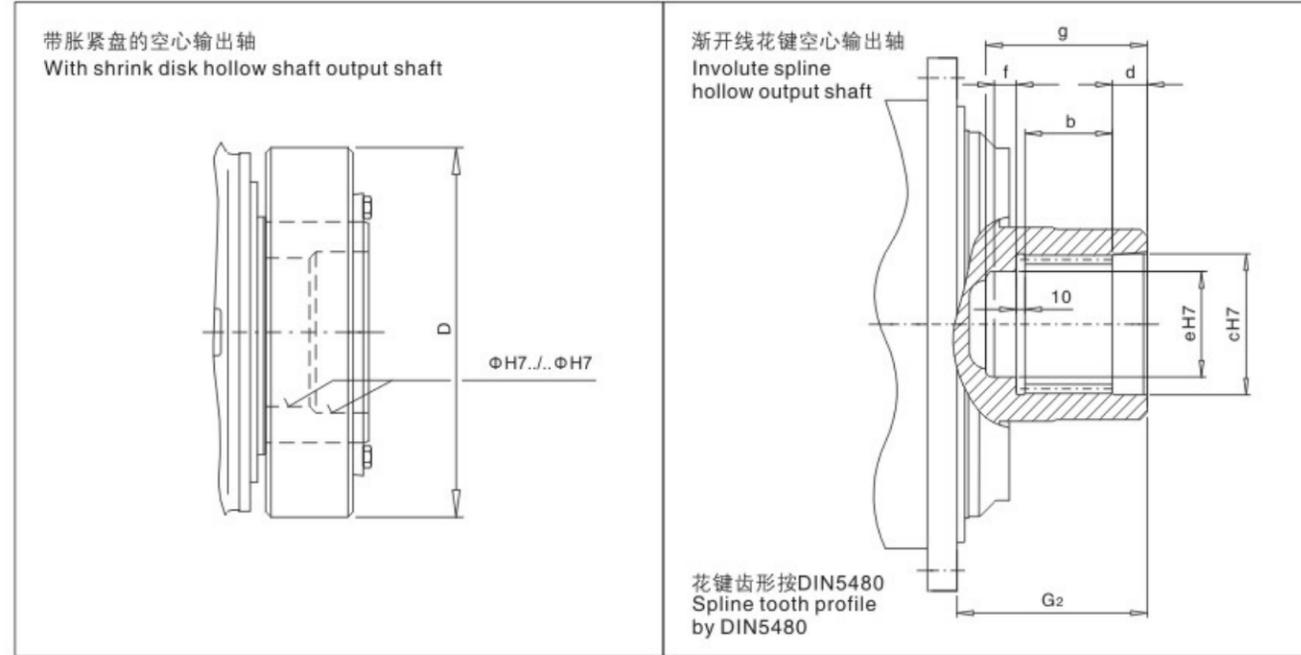
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P...14,18,21,22,27,28,31,32

输出轴  
Output Shaft

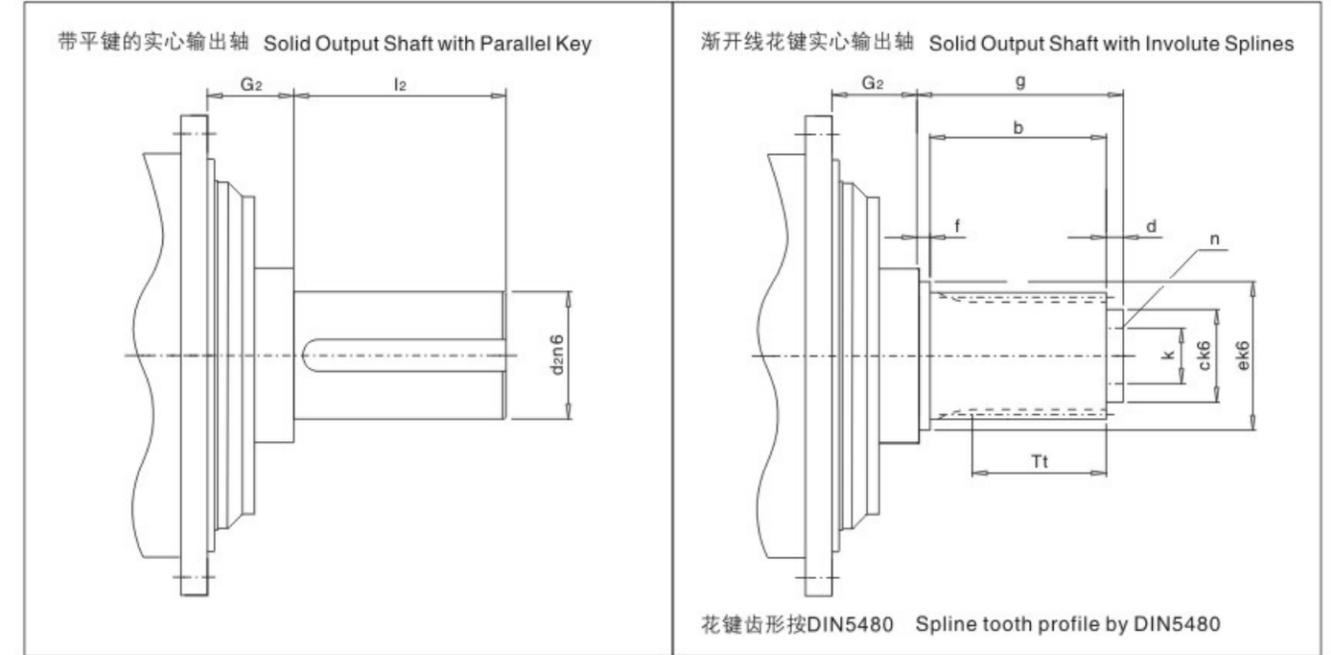
1. 空心轴 Hollow shaft



机座号 Type no	许用扭矩 Permissible torque $T_{2N}$ (N·M)	胀紧盘 Shrink disk				空心花键输出轴 Hollow spline output shaft							
		型号 Type	D	螺栓 Bolt	重量 Weight	内花键规格 Inner spline specification	b	c	d	e	f	$G_2$	g
9	22000	155	263	M14	15.2	120×5×30×22×9H	70	122	40	107	20	165	150
10	31000	165	290	M16	21.5	130×5×30×24×9H	80	132	40	117	20	174	160
11	42000	185	320	M16	32.7	140×5×30×26×9H	90	142	45	125	25	204	180
12	60000	220	370	M20	53	160×5×30×30×9H	100	162	45	145	25	223	190
13	83000	240	405	M20	66	180×5×30×34×9H	110	182	45	165	25	237	200
14	117000	280	460	M20	103	210×5×30×40×9H	125	212	45	195	25	264	215
16	160000	300	485	M24	120	240×8×30×28×9H	140	242	50	220	25	285	235
17	202000	320	520	M24	138	250×8×30×30×9H	150	252	50	230	30	290	250
18	244000	340	570	M24	189	260×8×30×31×9H	160	262	50	240	30	303	260
19	295000	360	590	M24	207	280×8×30×34×9H	170	282	50	260	30	327.5	270
20	354000	380	640	M27	244	300×8×30×36×9H	180	302	50	280	30	327.5	280
21	392000	390	650	M27	249	310×8×30×37×9H	190	312	60	290	40	354	310
22	450000	420	670	M27	285	330×8×30×40×9H	200	332	60	310	40	354	320
23	513000	440	720	M27	357	340×8×30×41×9H	200	342	60	320	40	348	320
24	592000	460	770	M27	419	360×8×30×44×9H	220	362	60	340	40	368	340
25	684000	480	800	M30	492	380×8×30×46×9H	230	382	60	360	40	372	350
26	763000	500	850	M30	567	400×8×30×48×9H	240	402	60	380	40	382	360
27	852000	530	910	M30	744	440×8×30×54×9H	250	442	60	420	40	423	370
28	950000	560	940	M30	776	450×8×30×55×9H	260	452	65	430	40	428	385
29	1060000	560	940	M30	736	460×8×30×56×9H	270	462	65	440	45	433	400
30	1200000	590	960	M30	845	480×8×30×58×9H	285	482	65	460	45	448	415
31	1330000	590	960	M30	835								
32	1500000	620	1020	M30	1064								
33	1690000	660	1070	M33	1178								
34	1920000	700	1140	M33	1345								

