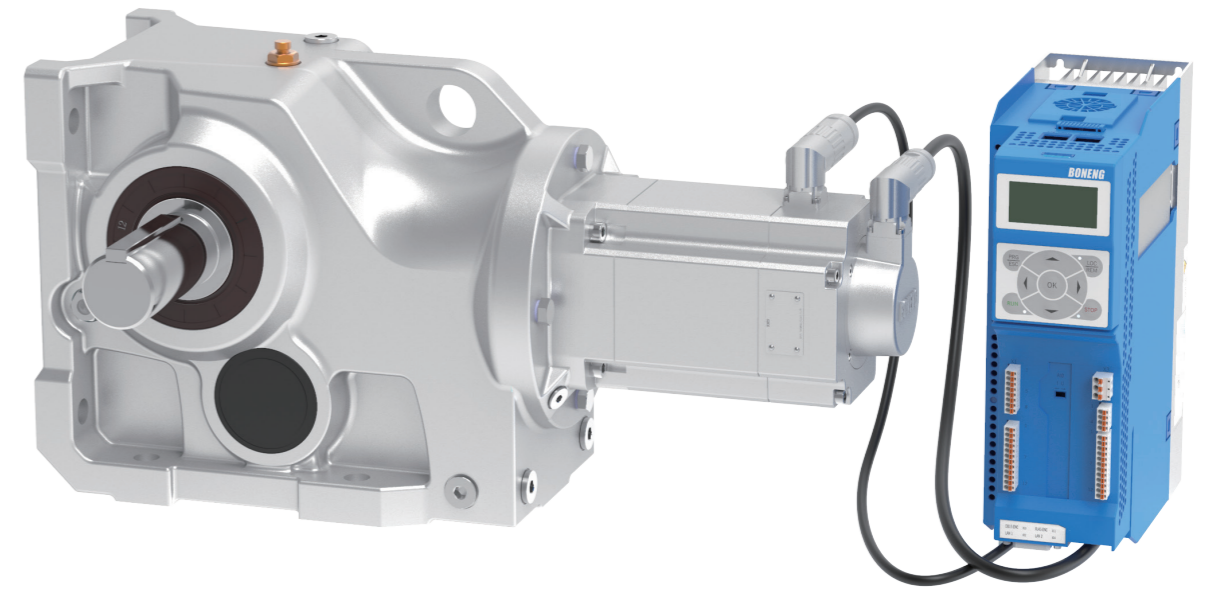


K-MX斜齿锥齿轮伺服马达&AX伺服驱动器

K-MX Helical-Bevel Servo Gearmotor &AX Servo Drives

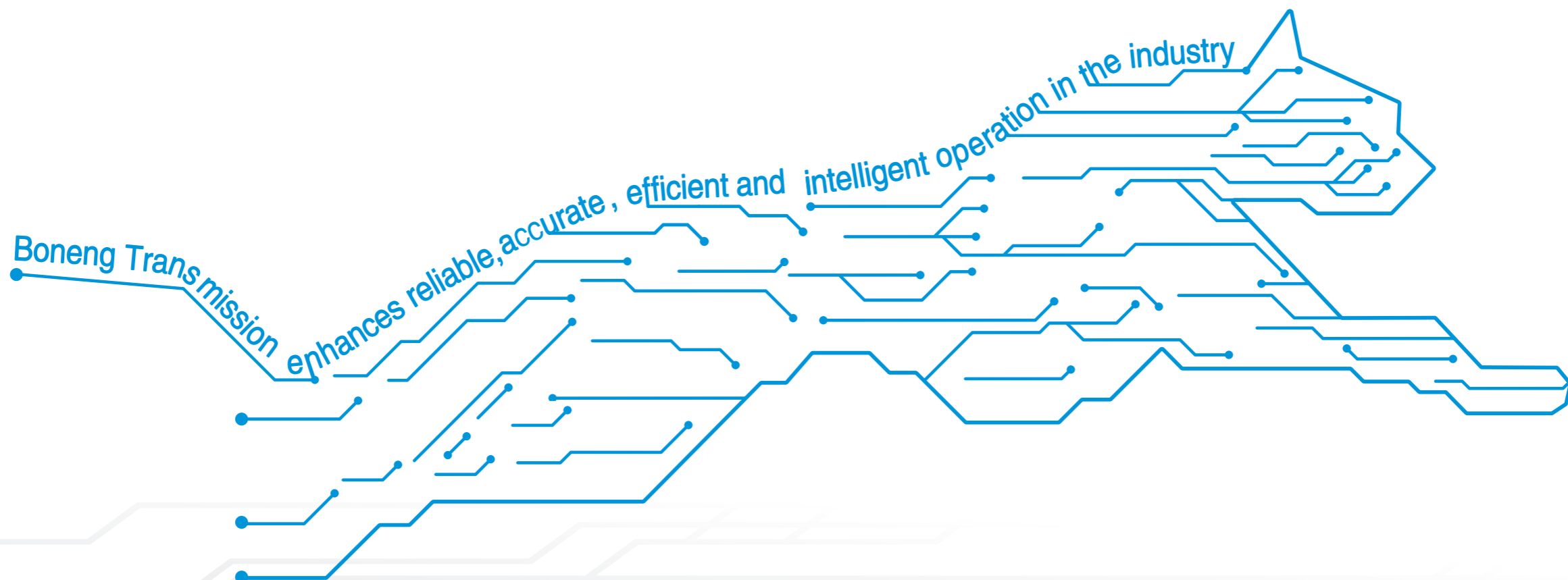


K-MX斜齿锥齿轮
伺服马达
&AX伺服驱动器

K-MX Helical-Bevel
Servo Gearmotor
&AX Servo Drives

0.28 kW~103 kW (14 kW~103 kW 咨询 Inquiry)

Edit date 05/2026
Selection Catalogue: C05.0042



控制器/驱动器/马达/
齿轮马达/齿轮箱

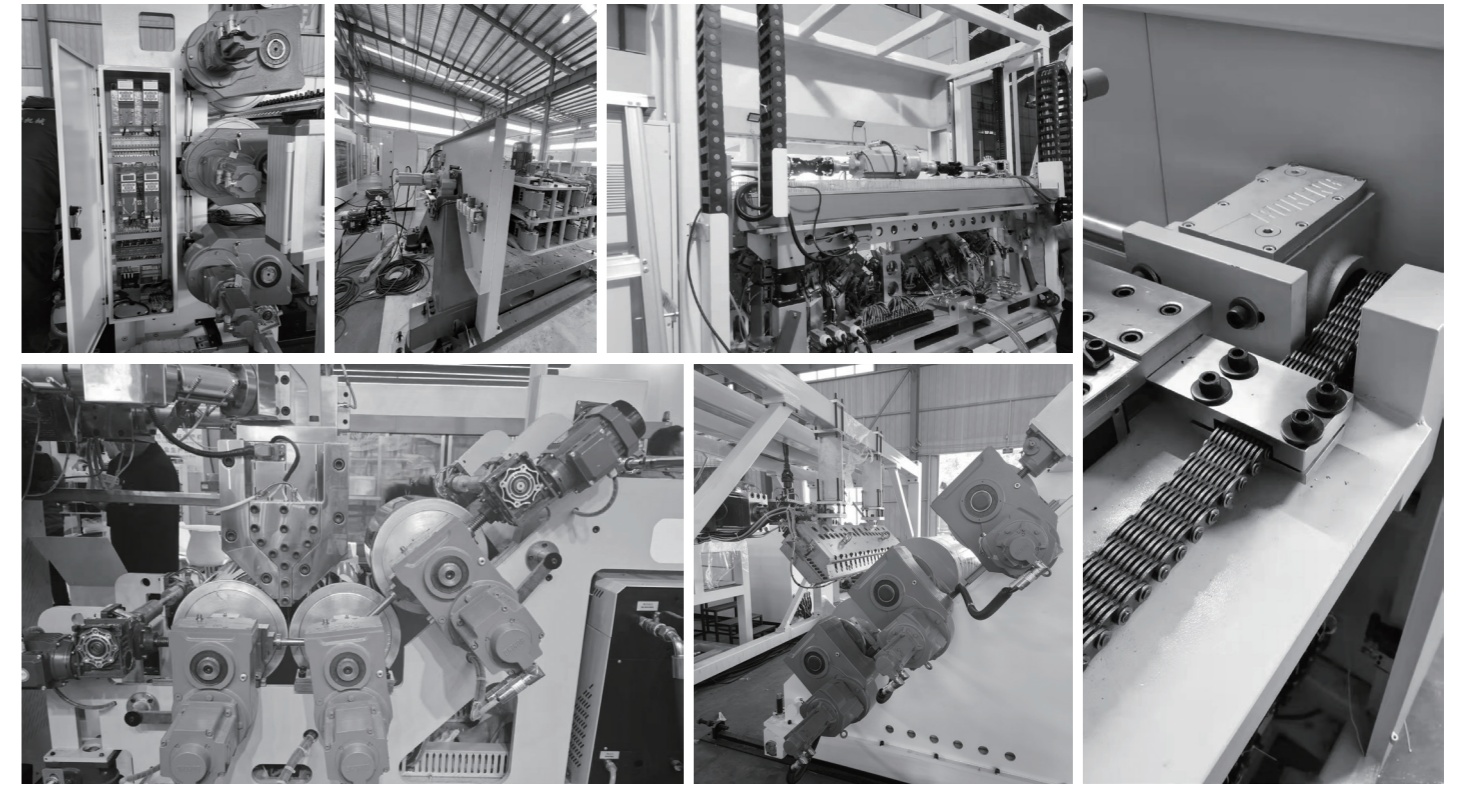
Controller/ Drive/ Motor/
Gearmotor/ Gearbox

K-MX斜齿锥齿轮伺服马达&AX伺服驱动器

- ◆ 高度的模块化设计，拟生态的外观，拥有自主知识产权。
- ◆ 采用整体式铸造箱体，体积小，传动平稳，噪声低。
- ◆ 灵活的安装形式，适用工况更广泛。
- ◆ 承载能力高，运行可靠。
- ◆ 传动效率高，节约能源。
- ◆ 性价比高，维护少。
- ◆ 伺服马达不仅拥有坚固的紧凑结构及高防护等级，而且具有高效率、高过载承载能力等特点；其优良的径向跳动质量和细微的转矩波动，可实现高质量的工件表面加工。
- ◆ 与博能Agile系列驱动器结合使用形成一个强大的伺服系统，可实现无缝集成，完美协同。

K-MX Helical-Bevel Servo Gearmotor & AX Servo Drives

- ◆ High modular design, biomimetic surface with owned intellectual property right.
- ◆ Adopting integral casting box body, small volume, smooth transmission, low noise.
- ◆ Flexible installation form, suitable for a wider range of working conditions.
- ◆ High carrying capacity and reliable operation.
- ◆ High efficiency and save power.
- ◆ Save cost and low maintenance.
- ◆ Servo motor not only has a strong compact structure and high protection grade, but also has high efficiency, high overload bearing capacity and other characteristics; Its excellent radial runout quality and subtle torque fluctuation can realize high quality workpiece surface machining.
- ◆ Combined with boneng Agile series drive to form a powerful servo system, can achieve seamless integration, perfect coordination.



产品广泛应用于自动化设备、印刷机械、包装机械、纺织机械、机器人等各个领域。

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务。

Products are widely used in Automation equipment industry, Printing machines, Packaging machines, Textile machinery, Manipulator and other fields.

Boneng Transmission company headquarters and major regional technical experts and regional offices of the application engineers, after-sales service technicians dedicated to provide you with comprehensive technical advice and perfect service.

目录

Catalogue

注意事项

- ◆ 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。
- ◆ 注油只作为参考值，实际注油量应以油镜上的标记为准。

⚠️ 使用注意事项

- ◆ 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。
- ◆ 齿轮马达在供货时已处于准运行状态，运行前需加注润滑油。
- ◆ 齿轮马达应由熟悉相关安全要求的专业人员安装；安装时必须有安全装置以防止事故发生，安装位置必须符合规定。

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.
- ◆ 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.

⚠️ You must confirm 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.
- ◆ Gearmotor is on running-permission status when delivered, you should add lubrication oil before putting it into running.
- ◆ The gearmotor should be installed by technical staffs who could be familiar with corresponding security requirements. Security device should be required for preventing from accidents while installation position must be satisfied with regulations.

伺服马达

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1 型号表示方法

1 Type Designation

系列名
传动级数
 3级
机座号
安装形式
 H=底脚安装
 F=法兰安装
 S=小法兰安装
 A=轴装式安装
 T=带底面扭力臂附件安装
 M=带侧面扭力臂附件安装

Series K 3 04 H A - C71 - D1 0 1 -
Stages 3-stage
Size
Mounting Mode
 H=Horizontal foot-mounted
 F=Flange-mounted
 S=Short flange-mounted
 A=Shaft-mounted
 T=Torque arm-mounted with bottom accessory
 M=Torque arm-mounted with side accessory

输出形式
 A/B/D/E=单向平键实心轴
 C/F=双向平键实心轴
 G/H=平键空心轴
 I/J=锁紧盘空心轴
 K/L=渐开线花键空心轴

Output Mode
 A/B/D/E=Unidirectional output shaft
 C/F=Bidirectional output shaft
 G/H=Hollow shaft with parallel key
 I/J=Hollow shaft with shrink disk
 K/L=Hollow shaft with involute spline

公称减速比代号
安装方位
 D1/D2/D3/D4/D5/D6

Nominal Ratio Code
Mounting Positions
 D1/D2/D3/D4/D5/D6

可选附件和指定配置
 0=无可选附件和指定配置
 1=齿轮非常规安装
 B=齿轮非常规安装和补偿油箱

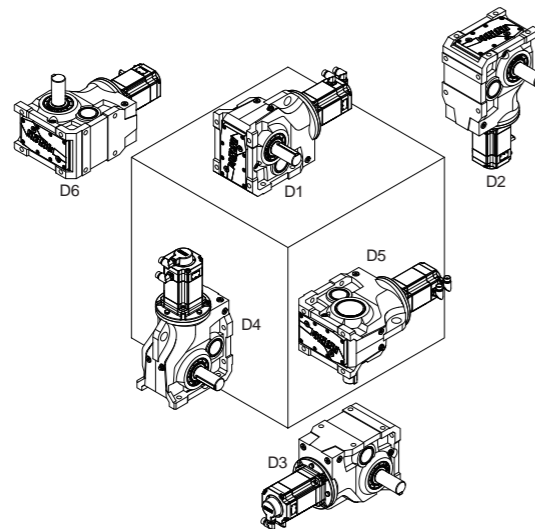
Accessories and Specific Configuration
 0=None
 1=Unconventional installation of gear
 B=Unconventional installation of gear and oil compensating tank

润滑油代号
 0=不加润滑油 (不加油出厂时, 请选此项)
 1=矿物润滑油VG220 (环境温度 $-20^{\circ}\text{C}\sim+40^{\circ}\text{C}$, 需加油出厂时, 请选此项)
 5=合成润滑油VG220 (环境温度 $<0^{\circ}\text{C}$, 需加油出厂时, 推荐选用此项)

Oil Code
 0=Without oil filling(Please select this option when you do not need lubricating oil)
 1=With mineral oil VG220(Please select this option when the ambient temperature is $-20^{\circ}\text{C}\sim+40^{\circ}\text{C}$)
 5=With synthetic lubricating oil VG220(It is recommended to select this option when you need lubricating oil and the ambient temperature is below 0°C)

2 安装方位

2 Mounting Positions



MX 048S 1 E30 F S 0 - N 4 A 0 6 - 1 1 1

连接器位置
 1=可旋转

Connector Location
 1=Rotational

连接器类型
 1=规格1

Connector Type
 1=Type 1

连接器方位
 1/2/3/4

Connector Position
 1/2/3/4

防护等级
 6=IP66

Protection Class
 6=IP66

热保护
 0=无绕组保护

Thermal Protection
 0=Without thermal protection

制动器
 N=无制动器
 A=永磁制动器

Brake
 N=Without brake
 A=With brake

编码器
 4=Biss-C编码器
 (线缆 $\leq 50\text{m}$)

Encoder
 4=Biss-C Encoder
 (Cable length $\leq 50\text{m}$)

冷却方式
 N=自然冷却

Cooling Method
 N=Natural cooling

轴伸形式S

Shaft Extension S

安装形式F

Installation Form F

额定转速代号
 E15=1500r/min
 E20=2000r/min
 E30=3000r/min

Rated Speed Code
 E15=1500r/min
 E20=2000r/min
 E30=3000r/min

结构形式
 1=紧凑型

Structure Type
 1-Compact

机座号

Size

**三相交流同步
 伺服马达**

**Three-phase AC
 Synchronous Servo Motor**

◆配AS输入法兰的齿轮箱型号示例:
 K308HA-C32-D100-AS160

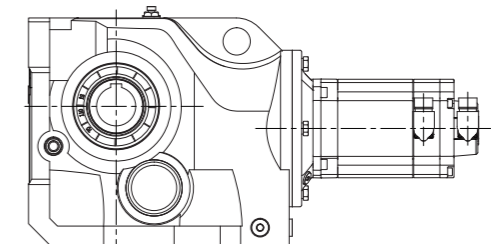
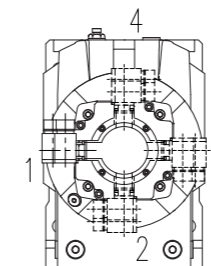
◆ Example of product type with AS
 input flange: K308HA-C32-D100-AS160

整机标配颜色 RAL9006 (白铝灰色)

The standard color of the whole machine RAL9006 (White aluminium)

