

**BONENG**



PK篋冷机辊破  
装置专用行星  
齿轮马达

PK Planetary  
Gearmotor For  
CoolingRoll Crusher

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Selection Sample C05.0030

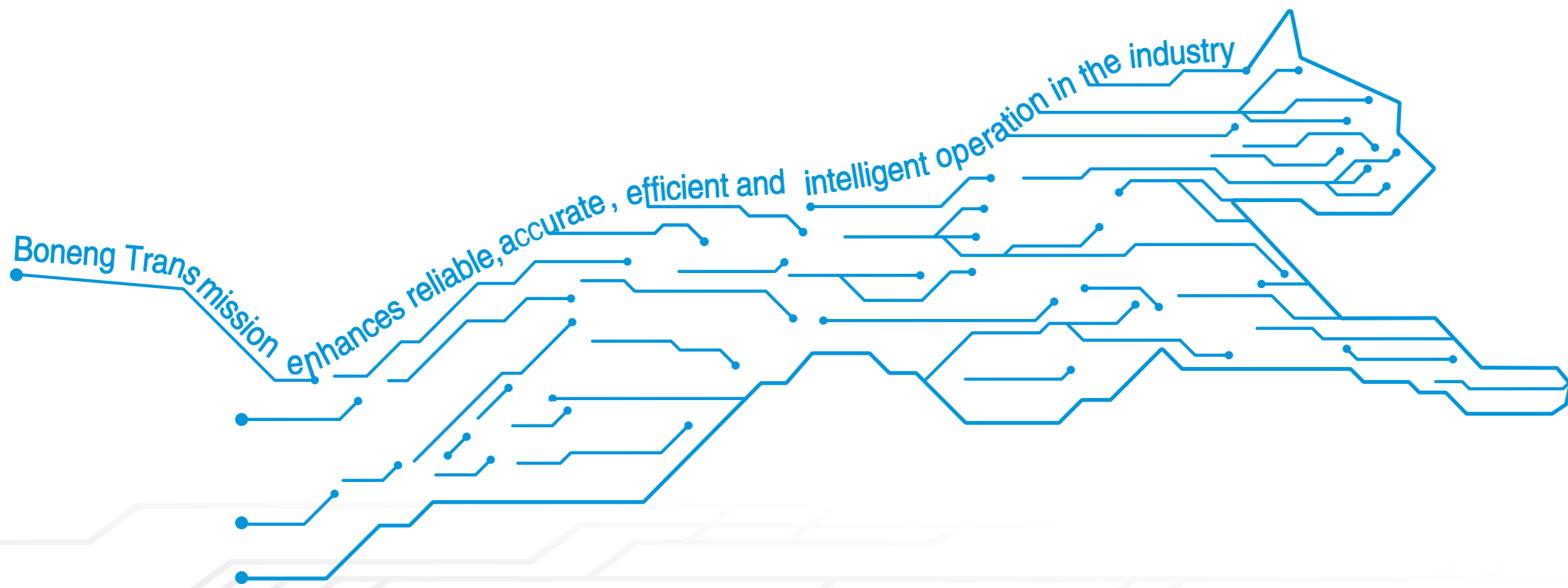
PK篋冷机辊破装置专用行星齿轮马达

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**Boneng Transmission**

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控制器/驱动器/马达/ 齿轮马达/齿轮箱    Controller/ Drive/ Motor/ Gearmotor/ Gearbox

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## 注意事项:

- ◆ 样本中的结构示意图、外形图及其他附图只属范例，无严格比例要求。（未注尺寸单位均为mm）。
- ◆ 所注重量仅为平均值，并不具有约束力。

## ⚠️ 必须严格遵守以下各项:

- ◆ 为防止意外事故发生，所有旋转部件均按照使用者所在国家和地区的安全规范由购置方加罩保护。
- ◆ 试车之前必须认真阅读使用说明书。
- ◆ 齿轮箱在供货时已处于准运行状态，运行前需加注润滑油。
- ◆ 本样本中注油量只作为参考值，实际注油量应以油尺上的标记为准。
- ◆ 润滑油粘度应按齿轮箱使用工况及使用环境温度选取。
- ◆ 只能采用国际知名品牌的润滑油。

## 产品功能标识



油 镜



通气帽



进油孔



放油孔

## Note:

- ◆ The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement. (The unmarked dimension units are mm).
- ◆ The marked weight is average value, it has no constraint force.

## ⚠️ You must conform to the following instructions:

- ◆ To prevent accidents, all the rotation parts are added with protective covers according to the safety regulations of the nation and region.
- ◆ Before debugging, you should carefully read instruction book.
- ◆ Gearbox has been tested before delivered, users should add lubrication oil before running.
- ◆ The marked oil quantity in sample is only reference value, actual oil filling quantity should be the same with the mark on oil immersion lens.
- ◆ Lubrication oil viscosity should be selected according to working conditions and the temperature of local environment.
- ◆ Users can only use high quality lubrication oil.

## Product Function Mark



Oil glass



Breather



Oil filler



Oil drain

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## 1 概述

篦冷机是水泥熟料生产线烧成系统配套的主要设备, 不仅对热熟料进行冷却、辊破和输送, 而且是水泥熟料煅烧系统中热回收的重要工艺设备, 也是直接影响回转窑运转率的关键设备。

PK专用行星齿轮马达是为篦冷机辊破装置专门开发的一款驱动产品, 具有以下特点:

- ◆ 电机与齿轮箱直联, 结构紧凑, 性能良好;
  - ◆ 直联电机为高效电机或超高效电机, 电机标配热敏电阻和防雨罩; 参数说明如下:
    - I 连续工作制S1;
    - II 电压和频率: 380V/50Hz;
    - III 绝缘等级: F级;
    - IV 防护等级: IP55;
    - V 冷却方式: IC411;
  - ◆ 齿轮采用优质合金钢渗碳淬火处理, 所有齿轮均进行磨齿工艺;
  - ◆ 输出采用氟橡胶径向骨架油封, 标准结构为双油封设计, 密封可靠性较高;
  - ◆ 高度的模块化设计, 批量生产更经济。
- 备注: 建议扭力臂和齿轮箱输出法兰连接螺栓强度等级不低于10.9;

