

GA梅花形弹性联轴器

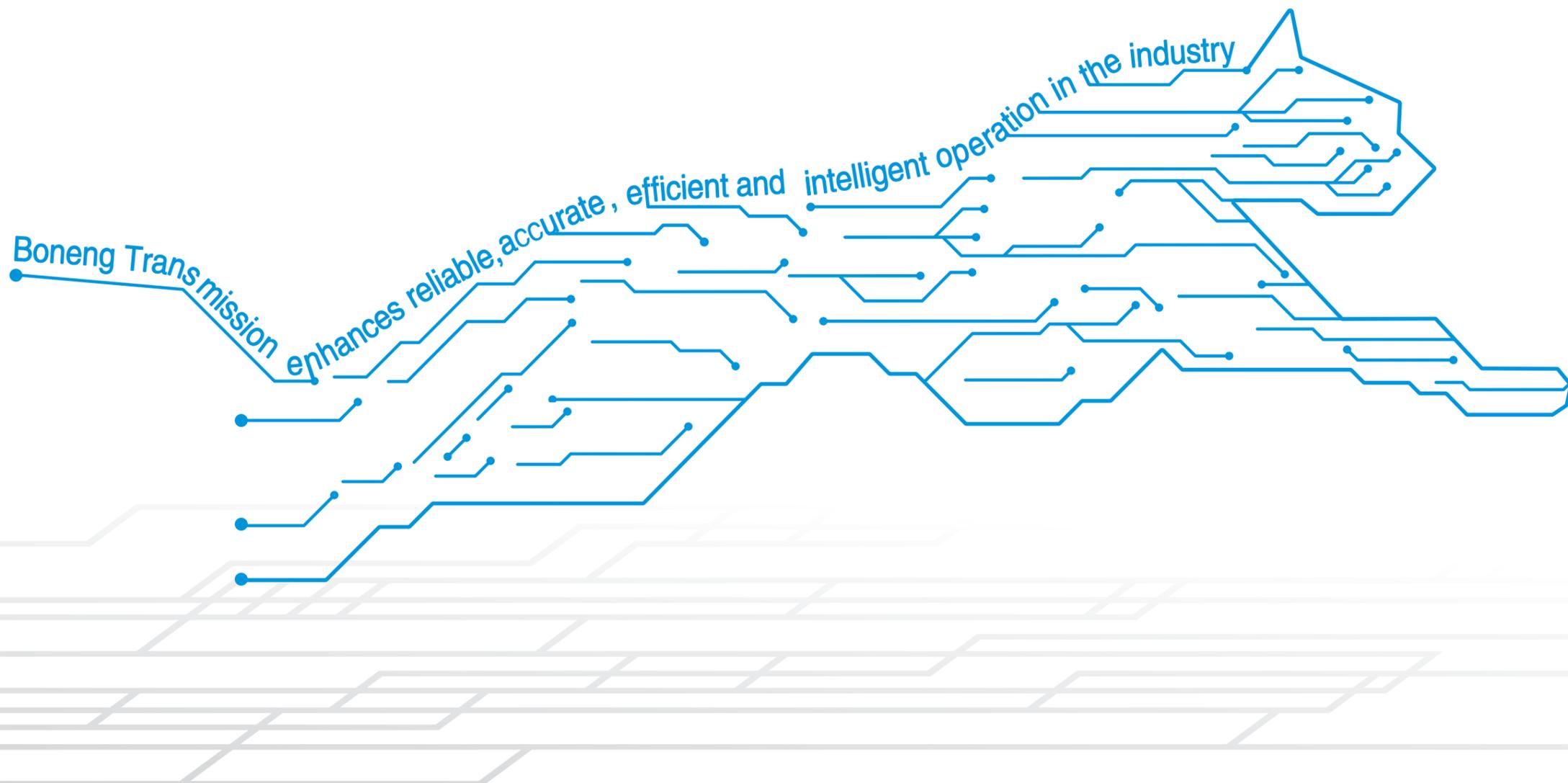
GA torsionally flexible jaw-type couplings