输出轴  
Output Shaft

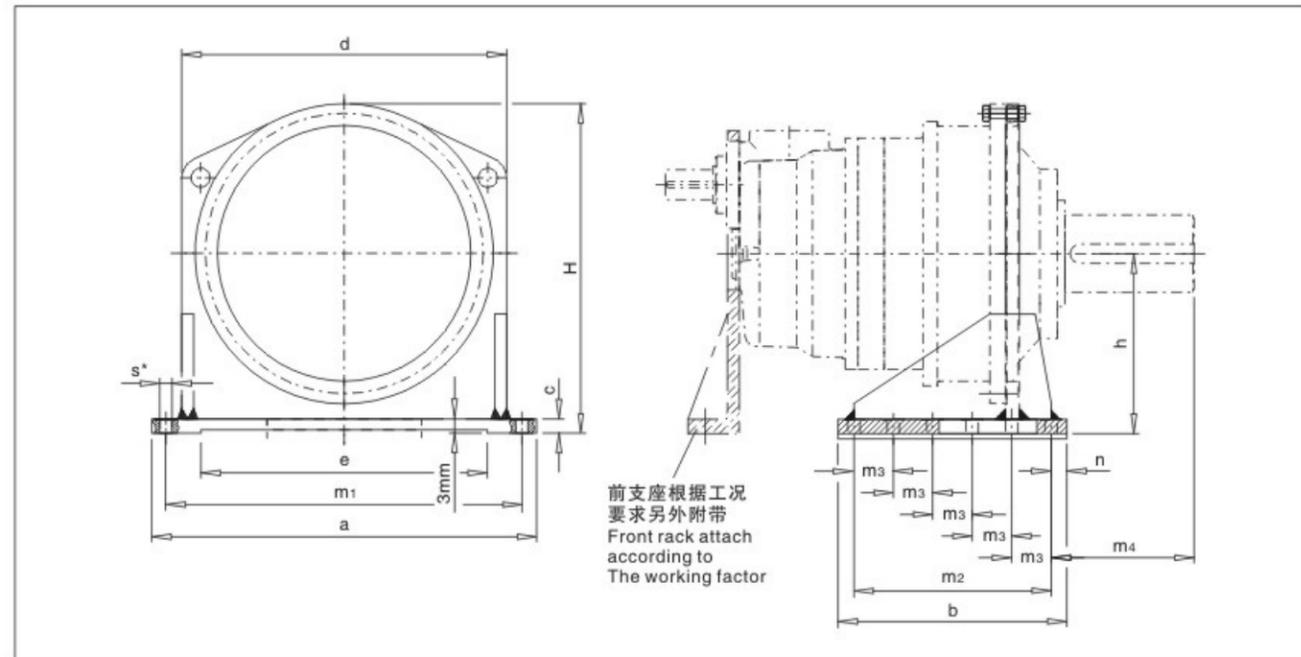
2. 实心轴 Solid shaft



机座号 Type no	许用扭矩 Permissible torque $T_{2N}$ (N·M)	带平键实心轴 With even key solid shaft			实心花键输出轴 Solid spline output													
		$d_2$	$l_2$	$G_2$	外花键规格 Outer spline specification	Tt	b	c	d	e	f	g	k	n	$G_2$			
9	22000	120	210	95	130×5×30×24×8m	70	80	110	20	132	20	120	80	3×M16×24	95			
10	31000	130	210	95	140×5×30×26×8m	80	90	120	20	142	20	130	90	3×M16×24	95			
11	42000	150	240	109	160×5×30×30×8m	90	100	140	25	162	25	150	110	3×M16×24	109			
12	60000	160	270	106	180×5×30×34×8m	100	110	90	25	182	25	160	130	3×M16×24	106			
13	83000	180	310	118	200×5×30×38×8m	110	120	100	30	202	25	175	140	3×M16×24	118			
14	117000	210	350	139	220×5×30×42×8m	125	135	120	30	222	30	195	160	3×M16×24	139			
16	160000	230	350	142	250×8×30×30×8m	140	155	140	35	252	30	220	185	3×M20×30	142			
17	202000	250	400	139	260×8×30×31×8m	150	165	155	40	262	35	240	200	3×M20×30	139			
18	244000	260	400	134	280×8×30×34×8m	160	175	170	40	282	35	250	215	3×M20×30	134			
19	295000	280	450	148.5	300×8×30×36×8m	170	185	180	40	302	35	260	225	3×M20×30	148.5			
20	354000	300	500	148.5	310×8×30×37×8m	180	195	190	40	312	35	270	235	6×M20×30	148.5			
21	392000	310	500	158	320×8×30×38×8m	190	205	200	40	322	35	280	250	6×M20×30	158			
22	450000	330	500	158	340×8×30×41×8m	200	215	210	40	342	35	290	265	6×M20×30	158			
23	513000	350	550	175	360×8×30×44×8m	200	215	230	40	362	35	290	275	6×M20×30	175			
24	592000	360	590	175	380×8×30×46×8m	220	235	245	40	382	35	310	290	6×M20×30	175			
25	684000	380	590	182	400×8×30×48×8m	230	245	260	40	402	35	320	310	6×M24×30	182			
26	763000	400	650	182	420×8×30×51×8m	240	255	280	40	422	35	330	330	6×M24×30	182			
27	852000	430	690	196.5	440×8×30×54×8m	250	265	310	40	442	35	340	370	6×M24×30	196.5			
28	950000	450	750	196.5	450×8×30×55×8m	260	275	330	45	452	40	360	380	6×M24×36	196.5			
29	1060000	460	750	209	460×8×30×56×8m	270	285	340	45	462	40	370	390	6×M24×36	209			
30	1200000	480	790	209	480×8×30×58×8m	285	300	360	45	482	40	385	410	6×M24×36	209			
31	1330000	500	790	232														
32	1500000	510	850	232														
33	1690000	530	900	251														
34	1920000	570	950	251														

附件  
Add-on Piece

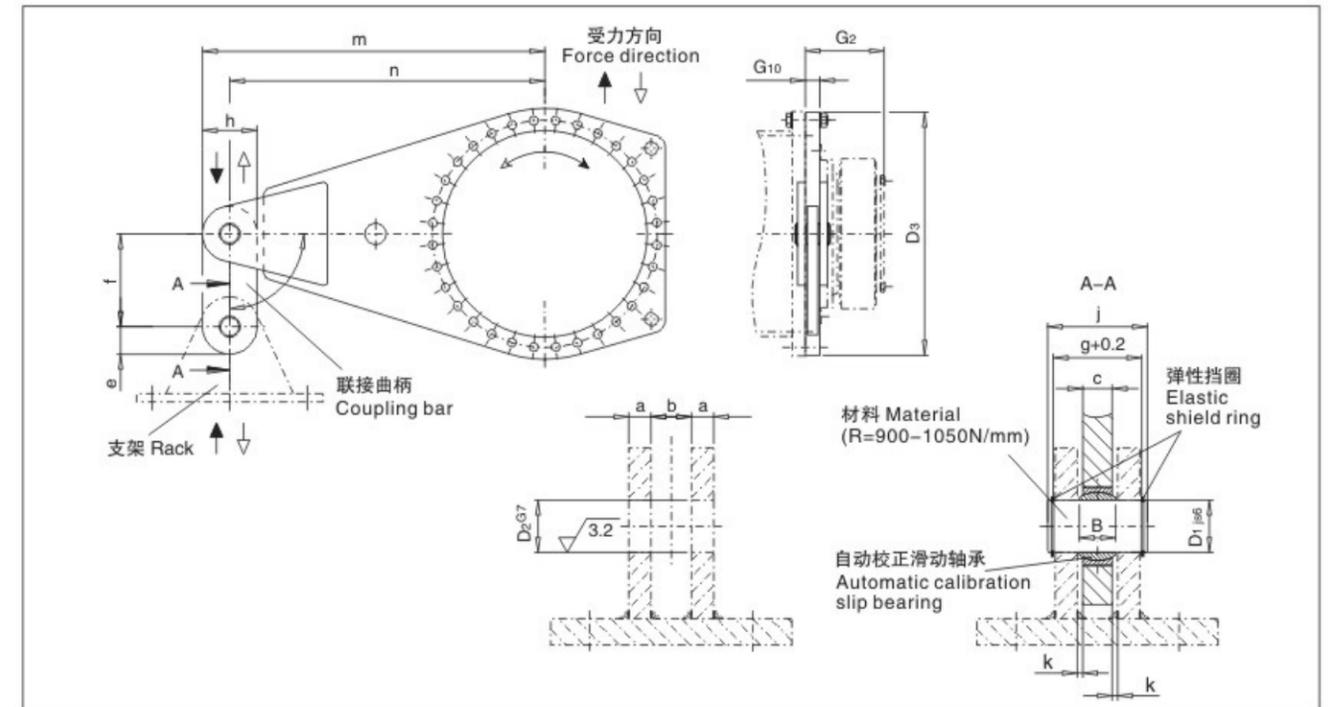
1. 齿轮箱机座 (附件代号-96) Gear units type (accessory code-96):