## 1 Summary

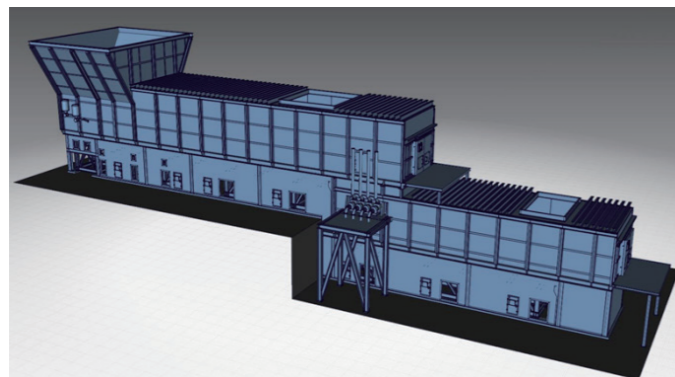
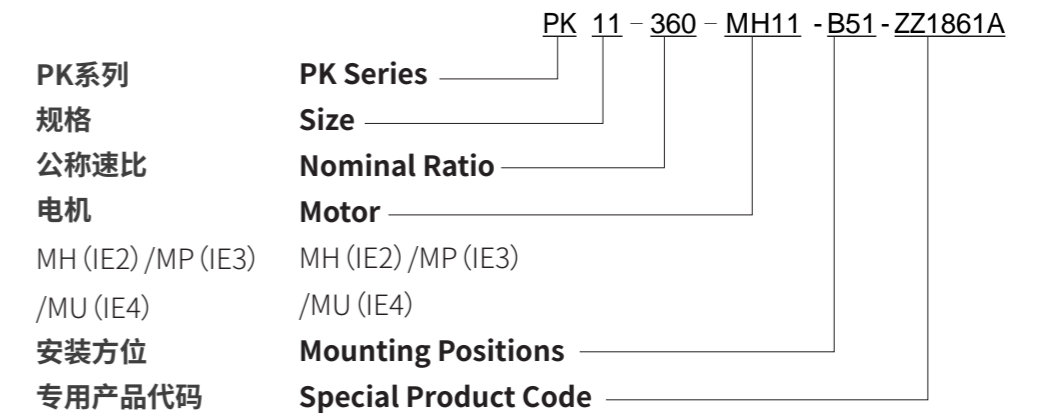
The grate cooler is the main equipment for the cement clinker production line firing system. It not only cools, rolls and transports the hot clinker, but also is an important technical equipment of heat recovery in the cement clinker calcination system and a key equipment that directly affects the operating rate of rotary kiln.

PK special planetary gear motor is a driving product specially developed for the cooling roll crusher, which has the following characteristics:

- ◆ Direct connection between motor and gearbox, compact structure and good performance;
  - ◆ The direct-connected motor is a high-efficiency motor or an ultra-efficient motor, and the motor is equipped with a thermistor and a rainproof cover; The parameters are as follows:
    - I Continuous working mode S1;
    - II Voltage and frequency: 380V/50Hz;
    - III Insulation level: F;
    - IV Protection level: IP55;
    - V Cooling method: IC411;
  - ◆ The gears material is excellent alloy steel and processed by carburization and quenching, and all gears are grinded.
  - ◆ The output adopts fluorine rubber radial skeleton seals, the standard structure is double seals, high sealing reliability;
  - ◆ Highly modular design, volume production is more economical.
- Note: It is recommended that the strength grade of connecting bolts of torque arm and gearbox output flange should not be lower than 10.9;

## 2 型号表示

## 2 Type Designation



3 选型表

3 Selection Table

P <sub>M</sub> kW	n <sub>2</sub> r/min	T <sub>2</sub> N.m	i <sub>ex</sub>	T <sub>2N</sub> N.m	SF	P系列行星齿轮箱 P Series Planetary Gearbox	新系列斜齿锥齿轮马达 K Helical-Bevel Gearmotor	订货型号 PK Order Type	Weight Kg
4	3.85	8760	373.7	22000	2.51	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MH112L4B40AC3-AON1F-034-ZZ1861A	PK09-400-MH4-B51-ZZ1861A	286
	3.88	8699	373.7	22000	2.53	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MP112L4B40AC3-AON1F-034-ZZ1861A	PK09-400-MP4-B51-ZZ1861A	290
	3.91	8640	373.7	22000	2.55	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MU132S4B40AC3-AON1F-034-ZZ1861A	PK09-400-MU4-B51-ZZ1861A	309
	4.28	7892	336.7	22000	2.79	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MH112L4B40AC3-AON1F-034-ZZ1861A	PK09-360-MH4-B51-ZZ1861A	286
	4.31	7838	336.7	22000	2.81	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MP112L4B40AC3-AON1F-034-ZZ1861A	PK09-360-MP4-B51-ZZ1861A	290
	4.34	7784	336.7	22000	2.83	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MU132S4B40AC3-AON1F-034-ZZ1861A	PK09-360-MU4-B51-ZZ1861A	309
	4.52	7466	318.5	22000	2.95	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MH112L4B40AC3-AON1F-034-ZZ1861A	PK09-320-MH4-B51-ZZ1861A	286
	4.55	7414	318.5	22000	2.97	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MP112L4B40AC3-AON1F-034-ZZ1861A	PK09-320-MP4-B51-ZZ1861A	290
	4.58	7363	318.5	22000	2.99	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MU132S4B40AC3-AON1F-034-ZZ1861A	PK09-320-MU4-B51-ZZ1861A	309
5.5	3.88	11961	373.7	31000	2.59	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK10-400-MH5.5-B51-ZZ1861A	348
	3.91	11879	373.7	31000	2.61	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK10-400-MP5.5-B51-ZZ1861A	358
	3.93	11799	373.7	31000	2.63	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK10-400-MU5.5-B51-ZZ1861A	359
	3.88	11961	373.7	22000	1.84	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-400-MH5.5-B51-ZZ1861A	301
	3.91	11879	373.7	22000	1.85	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-400-MP5.5-B51-ZZ1861A	311
	3.93	11799	373.7	22000	1.86	P2NA09-31.5-B5-ZZ1861A	K307FA-C13-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-400-MU5.5-B51-ZZ1861A	312
	4.31	10777	336.7	22000	2.04	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-360-MH5.5-B51-ZZ1861A	301
	4.34	10703	336.7	22000	2.06	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-360-MP5.5-B51-ZZ1861A	311
	4.37	10630	336.7	22000	2.07	P2NA09-28-B5-ZZ1861A	K307FA-C13-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-360-MU5.5-B51-ZZ1861A	312
	4.55	10194	318.5	22000	2.16	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-320-MH5.5-B51-ZZ1861A	301
	4.58	10125	318.5	22000	2.17	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-320-MP5.5-B51-ZZ1861A	311
	4.62	10056	318.5	22000	2.19	P2NA09-40-B5-ZZ1861A	K307FA-B80-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-320-MU5.5-B51-ZZ1861A	312
	5.27	8800	274.92	22000	2.50	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-280-MH5.5-B51-ZZ1861A	301
	5.31	8739	274.92	22000	2.52	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-280-MP5.5-B51-ZZ1861A	311
	5.35	8680	274.92	22000	2.53	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-280-MU5.5-B51-ZZ1861A	312
	5.96	7785	243.22	22000	2.83	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-250-MH5.5-B51-ZZ1861A	301
	6.00	7732	243.22	22000	2.85	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-250-MP5.5-B51-ZZ1861A	311
	6.04	7679	243.22	22000	2.86	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-250-MU5.5-B51-ZZ1861A	312
6.62	7014	219.13	22000	3.14	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MH132S4B55AC3-AON1F-034-ZZ1861A	PK09-225-MH5.5-B51-ZZ1861A	301	
6.66	6966	219.13	22000	3.16	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MP132M4B55AC3-AON1F-034-ZZ1861A	PK09-225-MP5.5-B51-ZZ1861A	311	
6.71	6919	219.13	22000	3.18	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MU132M4B55AC3-AON1F-034-ZZ1861A	PK09-225-MU5.5-B51-ZZ1861A	312	
7.5	3.72	17026	390.09	42000	2.47	P2NA11-31.5-B5-ZZ1861A	K308FA-C13-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK11-400-MH7.5-B51-ZZ1861A	528
	3.74	16909	390.09	42000	2.48	P2NA11-31.5-B5-ZZ1861A	K308FA-C13-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK11-400-MP7.5-B51-ZZ1861A	536
	3.77	16794	390.09	42000	2.50	P2NA11-31.5-B5-ZZ1861A	K308FA-C13-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK11-400-MU7.5-B51-ZZ1861A	576
	3.88	16311	373.7	31000	1.90	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK10-400-MH7.5-B51-ZZ1861A	361
	3.91	16199	373.7	31000	1.91	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK10-400-MP7.5-B51-ZZ1861A	369
	3.93	16089	373.7	31000	1.93	P2NA10-31.5-B5-ZZ1861A	K307FA-C13-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK10-400-MU7.5-B51-ZZ1861A	409
	4.31	14696	336.7	31000	2.11	P2NA10-28-B5-ZZ1861A	K307FA-C13-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK10-360-MH7.5-B51-ZZ1861A	361
	4.34	14595	336.7	31000	2.12	P2NA10-28-B5-ZZ1861A	K307FA-C13-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK10-360-MP7.5-B51-ZZ1861A	369
	4.37	14496	336.7	31000	2.14	P2NA10-28-B5-ZZ1861A	K307FA-C13-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK10-360-MU7.5-B51-ZZ1861A	409
	4.55	13901	318.5	31000	2.23	P2NA10-40-B5-ZZ1861A	K307FA-B80-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK10-320-MH7.5-B51-ZZ1861A	361
	4.58	13806	318.5	31000	2.25	P2NA10-40-B5-ZZ1861A	K307FA-B80-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK10-320-MP7.5-B51-ZZ1861A	369
	4.62	13712	318.5	31000	2.26	P2NA10-40-B5-ZZ1861A	K307FA-B80-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK10-320-MU7.5-B51-ZZ1861A	409
	5.27	11999	274.92	31000	2.58	P2NA10-35.5-B5-ZZ1861A	K307FA-B80-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK10-280-MH7.5-B51-ZZ1861A	361
	5.31	11917	274.92	31000	2.60	P2NA10-35.5-B5-ZZ1861A	K307FA-B80-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK10-280-MP7.5-B51-ZZ1861A	369
	5.35	11836	274.92	31000	2.62	P2NA10-35.5-B5-ZZ1861A	K307FA-B80-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK10-280-MU7.5-B51-ZZ1861A	409
	5.27	11999	274.92	22000	1.83	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK09-280-MH7.5-B51-ZZ1861A	314