3 连接器方位

3 Connector Position



4 传动能力表和外形尺寸图 4 Transmission Capacity & Dimensions

伺服马达:0.28kW0.9Nm
0.9A-3000r/min

Servo motor:0.28kW0.9Nm
0.9A-3000r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T2 (N.m)	Code	i_N	i_{ex}	i_z	T_{2N}	$J \cdot 10^{-4}$ (kg. m ²)	Φ (°)	f
759	3.6	B40	4	3.95	585/148	150	2.9	20	41.67
673	4	B45	4.5	4.46	156/35	150	2.3	20	37.5
591	4.6	B50	5	5.08	325/64	150	1.9	20	32.61
523	5.2	B56	5.6	5.74	689/120	160	1.5	19	30.77
467	5.8	B63	6.3	6.42	7605/1184	180	1.7	17	31.03
414	6.5	B71	7.1	7.24	507/70	180	1.4	16	27.69
364	7.4	B80	8	8.25	65/8	180	1.1	16	24.32
322	8.4	B90	9	9.33	8957/960	180	0.92	16	21.43
283	9.5	C10	10	10.6	169/16	180	0.75	16	18.95
263	10	C11	11.2	11.4	91/8	180	0.68	16	18
236	11	C13	12.5	12.7	63765/5032	180	1.2	10	16.36
210	13	C14	14	14.3	8502/595	200	1	10	15.38
184	15	C16	16	16.3	35425/2176	200	0.86	10	13.33
163	17	C18	18	18.4	75101/4080	210	0.72	10	12.35
144	19	C20	20	20.8	1417/68	220	0.6	10	11.58
134	20	C22	22.4	22.4	763/34	225	0.55	10	11.25
117	23	C25	25	25.6	436/17	230	0.56	10	10
109	25	C28	28	27.6	6104/221	230	0.51	10	9.20
93.2	29	C32	31.5	32.2	161865/5032	230	0.9	9	7.93
82.6	33	C36	35.5	36.3	21582/595	230	0.77	9	6.97
72.6	37	C40	40	41.3	89925/2176	230	0.66	9	6.22
64.2	42	C45	45	46.7	63547/1360	230	0.56	9	5.48
56.7	48	C50	50	52.9	3597/68	230	0.47	9	4.79
52.6	51	C56	56	57	25179/442	230	0.44	9	4.51
45	60	C63	63	66.7	104313/1564	230	0.35	9	3.83
39.7	68	C71	71	75.6	17985/238	230	0.3	9	3.38
36	75	C80	80	83.3	226611/2720	230	0.28	9	3.07
32.9	82	C90	90	91.1	37169/408	230	0.24	9	2.8
30.1	90	D10	100	99.6	28776/289	230	0.21	9	2.56

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
	Servo Drive Order Number			Cable Configuration Order Number		Braking Resistor Order Number
Servo Gearmotor Order Number	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	
K303□□-B40-D□□□-MX028S1E30FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3A75-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A15-□□□ 18:Without brake 16:With brake B30=3m B50=5m B70=7m C10=10m C15=15m C20=20m C30=30m C40=40m C50=50m	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box B30(3m) B50(5m) B70(7m) C10(10m) C15(15m) C20(20m) C30(30m) C40(40m) C50(50m)	A1-H02-A20-K-D75
K303□□-B45-D□□□-MX028S1E30FS0						
K303□□-B50-D□□□-MX028S1E30FS0						
K303□□-B56-D□□□-MX028S1E30FS0						
K303□□-B63-D□□□-MX028S1E30FS0						
K303□□-B71-D□□□-MX028S1E30FS0						
K303□□-B80-D□□□-MX028S1E30FS0						
K303□□-B90-D□□□-MX028S1E30FS0						
K303□□-C10-D□□□-MX028S1E30FS0						
K303□□-C11-D□□□-MX028S1E30FS0						
K303□□-C13-D□□□-MX028S1E30FS0						
K303□□-C14-D□□□-MX028S1E30FS0						
K303□□-C16-D□□□-MX028S1E30FS0						
K303□□-C18-D□□□-MX028S1E30FS0						
K303□□-C20-D□□□-MX028S1E30FS0						
K303□□-C22-D□□□-MX028S1E30FS0						
K303□□-C25-D□□□-MX028S1E30FS0						
K303□□-C28-D□□□-MX028S1E30FS0						
K303□□-C32-D□□□-MX028S1E30FS0						
K303□□-C36-D□□□-MX028S1E30FS0						
K303□□-C40-D□□□-MX028S1E30FS0						
K303□□-C45-D□□□-MX028S1E30FS0						
K303□□-C50-D□□□-MX028S1E30FS0						
K303□□-C56-D□□□-MX028S1E30FS0						
K303□□-C63-D□□□-MX028S1E30FS0						
K303□□-C71-D□□□-MX028S1E30FS0						
K303□□-C80-D□□□-MX028S1E30FS0						
K303□□-C90-D□□□-MX028S1E30FS0						
K303□□-D10-D□□□-MX028S1E30FS0						

伺服马达:0.47kW1.5Nm
1.15A-3000r/min

Servo motor:0.47kW1.5Nm
1.15A-3000r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T2 (N.m)	Code	i_N	i_{ex}	i_z	T_{2N}	$J \cdot 10^{-4}$ (kg.m ²)	Φ (')	f
759	5.9	B40	4	3.95	585/148	150	2.9	20	25.42
673	6.7	B45	4.5	4.46	156/35	150	2.3	20	22.39
591	7.6	B50	5	5.08	325/64	150	1.9	20	19.74
523	8.6	B56	5.6	5.74	689/120	160	1.5	19	18.6
467	9.6	B63	6.3	6.42	7605/1184	180	1.7	17	18.75
414	11	B71	7.1	7.24	507/70	180	1.4	16	16.36
364	12	B80	8	8.25	65/8	180	1.1	16	15
322	14	B90	9	9.33	8957/960	180	0.92	16	12.86
283	16	C10	10	10.6	169/16	180	0.75	16	11.25
263	17	C11	11.2	11.4	91/8	180	0.68	16	10.59
236	19	C13	12.5	12.7	63765/5032	180	1.2	10	9.47
210	21	C14	14	14.3	8502/595	200	1	10	9.52
184	24	C16	16	16.3	35425/2176	200	0.86	10	8.33
163	28	C18	18	18.4	75101/4080	210	0.72	10	7.5
144	31	C20	20	20.8	1417/68	220	0.6	10	7.1
134	34	C22	22.4	22.4	763/34	225	0.55	10	6.62
117	38	C25	25	25.6	436/17	230	0.56	10	6.05
109	41	C28	28	27.6	6104/221	230	0.51	10	5.61
93.2	48	C32	31.5	32.2	161865/5032	230	0.9	9	4.79
82.6	54	C36	35.5	36.3	21582/595	230	0.77	9	4.26
72.6	62	C40	40	41.3	89925/2176	230	0.66	9	3.71
64.2	70	C45	45	46.7	63547/1360	230	0.56	9	3.29
56.7	79	C50	50	52.9	3597/68	230	0.47	9	2.91
52.6	86	C56	56	57	25179/442	230	0.44	9	2.67
45	100	C63	63	66.7	104313/1564	230	0.35	9	2.3
39.7	113	C71	71	75.6	17985/238	230	0.3	9	2.04
36	125	C80	80	83.3	226611/2720	230	0.28	9	1.84
32.9	137	C90	90	91.1	37169/408	230	0.24	9	1.68
30.1	149	D10	100	99.6	28776/289	230	0.21	9	1.54

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
	Servo Drive Order Number			Cable Configuration Order Number		
Servo Gearmotor Order Number	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	Braking Resistor Order Number
K303□□-B40-D□□□-MX036S1E30FSO	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3A75-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A15-□□□□ 18:Without brake 16:With brake B30=3m B50=5m B70=7m C10=10m C15=15m C20=20m C30=30m C40=40m C50=50m	A1-H17-A□□-□□□□ 12:Without battery box 13:With battery box B30(3m) B50(5m) B70(7m) C10(10m) C15(15m) C20(20m) C30(30m) C40(40m) C50(50m)	A1-H02-A20-K-D75
K303□□-B45-D□□□-MX036S1E30FSO						
K303□□-B50-D□□□-MX036S1E30FSO						
K303□□-B56-D□□□-MX036S1E30FSO						
K303□□-B63-D□□□-MX036S1E30FSO						
K303□□-B71-D□□□-MX036S1E30FSO						
K303□□-B80-D□□□-MX036S1E30FSO						
K303□□-B90-D□□□-MX036S1E30FSO						
K303□□-C10-D□□□-MX036S1E30FSO						
K303□□-C11-D□□□-MX036S1E30FSO						
K303□□-C13-D□□□-MX036S1E30FSO						
K303□□-C14-D□□□-MX036S1E30FSO						
K303□□-C16-D□□□-MX036S1E30FSO						
K303□□-C18-D□□□-MX036S1E30FSO						
K303□□-C20-D□□□-MX036S1E30FSO						
K303□□-C22-D□□□-MX036S1E30FSO						
K303□□-C25-D□□□-MX036S1E30FSO						
K303□□-C28-D□□□-MX036S1E30FSO						
K303□□-C32-D□□□-MX036S1E30FSO						
K303□□-C36-D□□□-MX036S1E30FSO						
K303□□-C40-D□□□-MX036S1E30FSO						
K303□□-C45-D□□□-MX036S1E30FSO						
K303□□-C50-D□□□-MX036S1E30FSO						
K303□□-C56-D□□□-MX036S1E30FSO						
K303□□-C63-D□□□-MX036S1E30FSO						
K303□□-C71-D□□□-MX036S1E30FSO						
K303□□-C80-D□□□-MX036S1E30FSO						
K303□□-C90-D□□□-MX036S1E30FSO						
K303□□-D10-D□□□-MX036S1E30FSO						

伺服马达:1kW3.2Nm
2.2A-3000r/min

Servo motor:1kW3.2Nm
2.2A-3000r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T2 (N.m)	Code	i_N	i_{ex}	i_z	T_{2N}	$J \cdot 10^{-4}$ (kg.m ²)	Φ (')	f
759	13	B40	4	3.95	585/148	150	2.9	20	11.54
673	14	B45	4.5	4.46	156/35	150	2.3	20	10.71
591	16	B50	5	5.08	325/64	150	1.9	20	9.38
523	18	B56	5.6	5.74	689/120	160	1.5	19	8.89
467	21	B63	6.3	6.42	7605/1184	180	1.7	17	8.57
414	23	B71	7.1	7.24	507/70	180	1.4	16	7.83
364	26	B80	8	8.25	65/8	180	1.1	16	6.92
322	30	B90	9	9.33	8957/960	180	0.92	16	6
283	34	C10	10	10.6	169/16	180	0.75	16	5.29
263	36	C11	11.2	11.4	91/8	180	0.68	16	5
236	41	C13	12.5	12.7	63765/5032	180	1.2	10	4.39
210	46	C14	14	14.3	8502/595	200	1	10	4.35
184	52	C16	16	16.3	35425/2176	200	0.86	10	3.85
163	59	C18	18	18.4	75101/4080	210	0.72	10	3.56
144	67	C20	20	20.8	1417/68	220	0.6	10	3.28
134	72	C22	22.4	22.4	763/34	225	0.55	10	3.13
117	82	C25	25	25.6	436/17	230	0.56	10	2.80
109	88	C28	28	27.6	6104/221	230	0.51	10	2.61
93.2	103	C32	31.5	32.2	161865/5032	230	0.9	9	2.23
82.6	116	C36	35.5	36.3	21582/595	230	0.77	9	1.98
72.6	132	C40	40	41.3	89925/2176	230	0.66	9	1.74
64.2	149	C45	45	46.7	63547/1360	230	0.56	9	1.54
71.8	134	C40	40	41.8	9240/221	450	1.4	8	3.36
63.6	151	C45	45	47.2	29700/629	450	1.2	8	2.98
57.3	168	C50	50	52.4	891/17	450	1.1	8	2.68
49.9	192	C56	56	60.1	16335/272	450	0.95	8	2.34
45.5	211	C63	63	66	66/1	450	0.81	8	2.13
40.3	238	C71	71	74.4	1265/17	450	0.69	8	1.89
37.7	254	C80	80	79.5	35145/442	450	0.64	8	1.77
32.5	296	C90	90	92.4	36135/391	450	0.52	8	1.52
41	234	C71	71	73.2	228855/3128	520	0.54	8	2.22
36.5	263	C80	80	82.3	78375/952	520	0.46	8	1.98
33.4	288	C90	90	89.9	24453/272	520	0.42	8	1.81
30.4	316	D10	100	98.6	80465/816	520	0.36	8	1.65
28	343	D11	112	107.1	247665/2312	520	0.32	8	1.52

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
Servo Gearmotor Order Number	Servo Drive Order Number			Cable Configuration Order Number		Braking Resistor Order Number
	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	
K303□□-B40-D□□□-MX048S1E30FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3B15-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A15-□□□ 18:Without brake 16:With brake	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box	A1-H02-A40-K-D39
K303□□-B45-D□□□-MX048S1E30FS0						
K303□□-B50-D□□□-MX048S1E30FS0						
K303□□-B56-D□□□-MX048S1E30FS0						
K303□□-B63-D□□□-MX048S1E30FS0						
K303□□-B71-D□□□-MX048S1E30FS0						
K303□□-B80-D□□□-MX048S1E30FS0						
K303□□-B90-D□□□-MX048S1E30FS0						
K303□□-C10-D□□□-MX048S1E30FS0						
K303□□-C11-D□□□-MX048S1E30FS0						
K303□□-C13-D□□□-MX048S1E30FS0						
K303□□-C14-D□□□-MX048S1E30FS0						
K303□□-C16-D□□□-MX048S1E30FS0						
K303□□-C18-D□□□-MX048S1E30FS0						
K303□□-C20-D□□□-MX048S1E30FS0						
K303□□-C22-D□□□-MX048S1E30FS0						
K303□□-C25-D□□□-MX048S1E30FS0						
K303□□-C28-D□□□-MX048S1E30FS0						
K303□□-C32-D□□□-MX048S1E30FS0						
K303□□-C36-D□□□-MX048S1E30FS0						
K303□□-C40-D□□□-MX048S1E30FS0						
K303□□-C45-D□□□-MX048S1E30FS0						
K304□□-C40-D□□□-MX048S1E30FS0						
K304□□-C45-D□□□-MX048S1E30FS0						
K304□□-C50-D□□□-MX048S1E30FS0						
K304□□-C56-D□□□-MX048S1E30FS0						
K304□□-C63-D□□□-MX048S1E30FS0						
K304□□-C71-D□□□-MX048S1E30FS0						
K304□□-C80-D□□□-MX048S1E30FS0						
K304□□-C90-D□□□-MX048S1E30FS0						
K305□□-C71-D□□□-MX048S1E30FS0						
K305□□-C80-D□□□-MX048S1E30FS0						
K305□□-C90-D□□□-MX048S1E30FS0						
K305□□-D10-D□□□-MX048S1E30FS0						
K305□□-D11-D□□□-MX048S1E30FS0						

伺服马达:2.05kW9.8Nm
4.6A-2000r/min

Servo motor:2.05kW9.8Nm
4.6A-2000r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T2 (N.m)	Code	i_N	i_{ex}	i_z	T_{2N}	$J \cdot 10^{-4}$ (kg.m ²)	Φ (°)	f
506	39	B40	4	3.95	585/148	150	3	20	3.85
448	44	B45	4.5	4.46	156/35	150	2.4	20	3.41
394	50	B50	5	5.08	325/64	150	1.9	20	3
348	56	B56	5.6	5.74	689/120	160	1.6	19	2.86
312	63	B63	6.3	6.42	7605/1184	180	1.8	17	2.86
276	71	B71	7.1	7.24	507/70	180	1.5	16	2.54
242	81	B80	8	8.25	65/8	180	1.2	16	2.22
214	91	B90	9	9.33	8957/960	180	0.98	16	1.98
189	104	C10	10	10.6	169/16	180	0.79	16	1.73
175	112	C11	11.2	11.4	91/8	180	0.71	16	1.61
157	124	C13	12.5	12.7	63765/5032	180	1.4	10	1.45
200	98	C10	10	9.98	639/64	340	1.7	16	3.47
182	108	C11	11.2	11	1207/110	360	1.5	16	3.33
161	122	C13	12.5	12.4	1633/132	380	1.2	16	3.11
148	132	C14	14	13.5	9900/731	400	3	10	3.03
132	149	C16	16	15.2	3360/221	420	2.5	10	2.82
116	169	C18	18	17.2	10800/629	420	2.1	10	2.49
105	187	C20	20	19.1	324/17	450	1.7	10	2.41
91.7	214	C22	22.4	21.8	1485/68	450	1.4	10	2.1
83.3	235	C25	25	24	24/1	450	1.2	10	1.91
73.8	266	C28	28	27.1	460/17	450	1	9	1.69
63.5	309	C32	31.5	31.5	19800/629	450	2.0	8	1.46
67.8	289	C28	28	29.5	172425/5848	680	2.1	8	2.35
60.4	324	C32	31.5	33.1	7315/221	680	1.7	8	2.1
53.5	367	C36	35.5	37.4	47025/1258	680	1.5	8	1.85
48.2	407	C40	40	41.5	5643/136	680	1.2	8	1.67
42.1	466	C45	45	47.5	103455/2176	680	1.1	8	1.46
55.9	351	C36	35.5	35.8	180147/5032	950	3.1	8	2.71
52.4	374	C40	40	38.2	62315/1632	950	2.9	8	2.54
44	446	C45	45	45.5	80443/1768	950	2.2	8	2.13
39.4	497	C50	50	50.7	254925/5032	950	1.9	8	1.91
35.9	546	C56	56	55.7	132561/2380	950	1.6	8	1.74
31.6	620	C63	63	63.3	275319/4352	950	1.4	8	1.53
35.4	554	C56	56	56.5	7285/129	1750	4.9	7	3.16
31.8	616	C63	63	62.9	147157/2340	1750	4.3	7	2.84
29	675	C71	71	68.9	10199/148	1750	3.8	7	2.59
26.7	734	C80	80	74.9	13113/175	1750	3.3	7	2.38
23.8	825	C90	90	84.2	53909/640	1750	3	7	2.12
21.7	905	D10	100	92.3	27683/300	1750	2.6	7	1.93
18.5	1061	D11	112	108.3	42253/390	1750	2	7	1.65

注: 启停次数≤60次/小时, 服务系数f推荐1.5;
启停次数≤120次/小时, 服务系数f推荐1.75;
启停次数>120次/小时, 服务系数f推荐2以上;