尺寸 Size	a	b	c	d	e	h	H	m <sub>1</sub>	m <sub>2</sub>	m <sub>3</sub>	m <sub>4</sub>	n	螺栓孔 Bolt hole		重量 Weight (kg)
													s*	数量 Size	
9	580	330	20	450	380	260	480	520	260	130	240	35	26	2×3	56
10	630	360	25	500	430	280	525	570	290	145	240	35	26	2×3	82
11	680	400	30	550	480	315	585	620	330	110	274	35	26	2×4	122
12	760	450	30	630	560	360	670	700	380	95	292	35	26	2×5	157
13	820	490	35	680	610	390	720	750	420	105	334	35	26	2×5	213
14	920	560	35	760	680	430	800	840	480	120	380	40	33	2×5	270
16	980	580	40	820	700	470	865	900	500	125	374	40	33	2×5	350
17	1130	670	45	940	810	540	998	1040	580	145	405	45	39	2×5	520
18	1180	720	45	980	830	560	1035	1080	620	155	385	50	39	2×5	580
19	1260	760	50	1050	880	590	1090	1160	640	160	450	60	45	2×5	720
20	1260	760	50	1050	880	590	1090	1160	640	160	500	60	45	2×5	720
21	1440	840	55	1170	1020	660	1228	1320	700	175	513	70	52	2×5	940
22	1440	840	55	1170	1020	660	1228	1320	700	175	513	70	52	2×5	940
23	1540	910	60	1270	1100	730	1345	1420	750	150	567	80	52	2×6	1275
24	1540	910	60	1270	1100	730	1345	1420	750	150	607	80	52	2×6	1275
25	1700	1000	65	1400	1240	795	1465	1550	860	215	574	70	62	2×5	1670
26	1700	1000	65	1400	1240	795	1465	1550	860	215	634	70	62	2×5	1670
27	1850	1100	70	1550	1370	870	1610	1700	950	190	664	75	62	2×6	2170
28	1850	1100	70	1550	1370	870	1610	1700	950	190	724	75	62	2×6	2170
29	1980	1180	75	1640	1460	925	1715	1820	1000	250	731	90	70	2×5	2650
30	1980	1180	75	1640	1460	925	1715	1820	1000	250	771	90	70	2×5	2650
31	2150	1300	75	1750	1570	1000	1845	1950	1100	220	773	100	70	2×6	3100
32	2150	1300	75	1750	1570	1000	1845	1950	1100	220	833	100	70	2×6	3100
33	2230	1350	85	1850	1630	1050	1940	2050	1150	230	883	100	78	2×6	3850
34	2230	1350	85	1850	1630	1050	1940	2050	1150	230	933	100	78	2×6	3850

附件  
Add-on Piece

2. 齿轮箱机座 (附件代号-96) Gear units type (accessory code-96):



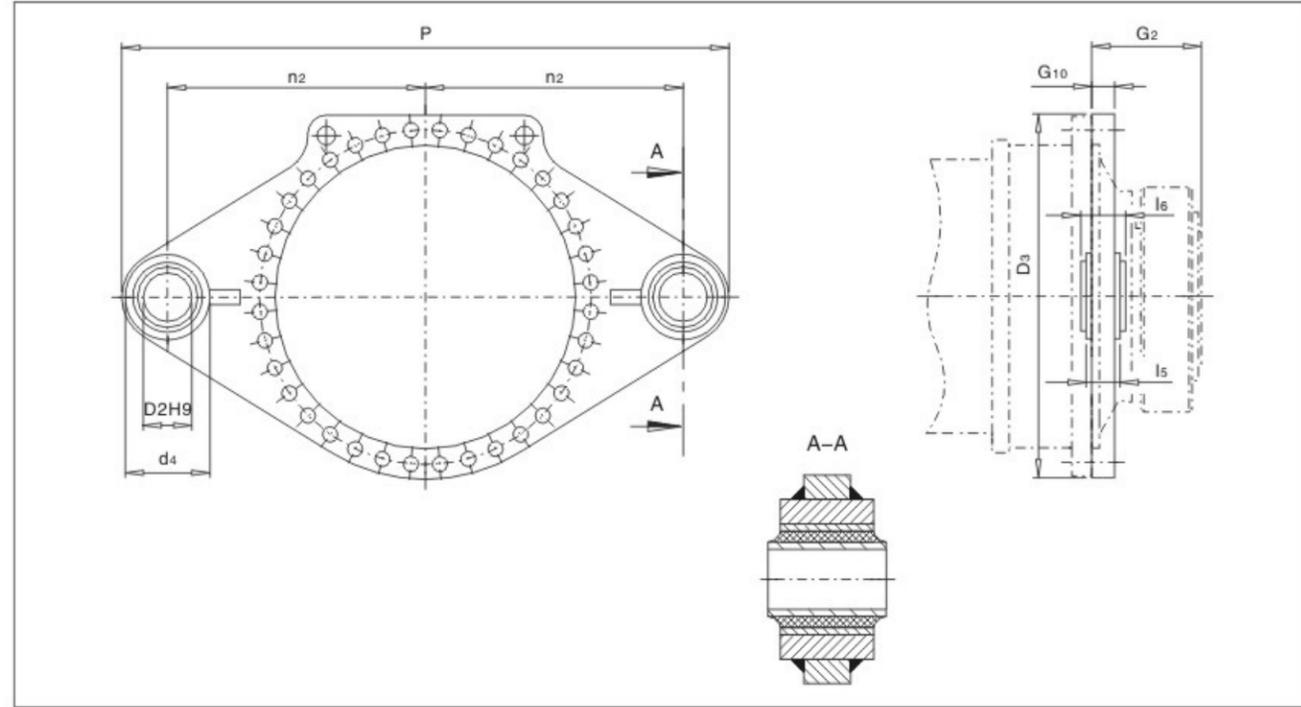
尺寸 Size	T2N (N·M)	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	G <sub>2</sub>	G <sub>10</sub>	a min.	b	B*	c	e	f	0 +0.2	h	j	k	m	n	滚动 轴承 Rolling bearing	重量 Weight (kg)
9	22000	30	440	165	25	15	25	22	18	50	140	59.5	100	70	3.5	605	555	30	38	
10	31000	35	485	174	30	15	30	25	20	52.5	140	64.5	105	75	5	667.5	615	35	51	
11	42000	40	540	204	30	18	30	28	22	65	160	70.5	130	85	4	750	685	40	82	
12	60000	40	620	224	30	18	30	28	22	65	160	70.5	130	85	4	850	785	40	85	
13	83000	45	665	241	35	20	35	32	25	72.5	180	79.5	145	95	5	912.5	840	45	113	
14	117000	50	740	278	40	20	40	35	30	72.5	200	85	145	100	5	1012.5	940	50	145	
16	160000	60	790	285	50	25	50	44	35	77.5	240	105	155	120	7.5	1077.5	1000	60	206	
17	202000	60	915	294	50	25	50	44	35	85	240	105	170	120	7.5	1250	1165	60	274	
18	244000	70	955	303	55	30	55	49	40	105	280	120	210	135	7.5	1315	1210	70	365	
19	295000	80	1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423	
20	354000	80	1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423	
21	392000	80	1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530	
22	450000	80	1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530	
23	513000	90	1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665	
24	592000	90	1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665	
25	684000	100	1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940	
26	763000	100	1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940	
27	852000	110	1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120	
28	950000	110	1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120	
29	1060000	110	1600	483	75	35	75	70	55	158	440	150	315	175	10	2192.5	2035	110	1260	
30	1200000	110	1600	483	75	35	75	70	55	158	400	150	315	170	10	2192.5	2035	110	1260	

\*) B=22-35, 公差为-0.12; B=44-55, 公差为-0.15; B=60-70, 公差为-0.20  
B=22-35, Reference -0.12; B=44-55, Reference -0.15; B=60-70, Reference -0.20

# P系列行星齿轮减速机 PLANETARY GEARBOX

附件  
Add-on Piece

## 3. 带橡胶衬套的双向扭力臂 (附件代号-76) Double-sides torque arm with rubber bushing. (accessory code-76):



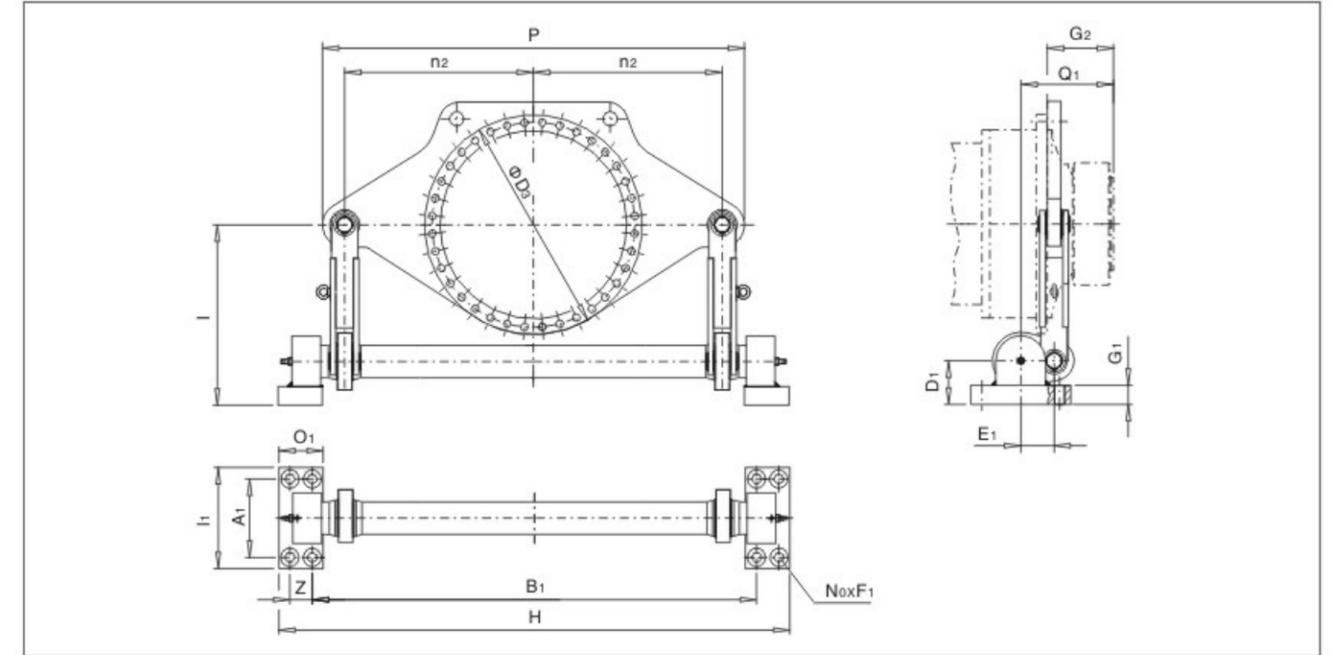
尺寸 Size	T2N (N·M)	D2*	D3	d4	G3	G10	l5	l6	n5	P	衬套 Bush	重量 Weight (kg)
9	22000	50	440	115	165	30	100	110	500	1140	0118095	58
10	31000	50	485	115	174	30	100	110	550	1240	0118095	72
11	42000	100	540	180	204	30	110	120	575	1355	0118772	95
12	60000	100	620	180	224	35	110	120	625	1455	0118772	120
13	83000	110	665	210	241	35	170	180	600	1435	0118802	145
14	117000	110	740	210	278	40	170	180	650	1535	0118802	170
16	160000	124	790	240	285	40	220	230	700	1670	0118805	230
17	202000	124	915	240	288	40	220	230	750	1770	0118805	300
18	244000	124	955	240	303	50	220	230	900	2072	0118805	400