GA系列梅花形弹性  
联轴器

GA torsionally  
flexible jaw-type  
couplings

Modified date 01/2026  
Selection Sample C05.0007-CN



控制器/驱动器/马达  
/齿轮马达/齿轮箱

Controller/ Drive/ Motor/  
Gearmotor/ Gearbox

**GA梅花形弹性联轴器 Torsionally Flexible jaw-type couplings**



- ◆ 结构尺寸小、重量轻、传递扭矩高
- ◆ 能有效改善机械的运行质量和稳定性
- ◆ 能使传动时的振动得到缓冲，并吸收由动力机的不均匀运转所产生的冲击
- ◆ 最大扭转角均能达到5°
- ◆ 可水平安装，也可立式安装
- ◆ Small, light and high torque transmission
- ◆ Improve the operation level and stability.
- ◆ Slow drive vibration and absorb impact of running machine.
- ◆ Maximum torsion angle up to 5°
- ◆ Can be in horizontal or vertical installation.



产品广泛应用于电力、煤炭、水泥、冶金、港口、农业、船舶、起重、环保、舞台、物流、纺织、造纸、轻工、塑料等各个领域。

博能传动公司总部和各大区域的技术专家以及各区域办事处的应用工程师、售后服务技师竭诚为您提供全面的技术咨询和完善的服

Products are widely used in electric power, coal, cement, metallurgy, ports, agriculture, ships, lifting, environmental protection, stage, logistics, textile, papermaking, light industry, plastics and other fields.

Technical experts from the headquarters of Boneng Transmission Company and major regions, as well as application engineers and after-sales service technicians of various regional offices are dedicated to providing you with comprehensive technical advice and perfect services.

# 目录

# Contents

## 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。

## Notes:

- ◆ 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.

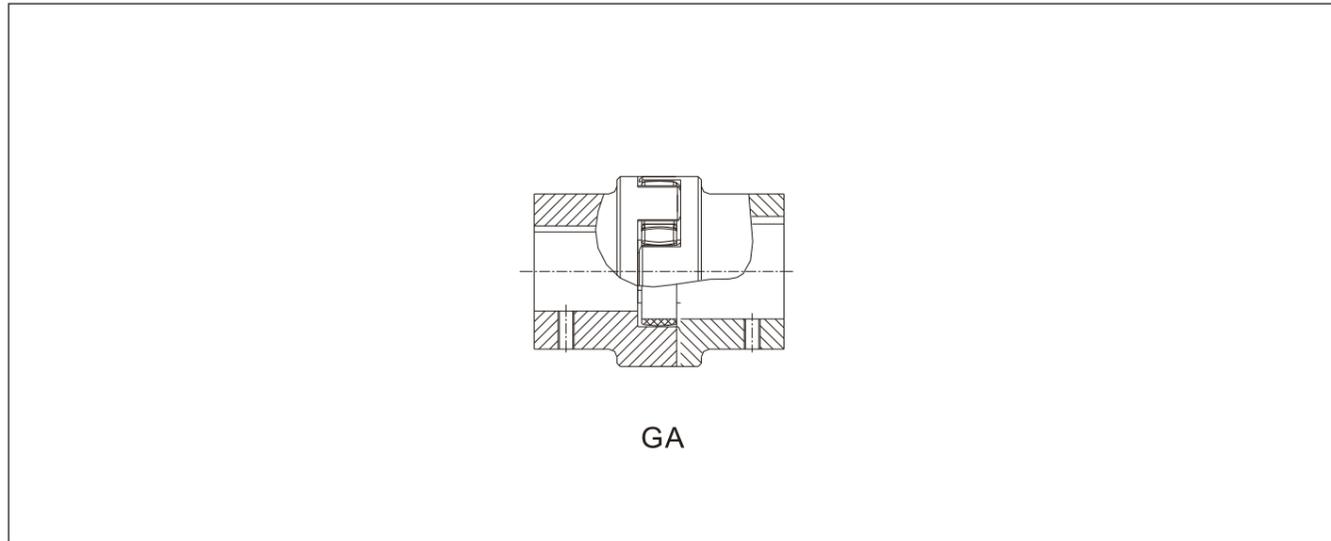
## ⚠ The following items must be strictly observed:

- ◆ To prevent accidents, all the rotation parts are added with protective covers by the purchaser according to the safety regulations of the nation and region.
- ◆ The instruction book must be read carefully before the test run.