Attention: Operation frequency≤60 times/h, service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
	Servo Drive Order Number			Cable Configuration Order Number		
Servo Gearmotor Order Number	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	Braking Resistor Order Number
K303□□-B40-D□□□-MX063M1E20FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3B40-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A15-□□□ 18:Without brake 16:With brake B30=3m B50=5m B70=7m C10=10m C15=15m C20=20m C30=30m C40=40m C50=50m	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box B30(3m) B50(5m) B70(7m) C10(10m) C15(15m) C20(20m) C30(30m) C40(40m) C50(50m)	A1-H02-B12-K-D13
K303□□-B45-D□□□-MX063M1E20FS0						
K303□□-B50-D□□□-MX063M1E20FS0						
K303□□-B56-D□□□-MX063M1E20FS0						
K303□□-B63-D□□□-MX063M1E20FS0						
K303□□-B71-D□□□-MX063M1E20FS0						
K303□□-B80-D□□□-MX063M1E20FS0						
K303□□-B90-D□□□-MX063M1E20FS0						
K303□□-C10-D□□□-MX063M1E20FS0						
K303□□-C11-D□□□-MX063M1E20FS0						
K303□□-C13-D□□□-MX063M1E20FS0						
K304□□-C10-D□□□-MX063M1E20FS0						
K304□□-C11-D□□□-MX063M1E20FS0						
K304□□-C13-D□□□-MX063M1E20FS0						
K304□□-C14-D□□□-MX063M1E20FS0						
K304□□-C16-D□□□-MX063M1E20FS0						
K304□□-C18-D□□□-MX063M1E20FS0						
K304□□-C20-D□□□-MX063M1E20FS0						
K304□□-C22-D□□□-MX063M1E20FS0						
K304□□-C25-D□□□-MX063M1E20FS0						
K304□□-C28-D□□□-MX063M1E20FS0						
K304□□-C32-D□□□-MX063M1E20FS0						
K305□□-C28-D□□□-MX063M1E20FS0						
K305□□-C32-D□□□-MX063M1E20FS0						
K305□□-C36-D□□□-MX063M1E20FS0						
K305□□-C40-D□□□-MX063M1E20FS0						
K305□□-C45-D□□□-MX063M1E20FS0						
K306□□-C36-D□□□-MX063M1E20FS0						
K306□□-C40-D□□□-MX063M1E20FS0						
K306□□-C45-D□□□-MX063M1E20FS0						
K306□□-C50-D□□□-MX063M1E20FS0						
K306□□-C56-D□□□-MX063M1E20FS0						
K306□□-C63-D□□□-MX063M1E20FS0						
K307□□-C56-D□□□-MX063M1E20FS0						
K307□□-C63-D□□□-MX063M1E20FS0						
K307□□-C71-D□□□-MX063M1E20FS0						
K307□□-C80-D□□□-MX063M1E20FS0						
K307□□-C90-D□□□-MX063M1E20FS0						
K307□□-D10-D□□□-MX063M1E20FS0						
K307□□-D11-D□□□-MX063M1E20FS0						

K307-MX063M1E20FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K307HA/K307HB/K307HC</p>	
<p>Flange-mounted(F)</p>	<p>K307FA/K307FB/K307FC</p>	<p>K307FD/K307FE/K307FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K307-MX063M1E20FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K307HG/K307HH</p>	<p>K307HI</p>	<p>K307HJ</p>	<p>K307HK/K307HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3B40-N(without filter) or AX-PM26-B3B40-F(with filter) Operation panel: A1-OP25</p>
<p>K307FG/K307FH</p>	<p>K307FI</p>	<p>K307FJ</p>	<p>K307FK/K307FL</p>	
<p>K307SG/K307SH</p>	<p>K307SI</p>	<p>K307SJ</p>	<p>K307SK/K307SL</p>	
<p>K307AG/K307AH</p>	<p>K307AIK307TI</p>	<p>K307AJ/K307TJ</p>	<p>K307AK/K307AL</p>	
<p>K307TG/K307TH</p>			<p>K307TK/K307TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

伺服马达:3.98kW 19Nm
8.1A-2000r/min

Servo motor:3.98kW 19Nm
8.1A-2000r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T2 (N.m)	Code	i_N	i_{ex}	i_z	T_{2N}	$J \cdot 10^{-4}$ (kg.m ²)	Φ (°)	f
484	78	B40	4	4.13	355/86	200	5.4	19	2.56
432	88	B45	4.5	4.63	1988/429	230	4.3	19	2.61
382	99	B50	5	5.23	2130/407	250	3.5	18	2.53
344	110	B56	5.6	5.81	639/110	260	2.9	18	2.36
323	118	B63	6.3	6.19	1065/172	280	3.8	17	2.37
288	132	B71	7.1	6.95	994/143	280	3.1	17	2.12
255	149	B80	8	7.85	3195/407	300	2.5	16	2.01
230	165	B90	9	8.71	1917/220	310	2.1	16	1.88
200	190	C10	10	9.98	639/64	340	1.7	16	1.79
182	209	C11	11.2	11	1207/110	360	1.5	16	1.72
161	236	C13	12.5	12.4	1633/132	380	1.2	16	1.61
148	257	C14	14	13.5	9900/731	400	3	10	1.56
132	289	C16	16	15.2	3360/221	420	2.5	10	1.45
192	198	C10	10	10.4	1088/105	450	2.2	16	2.27
187	203	C11	11.2	10.7	15675/1462	460	4.1	11	2.27
167	228	C13	12.5	12	2660/221	500	3.3	11	2.19
147	258	C14	14	13.6	8550/629	550	2.7	11	2.13
132	287	C16	16	15.1	513/34	600	2.3	11	2.09
116	329	C18	18	17.3	9405/544	620	1.8	11	1.88
105	361	C20	20	19	19/1	650	1.5	10	1.8
93.5	407	C22	22.4	21.4	2185/102	680	1.3	10	1.67
87.3	435	C25	25	22.9	20235/884	680	1.1	10	1.56
104.2	365	C20	20	19.2	16995/884	850	3.6	9	2.33
88.1	431	C22	22.4	22.7	1545/68	950	3.8	8	2.20
76.9	494	C25	25	26.0	16377/629	950	3.2	8	1.92
71.9	528	C28	28	27.8	5665/204	950	2.9	8	1.80
64.1	593	C32	31.5	31.2	16995/544	950	3.8	8	1.6
64.5	589	C32	31.5	31	33511/1080	1750	10.6	8	2.97
56.7	671	C36	35.5	35.3	5828/165	1750	8.8	7	2.61
51	745	C40	40	39.2	235/6	1750	7.7	7	2.35
44.5	853	C45	45	44.9	53909/1200	1750	6.6	7	2.05
39.6	960	C50	50	50.5	112189/2220	1750	5.7	7	1.82
35.4	1074	C56	56	56.5	7285/129	1750	4.9	7	1.63
31.8	1195	C63	63	62.9	147157/2340	1750	4.3	7	1.46
39	975	C50	50	51.3	6565/128	3000	18	7	3.08
34.7	1096	C56	56	57.7	20301/352	3000	16	7	2.74
31.6	1201	C63	63	63.2	62721/992	3000	14	7	2.5
27.4	1387	C71	71	73	8181/112	3000	12	6	2.16
25.7	1480	C80	80	77.9	77265/992	3000	11	6	2.03
22.2	1710	C90	90	90	5757/64	3000	8.9	6	1.75
19.6	1944	D10	100	102.3	8181/80	3000	7.7	6	1.54
23.1	1642	C90	90	86.4	13386/155	5000	37	6	3.05
20.3	1873	D10	100	98.6	690/7	5000	32	6	2.67
19	1997	D11	112	105.1	16284/155	5000	29	6	2.5
16.6	2295	D13	125	120.8	483/4	4300	24	6	1.87
14.7	2580	D14	140	135.8	16974/125	4300	21	6	1.67
13.3	2850	D16	160	150	150/1	4300	18	6	1.51

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
	Servo Drive Order Number			Cable Configuration Order Number		Braking Resistor Order Number
Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor		
K304□□-B40-D□□□-MX080M1E20FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3B75-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A25-□□□ 18:Without brake 16:With brake	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box	A1-H02-B25-K-C75
K304□□-B45-D□□□-MX080M1E20FS0						
K304□□-B50-D□□□-MX080M1E20FS0						
K304□□-B56-D□□□-MX080M1E20FS0						
K304□□-B63-D□□□-MX080M1E20FS0						
K304□□-B71-D□□□-MX080M1E20FS0						
K304□□-B80-D□□□-MX080M1E20FS0						
K304□□-B90-D□□□-MX080M1E20FS0						
K304□□-C10-D□□□-MX080M1E20FS0						
K304□□-C11-D□□□-MX080M1E20FS0						
K304□□-C13-D□□□-MX080M1E20FS0						
K304□□-C14-D□□□-MX080M1E20FS0						
K304□□-C16-D□□□-MX080M1E20FS0						
K305□□-C10-D□□□-MX080M1E20FS0						
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K305□□-C22-D□□□-MX080M1E20FS0						
K305□□-C25-D□□□-MX080M1E20FS0						
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K307□□-C50-D□□□-MX080M1E20FS0						
K307□□-C56-D□□□-MX080M1E20FS0						
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K309□□-D14-D□□□-MX080M1E20FS0						
K309□□-D16-D□□□-MX080M1E20FS0						

K305-MX080M1E20FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K305HA/K305HB/K305HC</p>	
<p>Flange-mounted(F)</p>	<p>K305FA/K305FB/K305FC</p>	<p>K305FD/K305FE/K305FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K305-MX080M1E20FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K305HG/K305HH</p>	<p>K305HI</p>	<p>K305HJ</p>	<p>K305HK/K305HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3B75-N(without filter) or AX-PM26-B3B75-F(with filter) Operation panel: A1-OP25</p>
<p>K305FG/K305FH</p>	<p>K305FI</p>	<p>K305FJ</p>	<p>K305FK/K305FL</p>	
<p>K305SG/K305SH</p>	<p>K305SI</p>	<p>K305SJ</p>	<p>K305SK/K305SL</p>	
<p>K305AG/K305AH</p>	<p>K305AI/K305TI</p>	<p>K305AJ/K305TJ</p>	<p>K305AK/K305AL</p>	
<p>K305TG/K305TH</p>			<p>K305TK/K305TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K307-MX080M1E20FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K307HA/K307HB/K307HC</p>	
<p>Flange-mounted(F)</p>	<p>K307FA/K307FB/K307FC</p>	<p>K307FD/K307FE/K307FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

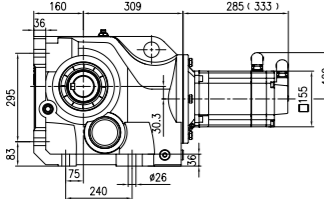
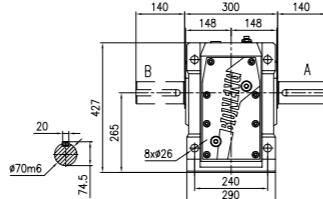
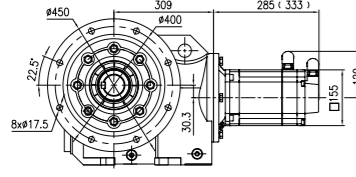
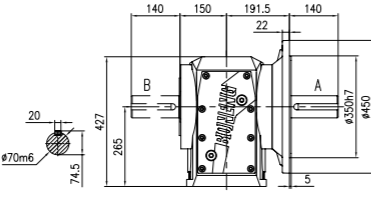
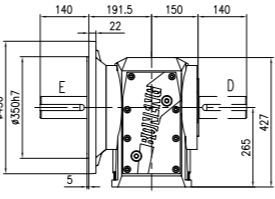
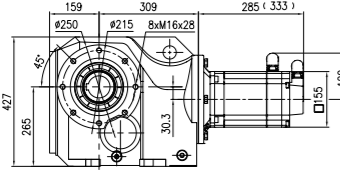
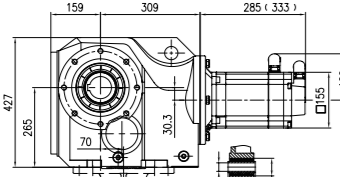
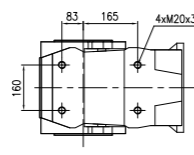
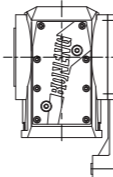
注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K307-MX080M1E20FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K307HG/K307HH</p>	<p>K307HI</p>	<p>K307HJ</p>	<p>K307HK/K307HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3B75-N(without filter) or AX-PM26-B3B75-F(with filter) Operation panel: A1-OP25</p>
<p>K307FG/K307FH</p>	<p>K307FI</p>	<p>K307FJ</p>	<p>K307FK/K307FL</p>	
<p>K307SG/K307SH</p>	<p>K307SI</p>	<p>K307SJ</p>	<p>K307SK/K307SL</p>	
<p>K307AG/K307AH K307TG/K307TH</p>	<p>K307AIK307TI</p>	<p>K307AJ/K307TJ</p>	<p>K307AK/K307AL K307TK/K307TL</p>	

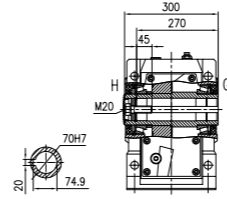
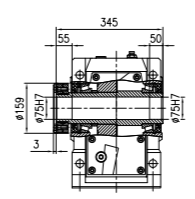
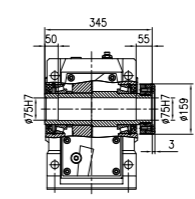
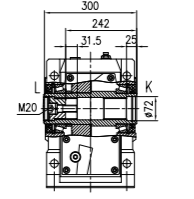
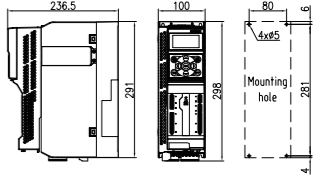
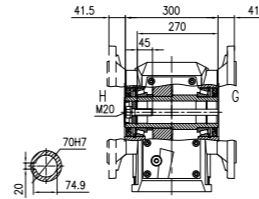
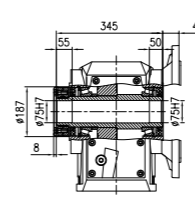
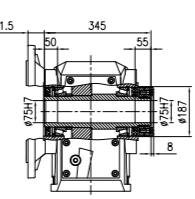
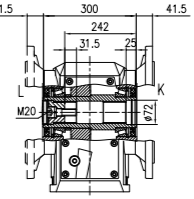
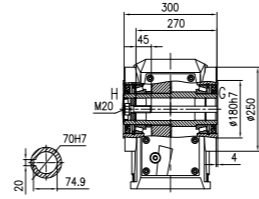
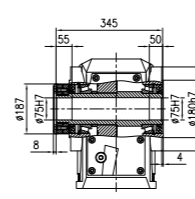
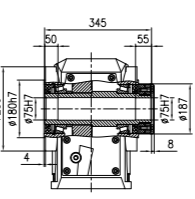
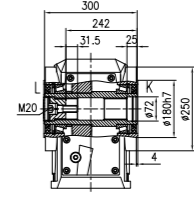
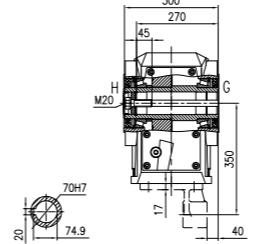
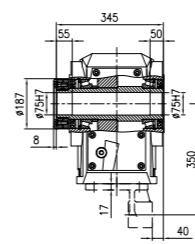
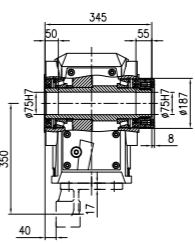
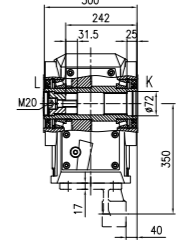
注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K309-MX080M1E20FS0 Dimensions (mm)		
 <p>Horizontal foot-mounted(H)</p>	 <p>K309HA/K309HB/K309HC</p>	
 <p>Flange-mounted(F)</p>	 <p>K309FA/K309FB/K309FC</p>	 <p>K309FD/K309FE/K309FF</p>
 <p>Short flange-mounted(S)</p>		
 <p>Shaft-mounted(A)</p>	 <p>Torque arm-mounted with accessory(T)</p>	 <p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K309-MX080M1E20FS0 Dimensions (mm)				Corresponding Servo Drive
 <p>K309HG/K309HH</p>	 <p>K309HI</p>	 <p>K309HJ</p>	 <p>K309HK/K309HL</p>	 <p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3B75-N(without filter) or AX-PM26-B3B75-F(with filter) Operation panel: A1-OP25</p>
 <p>K309FG/K309FH</p>	 <p>K309FI</p>	 <p>K309FJ</p>	 <p>K309FK/K309FL</p>	
 <p>K309SG/K309SH</p>	 <p>K309SI</p>	 <p>K309SJ</p>	 <p>K309SK/K309SL</p>	
 <p>K309AG/K309AH K309TG/K309TH</p>	 <p>K309AIK309TI</p>	 <p>K309AJ/K309TJ</p>	 <p>K309AK/K309AL K309TK/K309TL</p>	

注:渐开线花键空心轴的花键规格DIN5480:
m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480:
m1.25×z18×α30×D25×9H