\* 销轴pin:  $\phi h8$

# P系列行星齿轮减速机 PLANETARY GEARBOX

附件  
Add-on Piece

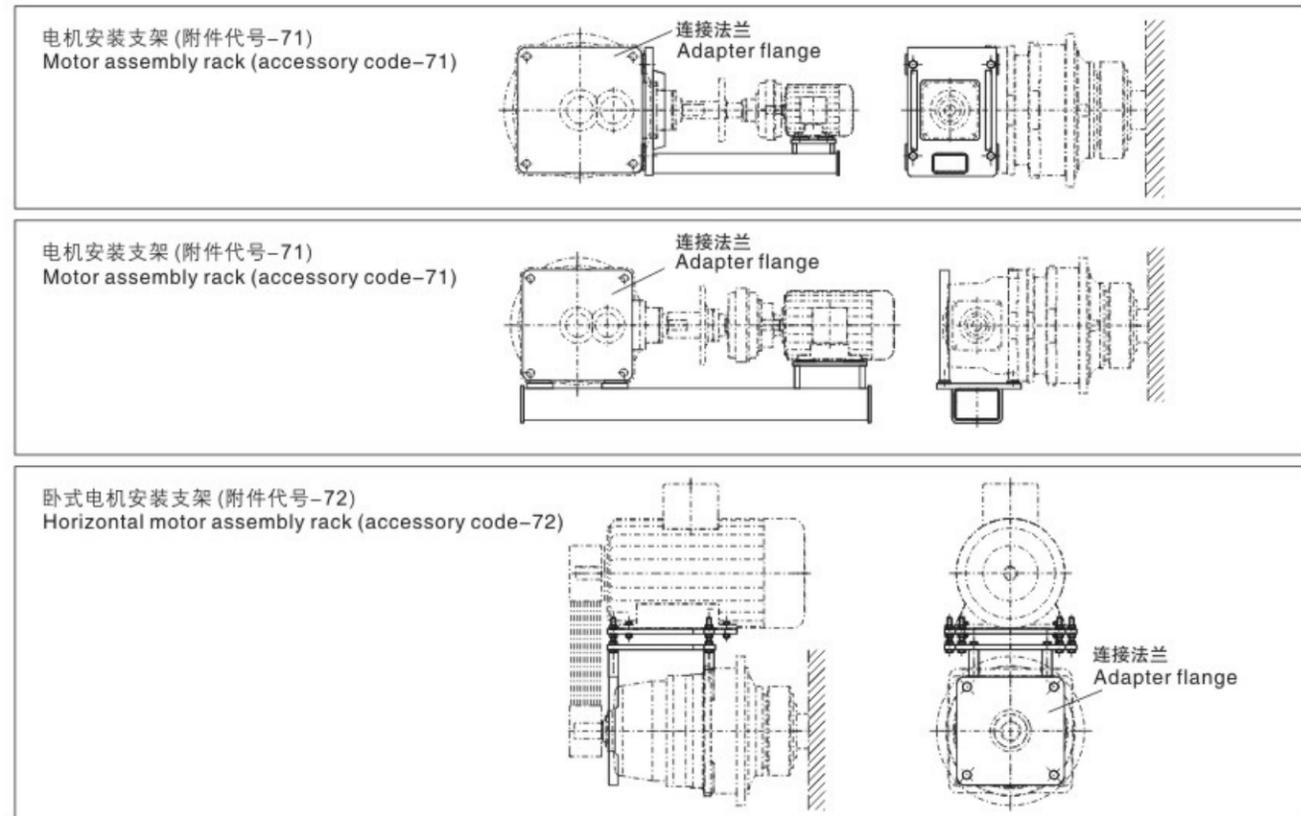
## 4. 扭转轴支架 (附件代号-77) Rotation rack (accessory code-77):



尺寸 Size	T2N (N·M)	A1	B1	D3	D1	E1	F1	G1	G2	H	I	l1	n2	N0	O1	P	Q1	Z	重量 Weight (kg)
9	22000	250	1414	610	120	105	33	48.5	165	1619	560	330	550	8	140	1230	247.5	65	300
10	31000	250	1414	610	120	105	33	48.5	174	1619	560	330	550	8	140	1230	256.5	65	300
11	42000	250	1414	610	120	105	33	48.5	204	1619	560	330	550	8	140	1230	286.5	65	300
12	60000	250	1414	610	120	105	33	48.5	224	1619	560	330	550	8	140	1230	306.5	65	300
13	83000	280	1604	775	155	145	39	68.5	241	1837	620	380	650	8	158	1450	358.5	75	600
14	117000	280	1604	775	155	145	39	68.5	278	1837	620	380	650	8	158	1450	395.5	75	600
16	160000	280	1604	775	155	145	39	68.5	285	1837	620	380	650	8	158	1450	402.5	75	600
17	202000	315	1777	955	170	165	39	73.5	294	2041	700	400	750	8	180	1680	431.5	84	900
18	244000	315	1777	955	170	165	39	73.5	303	2041	700	400	750	8	180	1680	440.5	84	900
19	295000	350	2000	985	195	175	45	83.5	328	2300	860	450	850	8	200	1900	470.5	100	1400
20	354000	350	2000	985	195	175	45	83.5	328	2300	860	450	850	8	200	1900	470.5	100	1400
21	392000	400	2254	1120	210	190	45	88.5	354	2591	900	530	950	8	225	2110	506.5	113	1700
22	450000	400	2254	1120	210	190	45	88.5	354	2591	900	530	950	8	225	2110	506.5	113	1700
23	513000	450	2496	1215	235	220	45	98.5	380	2871	1060	590	1063	8	250	2385	562.5	125	2150
24	592000	450	2496	1215	235	220	45	98.5	380	2871	1060	590	1063	8	250	2385	562.5	125	2150
25	684000	500	2816	1350	275	245	52	118.5	407	3236	1200	650	1150	8	280	2600	614.5	140	2700
26	763000	500	2816	1350	275	245	52	118.5	407	3236	1200	650	1150	8	280	2600	614.5	140	2700
27	852000	530	2887	1490	300	255	52	128.5	453	3327	1250	700	1250	8	290	2820	670.5	150	3400
28	950000	530	2887	1490	300	255	52	128.5	453	3327	1250	700	1250	8	290	2820	670.5	150	3400
29	1060000	560	3200	1565	300	280	62	128.5	483	3673	1350	750	1360	8	315	3080	718	158	4350
30	1200000	560	3200	1565	300	280	62	128.5	483	3673	1350	750	1360	8	315	3080	718	158	4350
31	1330000	590	3408	1695	340	300	70	148.5	538	3906	1400	790	1450	8	330	3260	788	168	5500
32	1500000	590	3408	1695	340	300	70	148.5	538	3906	1400	790	1450	8	330	3260	788	168	5500
33	1680000	620	3588	1785	375	300	70	158.5	573	4116	1500	840	1550	8	350	3520	840.5	178	7000
34	1920000	620	3588	1785	375	300	70	158.5	573	4116	1500	840	1550	8	350	3520	840.5	178	7000