01.结构示意图 .....	01	01.Sectional Drawings.....	01
02.型号表示方法 .....	01	02.Type Designation .....	01
03.GA梅花形弹性联轴器 .....	02	03.GA Torsionally flexible jaw-type couplings .....	02

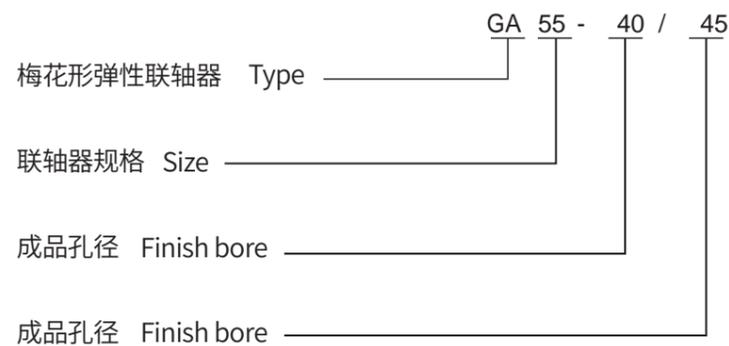
1.结构示意图

1.Sectional Drawings



2.型号表示方法

2.Type Designation



3.GA梅花形弹性联轴器

3.GA Torsionally flexible jaw-type couplings

3.1 选型及举例:

3.1 Coupling selection and example

序号 Steps	说明 Specification	代号 Symbol	参数计算 Calculate parameter				
			每天使用时间(小时) Operating time(h/d)				
1	被驱动设备系数 Driven machine factor	f <sub>1</sub>	负荷性质 Load characteristic	≤2	2-10	10-24	
			均匀负载 Uniform	1.00	1.25	1.50	
			一般冲击 Moderate	1.25	1.50	2.00	
			强烈冲击 Heavy	1.50	1.75	2.25	
2	启动频率系数 Starting frequency factor	f <sub>z</sub>	启动频率(次/小时) Starting frequency(T/h)	0-1	1-30	30-60	60-200
			f <sub>z</sub>	1.0	1.2	1.3	1.5
3	环境温度系数 Ambient temperature factor	f <sub>t</sub>	环境温度 Ambient temperature	-10℃~+30℃	+30℃~+40℃	+40℃~+60℃	+60℃~+80℃
			f <sub>t</sub>	1	1.2	1.4	1.8
4	许用输入转速 Permissible input speed	n <sub>1</sub>	n <sub>1</sub> ≤ n <sub>1max</sub>	详见联轴器基本参数表 See the table of technical data			
5	计算扭矩 Driven machine factor	T <sub>n</sub>	T <sub>n</sub> = 9550 · P <sub>1</sub> / n	或者其他驱动扭矩数据 or other torque data of driving side			
6	确认规格 Driven machine factor	T <sub>2N</sub>	T <sub>2N</sub> ≥ T <sub>n</sub> · f <sub>1</sub> · f <sub>z</sub> · f <sub>t</sub>	根据计算扭矩必须小于联轴器许用额定扭矩的原则选择联轴器规格, 校对轴孔是否适合。 Select the type of the coupling and check the finish hole according to the principle which calculated torque must be less than the permissible nominal torque.			
7	特殊环境条件 Special ambient conditions	/	高温、低温、灰尘多, 化学作用 (例: 酸碱等), 露天 (直接日照、冰、水淋等), 请咨询。 For applications in extreme conditions such as high temperature, low temperature, dusty place Chemical reaction (acid, alkali etc), open field (Sunshine, ice rain etc) Please consult Boneng for further information.				

选型举例

已知条件:

- 1、输入功率P<sub>1</sub>=30kw, 输入转速n<sub>1</sub>=1470r/min;
- 2、负荷性质为一般冲击, 工作8小时/天, 启动频率为10次/小时, 环境温度为60℃下工作,
- 3、轴孔为φ55/φ60

选型步骤

- 1、根据负荷性质及启动频率可得出被驱动设备系数f<sub>1</sub>=1.5, 启动频率系数f<sub>z</sub>=1.2, 环境温度系数f<sub>t</sub>=1.4;
- 2、计算扭矩:  
T<sub>n</sub> = 9550 · P<sub>1</sub> / n = 9550 · 30 / 1470 = 195N · m;
- 3、校核扭矩:  
T<sub>2N</sub> > T<sub>n</sub> · f<sub>1</sub> · f<sub>z</sub> · f<sub>t</sub> = 195 · 1.5 · 1.2 · 1.4 = 491.4N · m  
查基本参数表, T<sub>2N</sub> = 625 > 491.4N · m  
选规格为GA65;
- 4、校对轴孔D: 适合  
确定联轴器型号为GA65-φ55/φ60。