伺服马达:6.6kW42Nm
14.5A-1500r/min

Servo motor:6.6kW42Nm
14.5A-1500r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T ₂ (N.m)	Code	i_N	i_{ex}	i_z	T _{2N}	J 10 ⁻⁴ (kg.m ²)	Φ (°)	f
357	176	B40	4	4.2	3355/798	680	15	18	3.86
311	202	B45	4.5	4.82	71126/14763	680	12	17	3.37
292	216	B50	5	5.14	36905/7182	700	10	17	3.24
268	235	B56	5.6	5.59	352/63	730	12	14	3.11
249	253	B63	6.3	6.02	915/152	750	10	15	2.96
217	290	B71	7.1	6.9	9699/1406	750	8.1	15	2.59
188	336	B80	8	8	8/1	750	8.9	12	2.23
164	385	B90	9	9.17	1696/185	750	7	12	1.95
153	411	C10	10	9.78	88/9	750	6.3	12	1.82
132	479	C11	11.2	11.4	1545/136	750	7.8	9	1.57
151	417	C10	10	9.93	1887/190	1300	14	13	3.12
134	470	C11	11.2	11.2	7854/703	1300	11	12	2.77
125	504	C13	12.5	12	1081/90	1380	20	9	2.74
109	575	C14	14	13.7	752/55	1550	16	9	2.7
98.7	638	C16	16	15.2	470/31	1650	14	9	2.59
86.2	731	C18	18	17.4	1739/100	1650	11	9	2.26
76.5	823	C20	20	19.6	3619/185	1650	9.1	9	2
68.2	924	C22	22.4	22.0	11891/540	1650	11	8	1.79
59.8	1054	C25	25	25.1	376/15	1750	9.1	8	1.66
54.0	1168	C28	28	27.8	2585/93	1750	8	8	1.50
66.4	949	C22	22.4	22.6	33835/1496	2850	17	7	3
60.5	1042	C25	25	24.8	104535/4216	3000	20	7	2.88
52.4	1201	C28	28	28.4	13635/476	3000	16	7	2.50
49.2	1291	C32	31.5	30.5	7575/248	3000	15	7	2.34
42.0	1499	C36	35.5	35.7	14847/416	3000	25	7	2.00
36.9	1705	C40	40	40.6	4545/112	3000	22	7	1.76
31.9	1974	C45	45	47	48177/1024	3000	24	7	1.52
39.7	1588	C40	40	37.8	3588/95	5000	93	6	3.15
33.6	1873	C45	45	44.6	759/17	5000	77	6	2.67
30	2100	C50	50	50	2001/40	5000	71	6	2.38
28.1	2243	C56	56	53.4	1656/31	5000	66	6	2.23
24.5	2566	C63	63	61.1	2139/35	5000	56	6	1.95
22.1	2852	C71	71	67.9	4416/65	5000	49	6	1.75
19.5	3238	C80	80	77.1	1541/20	5000	44	6	1.54
22.2	2843	C71	71	67.7	2100/31	9000	99	6	3.17
19.5	3234	C80	80	77	77/1	9000	84	6	2.78
17.4	3620	C90	90	86.2	1120/13	9000	74	6	2.49
15.7	4019	D10	100	95.7	287/3	9000	65	6	2.24
13.4	4704	D11	112	112	112/1	9000	52	6	1.91
12.5	5057	D13	125	120.4	602/5	9000	49	6	1.78

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
Servo Gearmotor Order Number	Servo Drive Order Number			Cable Configuration Order Number		Braking Resistor Order Number
	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	
K306□□-B40-D□□□-MX100M1E15FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3C11-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A40-□□□ 18:Without brake 16:With brake B30=3m B50=5m B70=7m C10=10m C15=15m C20=20m C30=30m C40=40m C50=50m	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box B30(3m) B50(5m) B70(7m) C10(10m) C15(15m) C20(20m) C30(30m) C40(40m) C50(50m)	A1-H02-B40-K-C48
K306□□-B45-D□□□-MX100M1E15FS0						
K306□□-B50-D□□□-MX100M1E15FS0						
K306□□-B56-D□□□-MX100M1E15FS0						
K306□□-B63-D□□□-MX100M1E15FS0						
K306□□-B71-D□□□-MX100M1E15FS0						
K306□□-B80-D□□□-MX100M1E15FS0						
K306□□-B90-D□□□-MX100M1E15FS0						
K306□□-C10-D□□□-MX100M1E15FS0						
K306□□-C11-D□□□-MX100M1E15FS0						
K307□□-C10-D□□□-MX100M1E15FS0						
K307□□-C11-D□□□-MX100M1E15FS0						
K307□□-C13-D□□□-MX100M1E15FS0						
K307□□-C14-D□□□-MX100M1E15FS0						
K307□□-C16-D□□□-MX100M1E15FS0						
K307□□-C18-D□□□-MX100M1E15FS0						
K307□□-C20-D□□□-MX100M1E15FS0						
K307□□-C22-D□□□-MX100M1E15FS0						
K307□□-C25-D□□□-MX100M1E15FS0						
K307□□-C28-D□□□-MX100M1E15FS0						
K308□□-C22-D□□□-MX100M1E15FS0						
K308□□-C25-D□□□-MX100M1E15FS0						
K308□□-C28-D□□□-MX100M1E15FS0						
K308□□-C32-D□□□-MX100M1E15FS0						
K308□□-C36-D□□□-MX100M1E15FS0						
K308□□-C40-D□□□-MX100M1E15FS0						
K308□□-C45-D□□□-MX100M1E15FS0						
K309□□-C40-D□□□-MX100M1E15FS0						
K309□□-C45-D□□□-MX100M1E15FS0						
K309□□-C50-D□□□-MX100M1E15FS0						
K309□□-C56-D□□□-MX100M1E15FS0						
K309□□-C63-D□□□-MX100M1E15FS0						
K309□□-C71-D□□□-MX100M1E15FS0						
K309□□-C80-D□□□-MX100M1E15FS0						
K310□□-C71-D□□□-MX100M1E15FS0						
K310□□-C80-D□□□-MX100M1E15FS0						
K310□□-C90-D□□□-MX100M1E15FS0						
K310□□-D10-D□□□-MX100M1E15FS0						
K310□□-D11-D□□□-MX100M1E15FS0						
K310□□-D13-D□□□-MX100M1E15FS0						

K306-MX100M1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K306HA/K306HB/K306HC</p>	
<p>Flange-mounted(F)</p>	<p>K306FA/K306FB/K306FC</p>	<p>K306FD/K306FE/K306FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

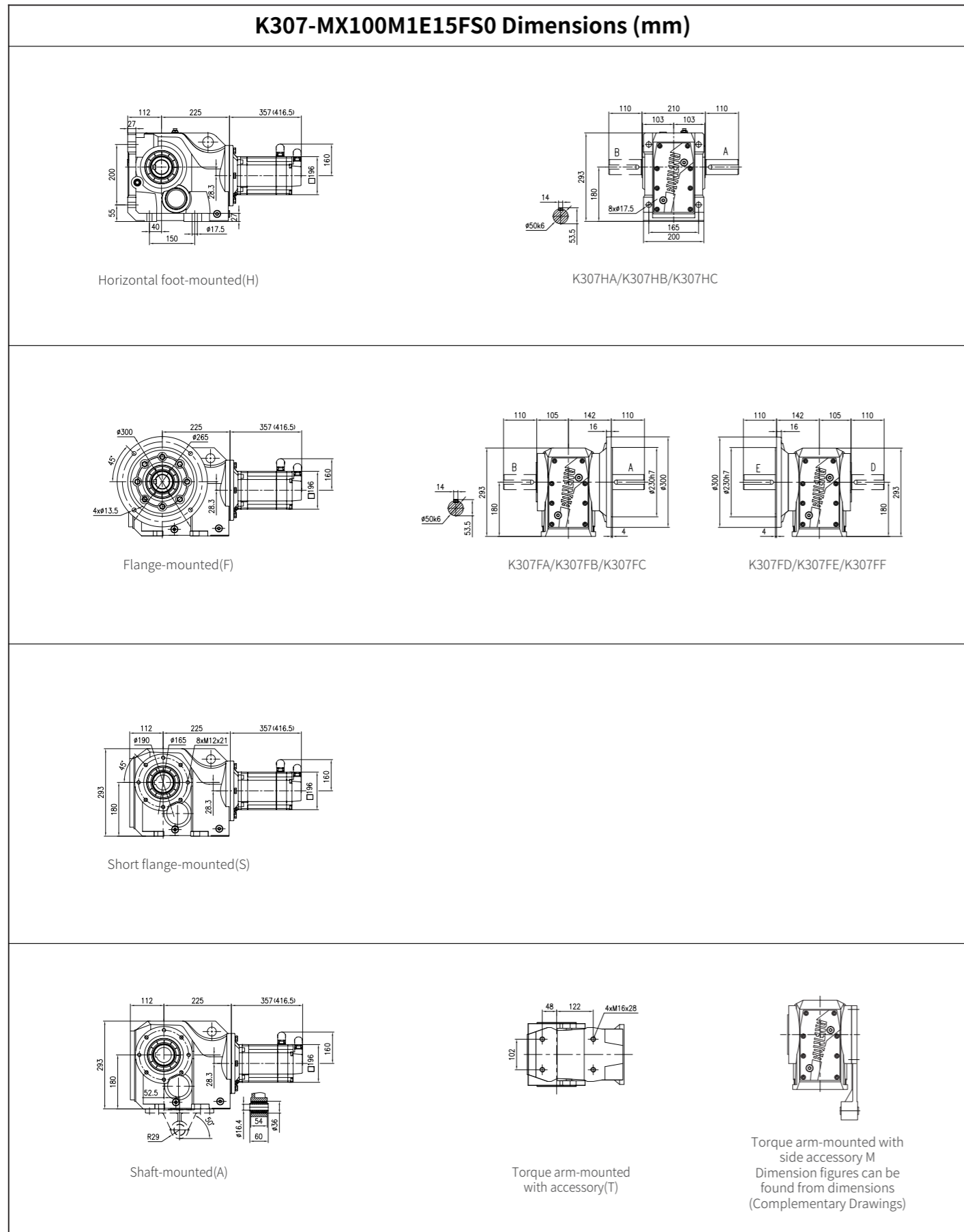
注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K306-MX100M1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K306HG/K306HH</p>	<p>K306HI</p>	<p>K306HJ</p>	<p>K306HK/K306HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C11-N(without filter) or AX-PM26-B3C11-F(with filter) Operation panel: A1-OP25</p>
<p>K306FG/K306FH</p>	<p>K306FI</p>	<p>K306FJ</p>	<p>K306FK/K306FL</p>	
<p>K306SG/K306SH</p>	<p>K306SI</p>	<p>K306SJ</p>	<p>K306SK/K306SL</p>	
<p>K306AG/K306AH K306TG/K306TH</p>	<p>K306AI/K306TI</p>	<p>K306AJ/K306TJ</p>	<p>K306AK/K306AL K306TK/K306TL</p>	

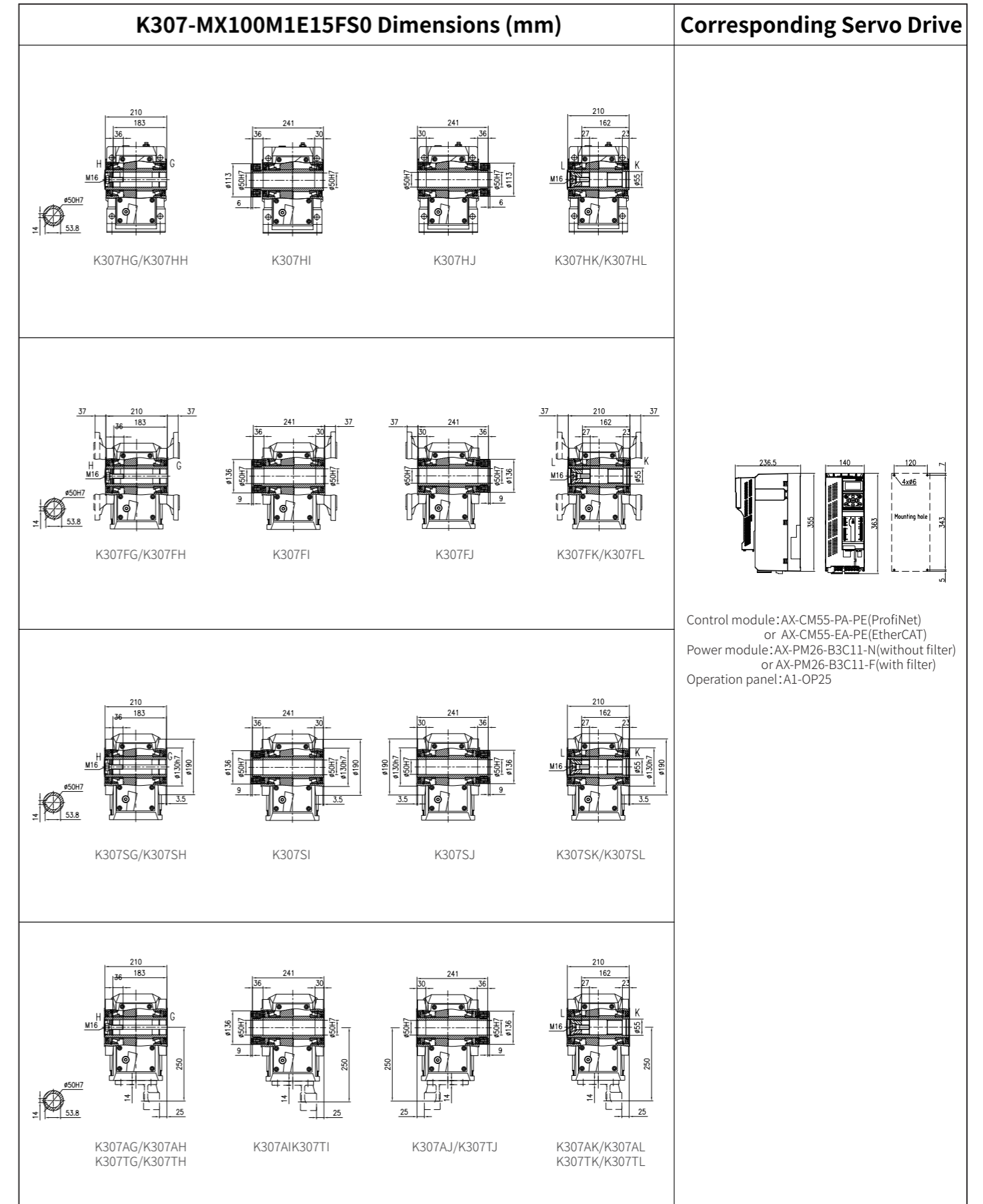
注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H



注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake



注:渐开线花键空心轴的花键规格DIN5480:
m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480:
m1.25×z18×α30×D25×9H

K308-MX100M1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K308HA/K308HB/K308HC</p>	
<p>Flange-mounted(F)</p>	<p>K308FA/K308FB/K308FC</p>	<p>K308FD/K308FE/K308FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

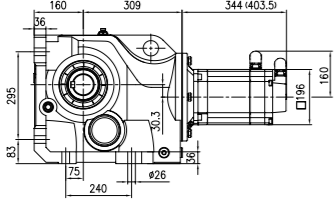
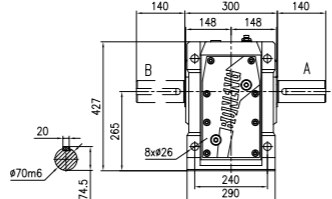
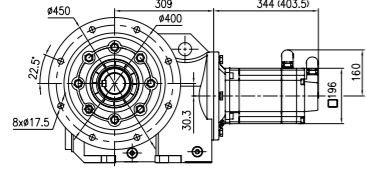
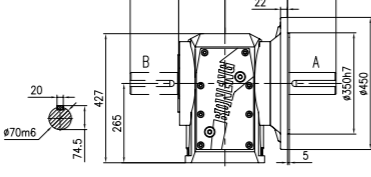
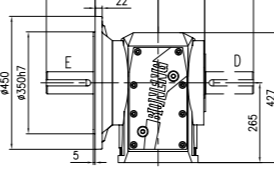
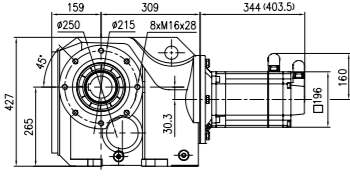
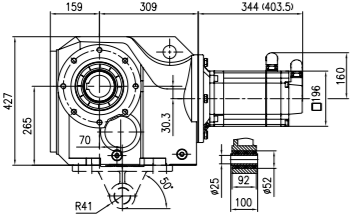
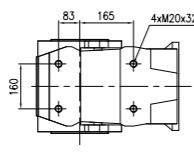
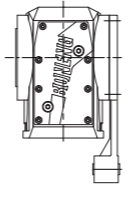
注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K308-MX100M1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K308HG/K308HH</p>	<p>K308HI</p>	<p>K308HJ</p>	<p>K308HK/K308HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C11-N(without filter) or AX-PM26-B3C11-F(with filter) Operation panel: A1-OP25</p>
<p>K308FG/K308FH</p>	<p>K308FI</p>	<p>K308FJ</p>	<p>K308FK/K308FL</p>	
<p>K308SG/K308SH</p>	<p>K308SI</p>	<p>K308SJ</p>	<p>K308SK/K308SL</p>	
<p>K308AG/K308AH</p>	<p>K308AI/K308TI</p>	<p>K308AJ/K308TJ</p>	<p>K308AK/K308AL</p>	
<p>K308TG/K308TH</p>	<p>K308TK/K308TL</p>	<p>K308TK/K308TL</p>	<p>K308TK/K308TL</p>	