附件  
Add-on Piece

5. 电机安装支架 Motor assembly rack

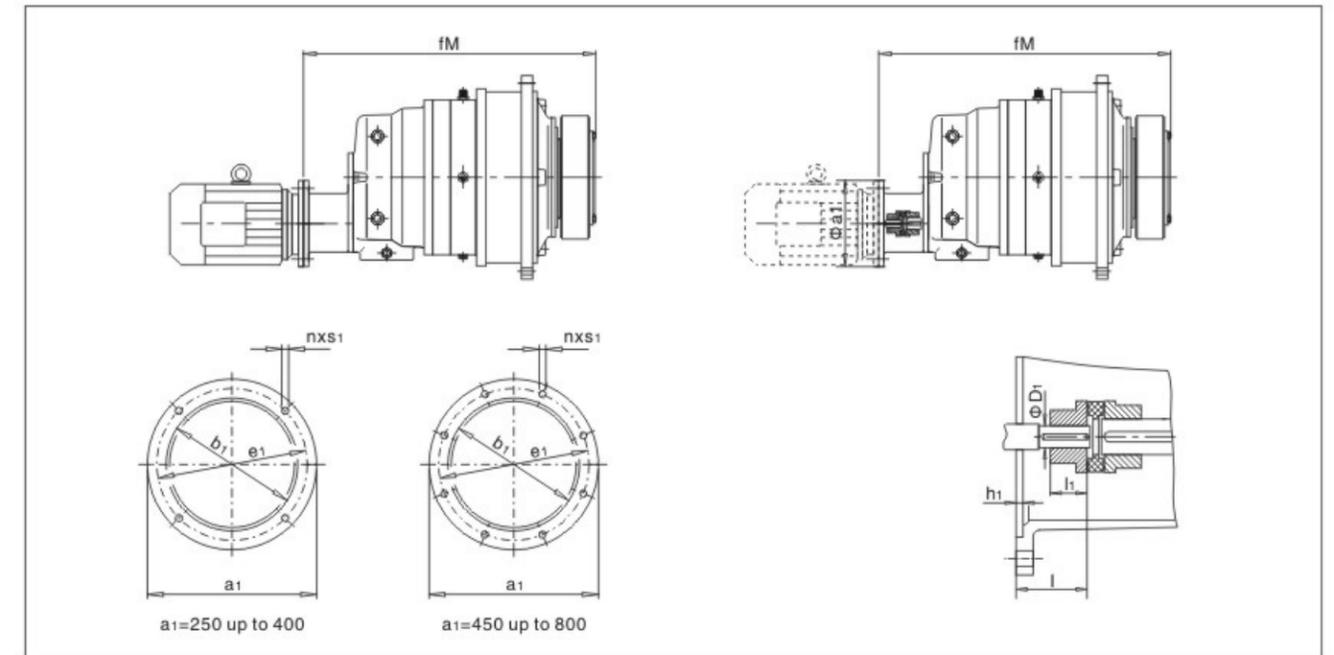


6. 法兰联接及底座安装时螺母的预紧扭矩 Flange connecting and base assembly needed bolt torque available

尺寸 Size	螺栓 Bolt (10.9)	预紧扭矩 Tightening torque (N·M)	螺栓 Bolt (8.8)	预紧扭矩 Tightening torque (N·M)
9	M16	295	M24	710
10	M16	295	M24	710
11	M20	580	M24	710
12	M24	1000	M24	710
13	M24	1000	M24	710
14	M24	1000	M30	1450
16	M24	1000	M30	1450
17	M30	2000	M36	2530
18	M30	2000	M36	2530
19/20	M30	2000	M42	4070
21/22	M36	3560	M48	6140
23/24	M36	3560	M48	6140
25/26	M42	5720	M56	9840
27/28	M48	8640	M56	9840
29/30	M48	8640	M64	14300
31/32	M56	13850	M64	14300
33/34	M56	13850	M64	14300

带电机法兰输入  
With Motor Flange Input

1. P2S. 带电机、输入法兰及联轴器尺寸 P3S. motor input flange and coupling size:



P2S.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	b <sub>1</sub> (h <sub>7</sub> )	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l <sub>1</sub>	l	n	s <sub>1</sub>
9	160		350	250	42	300	832	6	75	110	4	M16
	180		350	250	48	300	832	6	75	110	4	M16
10	160		350	250	42	300	861	6	75	110	4	M16
	180		350	250	48	300	861	6	75	110	4	M16
11	160		350	250	42	300	1010	6	75	110	4	M16
	180		350	250	48	300	1010	6	75	110	4	M16
	200		400	300	55	350	1010	7	75	110	4	M16
12	160		350	250	42	300	1044	6	75	110	4	M16
	180		350	250	48	300	1044	6	75	110	4	M16
	200		400	300	55	350	1044	7	75	110	4	M16
13	225		450	350	60	400	1247	7	90	140	8	M16
	250		550	450	65	500	1247	8	90	140	8	M16
14	225		450	350	60	400	1307	7	90	140	8	M16
	250		550	450	65	500	1307	8	90	140	8	M16
16	250		550	450	65	500	1452	7	100	140	8	M16
	280		550	450	75	500	1452	8	100	140	8	M16
17	250		550	450	65	500	1487	7	100	140	8	M16
	280		550	450	75	500	1487	8	100	140	8	M16
18	315		660	550	80	600	1680	11	110	140	8	M20
19/20	315		660	550	80	600	1728	11	110	140	8	M20

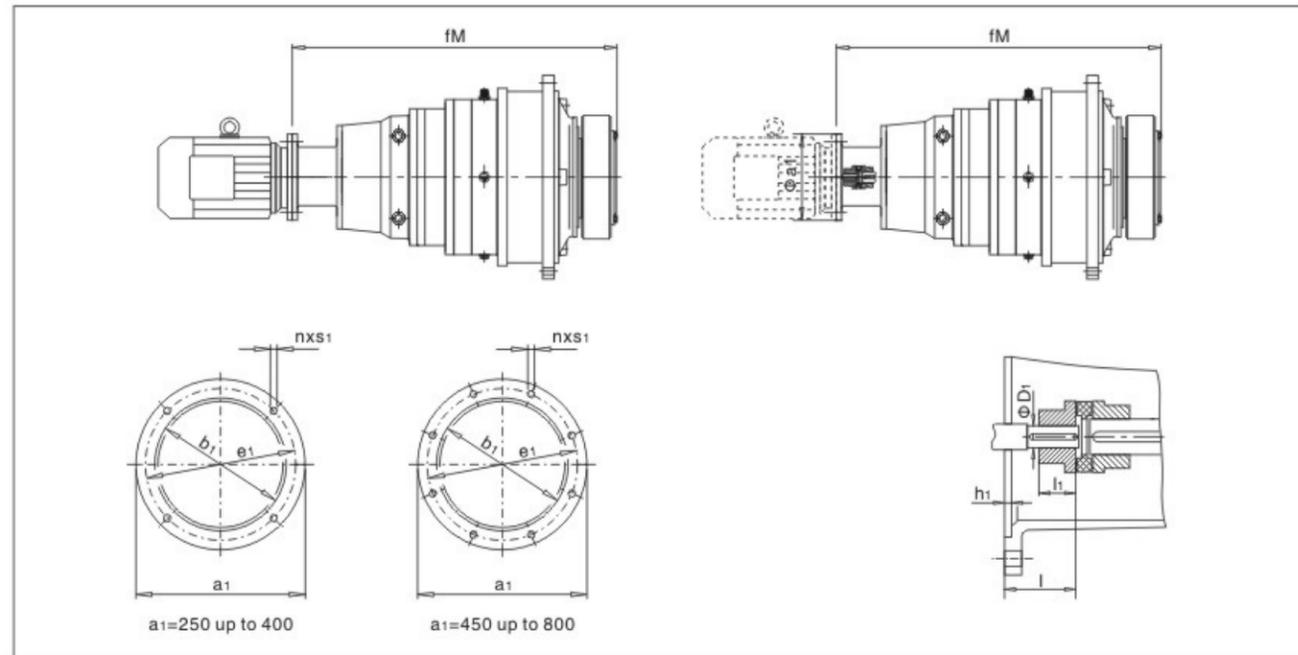
注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“(F)”表格中所示的法兰为标准型号的法兰，如有异同请另咨询。  
(2) 侧面扭力臂组合，请咨询。

(1)\* Power to match transmission force table for direct-connect motor;  
\*\* Table flange is standard flange.  
(2) Side torque arm matched units, please inquiry.

# P系列行星齿轮减速机 PLANETARY GEARBOX

带电机法兰输入  
With Motor Flange Input

## 2. P3N. 带电机法兰及联轴器尺寸 P3N. motor flange and coupling size:



P3N.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	b <sub>1</sub> (h <sub>7</sub> )	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l <sub>1</sub>	l	n	s <sub>1</sub>
9	132		300	230	38	265	912	5	56	80	4	M12
	160		350	250	42	300	960	6	80	110	4	M16
	180		350	250	48	300	960	6	80	110	4	M16
10	132		300	230	38	265	941	5	56	80	4	M12
	160		350	250	42	300	989	6	80	110	4	M16
	180		350	250	48	300	989	6	80	110	4	M16
11	132		300	230	38	265	1002	5	56	80	4	M12
	160		350	250	42	300	1050	6	80	110	4	M16
	180		350	250	48	300	1050	6	80	110	4	M16
12	132		300	230	38	265	1036	5	56	80	4	M12
	160		350	250	42	300	1084	6	80	110	4	M16
	180		350	250	48	300	1084	6	80	110	4	M16
13	160		350	250	42	300	1159	6	80	110	4	M16
	180		350	250	48	300	1159	6	80	110	4	M16
	200		400	300	55	350	1159	7	80	110	4	M16
14	160		350	250	42	300	1219	6	80	110	4	M16
	180		350	250	48	300	1219	6	80	110	4	M16
16	200		400	300	55	350	1400	7	90	110	4	M16
	225		450	350	60	400	1430	7	90	140	8	M16
17	200		400	300	55	350	1435	7	90	110	4	M16
	225		450	350	60	400	1465	7	90	140	8	M16
18	250		550	450	65	500	1636.5	7	100	140	8	M16
	280		550	450	75	500	1636.5	8	100	140	8	M16
19/20	250		550	450	65	500	1685	7	100	140	8	M16
	280		550	450	75	500	1685	8	100	140	8	M16