Selection example

Known Criteria:

1. Input power P<sub>1</sub> = 30kW, input speed n<sub>1</sub> = 1470rpm
2. Load characteristic is moderate, working for 8h/ day, starting frequency 10 times/hour, ambient temperature < 60°C
3. Finish bore φ55/φ60

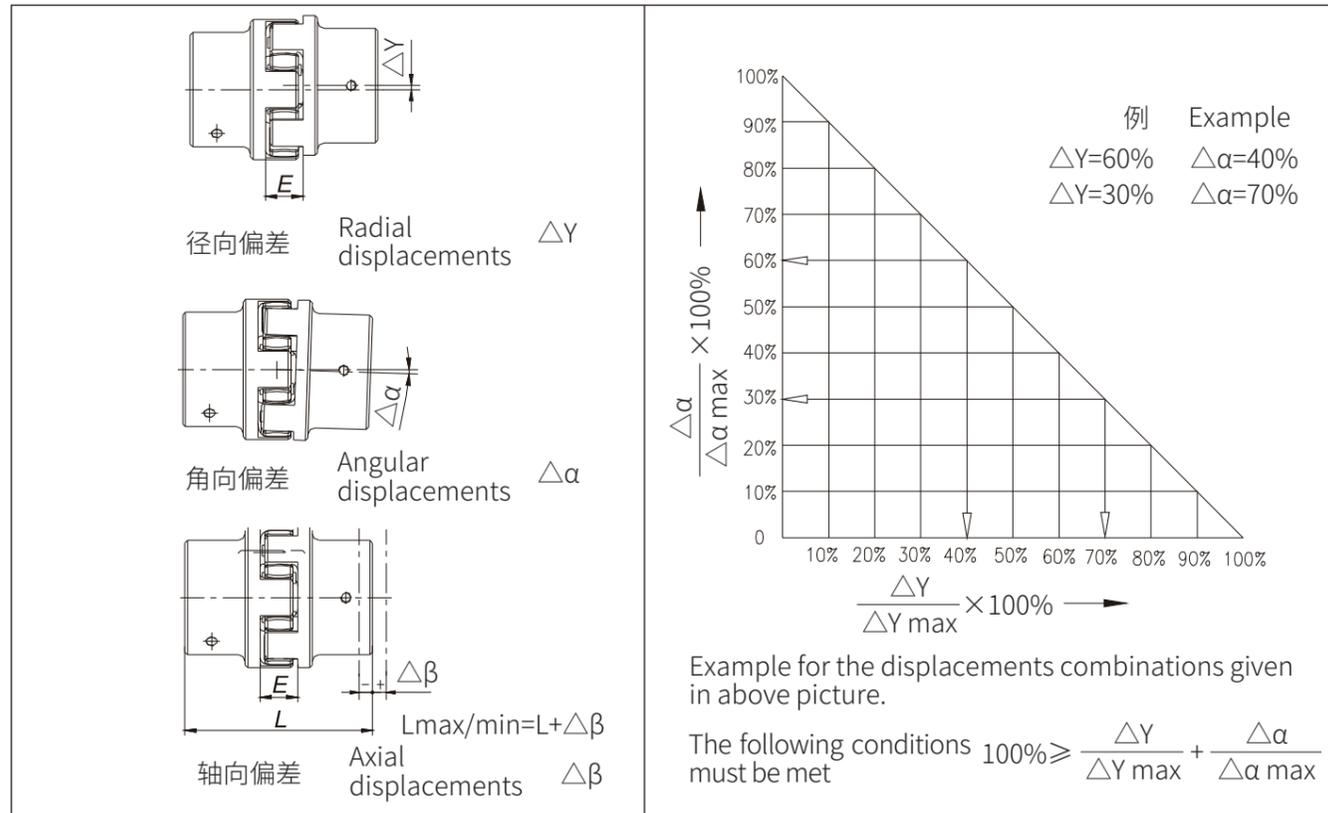
Selection steps:

1. According to load characteristic and starting frequency, we can arrive at: f<sub>1</sub> = 1.5, f<sub>z</sub> = 1.2, f<sub>t</sub> = 1.4
2. Calculate rated torque of driving side:  
T<sub>n</sub> = 9550 · P<sub>1</sub> / n = 9550 · 30 / 1470 = 195N · m
3. Check nominal torque of coupling: T<sub>2N</sub> > T<sub>n</sub> · f<sub>1</sub> · f<sub>z</sub> · f<sub>t</sub> = 195 · 1.5 · 1.2 · 1.4 = 491.4N · m, check up the technical data table, T<sub>2N</sub> = 625 > 491.4N · m, select GA65.
4. Check finish bore D: Ok (Acceptable)  
Choose: GA65-φ55/φ60



2)偏差

2)Displacements



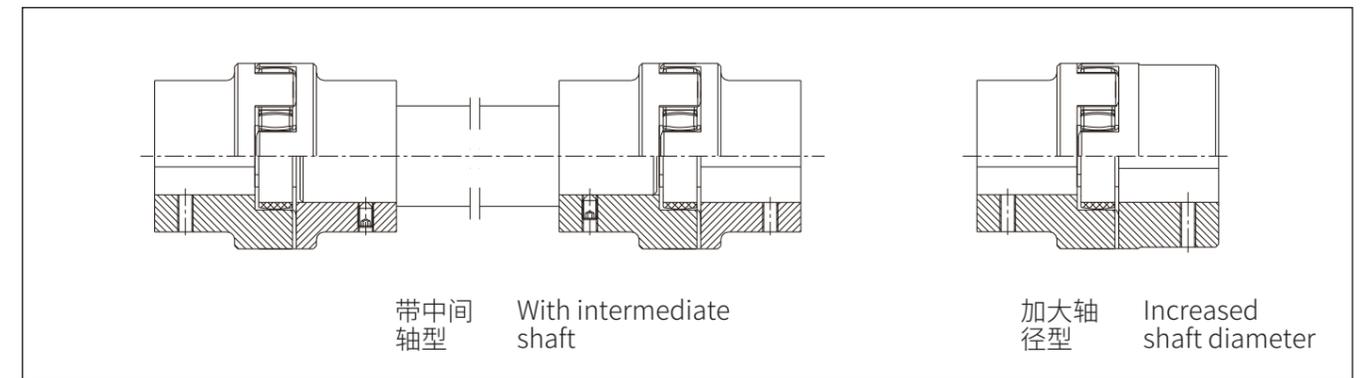
$\Delta \beta_{max} (mm)$	-0.5	-0.5	-0.7	-0.7	-1	-1	-1	-1	-1.5	-1.5
	+1.2	+1.4	+1.5	+1.8	+2	+2.1	+2.2	+2.6	+3	+3.4
$\Delta Y_{max} (mm)$ $n_1 = 1500r/min$	0.2	0.22	0.25	0.28	0.32	0.36	0.38	0.42	0.48	0.5
$\Delta \alpha_{max} (mm)$ $n_1 = 1500r/min$	1.2	0.9	0.9	1	1	1.1	1.1	1.2	1.2	1.2

以上所列的弹性联轴器的允许偏差值均为标准值:其前提条件是联轴器的扭矩T2N, 转速1500r/min, 环境温度+30°C;若同时发生几项偏差, 必须按此例限制:为确保联轴器的轴向间隙, 必须保持安装距离E的精度;为使弹性体齿表面避免应力集中, 轴向尺寸L应取最小值。

The above-mentioned figures of displacement of flexible couplings are standard values taking into account the load of the coupling up to the nominal torque T2N and an operating speed n=1500rpm, along with an ambient temperature of +30°C. The displacement figures may only be used one by one if they appear simultaneously. They must be limited in proportion. Care should be taken to maintain the distance dimension E accurately in order to allow for axial clearance of the coupling while in operation. In case of an axial shifting, the dimension "L" has to be considered as a minimum dimension in order to keep the spider free from pressure on its faces.

3.4 专用型 (来电咨询)

3.4 Special type (Please consult us)



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

**ME&AN**  
永磁同步伺服马  
达&伺服驱动器  
Permanent  
Magnet  
Servo Motor  
& Servo Drive



EtherCAT/  
PROFINET  
200~240VAC  
0.1kW~1.2kW

<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)