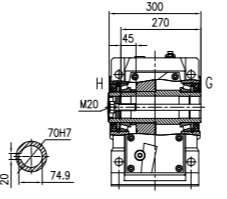
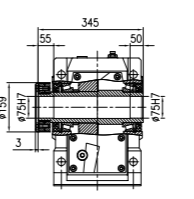
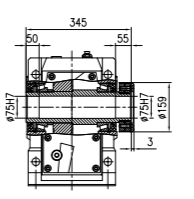
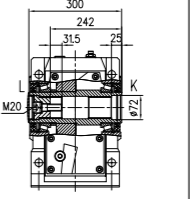
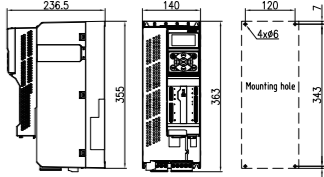
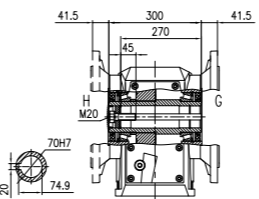
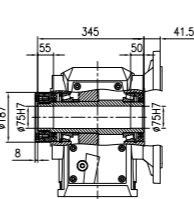
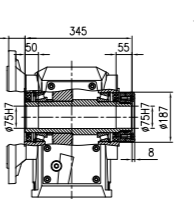
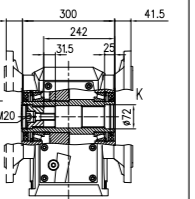
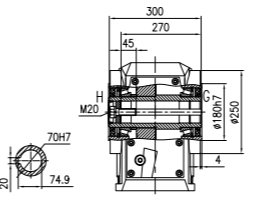
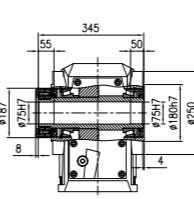
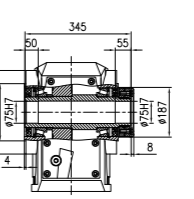
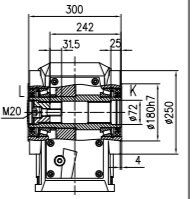
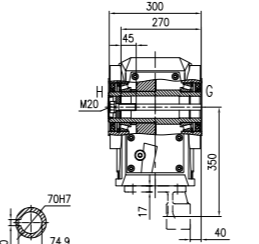
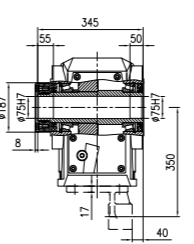
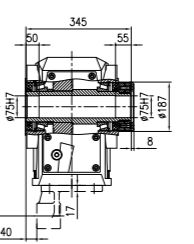
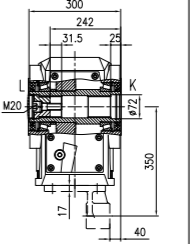
注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K309-MX100M1E15FS0 Dimensions (mm)		
 <p>Horizontal foot-mounted(H)</p>	 <p>K309HA/K309HB/K309HC</p>	
 <p>Flange-mounted(F)</p>	 <p>K309FA/K309FB/K309FC</p>	 <p>K309FD/K309FE/K309FF</p>
 <p>Short flange-mounted(S)</p>		
 <p>Shaft-mounted(A)</p>	 <p>Torque arm-mounted with accessory(T)</p>	 <p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K309-MX100M1E15FS0 Dimensions (mm)				Corresponding Servo Drive
 <p>K309HG/K309HH</p>	 <p>K309HI</p>	 <p>K309HJ</p>	 <p>K309HK/K309HL</p>	 <p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C11-N(without filter) or AX-PM26-B3C11-F(with filter) Operation panel: A1-OP25</p>
 <p>K309FG/K309FH</p>	 <p>K309FI</p>	 <p>K309FJ</p>	 <p>K309FK/K309FL</p>	
 <p>K309SG/K309SH</p>	 <p>K309SI</p>	 <p>K309SJ</p>	 <p>K309SK/K309SL</p>	
 <p>K309AG/K309AH K309TG/K309TH</p>	 <p>K309AI/K309TI</p>	 <p>K309AJ/K309TJ</p>	 <p>K309AK/K309AL K309TK/K309TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K310-MX100M1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K310HA/K310HB/K310HC</p>	
<p>Flange-mounted(F)</p>	<p>K310FA/K310FB/K310FC</p>	<p>K310FD/K310FE/K310FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K310-MX100M1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K310HG/K310HH</p>	<p>K310HI</p>	<p>K310HJ</p>	<p>K310HK/K310HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C11-N(without filter) or AX-PM26-B3C11-F(with filter) Operation panel: A1-OP25</p>
<p>K310FG/K310FH</p>	<p>K310FI</p>	<p>K310FJ</p>	<p>K310FK/K310FL</p>	
<p>K310SG/K310SH</p>	<p>K310SI</p>	<p>K310SJ</p>	<p>K310SK/K310SL</p>	
<p>K310AG/K310AH K310TG/K310TH</p>	<p>K310AIK310TI</p>	<p>K310AJ/K310TJ</p>	<p>K310AK/K310AL K310TK/K310TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

伺服马达:9.11kW58Nm
18.4A-1500r/min

Servo motor:9.11kW58Nm
18.4A-1500r/min

齿轮箱实际输出转速	齿轮箱实际输出扭矩	齿轮箱公称减速比代号	齿轮箱公称减速比	齿轮箱精确减速比	齿轮箱齿数比	齿轮箱额定输出扭矩	齿轮箱转动惯量	齿轮箱背隙	齿轮箱服务系数
Actual Output Speed of Gearbox	Actual Output Torque of Gearbox	Nominal Ratio Code of Gearbox	Nominal Ratio of Gearbox	Exact Ratio of Gearbox	Gear Ratio of Gearbox	Normal Output Torque of Gearbox	Rotational Inertia of Gearbox	Back Lash of Gearbox	Service Coefficient of Gearbox
n_{2N} (r/min)	T ₂ (N.m)	Code	i_N	i_{ex}	i_z	T _{2N}	J 10 ⁻⁴ (kg.m ²)	Φ (°)	f
357	244	B40	4	4.2	3355/798	680	15	18	2.79
311	280	B45	4.5	4.82	71126/14763	680	12	17	2.43
292	298	B50	5	5.14	36905/7182	700	10	17	2.35
268	324	B56	5.6	5.59	352/63	730	12	14	2.25
249	349	B63	6.3	6.02	915/152	750	10	15	2.15
217	400	B71	7.1	6.9	9699/1406	750	8.1	15	1.88
188	464	B80	8	8	8/1	750	8.9	12	1.62
219	398	B71	7.1	6.86	391/57	1300	25	13	3.27
192	453	B80	8	7.81	1632/209	1300	20	13	2.87
173	502	B90	9	8.66	5100/589	1300	17	13	2.59
151	576	C10	10	9.93	1887/190	1300	14	13	2.26
134	650	C11	11.2	11.2	7854/703	1300	11	12	2
125	696	C13	12.5	12	1081/90	1380	20	9	1.98
109	795	C14	14	13.7	752/55	1550	16	9	1.95
98.7	882	C16	16	15.2	470/31	1650	14	9	1.87
86.2	1009	C18	18	17.4	1739/100	1650	11	9	1.64
76.5	1137	C20	20	19.6	3619/185	1650	9.1	9	1.45
94.3	922	C16	16	15.9	7575/476	2600	29	7	2.82
81.1	1073	C18	18	18.5	80295/4352	2600	24	7	2.42
74.6	1166	C20	20	20.1	32825/1632	2600	21	7	2.23
66.4	1311	C22	22.4	22.6	33835/1496	2850	17	7	2.17
60.5	1438	C25	25	24.8	104535/4216	3000	20	7	2.09
52.4	1659	C28	28	28.6	13635/476	3000	16	7	1.81
49.2	1769	C32	31.5	30.5	7575/248	3000	15	7	1.70
53.8	1618	C28	28	27.9	47771/1710	5000	55	7	3.09
47.9	1815	C32	31.5	31.3	8924/285	5000	47	7	2.75
43.5	2001	C36	35.5	34.5	69/2	5000	102	6	2.5
39.7	2192	C40	40	37.8	3588/95	5000	93	6	2.28
33.6	2587	C45	45	44.6	759/17	5000	77	6	1.93
30	2900	C50	50	50	2001/40	5000	71	6	1.72
28.1	3097	C56	56	53.4	1656/31	5000	66	6	1.61
30.4	2865	C50	50	49.4	938/19	8500	139	6	2.97
26	3341	C56	56	57.6	980/17	9000	116	6	2.69
23.5	3706	C63	63	63.9	511/8	9000	107	6	2.43
22.2	3927	C71	71	67.7	2100/31	9000	99	6	2.29
19.5	4466	C80	80	77	77/1	9000	84	6	2.02
17.4	5000	C90	90	86.2	1120/13	9000	74	6	1.8
15.7	5551	D10	100	95.7	287/3	9000	65	6	1.62

注:启停次数≤60次/小时,服务系数f推荐1.5;
启停次数≤120次/小时,服务系数f推荐1.75;
启停次数>120次/小时,服务系数f推荐2以上;

Attention:Operation frequency≤60 times/h,
service coefficient f is recommended as 1.5;
Operation frequency≤120 times/h, service
coefficient f is recommended as 1.75;
Operation frequency≥120 times/h, service
coefficient f is recommended as over 2.

伺服齿轮马达订货号	伺服驱动器订货号			线缆配置订货号		制动电阻订货号
	控制模块	功率模块	操作面板	伺服马达动力线	伺服马达信号线	
Servo Gearmotor Order Number	Servo Drive Order Number			Cable Configuration Order Number		Braking Resistor Order Number
	Control Module	Power Module	Operation Panel	Power Cable of Servo Gearmotor	Signal Cable of Servo Gearmotor	
K306□□-B40-D□□□-MX100L1E15FS0	AX-CM55-□□-PE PA:PROFINET EA:EtherCAT	AX-PM26-B3C15-□ N:Without filter F:With filter	A1-OP25	A1-H□□-A40-□□□ 18:Without brake 16:With brake B30=3m B50=5m B70=7m C10=10m C15=15m C20=20m C30=30m C40=40m C50=50m	A1-H17-A□□-□□□ 12:Without battery box 13:With battery box B30(3m) B50(5m) B70(7m) C10(10m) C15(15m) C20(20m) C30(30m) C40(40m) C50(50m)	A1-H02-B50-K-C36
K306□□-B45-D□□□-MX100L1E15FS0						
K306□□-B50-D□□□-MX100L1E15FS0						
K306□□-B56-D□□□-MX100L1E15FS0						
K306□□-B63-D□□□-MX100L1E15FS0						
K306□□-B71-D□□□-MX100L1E15FS0						
K306□□-B80-D□□□-MX100L1E15FS0						
K307□□-B71-D□□□-MX100L1E15FS0						
K307□□-B80-D□□□-MX100L1E15FS0						
K307□□-B90-D□□□-MX100L1E15FS0						
K307□□-C10-D□□□-MX100L1E15FS0						
K307□□-C11-D□□□-MX100L1E15FS0						
K307□□-C13-D□□□-MX100L1E15FS0						
K307□□-C14-D□□□-MX100L1E15FS0						
K307□□-C16-D□□□-MX100L1E15FS0						
K307□□-C18-D□□□-MX100L1E15FS0						
K307□□-C20-D□□□-MX100L1E15FS0						
K308□□-C16-D□□□-MX100L1E15FS0						
K308□□-C18-D□□□-MX100L1E15FS0						
K308□□-C20-D□□□-MX100L1E15FS0						
K308□□-C22-D□□□-MX100L1E15FS0						
K308□□-C25-D□□□-MX100L1E15FS0						
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K308□□-C32-D□□□-MX100L1E15FS0						
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K309□□-C40-D□□□-MX100L1E15FS0						
K309□□-C45-D□□□-MX100L1E15FS0						
K309□□-C50-D□□□-MX100L1E15FS0						
K309□□-C56-D□□□-MX100L1E15FS0						
K310□□-C50-D□□□-MX100L1E15FS0						
K310□□-C56-D□□□-MX100L1E15FS0						
K310□□-C63-D□□□-MX100L1E15FS0						
K310□□-C71-D□□□-MX100L1E15FS0						
K310□□-C80-D□□□-MX100L1E15FS0						
K310□□-C90-D□□□-MX100L1E15FS0						
K310□□-D10-D□□□-MX100L1E15FS0						

K306-MX100L1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K306HA/K306HB/K306HC</p>	
<p>Flange-mounted(F)</p>	<p>K306FA/K306FB/K306FC</p>	<p>K306FD/K306FE/K306FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K306-MX100L1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K306HG/K306HH</p>	<p>K306HI</p>	<p>K306HJ</p>	<p>K306HK/K306HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C15-N(without filter) or AX-PM26-B3C15-F(with filter) Operation panel: A1-OP25</p>
<p>K306FG/K306FH</p>	<p>K306FI</p>	<p>K306FJ</p>	<p>K306FK/K306FL</p>	
<p>K306SG/K306SH</p>	<p>K306SI</p>	<p>K306SJ</p>	<p>K306SK/K306SL</p>	
<p>K306AG/K306AH K306TG/K306TH</p>	<p>K306AI/K306TI</p>	<p>K306AJ/K306TJ</p>	<p>K306AK/K306AL K306TK/K306TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K307-MX100L1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K307HA/K307HB/K307HC</p>	
<p>Flange-mounted(F)</p>	<p>K307FA/K307FB/K307FC</p>	<p>K307FD/K307FE/K307FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

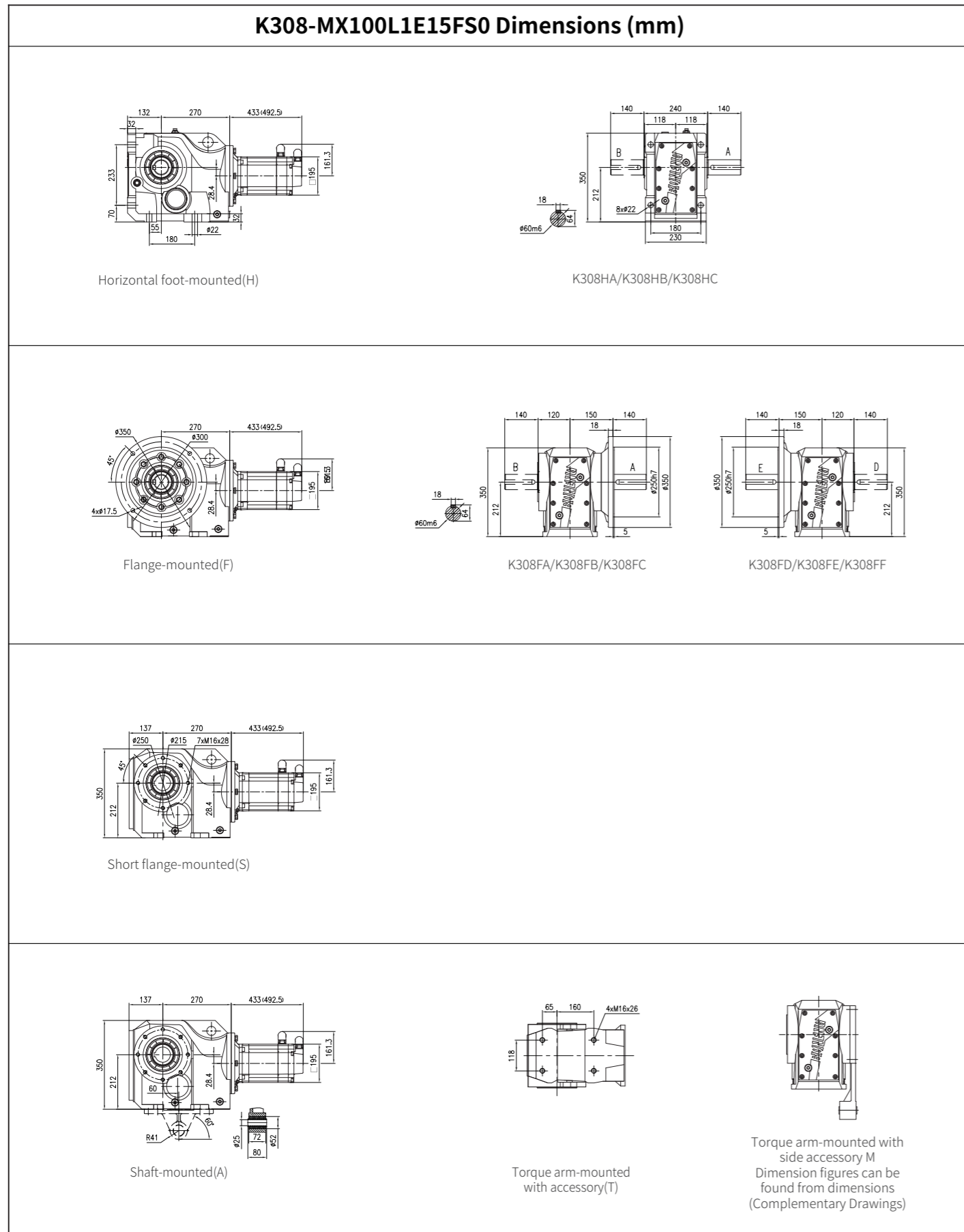
注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K307-MX100L1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K307HG/K307HH</p>	<p>K307HI</p>	<p>K307HJ</p>	<p>K307HK/K307HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C15-N(without filter) or AX-PM26-B3C15-F(with filter) Operation panel: A1-OP25</p>
<p>K307FG/K307FH</p>	<p>K307FI</p>	<p>K307FJ</p>	<p>K307FK/K307FL</p>	
<p>K307SG/K307SH</p>	<p>K307SI</p>	<p>K307SJ</p>	<p>K307SK/K307SL</p>	
<p>K307AG/K307AH</p>	<p>K307AIK307TI</p>	<p>K307AJ/K307TJ</p>	<p>K307AK/K307AL K307TK/K307TL</p>	

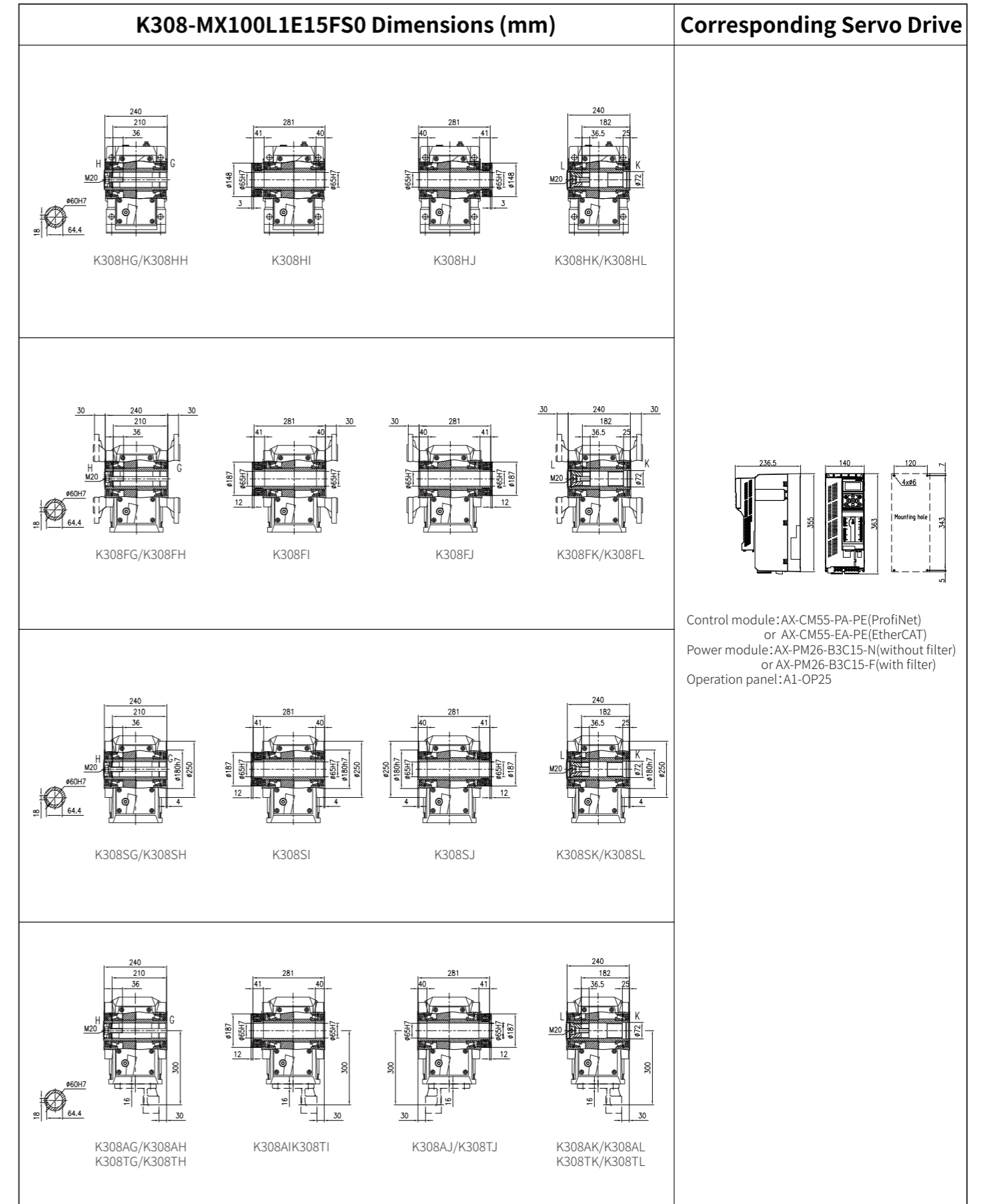
注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H