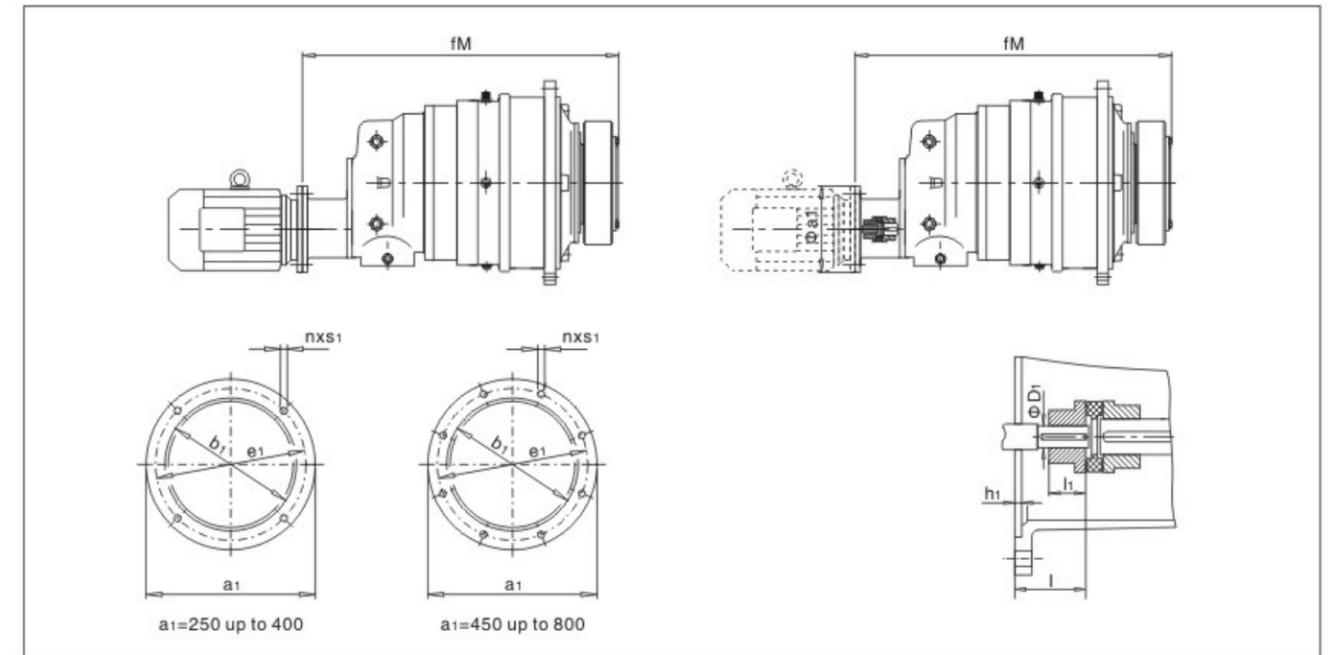
注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“\*\*”表格中所示的法兰为标准型号的法兰，如有异同请另咨询。  
(2) 侧面扭力臂组合，请咨询。

(1)\* Power to match transmission force table for direct-connect motor;  
\*\* Table flange is standard flange.  
(2) Side torque arm matched units, please inquiry.

# P系列行星齿轮减速机 PLANETARY GEARBOX

带电机法兰输入  
With Motor Flange Input

## 3. P3S. 带电机法兰及联轴器尺寸 P3S. motor flange and coupling size:



P3S.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	b <sub>1</sub> (h <sub>7</sub> )	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l <sub>1</sub>	l	n	s <sub>1</sub>
9	100		250	180	28	215	865	5	45	60	4	M12
	112		250	180	28	215	865	5	45	60	4	M12
	132		300	230	38	265	896	5	70	80	4	M12
	160		350	250	42	300	931	6	75	110	4	M16
10	100		250	180	28	215	894	5	45	60	4	M12
	112		250	180	28	215	894	5	45	60	4	M12
	132		300	230	38	265	925	5	70	80	4	M12
	160		350	250	42	300	957	6	75	110	4	M16
11	112		250	180	28	215	955	5	45	60	4	M12
	132		300	230	38	265	986	5	70	80	4	M12
	160		350	250	42	300	1018	6	75	110	4	M16
	180		350	250	48	300	1018	6	75	110	4	M16
12	112		250	180	28	215	989	5	45	60	4	M12
	132		300	230	38	265	1020	5	70	80	4	M12
	160		350	250	42	300	1052	6	75	110	4	M16
	180		350	250	48	300	1052	6	75	110	4	M16
13	132		300	230	38	265	1095	5	70	80	4	M12
	160		350	250	42	300	1127	6	75	110	4	M16
	180		350	250	48	300	1127	6	75	110	4	M16
14	132		300	230	38	265	1155	5	70	80	4	M12
	160		350	250	42	300	1187	6	75	110	4	M16
	180		350	250	48	300	1187	6	75	110	4	M16
16	160		350	250	42	300	1365	6	75	110	4	M16
	180		350	250	48	300	1365	6	75	110	4	M16
	200		400	300	55	350	1365	7	75	110	4	M16
17	160		350	250	42	300	1390	6	75	110	4	M16
	180		350	250	48	300	1390	6	75	110	4	M16
	200		400	300	55	350	1400	7	75	110	4	M16
18	180		350	250	48	300	1558.5	6	90	110	4	M16
	200		400	300	55	350	1570.5	6	90	110	4	M16
	225		450	350	60	400	1608.5	7	90	110	8	M16
	250		550	450	65	500	1608.5	7	90	110	8	M16
19/20	180		350	250	48	300	1606	6	90	110	4	M16
	200		400	300	55	350	1618	6	90	110	4	M16
	225		450	350	60	400	1656	7	90	110	8	M16
	250		550	450	65	500	1656	7	90	110	8	M16

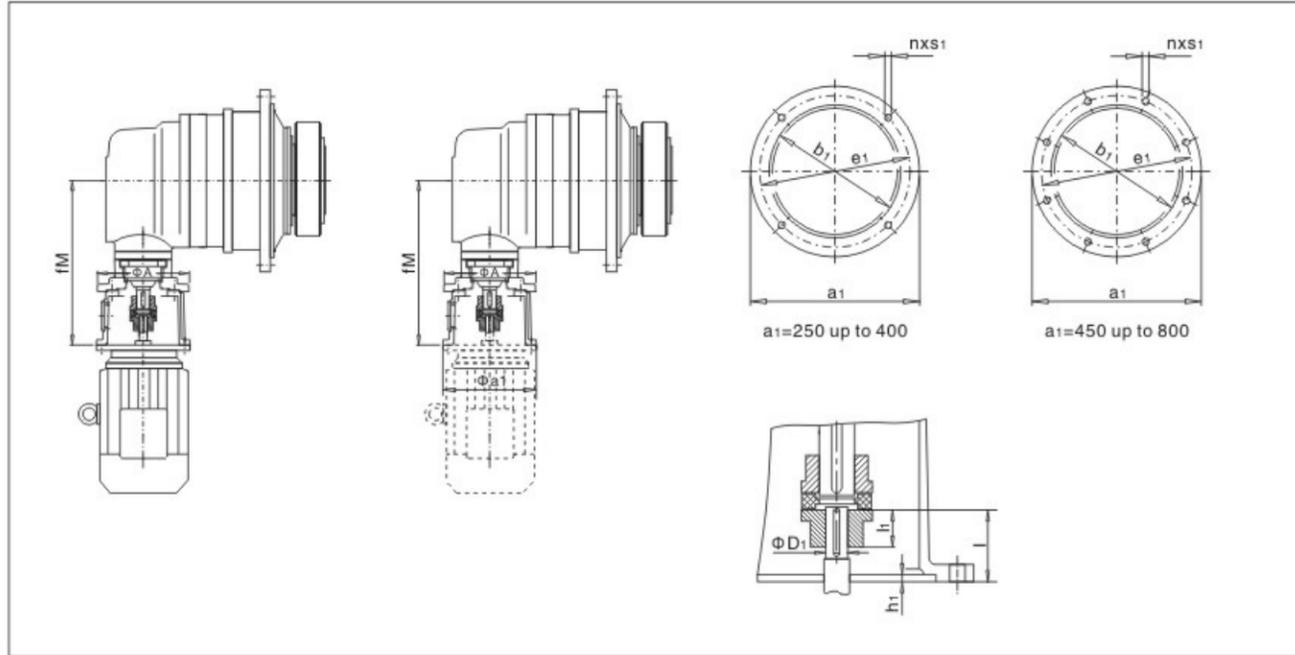
注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“\*\*”表格中所示的法兰为标准型号的法兰，如有异同请另咨询。  
(2) 侧面扭力臂组合，请咨询。

(1)\* Power to match transmission force table for direct-connect motor;  
\*\* Table flange is standard flange.  
(2) Side torque arm matched units, please inquiry.