P <sub>M</sub> kW	n <sub>2</sub> r/min	T <sub>2</sub> N.m	i <sub>ex</sub>	T <sub>2N</sub> N.m	SF	P系列行星齿轮箱 P Series Planetary Gearbox	新系列斜齿锥齿轮马达 K Helical-Bevel Gearmotor	订货型号 PK Order Type	Weight Kg
7.5	5.31	11917	274.92	22000	1.85	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK09-280-MP7.5-B51-ZZ1861A	322
	5.35	11836	274.92	22000	1.86	P2NA09-35.5-B5-ZZ1861A	K307FA-B80-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK09-280-MU7.5-B51-ZZ1861A	362
	5.96	10616	243.22	22000	2.07	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK09-250-MH7.5-B51-ZZ1861A	314
	6.00	10543	243.22	22000	2.09	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK09-250-MP7.5-B51-ZZ1861A	322
	6.04	10471	243.22	22000	2.10	P2NA09-31.5-B5-ZZ1861A	K307FA-B80-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK09-250-MU7.5-B51-ZZ1861A	362
	6.62	9564	219.13	22000	2.30	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MH132M4B75AC3-AON1F-034-ZZ1861A	PK09-225-MH7.5-B51-ZZ1861A	314
	6.66	9499	219.13	22000	2.32	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MP132L4B75AC3-AON1F-034-ZZ1861A	PK09-225-MP7.5-B51-ZZ1861A	322
	6.71	9434	219.13	22000	2.33	P2NA09-28-B5-ZZ1861A	K307FA-B80-D400-MU160M4B75AC3-AON1F-034-ZZ1861A	PK09-225-MU7.5-B51-ZZ1861A	362
	11	3.88	23945	376.63	60000	2.51	P2NA12-31.5-B5-ZZ1861A	K308FA-C13-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK12-400-MH11-B51-ZZ1861A
3.90		23782	376.63	60000	2.52	P2NA12-31.5-B5-ZZ1861A	K308FA-C13-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK12-400-MP11-B51-ZZ1861A	683
3.92		23701	376.63	60000	2.53	P2NA12-31.5-B5-ZZ1861A	K308FA-C13-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK12-400-MU11-B51-ZZ1861A	714
4.14		22437	352.91	42000	1.87	P2NA11-28-B5-ZZ1861A	K308FA-C13-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK11-360-MH11-B51-ZZ1861A	528
4.17		22284	352.91	42000	1.88	P2NA11-28-B5-ZZ1861A	K308FA-C13-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK11-360-MP11-B51-ZZ1861A	536
4.18		22209	352.91	42000	1.89	P2NA11-28-B5-ZZ1861A	K308FA-C13-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK11-360-MU11-B51-ZZ1861A	567
4.28		21664	340.75	60000	2.77	P2NA12-28-B5-ZZ1861A	K308FA-C13-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK12-360-MH11-B51-ZZ1861A	675
4.31		21516	340.75	60000	2.79	P2NA12-28-B5-ZZ1861A	K308FA-C13-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK12-360-MP11-B51-ZZ1861A	683
4.33		21443	340.75	60000	2.80	P2NA12-28-B5-ZZ1861A	K308FA-C13-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK12-360-MU11-B51-ZZ1861A	714
4.51		20601	324.03	42000	2.04	P2NA11-40-B5-ZZ1861A	K308FA-B80-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK11-320-MH11-B51-ZZ1861A	528
4.54		20461	324.03	42000	2.05	P2NA11-40-B5-ZZ1861A	K308FA-B80-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK11-320-MP11-B51-ZZ1861A	536
4.55		20391	324.03	42000	2.06	P2NA11-40-B5-ZZ1861A	K308FA-B80-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK11-320-MU11-B51-ZZ1861A	567
5.18		17927	281.98	42000	2.34	P2NA11-35.5-B5-ZZ1861A	K308FA-B80-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK11-280-MH11-B51-ZZ1861A	528
5.21		17805	281.98	42000	2.36	P2NA11-35.5-B5-ZZ1861A	K308FA-B80-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK11-280-MP11-B51-ZZ1861A	536
5.23		17745	281.98	42000	2.37	P2NA11-35.5-B5-ZZ1861A	K308FA-B80-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK11-280-MU11-B51-ZZ1861A	567
5.82		15952	250.9	42000	2.63	P2NA11-31.5-B5-ZZ1861A	K308FA-B80-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK11-250-MH11-B51-ZZ1861A	528
5.86		15843	250.9	42000	2.65	P2NA11-31.5-B5-ZZ1861A	K308FA-B80-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK11-250-MP11-B51-ZZ1861A	536
5.88		15789	250.9	42000	2.66	P2NA11-31.5-B5-ZZ1861A	K308FA-B80-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK11-250-MU11-B51-ZZ1861A	567
6.43	14432	226.99	42000	2.91	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MH160S4C11AC3-AON1F-034-ZZ1861A	PK11-225-MH11-B51-ZZ1861A	528	
6.48	14333	226.99	42000	2.93	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MP160M4C11AC3-AON1F-034-ZZ1861A	PK11-225-MP11-B51-ZZ1861A	536	
6.50	14285	226.99	42000	2.94	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MU160L4C11AC3-AON1F-034-ZZ1861A	PK11-225-MU11-B51-ZZ1861A	567	
15	3.86	32764	376.63	60000	1.83	P2NA12-31.5-B5-ZZ1861A	K308FA-C13-D400-MH160M4C15AC3-AON1F-034-ZZ1861A	PK12-400-MH15-B51-ZZ1861A	693
	3.90	32430	376.63	60000	1.85	P2NA12-31.5-B5-ZZ1861A	K308FA-C13-D400-MP16		