注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake



注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K309-MX100L1E15FS0 Dimensions (mm)		
<p>Horizontal foot-mounted(H)</p>	<p>K309HA/K309HB/K309HC</p>	
<p>Flange-mounted(F)</p>	<p>K309FA/K309FB/K309FC</p>	<p>K309FD/K309FE/K309FF</p>
<p>Short flange-mounted(S)</p>		
<p>Shaft-mounted(A)</p>	<p>Torque arm-mounted with accessory(T)</p>	<p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

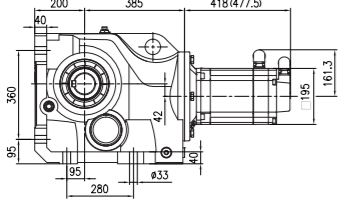
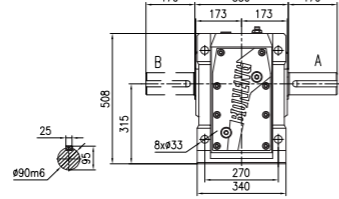
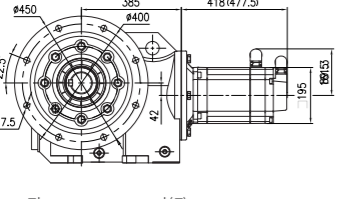
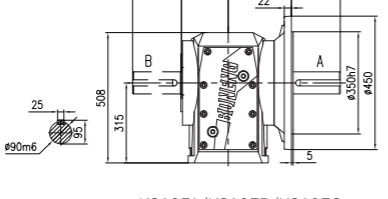
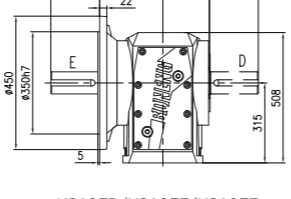
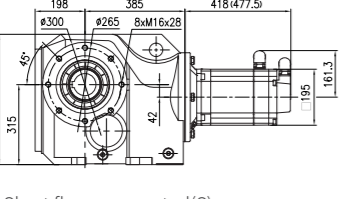
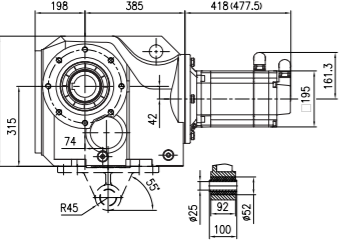
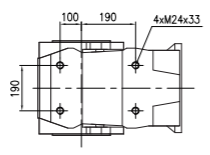
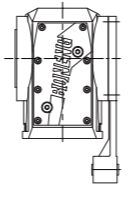
注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

K309-MX100L1E15FS0 Dimensions (mm)				Corresponding Servo Drive
<p>K309HG/K309HH</p>	<p>K309HI</p>	<p>K309HJ</p>	<p>K309HK/K309HL</p>	<p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C15-N(without filter) or AX-PM26-B3C15-F(with filter) Operation panel: A1-OP25</p>
<p>K309FG/K309FH</p>	<p>K309FI</p>	<p>K309FJ</p>	<p>K309FK/K309FL</p>	
<p>K309SG/K309SH</p>	<p>K309SI</p>	<p>K309SJ</p>	<p>K309SK/K309SL</p>	
<p>K309AG/K309AH</p>	<p>K309AI/K309TI</p>	<p>K309AJ/K309TJ</p>	<p>K309AK/K309AL</p>	
<p>K309TG/K309TH</p>	<p>K309TK/K309TL</p>			

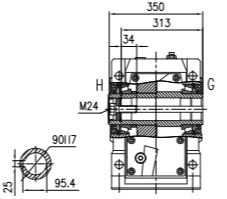
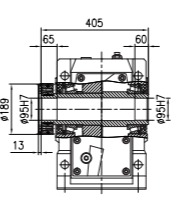
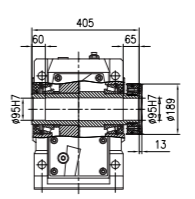
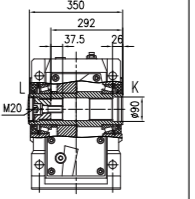
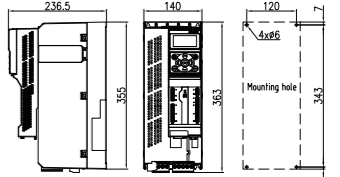
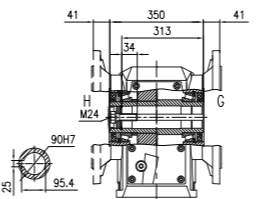
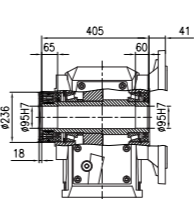
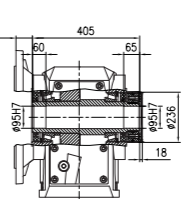
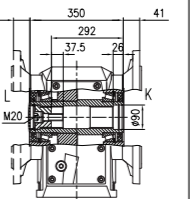
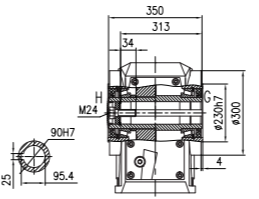
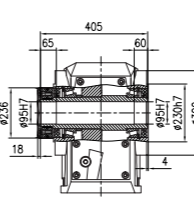
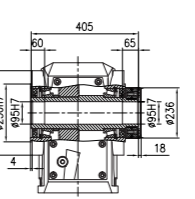
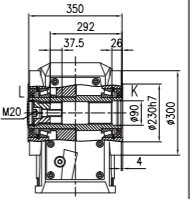
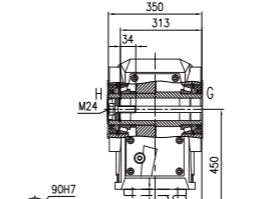
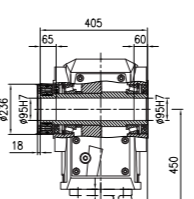
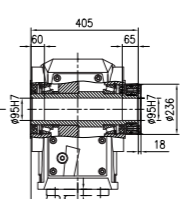
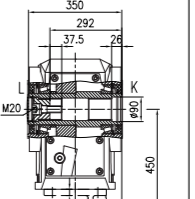
注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

K310-MX100L1E15FS0 Dimensions (mm)		
 <p>Horizontal foot-mounted(H)</p>	 <p>K310HA/K310HB/K310HC</p>	
 <p>Flange-mounted(F)</p>	 <p>K310FA/K310FB/K310FC</p>	 <p>K310FD/K310FE/K310FF</p>
 <p>Short flange-mounted(S)</p>		
 <p>Shaft-mounted(A)</p>	 <p>Torque arm-mounted with accessory(T)</p>	 <p>Torque arm-mounted with side accessory M Dimension figures can be found from dimensions (Complementary Drawings)</p>

注:括号内为带制动器的伺服马达长度

Note: Figures with parentheses are shown for length of servo gearmotor with brake

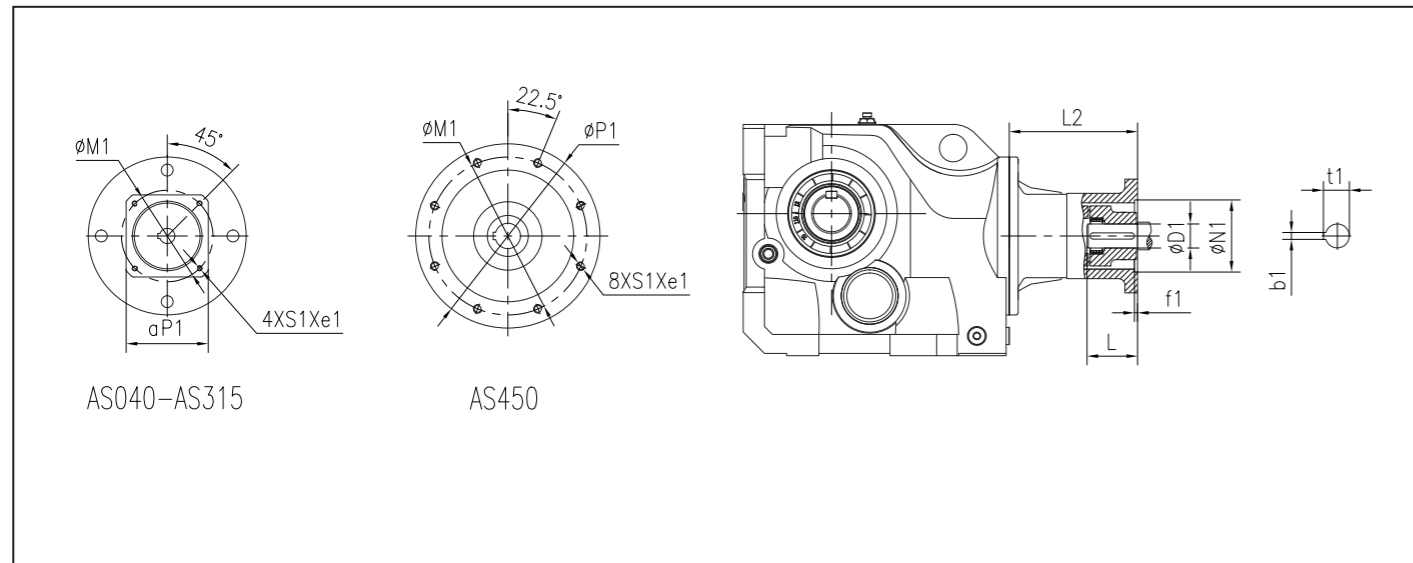
K310-MX100L1E15FS0 Dimensions (mm)				Corresponding Servo Drive
 <p>K310HG/K310HH</p>	 <p>K310HI</p>	 <p>K310HJ</p>	 <p>K310HK/K310HL</p>	 <p>Control module: AX-CM55-PA-PE(ProfiNet) or AX-CM55-EA-PE(EtherCAT) Power module: AX-PM26-B3C15-N(without filter) or AX-PM26-B3C15-F(with filter) Operation panel: A1-OP25</p>
 <p>K310FG/K310FH</p>	 <p>K310FI</p>	 <p>K310FJ</p>	 <p>K310FK/K310FL</p>	
 <p>K310SG/K310SH</p>	 <p>K310SI</p>	 <p>K310SJ</p>	 <p>K310SK/K310SL</p>	
 <p>K310AG/K310AH K310TG/K310TH</p>	 <p>K310AIK310TI</p>	 <p>K310AJ/K310TJ</p>	 <p>K310AK/K310AL K310TK/K310TL</p>	

注:渐开线花键空心轴的花键规格DIN5480: m1.25×z18×α30×D25×9H

Note: Involute spline size DIN5480: m1.25×z18×α30×D25×9H

5 AS输入法兰尺寸

5 AS Input Flange Dimensions

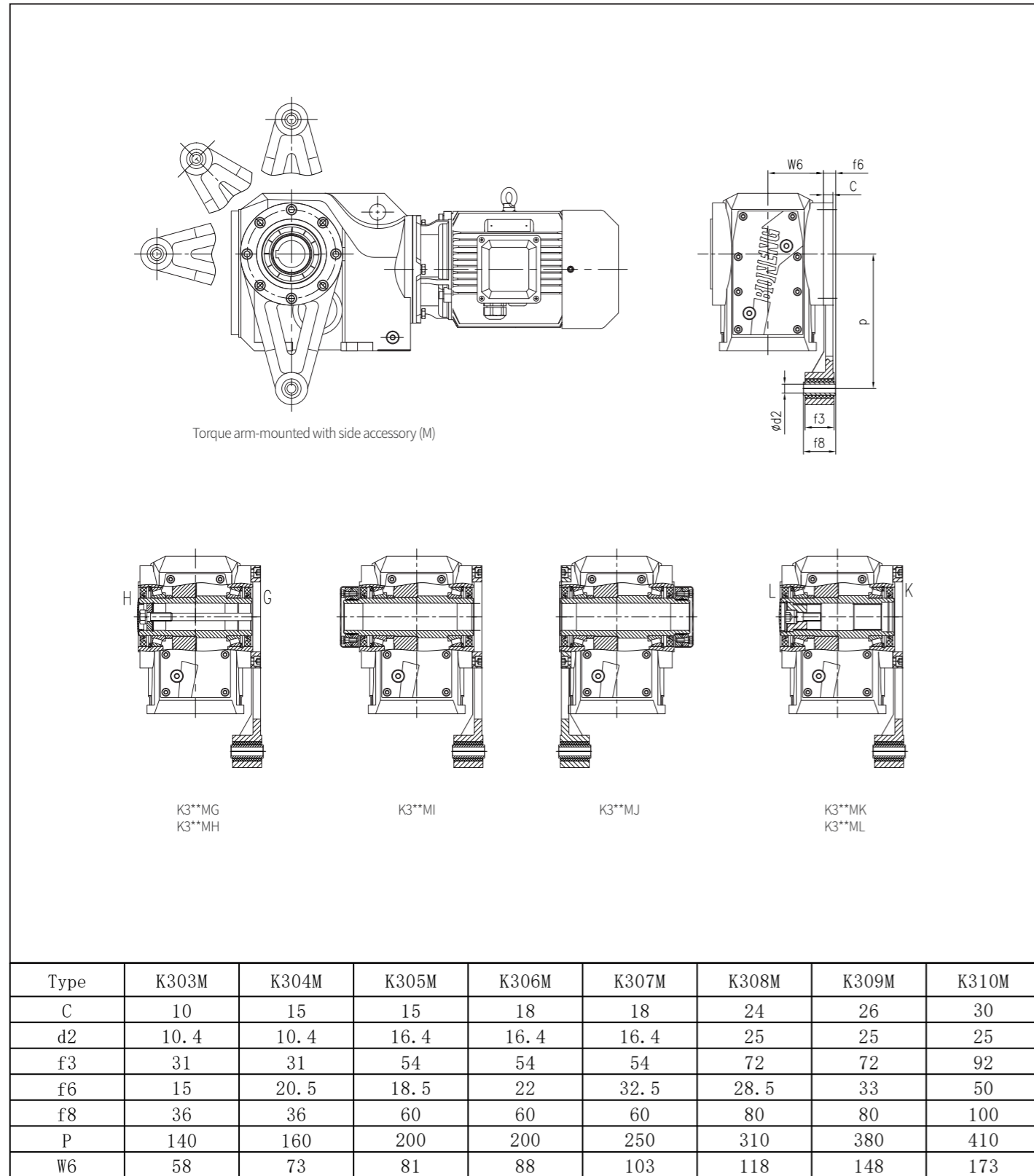


Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2
K303	AS040	4-100	4	8H7	30H7	46	78	4	2	9	25	M4	70
	AS055	4-100	4	9H7	40H7	63	78	4	3	10.4	25	M5	70
	AS060	4-100	10	14H7	50H7	70	60	4	5	16.3	30	M5	114
	AS070	4-100	10	14H7	60H7	75	70	4	5	16.3	30	M5	114
	AS080	4-100	10	19H7	70H7	90	80	4	6	21.8	35	M6	120
	AS090	4-100	10	19H7	80H7	100	90	4	6	21.8	40	M6	125
	AS100	4-56	14	19H7	95H7	115	100	4	6	21.8	45	M8	122
	AS125	4-56	15	24H7	110H7	130	130	5	8	27	50	M8	133
	AS140	4-56	15	24H7	110H7	145	130	6.5	8	27	55	M8	133
K304	AS060	4-125	10	14H7	50H7	70	60	4	5	16.3	30	M5	116
	AS070	4-125	10	14H7	60H7	75	70	4	5	16.3	30	M5	116
	AS080	4-125	10	19H7	70H7	90	80	4	6	21.8	35	M6	122
	AS090	4-125	10	19H7	80H7	100	90	4	6	21.8	40	M6	127
	AS100	4-80	14	19H7	95H7	115	100	4	6	21.8	45	M8	124
	AS125	4-80	15	24H7	110H7	130	130	5	8	27	50	M8	135
	AS140	4-80	15	24H7	110H7	145	130	6.5	8	27	55	M8	135
	AS160	4-80	15	32H7	130H7	165	155	5	10	35.3	60	M10	190
	AS060	4-112	10	14H7	50H7	70	60	4	5	16.3	30	M5	116
K305	AS070	4-112	10	14H7	60H7	75	70	4	5	16.3	30	M5	116
	AS080	4-112	10	19H7	70H7	90	80	4	6	21.8	35	M6	122
	AS090	4-112	10	19H7	80H7	100	90	4	6	21.8	40	M6	127
	AS100	4-63	14	19H7	95H7	115	100	4	6	21.8	45	M8	124
	AS125	4-63	15	24H7	110H7	130	130	5	8	27	50	M8	135
	AS140	4-63	15	24H7	110H7	145	130	6.5	8	27	55	M8	135
	AS160	4-63	15	32H7	130H7	165	155	5	10	35.3	60	M10	190
	AS060	4-125	10	14H7	50H7	70	60	4	5	16.3	30	M5	116
	K306	AS070	4-125	10	14H7	60H7	75	70	4	5	16.3	30	M5
AS080		4-125	10	19H7	70H7	90	80	4	6	21.8	35	M6	122
AS090		4-125	10	19H7	80H7	100	90	4	6	21.8	40	M6	127
AS100		4-90	14	19H7	95H7	115	100	4	6	21.8	45	M8	124
AS125		4-90	15	24H7	110H7	130	130	5	8	27	50	M8	135
AS140		4-90	15	24H7	110H7	145	130	6.5	8	27	55	M8	135
AS160		4-90	15	32H7	130H7	165	155	5	10	35.3	60	M10	190
AS180		4-40	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	220
AS190		4-40	18	38H7	180H7	215	190	6	10	41.3	80	M12	220
K307	AS060	7.1-180	10	14H7	50H7	70	60	4	5	16.3	30	M5	108
	AS070	7.1-180	10	14H7	60H7	75	70	4	5	16.3	30	M5	108
	AS080	7.1-180	10	19H7	70H7	90	80	4	6	21.8	35	M6	114
	AS090	7.1-180	10	19H7	80H7	100	90	4	6	21.8	40	M6	119
	AS100	7.1-112	14	19H7	95H7	115	100	4	6	21.8	45	M8	116
	AS125	7.1-112	15	24H7	110H7	130	130	5	8	27	50	M8	127
	AS140	7.1-112	15	24H7	110H7	145	130	6.5	8	27	55	M8	127
	AS160	7.1-112	15	32H7	130H7	165	155	5	10	35.3	60	M10	180
	AS180	7.1-50	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	210
	AS190	7.1-50	18	38H7	180H7	215	190	6	10	41.3	80	M12	210
	AS240	7.1-50	28	38H7	230H7	265	240	5	10	41.3	80	M12	210

Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2
K308	AS070	90-180	10	14H7	60H7	75	70	4	5	16.3	30	M5	105
	AS080	90-180	10	19H7	70H7	90	80	4	6	21.8	35	M6	111
	AS090	90-180	10	19H7	80H7	100	90	4	6	21.8	40	M6	116
	AS100	7.1-160	14	19H7	95H7	115	100	4	6	21.8	45	M8	113
	AS125	7.1-160	15	24H7	110H7	130	130	5	8	27	50	M8	124
	AS140	7.1-160	15	24H7	110H7	145	130	6.5	8	27	55	M8	124
	AS160	7.1-160	15	32H7	130H7	165	155	5	10	35.3	60	M10	170
	AS180	7.1-80	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	203
	AS190	7.1-80	18	38H7	180H7	215	190	6	10	41.3	80	M12	203
K309	AS240	7.1-80	28	38H7	230H7	265	240	5	10	41.3	80	M12	203
	AS260	7.1-80	40	48H7	250H7	300	260	6	14	51.8	110	M16	272
	AS160	7.1-180	15	32H7	130H7	165	155	5	10	35.3	60	M10	171
	AS180	7.1-112	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	202
	AS190	7.1-112	18	38H7	180H7	215	190	6	10	41.3	80	M12	202
	AS240	7.1-112	28	38H7	230H7	265	240	5	10	41.3	80	M12	202
K310	AS260	7.1-112	40	48H7	250H7	300	260	6	14	51.8	110	M16	271
	AS315	7.1-28	40	55H7	300H7	350	315	6	16	59.3	110	M16	327
	AS160	8-180	15	32H7	130H7	165	155	5	10	35.3	60	M10	161
	AS180	8-125	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	189
	AS190	8-125	18	38H7	180H7	215	190	6	10	41.3	80	M12	189
K312	AS240	8-125	28	38H7	230H7	265	240	5	10	41.3	80	M12	189
	AS260	8-125	40	48H7	250H7	300	260	6	14	51.8	110	M16	258
	AS315	8-100	40	55H7	300H7	350	315	6	16	59.3	110	M16	327
	AS180	7.1-140	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	175
	AS190	7.1-140	18	38H7	180H7	215	190	6	10	41.3	80	M12	175
	AS240	7.1-140	28	38H7	230H7	265	240	5	10	41.3	80	M12	175
K315	AS260	7.1-140	40	48H7	250H7	300	260	6	14	51.8	110	M16	244
	AS315	7.1-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	316
	AS450	7.1-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	343
	AS260	10-140	40	48H7	250H7	300	260	6	14	51.8	110	M16	234
	AS315	10-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	298
K316	AS450	10-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	325
	AS260	10-160	40	48H7	250H7	300	260	6	14	51.8	110	M16	234
	AS315	10-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	298
K318	AS450	10-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	325
	AS260	71-160	40	48H7	250H7	300	260	6	14	51.8	110	M16	234
	AS315	10-140	40	55H7	300H7	350	315	6	16	59.3	110	M16	298
AS450	10-112	30	55H7	350H7	400	450	6	16	59.3	140	M16	325	

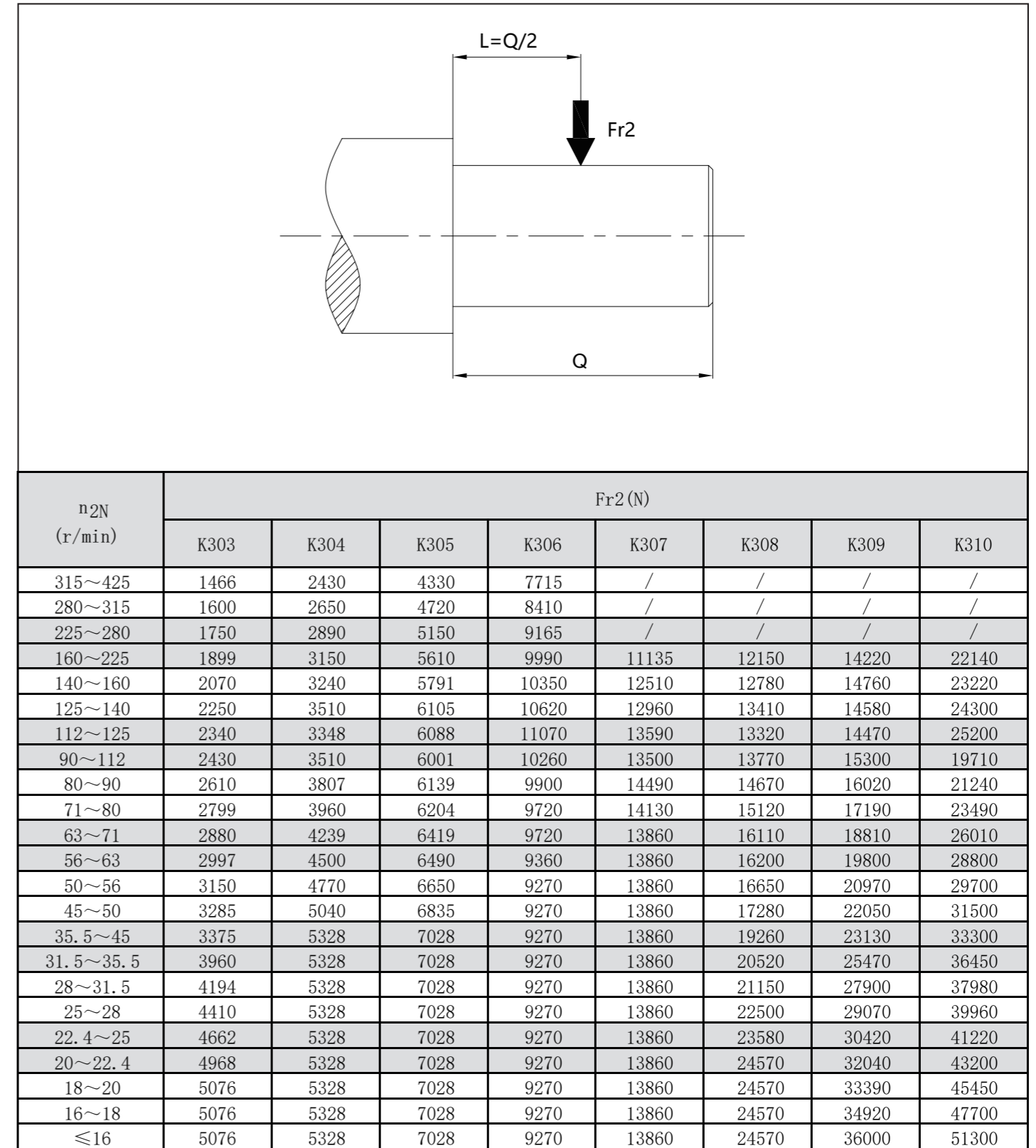
6 外形尺寸图(补充)

6 Dimensions (Complementary Drawings)



7 允许的输出轴径向力

7 Permissible Radial Force of Output Shaft Fr2(N)

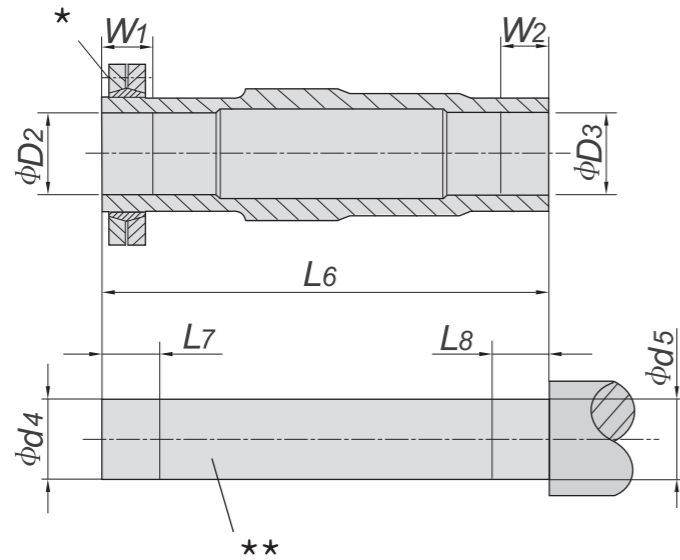


8 被驱动轴
推荐尺寸 (mm)

8 Recommended
Dimensions for Driven
Equipment Shaft (mm)

8.1 锁紧盘

8.1 Shrink Disk



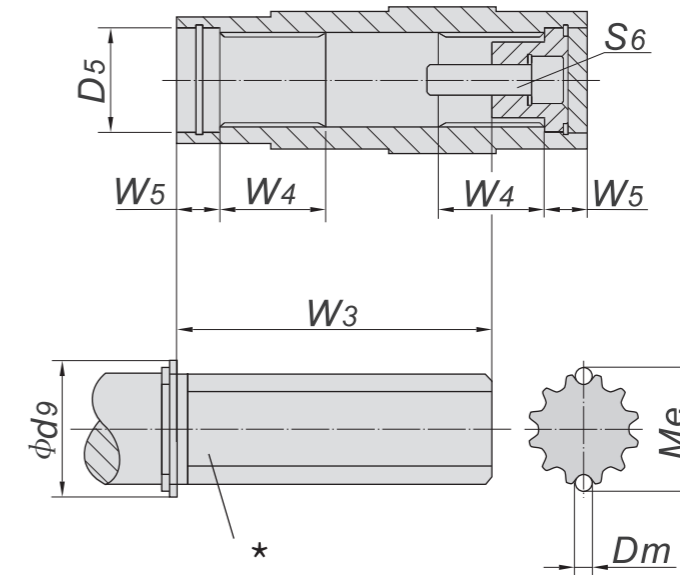
Size	D2	D3	d4	d5	L6	L7	L8	W1	W2	Shrink Disk Type	Shrink Disk Bolt	Shrink Disk Weight (kg)
K303	30H7	30H7	30h6	30h6	146	35	25	30	20	SP2-44×80	M6	0.6
K304	35H7	35H7	35h6	35h6	177	35	25	30	20	SP2-44×80	M6	0.6
K305	40H7	40H7	40h6	40h6	195	40	30	35	25	SP2-50×90	M6	0.8
K306	40H7	40H7	40h6	40h6	208	43	25	38	20	SP2-50×90	M6	0.8
K307	50H7	50H7	50h6	50h6	241	41	35	36	30	SP2-62×110	M6	1.3
K308	65H7	65H7	65h6	65h6	281	46	45	41	40	SP2-80×145	M8	1.9
K309	75H7	75H7	75h6	75h6	345	60	55	55	50	SP2-90×155	M8	3.3
K310	95H7	95H7	95h6	95h6	405	75	70	65	60	SP2-110×185	M10	5.9

* 螺栓
** 被驱动轴

* Bolt
** Driven Equipment Shaft

8.2 花键轴

8.2 Involute Spline



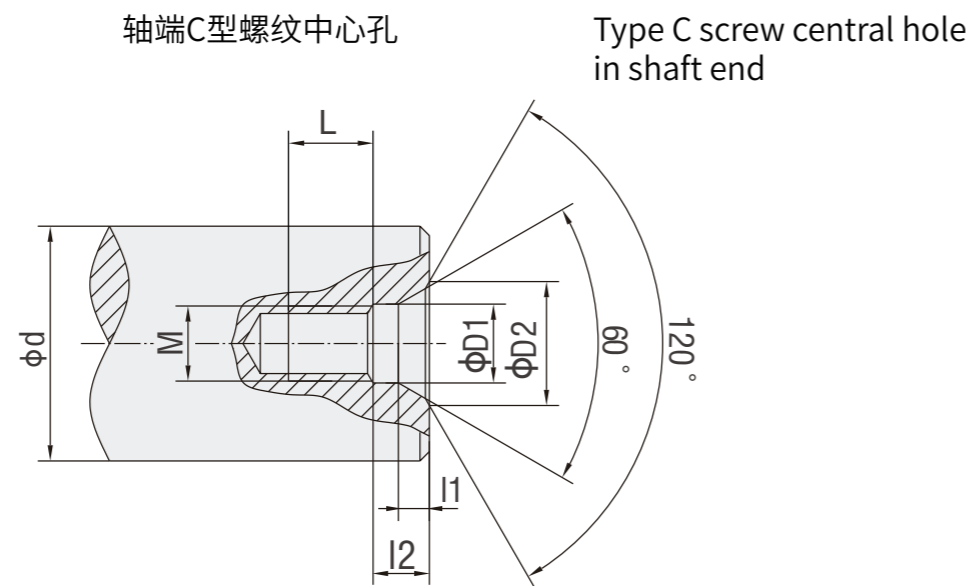
Size	Involute spline size DIN 5480 m x Z x α x D x 9H	D5	Dm	d9	Me	W3	W4	W5	S6
K303	1.25x22x30x30x9H	37	2.75	42	33.03	85	25	18	M10X30
K304	2x16x30x35x9H	37	4	42	38.92	115	32	18	M10X30
K305	2x16x30x35x9H	42	4	47	38.92	125	42	25	M16X40
K306	2x16x30x35x9H	42	4	47	38.92	140	42	25	M16X40
K307	2x24x30x50x9H	55	4	62	54.13	160	52	23	M16X50
K308	2x31x30x65x9H	72	4	82	68.96	180	62	25	M20X60
K309	2x34x30x70x9H	72	4	90	74.15	240	72	25	M20X60
K310	3x27x30x85x9H	90	6	105	91	290	89	26	M20X60

* 被驱动轴

* Driven Equipment Shaft

9 轴端中心孔尺寸 (mm)

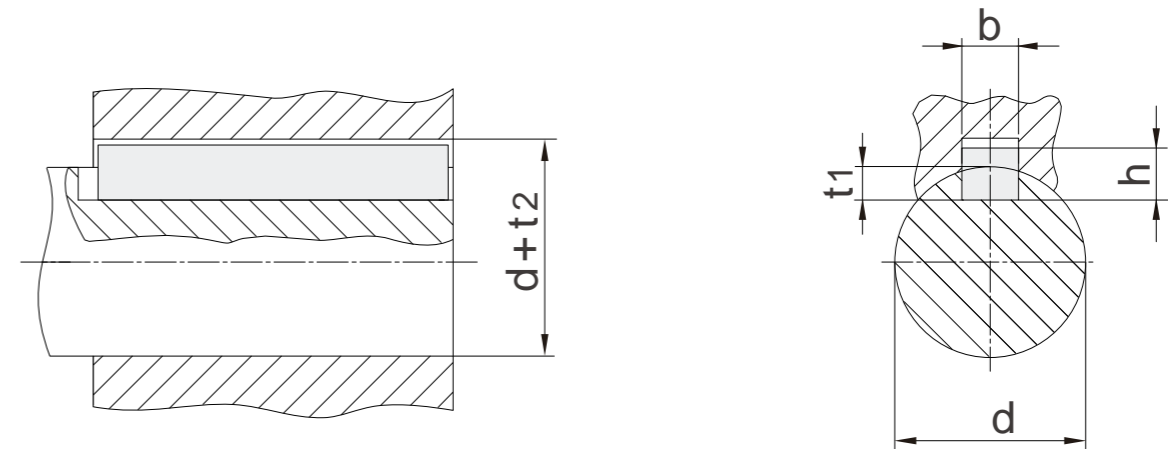
9 Shaft End Centre Hole (mm)



d	M	L	l2	l1	D1	D2
7 < d ≤ 10	M3	10	2.6	1.8	3.2	5.8
10 < d ≤ 13	M4	10	3.2	2.1	4.3	7.4
13 < d ≤ 16	M5	10	4	2.4	5.3	8.8
16 < d ≤ 21	M6	12	5	2.8	6.4	10.5
21 < d ≤ 24	M8	12	6	3.3	8.4	13.2
24 < d ≤ 30	M10	15	7.5	3.8	10.5	16.3
30 < d ≤ 38	M12	20	9.5	4.4	13	19.8
38 < d ≤ 50	M16	25	12	5.2	17	25.3
50 < d ≤ 85	M20	30	15	6.4	21	31.3
85 < d ≤ 130	M24	35	18	8	25	38
130 < d ≤ 225	M30	45	18	11	31	48

10 平键与键槽的尺寸 (mm)