# P系列行星齿轮减速机 PLANETARY GEARBOX

带电机法兰输入  
With Motor Flange Input

## 4. P2K. 带电机法兰及联轴器尺寸 P2K. motor flange and coupling size:



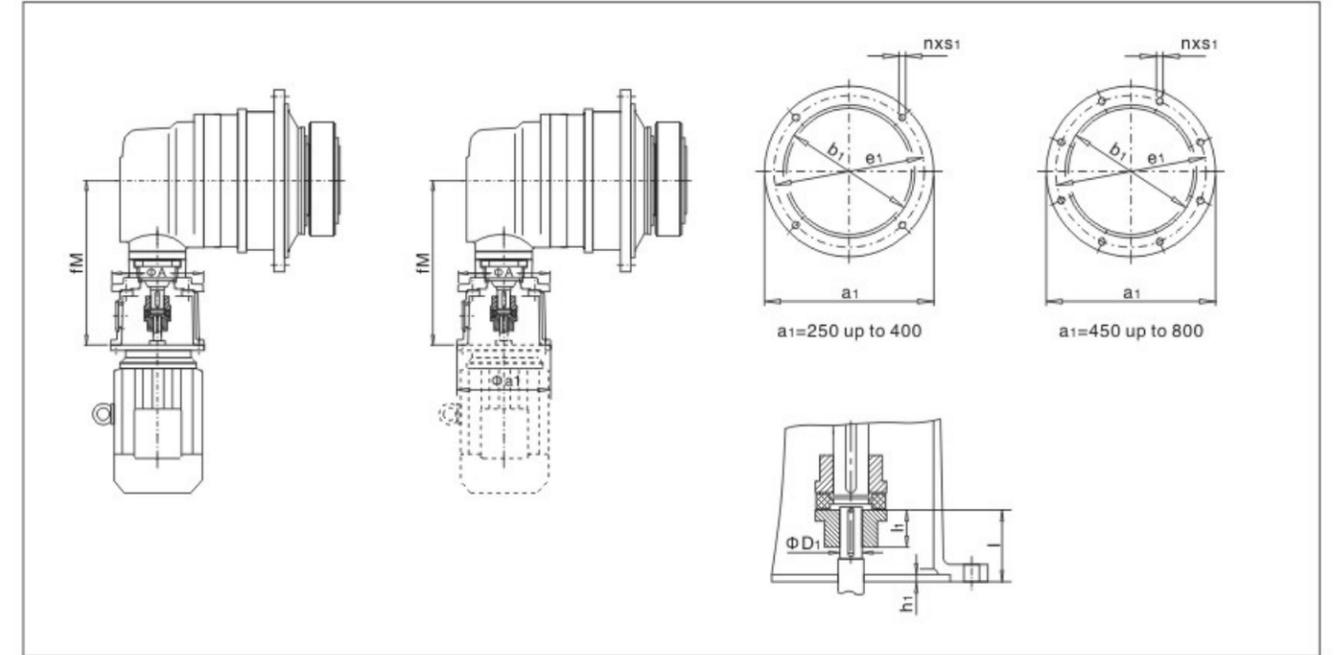
P2K.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	A	b <sub>1</sub>	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l	l <sub>1</sub>	n	s <sub>1</sub>
9/10	132		300	250	230	38	265	486	5	80	70	4	M12
	160		350	250	250	42	300	528	6	110	75	4	M16
11/12	160		350	300	250	42	300	593	6	110	75	4	M16
	180		350	350	250	48	300	593	6	110	75	4	M16
	200		400	350	300	55	350	593	7	110	75	4	M16
	160		350	440	250	42	300	663	6	110	75	4	M16
13/14	180		350	440	250	48	300	663	6	110	75	4	M16
	200		400	440	300	55	350	663	7	110	75	4	M16
	225		450	440	350	60	400	695	7	140	80	8	M16
	250		550	440	450	65	500	707	8	140	85	8	M16
16/17	200		400	440	300	55	350	770	7	110	80	4	M16
	225		425	440	350	60	400	800	7	140	80	8	M16
	250		550	440	450	65	500	812	8	140	85	8	M16
	280		550	440	450	75	500	812	8	140	85	8	M16
18/19/20	225		450	440	350	60	400	932	7	140	85	8	M16
	250		550	440	450	65	500	932	8	140	85	8	M16
	280		550	440	450	75	500	932	8	140	85	8	M16
	315*		600	440	550	80	600	967	11	170	100	8	M20

注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“(1)\* Power to match transmission force table for direct-connect motor;  
“(2) 侧面扭力臂组合，请咨询。  
“(2) Side torque arm matched units, please inquiry.  
“(2) 侧面扭力臂组合，请咨询。  
“(2) Side torque arm matched units, please inquiry.

# P系列行星齿轮减速机 PLANETARY GEARBOX

带电机法兰输入  
With Motor Flange Input

## 5. P2L. 带电机法兰及联轴器尺寸 P2L. motor flange and coupling size:

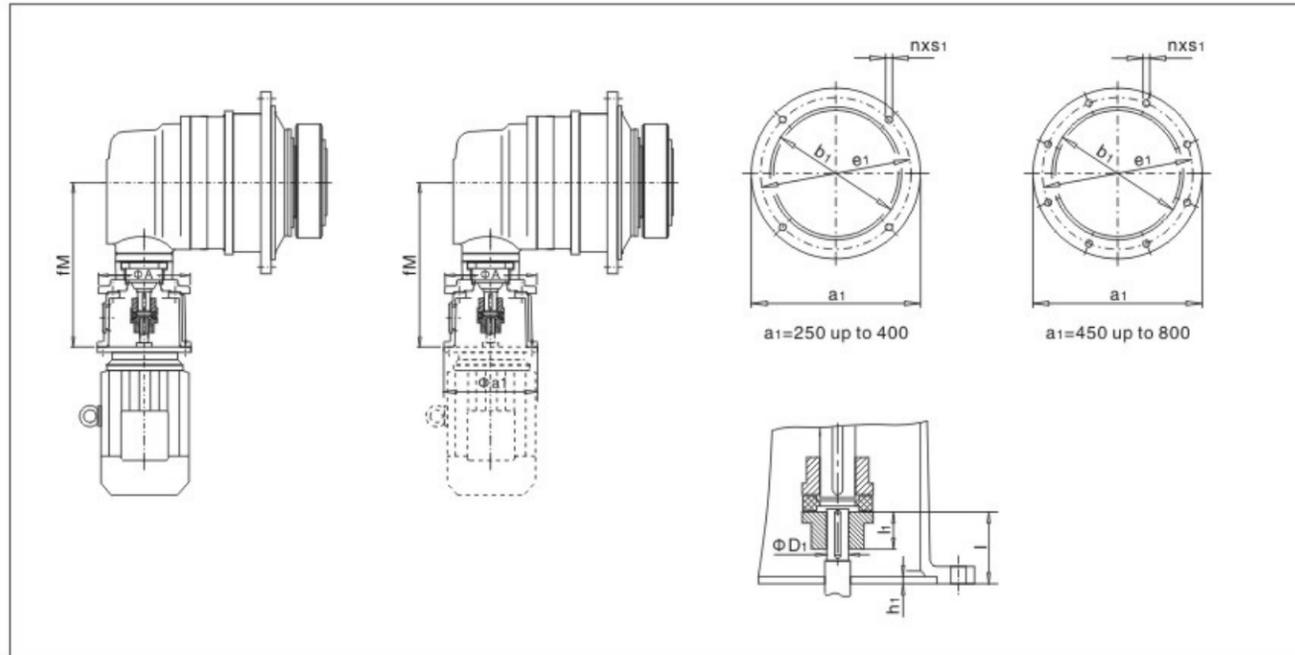


P2K.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	A	b <sub>1</sub>	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l	l <sub>1</sub>	n	s <sub>1</sub>
9/10	160		350	440	250	42	300	543	6	110	75	4	M16
	180		350	440	250	48	300	543	6	110	75	4	M16
	200		400	440	300	55	350	543	7	110	75	4	M16
	225		450	440	350	60	400	575	7	140	80	8	M16
11/12	200		400	440	300	55	350	600	7	110	75	4	M16
	225		450	440	350	60	400	630	7	140	80	8	M16
13/14	225		450	440	350	60	400	642	8	140	85	8	M16
	250		550	440	450	65	500	642	8	140	85	8	M16
16/17	225		450	440	350	60	400	732	7	140	85	8	M16
	280		550	440	450	75	500	732	8	140	85	8	M16
18/19/20	280		550	600	450	75	500	842	8	140	100	8	M16
	315*		660	650	550	80	600	872	11	170	100	8	M20
	315MC		660	650	550	80	600	872	11	170	100	8	M20
	315MD		660	650	550	80	600	872	11	170	100	8	M20
21/22 23/24	315LB		660	650	550	80	600	987	11	170	100	8	M20
	315MC		660	650	550	80	600	987	11	170	100	8	M20
	315MD		660	650	550	80	600	987	11	170	100	8	M20
	315LB		660	650	550	80	600	1122	11	170	100	8	M20
	315MB		800	650	680	95	740	1122	11	170	125	8	M20
	315LB		800	650	680	95	740	1122	11	170	125	8	M20

注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“(1)\* Power to match transmission force table for direct-connect motor;  
“(2) 侧面扭力臂组合，请咨询。  
“(2) Side torque arm matched units, please inquiry.  
“(2) 侧面扭力臂组合，请咨询。  
“(2) Side torque arm matched units, please inquiry.