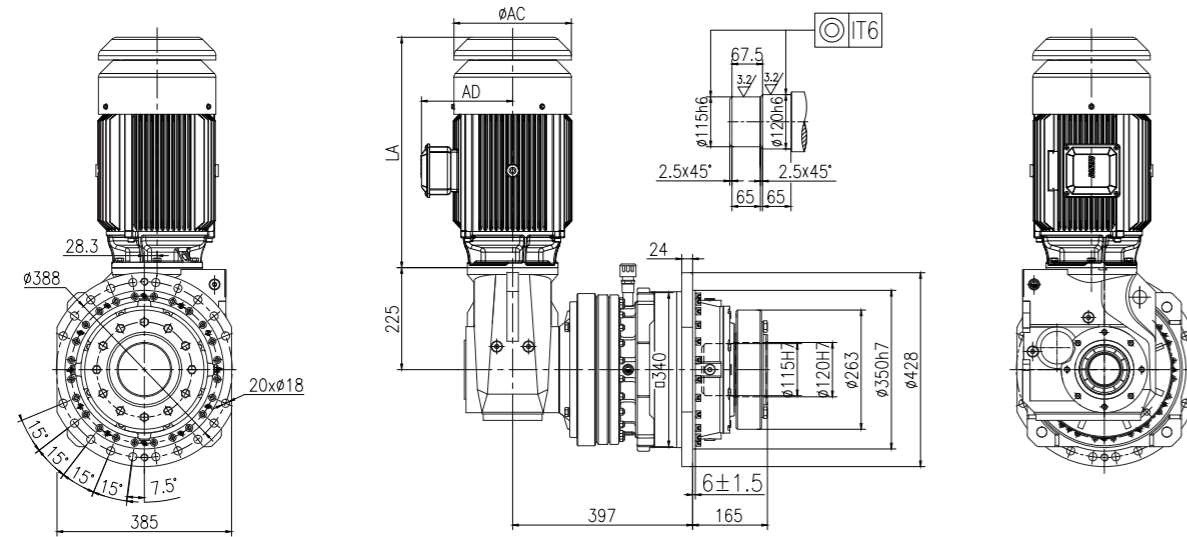
P <sub>M</sub> kW	n <sub>2</sub> r/min	T <sub>2</sub> N.m	i <sub>ex</sub>	T <sub>2N</sub> N·m	SF	P系列行星齿轮箱 P Series Planetary Gearbox	新系列斜齿锥齿轮马达 K Helical-Bevel Gearmotor	订货型号 PK Order Type	Weight Kg
15	5.88	21531	250.9	42000	1.95	P2NA11-31.5-B5-ZZ1861A	K308FA-B80-D400-MU180M4C15AC3-AON11-034-ZZ1861A	PK11-250-MU15-B51-ZZ1861A	646
	6.01	21074	242.25	60000	2.85	P2NA12-31.5-B5-ZZ1861A	K308FA-B80-D400-MH160M4C15AC3-AON11-034-ZZ1861A	PK12-250-MH15-B51-ZZ1861A	693
	6.07	20859	242.25	60000	2.88	P2NA12-31.5-B5-ZZ1861A	K308FA-B80-D400-MP160L4C15AC3-AON11-034-ZZ1861A	PK12-250-MP15-B51-ZZ1861A	715
	6.09	20788	242.25	60000	2.89	P2NA12-31.5-B5-ZZ1861A	K308FA-B80-D400-MU180M4C15AC3-AON11-034-ZZ1861A	PK12-250-MU15-B51-ZZ1861A	752
	6.41	19747	226.99	42000	2.13	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MH160M4C15AC3-AON11-034-ZZ1861A	PK11-225-MH15-B51-ZZ1861A	587
	6.48	19545	226.99	42000	2.15	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MP160L4C15AC3-AON11-034-ZZ1861A	PK11-225-MP15-B51-ZZ1861A	609
	6.50	19479	226.99	42000	2.16	P2NA11-28-B5-ZZ1861A	K308FA-B80-D400-MU180M4C15AC3-AON11-034-ZZ1861A	PK11-225-MU15-B51-ZZ1861A	646
	18.5	3.77	41357	388.11	83000	2.01	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MH180M4C18AC3-AON11-034-ZZ1861A	PK13-400-MH18.5-B51-ZZ1861A
3.80		41076	388.11	83000	2.02	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MP180M4C18AC3-AON11-034-ZZ1861A	PK13-400-MP18.5-B51-ZZ1861A	989
3.80		41076	388.11	83000	2.02	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MU180L4C18AC3-AON11-034-ZZ1861A	PK13-400-MU18.5-B51-ZZ1861A	1007
4.19		37261	349.67	83000	2.23	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MH180M4C18AC3-AON11-034-ZZ1861A	PK13-360-MH18.5-B51-ZZ1861A	971
4.22		37008	349.67	83000	2.24	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MP180M4C18AC3-AON11-034-ZZ1861A	PK13-360-MP18.5-B51-ZZ1861A	989
4.22		37008	349.67	83000	2.24	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MU180L4C18AC3-AON11-034-ZZ1861A	PK13-360-MU18.5-B51-ZZ1861A	1007
4.65		33552	314.87	83000	2.47	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MH180M4C18AC3-AON11-034-ZZ1861A	PK13-320-MH18.5-B51-ZZ1861A	971
4.68		33325	314.87	83000	2.49	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MP180M4C18AC3-AON11-034-ZZ1861A	PK13-320-MP18.5-B51-ZZ1861A	989
4.68		33325	314.87	83000	2.49	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MU180L4C18AC3-AON11-034-ZZ1861A	PK13-320-MU18.5-B51-ZZ1861A	1007
22		3.77	49181	388.11	117000	2.38	P2NA14-31.5-B5-ZZ1861A	K309FA-C13-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK14-400-MH22-B51-ZZ1861A
	3.80	48848	388.11	117000	2.40	P2NA14-31.5-B5-ZZ1861A	K309FA-C13-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK14-400-MP22-B51-ZZ1861A	1199
	3.80	48848	388.11	117000	2.40	P2NA14-31.5-B5-ZZ1861A	K309FA-C13-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK14-400-MU22-B51-ZZ1861A	1258
	3.77	49181	388.11	83000	1.69	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-400-MH22-B51-ZZ1861A	993
	3.80	48848	388.11	83000	1.70	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-400-MP22-B51-ZZ1861A	1009
	3.80	48848	388.11	83000	1.70	P2NA13-31.5-B5-ZZ1861A	K309FA-C13-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-400-MU22-B51-ZZ1861A	1068
	4.19	44310	349.67	117000	2.64	P2NA14-28-B5-ZZ1861A	K309FA-C13-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK14-360-MH22-B51-ZZ1861A	1183
	4.22	44010	349.67	117000	2.66	P2NA14-28-B5-ZZ1861A	K309FA-C13-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK14-360-MP22-B51-ZZ1861A	1199
	4.22	44010	349.67	117000	2.66	P2NA14-28-B5-ZZ1861A	K309FA-C13-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK14-360-MU22-B51-ZZ1861A	1258
	4.19	44310	349.67	83000	1.87	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-360-MH22-B51-ZZ1861A	993
	4.22	44010	349.67	83000	1.89	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-360-MP22-B51-ZZ1861A	1009
	4.22	44010	349.67	83000	1.89	P2NA13-28-B5-ZZ1861A	K309FA-C13-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-360-MU22-B51-ZZ1861A	1068
	4.65	39900	314.87	83000	2.08	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-320-MH22-B51-ZZ1861A	993
	4.68	39630	314.87	83000	2.09	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-320-MP22-B51-ZZ1861A	1009
	4.68	39630	314.87	83000	2.09	P2NA13-40-B5-ZZ1861A	K309FA-B80-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-320-MU22-B51-ZZ1861A	1068
	5.39	34439	271.78	83000	2.41	P2NA13-35.5-B5-ZZ1861A	K309FA-B80-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-280-MH22-B51-ZZ1861A	993
	5.43	34206	271.78	83000	2.43	P2NA13-35.5-B5-ZZ1861A	K309FA-B80-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-280-MP22-B51-ZZ1861A	1009
	5.43	34206	271.78	83000	2.43	P2NA13-35.5-B5-ZZ1861A	K309FA-B80-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-280-MU22-B51-ZZ1861A	1068
	6.09	30469	240.45	83000	2.72	P2NA13-31.5-B5-ZZ1861A	K309FA-B80-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-250-MH22-B51-ZZ1861A	993
	6.13	30263	240.45	83000	2.74	P2NA13-31.5-B5-ZZ1861A	K309FA-B80-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-250-MP22-B51-ZZ1861A	1009
	6.13	30263	240.45	83000	2.74	P2NA13-31.5-B5-ZZ1861A	K309FA-B80-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-250-MU22-B51-ZZ1861A	1068
	6.76	27452	216.63	83000	3.02	P2NA13-28-B5-ZZ1861A	K309FA-B80-D400-MH180L4C22AC3-AON11-034-ZZ1861A	PK13-225-MH22-B51-ZZ1861A	993
	6.81	27265	216.63	83000	3.04	P2NA13-28-B5-ZZ1861A	K309FA-B80-D400-MP180L4C22AC3-AON11-034-ZZ1861A	PK13-225-MP22-B51-ZZ1861A	1009
	6.81	27265	216.63	83000	3.04	P2NA13-28-B5-ZZ1861A	K309FA-B80-D400-MU200L4C22AC3-AON11-034-ZZ1861A	PK13-225-MU22-B51-ZZ1861A	1068

P <sub>M</sub> kW	n <sub>2</sub> r/min	T <sub>2</sub> N.m	i <sub>ex</sub>	T <sub>2N</sub> N·m	SF	P系列行星齿轮箱 P Series Planetary Gearbox	新系列斜齿锥齿轮马达 K Helical-Bevel Gearmotor	订货型号 PK Order Type	Weight Kg
30	3.79	66837	388.11	117000	1.75	P2NA14-31.5-B5-ZZ1861A	K309FA-C13-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK14-400-MH30-B51-ZZ1861A	1239
	3.80	66610	388.11	117000	1.76	P2NA14-31.5-B5-ZZ1861A	K309FA-C13-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK14-400-MP30-B51-ZZ1861A	1259
	4.20	60217	349.67	117000	1.94	P2NA14-28-B5-ZZ1861A	K309FA-C13-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK14-360-MH30-B51-ZZ1861A	1239
	4.22	60013	349.67	117000	1.95	P2NA14-28-B5-ZZ1861A	K309FA-C13-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK14-360-MP30-B51-ZZ1861A	1259
	4.67	54224	314.87	117000	2.16	P2NA14-40-B5-ZZ1861A	K309FA-B80-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK14-320-MH30-B51-ZZ1861A	1239
	4.68	54040	314.87	117000	2.17	P2NA14-40-B5-ZZ1861A	K309FA-B80-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK14-320-MP30-B51-ZZ1861A	1259
	5.41	46803	271.78	117000	2.50	P2NA14-35.5-B5-ZZ1861A	K309FA-B80-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK14-280-MH30-B51-ZZ1861A	1239
	5.43	46645	271.78	117000	2.51	P2NA14-35.5-B5-ZZ1861A	K309FA-B80-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK14-280-MP30-B51-ZZ1861A	1259
	5.41	46803	271.78	83000	1.77	P2NA13-35.5-B5-ZZ1861A	K309FA-B80-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK13-280-MH30-B51-ZZ1861A	1049
	5.43	46645	271.78	83000	1.78	P2NA13-35.5-B5-ZZ1861A	K309FA-B80-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK13-280-MP30-B51-ZZ1861A	1069
	6.11	41408	240.45	83000	2.00	P2NA13-31.5-B5-ZZ1861A	K309FA-B80-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK13-250-MH30-B51-ZZ1861A	1049
	6.13	41267	240.45	83000	2.01	P2NA13-31.5-B5-ZZ1861A	K309FA-B80-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK13-250-MP30-B51-ZZ1861A	1069
	6.79	37307	216.63	83000	2.22	P2NA13-28-B5-ZZ1861A	K309FA-B80-D400-MH200M4C30AC3-AON11-034-ZZ1861A	PK13-225-MH30-B51-ZZ1861A	1049
	6.81	37180	216.63	83000	2.23	P2NA13-28-B5-ZZ1861A	K309FA-B80-D400-MP200M4C30AC3-AON11-034-ZZ1861A	PK13-225-MP30-B51-ZZ1861A	1069