带电机法兰输入  
With Motor Flange Input

6. P3K. 带电机法兰及联轴器尺寸 P3K. motor flange and coupling size:



P2K.	电机 Motor (Y)*	法兰 Flange (F)**	a <sub>1</sub>	A	b <sub>1</sub>	D <sub>1</sub>	e <sub>1</sub>	f <sub>M</sub>	h <sub>1</sub>	l	l <sub>1</sub>	n	s <sub>1</sub>
9/10/11 12/13/14	132		300	250	230	38	265	486	5	80	70	4	M12
	160		350	250	250	42	300	528	6	110	75	4	M16
	180		350	250	250	48	300	528	6	110	75	4	M16
16/17	160		350	350	250	42	300	593	6	110	75	4	M16
	180		350	350	250	40	300	593	6	110	75	4	M16
	200		400	350	300	55	350	593	7	110	75	4	M16
18/19/20 21/22	160		350	440	250	42	300	663	6	110	75	4	M16
	180		350	440	250	48	300	663	6	110	75	4	M16
	200		400	440	300	35	350	663	7	110	75	4	M16
	225		450	440	350	60	400	695	7	140	80	8	M16
23/24 25/26	200		400	440	300	55	350	770	6	110	80	4	M16
	225		450	440	350	60	400	800	7	140	80	8	M16
	250		550	440	450	62	500	812	7	140	85	8	M16
	280		550	440	450	75	500	812	8	140	85	8	M16
27/28 29/30	225		450	440	350	60	400	932	7	140	85	8	M16
	250		550	440	450	65	500	932	7	140	85	8	M16
	280		550	440	450	75	500	932	8	140	85	8	M16
	315*		600	440	550	80	600	967	11	170	100	8	M20

注：(1)：“\*”所选直联电机机座号所对应的功率应满足传动能力表；  
“\*\*”表格中所示的法兰为标准型号的法兰，如有异同请另咨询。  
(2) 侧面扭力臂组合，请咨询。

(1)\* Power to match transmission force table for direct-connect motor;  
\*\* Table flange is standard flange.  
(2) Side torque arm matched units, please inquiry.

附件代号  
Accessory Cod

代号Code	附件 Add-on piece		附图 Representation
99	不带附件 Without accessory		
96	带附件 With base	7.12.1	
71	电机机架 (电机、连轴号) Motor rack (motor, concentric shaft)	7.12.5	
72	电机机架 Motor rack		
73	电机移动机座 (电机、联轴器、齿轮箱) Motor mobile rack (motor, coupling, gear units)		
74	钟型罩式法兰 (输出) Bell liner flange		
75	扭力臂 (单向) Torque arm (single direction)	7.12.2	
76	扭力臂 (双向) Torque arm (double direction)	7.12.3	
77	扭转轴支架 Torsion shaft rack	7.12.4	
80	支架1 Rack 1		
81	支架2 Rack 2		
	特殊设计按客户要求 Special design according to customer requirements		

\* 非刚性联接 Non rigid connection

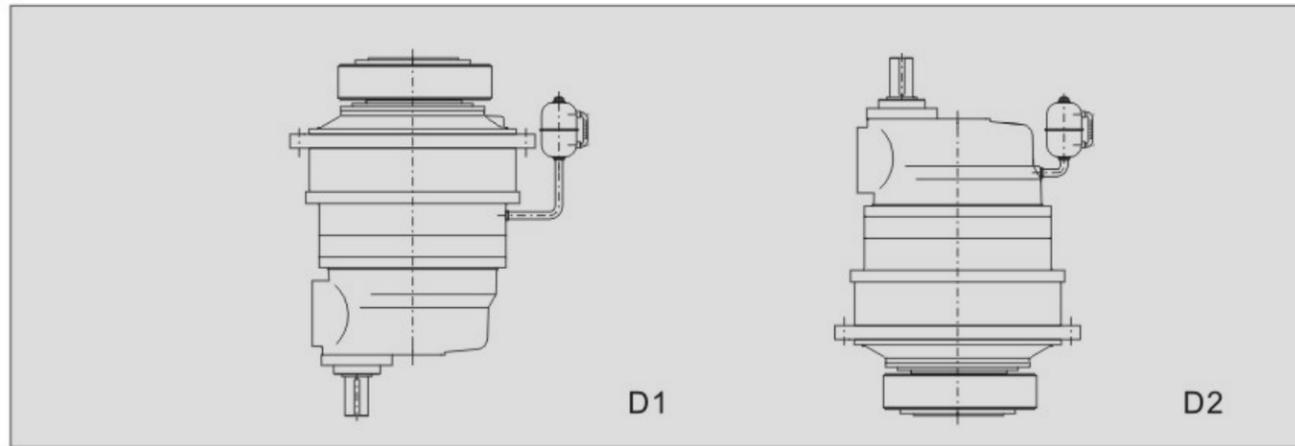
# P系列行星齿轮减速机 PLANETARY GEARBOX

## 垂直安装时润滑油补偿油箱

### Vertical Assembly Fabrication Compensating Oil Case

安装方位为V1, V3, V11, V31时采用润滑油补偿油箱

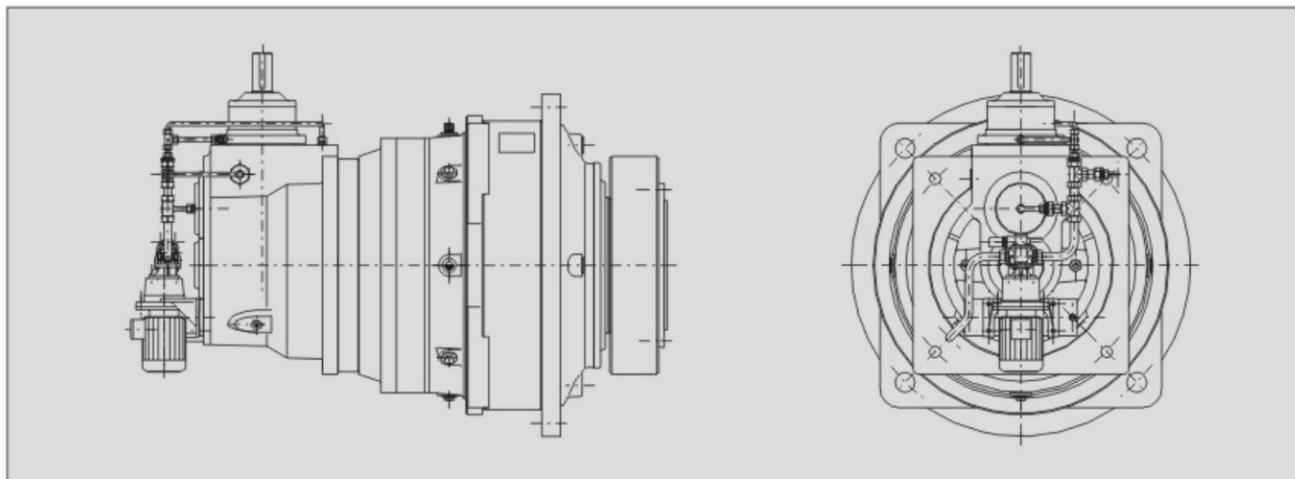
Assembly mode V1, V3, V11, V31 fabrication compensating oil case.



在垂直安装条件下, 正常的润滑方法很难给予顶端轴承提供润滑油, 为了确保润滑油的供应, 齿轮箱内油量必须加高, 如上图(D1, D2)所示, 通过补偿油箱加高油位, 补偿油箱上装有通气帽通气. 油箱可被安装在齿轮箱上, 也可以安装在客户的机架上, 实际尺寸和最终位置在订货时商定.

The formal fabrication ways is hard to fill the fabrication oil in the vertical assembly conditions, in order to make the supply of the fabrication oil, the oil volume in the gear units need to heighten. Just like the picture (D1, D2) shows, to enhance the oil level by compensating oil case with air vent and cap.. the oil case could be installed on the gear units as well as the customer's machine rack. The factual size and final position can be negotiated when placing an order.

水平安装时, 油泵供油如下 Horizontal installation, oil pump supply oil as follow



B51安装方位时, 需配备电动泵强制循环润滑

[PK, PL为B51安装方位时所有规格(即9-34型), PS的20型以上所有规格(即21-34型)]

B51 assembly position, need the match the electric motor pump to force the cycle fabrication.

(PK, PL is B51 assembly position is suitable to type 9-34. above PS 20 type(21-34))

注: 轴布置形式, 请参阅13.17.

# P系列行星齿轮减速机 PLANETARY GEARBOX

## 安装方位

### Installation Position

		水平安装 Horizontal type		垂直安装 Vertical type	
同轴式齿轮箱 Concentric gearbox	0				
斜齿-行星 齿轮箱 Helical- planetary gearbox	1	P.S.			
伞齿-斜齿- 行星齿轮箱 Bevel-helical planetary gearbox	2	P.K.			
伞齿-行星 齿轮箱 Bevel- planetary gearbox	3	P.L.			
扭力臂安装 Torque arm assembly	5			*) 对于B51, V1, V3, V11, V31安装方位时, 需保证齿轮箱的润滑, 请与我们联系。 *) For B51, V1, V3, V11, V31 installation orientation, boundary for gear lubrication, please contact us	