4 外形尺寸图

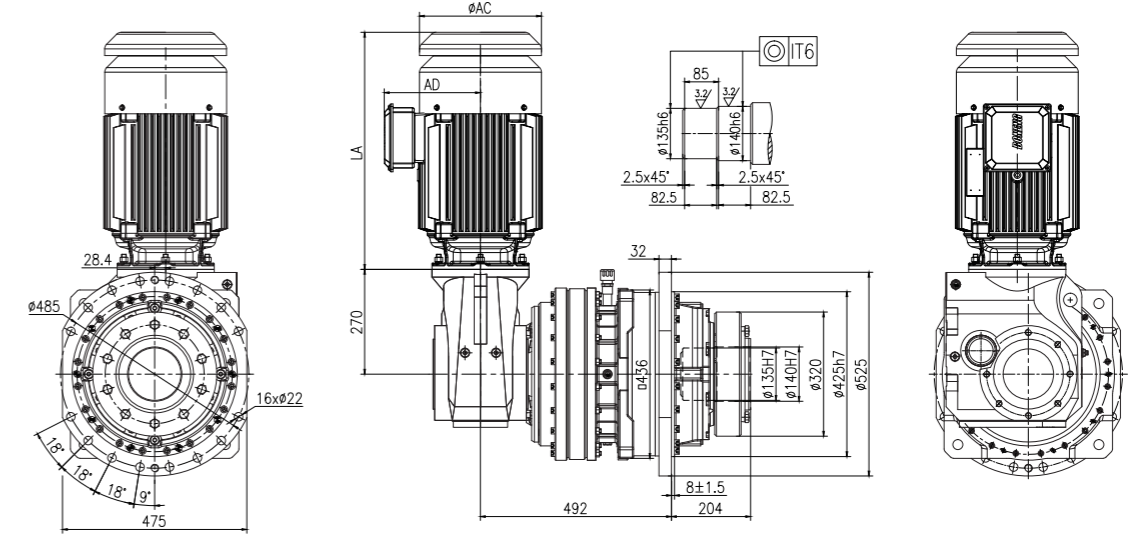
4 Outline Dimensions

PK09



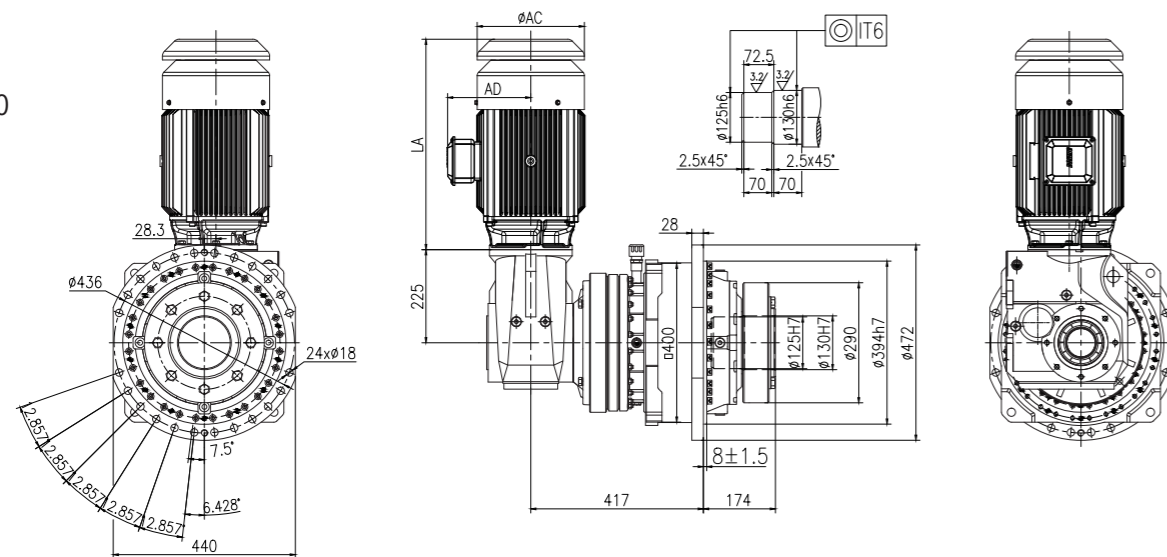
Motor	AC (mm)	AD (mm)	LA (mm)
MH4	220	180	496
MP4	220	180	496
MU4	259	202	499
MH5.5	259	202	466
MP5.5	259	202	499
MU5.5	259	202	537
HM7.5	259	202	499
MP7.5	259	202	537
MU7.5	314	247	641

PK11



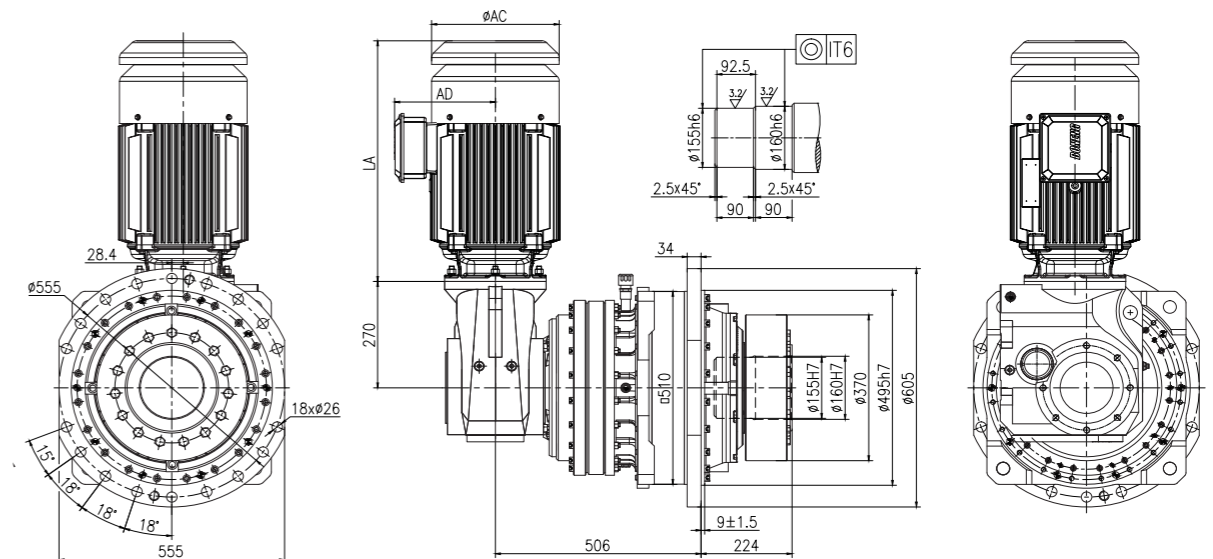
Motor	AC (mm)	AD (mm)	LA (mm)
MH7.5	259	202	491
MP7.5	259	202	529
MU7.5	314	247	610
MH11	314	247	566
MP11	314	247	610
MU11	314	247	640
MH15	314	247	610
MP15	314	247	640
MU15	356	263	681

PK10



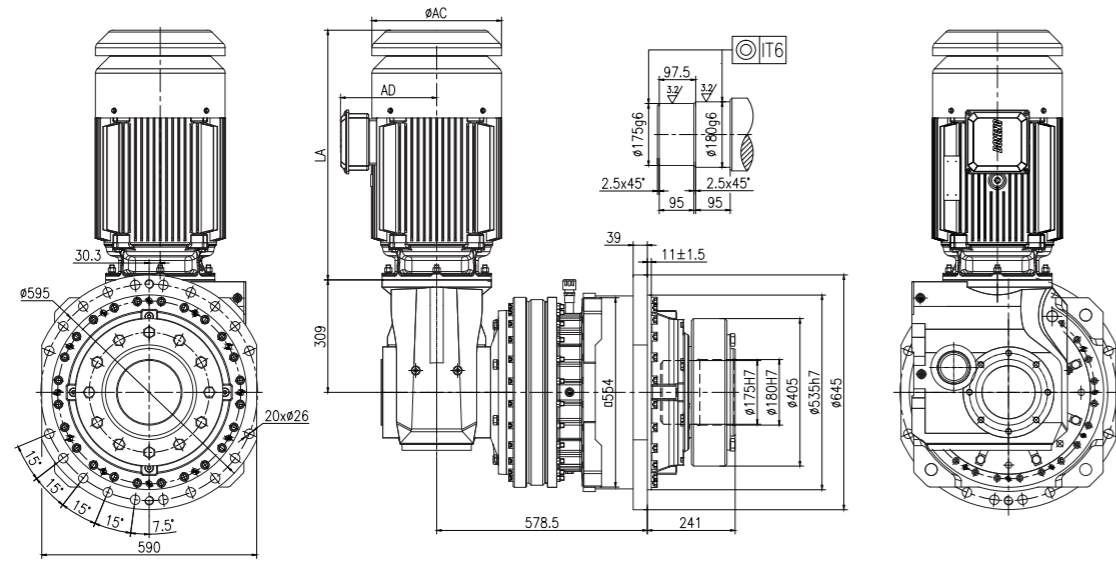
Motor	AC (mm)	AD (mm)	LA (mm)
MH5.5	259	202	466
MP5.5	259	202	499
MU5.5	259	202	537
MH7.5	259	202	499
MP7.5	259	202	537
MU7.5	314	202	611

PK12



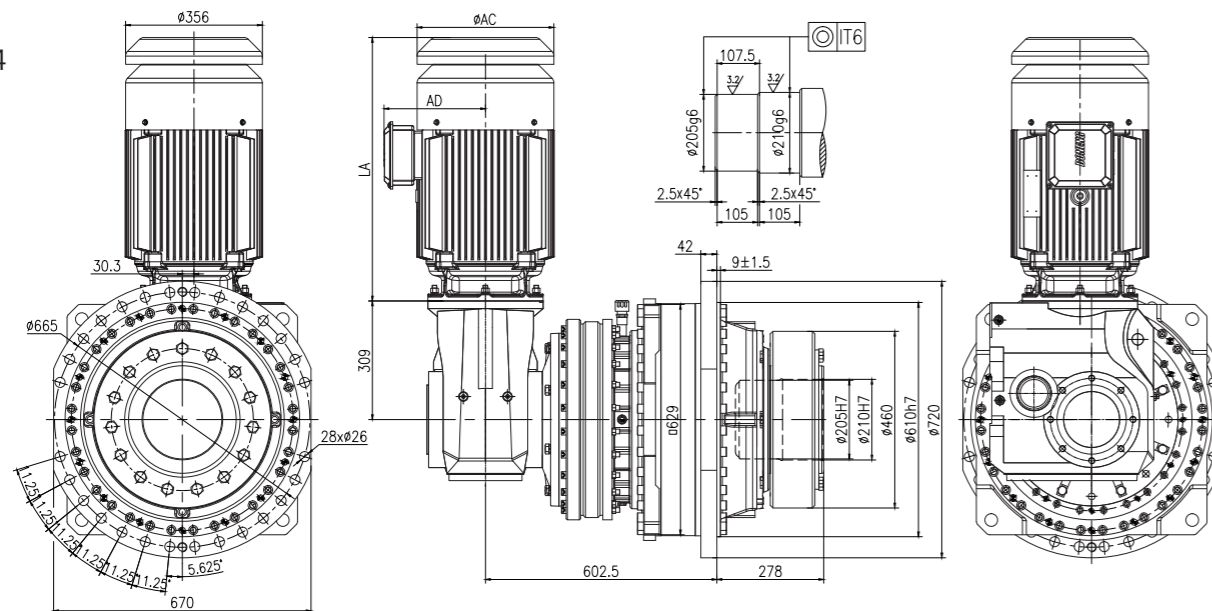
Motor	AC (mm)	AD (mm)	LA (mm)
MH11	314	247	566
MP11	314	247	610
MU11	314	247	640
MH15	314	247	610
MP15	314	247	640
MU15	356	263	681

PK13



Motor	AC (mm)	AD (mm)	LA (mm)
MH18.5	356	263	675
MP18.5	356	263	675
MU18.5	356	263	723
MH22	356	263	723
MP22	356	263	723
MU22	398	296	765
MH30	398	296	765
MP30	398	296	765

PK14



Motor	AC (mm)	AD (mm)	LA (mm)
MH22	356	263	723
MP22	356	263	723
MU22	398	296	765
MH30	398	296	765
MP30	398	296	765

5 润滑说明

齿轮箱在供货时已处于准运行状态,运行前需加注润滑油。如无特殊说明,齿轮箱发货不含油。实际注油量应以油镜上的标记为准。润滑油(重负荷工业齿轮油)粘度牌号选用【VG320】

5 Lubrication Specification

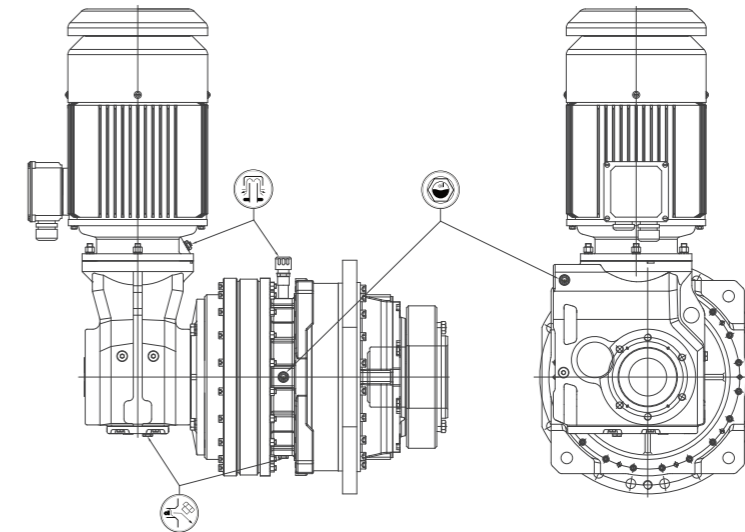
The gearbox has been tested before delivered, users should add lubrication oil before running. If not specified, the gearbox is shipped without oil. The actual oil value should be done as the oil glass level. Lubrication viscosity (heavy industrial gear oil) [VG320]

环境温度 °C	Ambient temperature °C	-20°C ~ +40°C
粘度牌号	Viscosity	VG320

- 注:
1. 齿轮箱采用浸油润滑,产品系列P和K油路不通,用油封隔绝,需分别加油。
  2. 上表中粘度牌号为40°C温度下的ISO-VG粘度。
  3. 环境温度低于-10°C必须使用合成油。
  4. 为保证产品寿命,实际使用中建议使用合成油。
  5. 若环境温度超出上述范围,敬请垂询。

- Note:
1. The gearbox is lubricated by oil. Product series P and K oil paths are blocked by oil seal, need to be refueled separately.
  2. Above table viscosity is only for the temperature under 40°C.
  3. Ambient temperature below -10°C must use synthetic oil.
  4. To make sure the long using life, we suggest to use synthetic oil.
  5. If the ambient temperature is not in the range of the table, please consult BONENG.

规格 Size 产品系列 Product Series	油量表 (L)		油量表 (L)		Oil level (L)	
	PK09	PK10	PK11	PK12	PK13	PK14
P	3	4	6	8	10	16
K	8.5	8.5	11.5	11.5	22	22



随着技术迭代进步,博能产品样本将会同步更新,请见谅。  
Along with the technology advancedet.,the product of the manual of Boneng will be changed,please forgive.

控制层 CONTROL

驱动层 DRIVE

马达层 MOTOR

齿轮层 GEAR

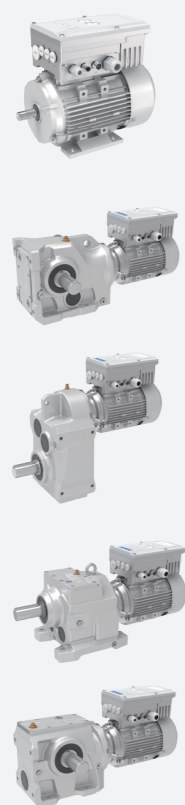


X3010 PLC  
EtherCAT&Modbus  
24VDC



X3050 运动控制器  
Motion Controller  
EtherCAT&Modbus  
24VDC

C/F/K/S-M  
\* . . . D  
马达分布式  
变频驱动器  
Integrated  
Gearmotor  
Drive



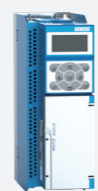
EtherCAT&  
Modbus  
380~480VAC  
0.25~3kW  
i=4~355

AM 变频驱动器  
Variable Frequency Drive



Modbus  
380~480VAC  
0.75~5.5kW

A1 变频驱动器  
Variable Frequency Drive



Modbus/CANopen  
/PROFINET  
380~480VAC  
0.75~250kW

C/F/K/S/R  
齿轮马达  
Gearmotor



380~480VAC  
0.09~200kW  
i=1.25~500

MP/MU/MA  
三相交流异步马达  
Asynchronous Motor



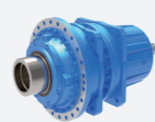
380~480VAC  
0.09~90kW  
960/1450r/min  
1160/1750r/min

HB/BE/HK  
齿轮箱  
Gearbox



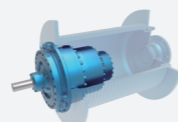
4.2~15775kW  
i=5.6~450

P/PK  
行星齿轮箱  
Planetary  
Gearbox



0.4~14000kW  
i=25~4000

PW  
卷扬齿轮箱  
Planetary  
Winch  
Gearbox



1~1810kW  
i=13~940

PS  
回转齿轮箱  
Planetary  
Slewing  
Gearbox



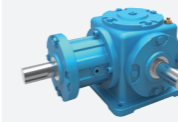
1~1626kW  
i=14~947

J/JB  
升降机  
Jack



0.35~22.63kW  
i=5~34

T  
转向箱  
Spiral Bevel  
Gearbox



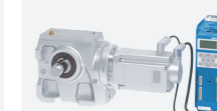
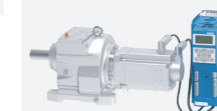
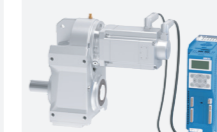
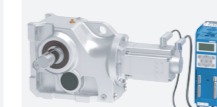
0.08~303kW  
i=1:1~3:1

MX&AX  
伺服马达&伺服  
驱动器  
Permanent  
Magnet  
Servo Motor  
& Servo Drive



EtherCAT/  
PROFINET  
380~480VAC  
0.28~14kW  
1500/2000r/min  
3000/4500r/min

C/F/K/S-MX  
& AX 齿轮伺  
服马达&伺  
服驱动器  
Servo  
Gearmotor  
& Servo Drive



EtherCAT/  
PROFINET  
380~480VAC  
0.28~14kW  
i=1.25~315

PX-MX&AX  
行星伺服马达  
& 伺服驱动器  
Planetary  
Precision Gear  
Servo Motor  
& Servo Drive



EtherCAT/  
PROFINET  
380~480VAC  
0.38~14kW  
i=3~100

PN-MN&AN  
行星伺服马达  
& 伺服驱动器  
Planetary  
Precision Gear  
Servo Motor  
& Servo Drive



EtherCAT  
380~480VAC  
0.28~5.03kW  
i=3~100

<b>博能传动(沈阳)有限公司</b>	<b>BONENG TRANSMISSION(SHENYANG)CO.,LTD.</b>
辽宁省沈阳市沈北新区 太平洋工业城A区A73-6号 电话: 024-31271571	No. A73-6, Area A, Pacific Industrial City, Shenbei New District, Shenyang, Liaoning Province, China TEL: 024-31271571
<b>博能传动(天津)有限公司</b>	<b>BONENG TRANSMISSION(TIANJIN)CO.,LTD.</b>
天津市北辰区双海道6号 宏鹏工业园7号车间 电话: 022-26929556	7th Workshop, Hongpeng Industrial Park, No. 6 Shuanghai Road, Beichen District, Tianjin City,China TEL: 022-26929556
<b>博能传动(潍坊)有限公司</b>	<b>BONENG TRANSMISSION(WEIFANG)CO.,LTD.</b>
山东省潍坊市安丘市经济开发区 汶水路与昆仑大街交叉口往北 100米路东1号车间 电话: 0536-2141166	1st Workshop, Economic Development Zone, Anqiu, Weifang City, Shandong Province, China TEL: 0536-2141166
<b>博能传动(开封)有限公司</b>	<b>BONENG TRANSMISSION(KAIFENG)CO.,LTD.</b>
河南省开封市宋城路四大街11号 海神机械院内五号厂房 电话: 0371-23335238	5th Workshop, Haishen Machinery, No.11, Fourth Street, Songcheng Road,New District, Kaifeng City, Henan Province, China TEL: 0371-23335238
<b>博能传动(长沙)有限公司</b>	<b>BONENG TRANSMISSION(CHANGSHA)CO.,LTD.</b>
湖南省长沙市望城经济开发区 普瑞大道1288号 电话: 0731-88386958	No. 1288 Puri Avenue, Wangcheng Economic Development Zone, Changsha City, Hunan Province, China TEL: 0731-88386958
<b>博能传动设备(成都)有限公司</b>	<b>BONENG TRANSMISSION EQUIPMENT(CHENGDU) CO., LTD.</b>
四川省成都市金牛区金牛坝路9号5栋 向荣中心A座7楼-703 电话: 028-87741100	703, 7th Floor, Block A, Xiangrong Center, Building 5, No. 9 Jinniuba Road, Jinniu District, Chengdu City, Sichuan Province, China TEL: 028-87741100
<b>博能传动(肇庆)有限公司</b>	<b>BONENG TRANSMISSION(ZHAOQING)CO.,LTD.</b>
广东省肇庆市鼎湖区肇庆新区 科创大道7号平谦国际现代产业园 一期A12北厂房 电话: 0757-86719757	No. 7 Science and Technology Innovation Avenue, Zhaoqing New Area, Dinghu District, Zhaoqing City, Guangdong Province, China TEL: 0757-86719757
<b>博能传动(苏州)有限公司</b>	<b>BONENG TRANSMISSION(SUZHOU)CO.,LTD.</b>
江苏省苏州市相城区如元路100号 电话: 0512-66189662	No. 100, Ruyuan Road, Xiangcheng District, Suzhou, Jiangsu Province, China TEL: 0512-66189662

<b>博能传动(美国)有限公司</b>	<b>BONENG TRANSMISSION(USA)LLC.</b>
1250 E 222nd Euclid, OH 44117, United Staes TEL: 1-216-618-0138 TEL: 1-216-618-0496 TEL: 1-216-618-3099	1250 E 222nd Euclid, OH 44117, United Staes TEL: 1-216-618-0138 TEL: 1-216-618-0496 TEL: 1-216-618-3099
<b>博能传动(印度)有限公司</b>	<b>BONENG TRANSMISSION(INDIA)PVT.LTD</b>
Plot No. E-10/3, MIDC sinnar (Malegaon) Industrial Area, Nashik, 422123, Maharashtra, India. TEL:+91-11- 4507 6293 (DELHI) TEL:+91-22-2781 3385 (MUMBAI)	Plot No. E-10/3, MIDC sinnar (Malegaon) Industrial Area, Nashik, 422123, Maharashtra, India. TEL:+91-11- 4507 6293 (DELHI) TEL:+91-22-2781 3385 (MUMBAI)