10 Dimension of Parallel Key and Keyway (mm)



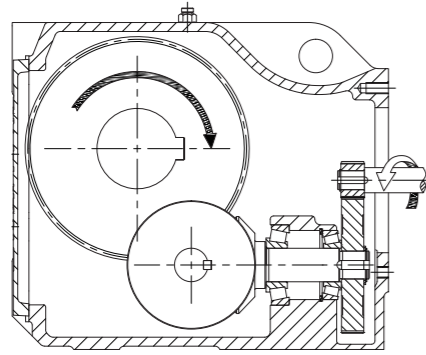
d	b	h	t1	d + t2
8 < d ≤ 10	3	3	1.8	d + 1.4
10 < d ≤ 12	4	4	2.5	d + 1.8
12 < d ≤ 17	5	5	3	d + 2.3
17 < d ≤ 22	6	6	3.5	d + 2.8
22 < d ≤ 30	8	7	4	d + 3.3
30 < d ≤ 38	10	8	5	d + 3.3
38 < d ≤ 44	12	8	5	d + 3.3
44 < d ≤ 50	14	9	5.5	d + 3.8
50 < d ≤ 58	16	10	6	d + 4.3
58 < d ≤ 65	18	11	7	d + 4.4
65 < d ≤ 75	20	12	7.5	d + 4.9
75 < d ≤ 85	22	14	9	d + 5.4
85 < d ≤ 95	25	14	9	d + 5.4
95 < d ≤ 110	28	16	10	d + 6.4
110 < d ≤ 130	32	18	11	d + 7.4
130 < d ≤ 150	36	20	12	d + 8.4
150 < d ≤ 170	40	22	13	d + 9.4
170 < d ≤ 200	45	25	15	d + 10.4
200 < d ≤ 230	50	28	17	d + 11.4
230 < d ≤ 260	56	32	20	d + 12.4

11 可选附件和指定配置

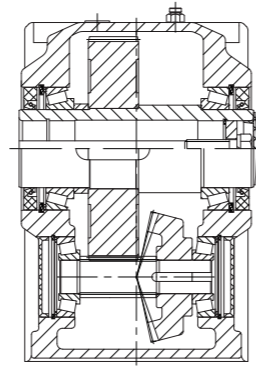
11 Accessories and Specific Configuration

11.1 齿轮常规安装

11.1 Conventional Installation of Gear



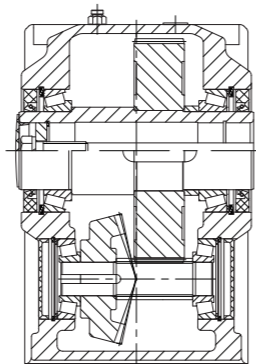
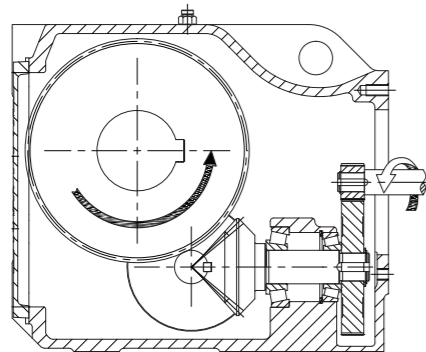
常规供货无需说明



Standard Installation do not have to be indicated

11.2 齿轮非常规安装 (代号1)

11.2 Unconventional Installation of Gear (Code 1)

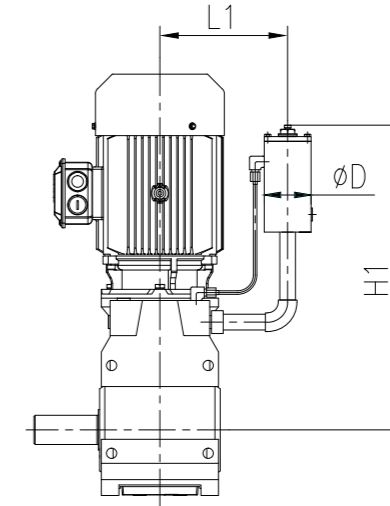


11.3 补偿油箱 (代号6)

齿轮马达在以下工况时采用补偿油箱润滑：
1.安装方位为D4时，出厂标配补偿油箱；

11.3 Oil Compensating Tank (Code 6)

Oil compensating tank lubrication is configured for gearmotors under working conditions below:
1. When mounting position is D4, oil compensating tank has been installed before delivery;



D4

Size	D	L1	H1
K303	42	100	315
K304	42	115	340
K305	42	120	345
K306	42	120	345
K307	80	160	520
K308	80	175	585
K309	80	200	595
K310	120	270	750
K312	120	305	810
K315	120	325	800
K316	120	340	945
K318	120	365	945

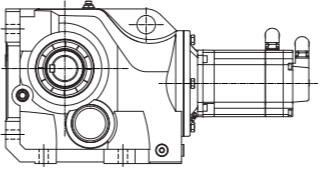
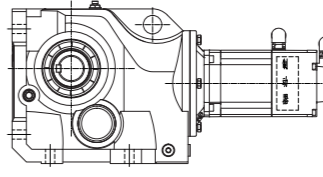
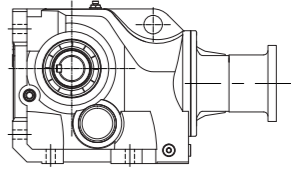
12 润滑油 (L)

12 Oil (L)

Size \ Mounting position	D1	D2	D3	D4	D5	D6
K303	0.8	0.8	0.7	0.9	0.8	0.8
K304	1.2	1.1	1.2	1.6	1.3	1.3
K305	2.2	1.7	1.2	2.5	2.1	2.1
K306	2.2	1.6	1.6	2.6	1.9	1.9
K307	2.9	3.9	3.1	5.4	4.5	4.5
K308	5.2	6.6	8	10	8	8
K309	11	12	15	19	15	15
K310	17	21	25	33	25	24

13 重量表 (Kg)

13 Weight (Kg)

K303-K310+Servo motor (without brake)

K303-K310+Servo motor (with brake)

K303-K318+AS input flange

齿轮箱重量表 (Kg)		Weight of Gearbox (kg)					
规格 Size		K303	K304	K305	K306	K307	K308
重量 Weight		14	23	32	39	67	108
规格 Size		K309	K310	K312	F315	K316	K318
重量 Weight		174	280	496	759	1300	1688

直联MX伺服马达重量表 (kg)										Weight of MX Directly-connected Servo Motor (kg)	
机座号 Size		028S	036S	036M	048S	048M	063M	080M		100M	
额定功率 Normal Power (kW)		0.28	0.47	0.75	1	1.5	2.05	2.76	3.98	5.03	6.6
不带制动器 Without Brake		1.8	2.7	3.9	4.5	7	10.9	10.9	21.9	21.9	42.4
带制动器 With Brake		2	3.1	4.3	5.2	7.7	11.8	11.8	23.9	23.9	47.2

AS输入法兰重量表 (Kg)		Weight of AS Input Flange (kg)							
规格 Size		AS040	AS055	AS060	AS070	AS080	AS090	AS100	AS125
重量 Weight		3	3	4	5	5	5	6	7
规格 Size		AS140	AS160	AS180	AS190	AS240	AS260	AS315	AS450
重量 Weight		6	13	24	25	30	70	95	112

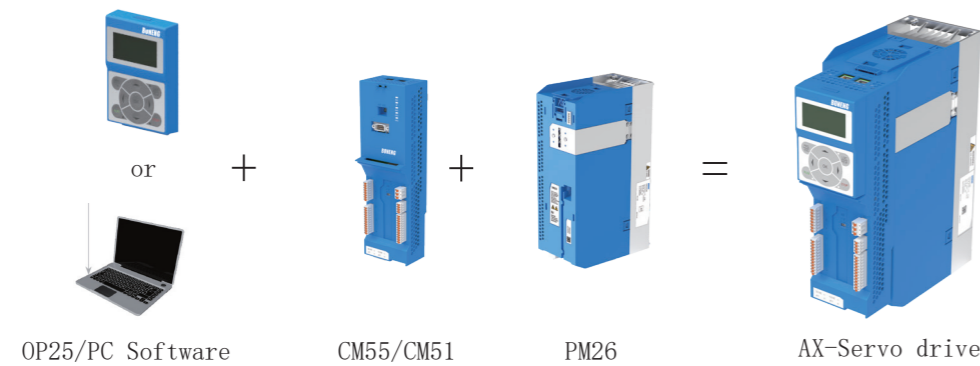
伺服驱动器

14 驱动器概述

AX精准系列伺服驱动器是专为高性能伺服应用设计的模块化伺服驱动器，搭配CM55/CM51控制模块，和适配不同功率伺服马达的功率模块及一些可选附件组成，灵活的模块化为使用者的系统设计及应用提供更丰富的选择。

AX伺服驱动器配合MX永磁同步伺服马达，可以做到精准的位置、速度、扭矩控制，AX伺服驱动器也可以驱动博能异步马达，实现精确的异步伺服控制。

AX精准系列伺服驱动器由三部分组成：



操作面板(OP25)或上位机调试软件BonengDrivesoft：操作面板或上位机调试软件可以为用户提供方便快捷的参数设定方法，支持汉字显示，更简单易懂的信息反馈，及高级示波器检测诊断功能。

控制模块(CM51/CM55)：控制模块为用户提供丰富的控制接口，输入输出端子，模拟信号，及通讯等，且通过多种方式可对所接入的马达进行控制和监视。

功率模块(PM26)：书本型功率模块功率范围从0.75kW-132kW，支持多种控制模块，使马达调速变得简单且灵活，且包含了完备的驱动器保护功能。

Servo Drive

14 Servo drive overview

AX precision series servo drive is modular designed for high-performance servo applications, consisting of a CM55/CM51 control module, a power module adapted to different power motors, and some optional accessories. AX series servo drive provides users with richer options for system design and application though its flexible modularization feature.

AX servo drive can achieve accurate position, speed, and torque control when combined with the MX permanent magnet synchronous servo motor, as well as drive the Boneng asynchronous motor to achieve accurate asynchronous servo control.

The AX servo drive consist of three parts:

Operation panel (OP25) or desktop software BongDrivesoft: operation panel and desktop software can provide users with convenient and efficient methods for parameters configuration. The OP25 and BonengDrivesoft can display in English and Chinese, and the BonengDrivesoft can also provide users with advanced functions such as oscilloscope, condition monitoring and diagnosis, and etc.

Control module (CM51/CM55) : The control module contains a wealth of control interfaces, input and output terminals, analog signals, and can support communication bus control, which control the motor connected through the Power module.

Power module (PM26) : The power module has a power range from 0.75kW to 132kW, supports a variety of modules, which makes spindle speed adjustment easy and flexible. In addition, complete driver and motor protection functions are available for the power module.

15 驱动器整机安装尺寸图

15 Drive full machine mounting size

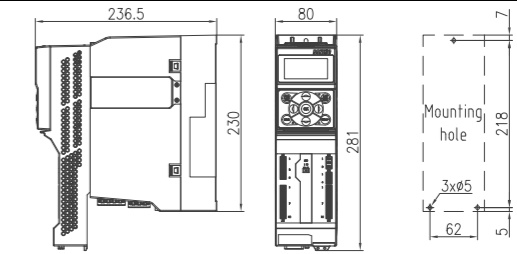
15.1 OP25+CM55+PM26

OP25+CM55+PM26组合的整机外形图及安装尺寸图，B1-B6功率范围，单位：mm

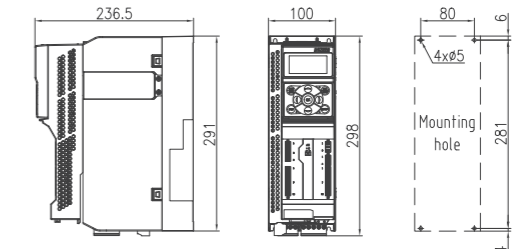
15.1 OP25+CM55+PM26

The overall appearance and installation dimension of OP25+CM55+PM26 combination, B1-B6 power range, with unit: mm.

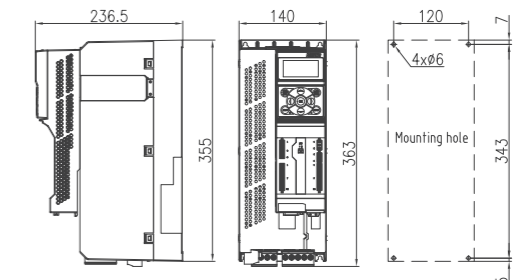
B1(0.75kW-3kW):



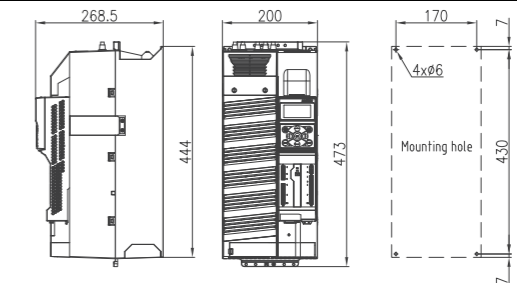
B2(4kW-7.5kW)



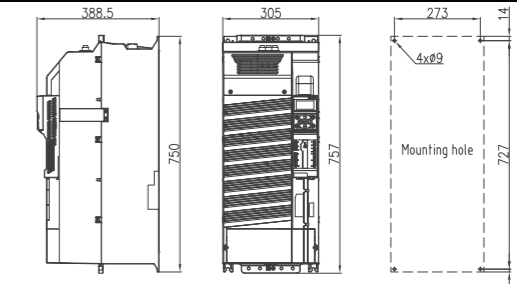
B3(11kW-15kW)



B4(18.5kW-37kW)



B6(45kW-132kW)



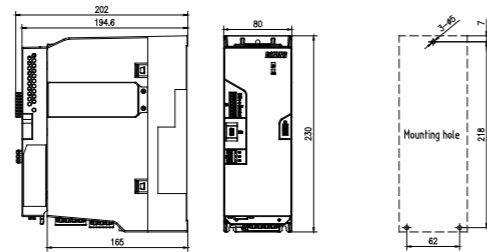
15.2 CM51+PM26

CM51+PM26组合的整机外形图及安装尺寸图, B1-B6功率范围, 单位: mm

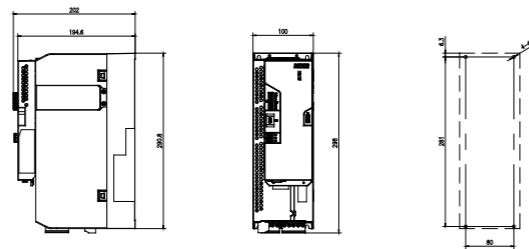
15.2 CM51+PM26

The overall appearance and installation dimension of CM51+PM26 combination, B1-B6 power range, with unit: mm

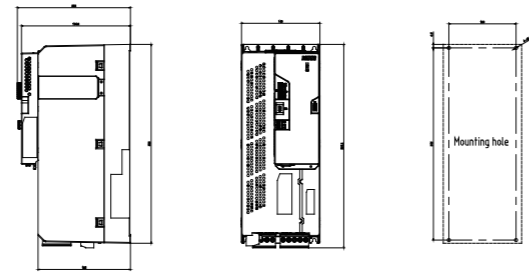
B1(0.75kW-3kW):



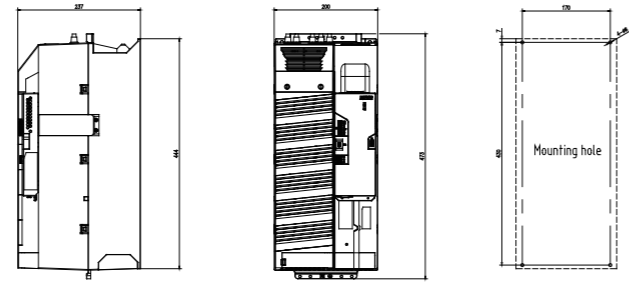
B2(4kW-7.5kW)



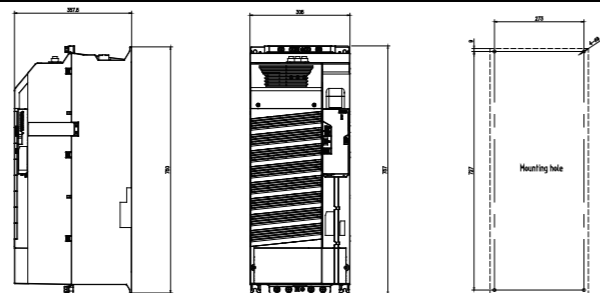
B3(11kW-15kW)



B4(18.5kW-37kW)



B6(45kW-132kW)



16 驱动器控制模块

16.1 控制模块CM55

16.1.1 概述

CM55模块是专为总线型伺服系统应用而设计的控制模块, 支持EtherCAT及PROFINET通讯, PROFINET通讯支持RT及IRT应用, 除了标准的同步伺服电机为还支持异步伺服定位。



CM55控制模块

16 Control module

16.1 Control module CM55

16.1.1 Information

The CM55 module is a control module designed specifically for bus type servo system applications, supporting EtherCAT and PROFINET communication. PROFINET communication supports RT and IRT applications, and in addition to standard synchronous servo motors, it also supports asynchronous servo positioning.

CM55 control module

16.1.2 控制模块型号表示方法

16.1.2 Designation rules and nameplate for control module

博能精准系列伺服驱动器

控制模块

通讯协议

EA=EtherCAT及博能自定义通讯DriveLink
PA=PROFINET及博能自定义通讯DriveLink

编码器接口

PE=增量式/绝对值编码器

Boneng AX-series precision servo drive

Control module

Communication protocol

EA=EtherCAT and Boneng defined DriveLink.
PA=PROFINET and Boneng defined DriveLink

Encoder Interface

PE=photoelectric incremental /absolute encoder

AX-CM55-PA-PE

控制模块订货号

Control module order number

型号 Model	接口类型描述	Interface type description
AX-CM55-EA-PE	支持EtherCAT及博能自定义DriveLink通讯, 增量/绝对式光电编码器	Support EtherCAT and Boneng defined DriveLink, incremental /absolute optical encoder.
AX-CM55-PA-PE	支持PROFINET及博能自定义DriveLink通讯, 增量/绝对式光电编码器	Support PROFINET and Boneng defined DriveLink, incremental /absolute optical encoder.

16.1.3 控制模块技术参数

16.1.3 Technical date

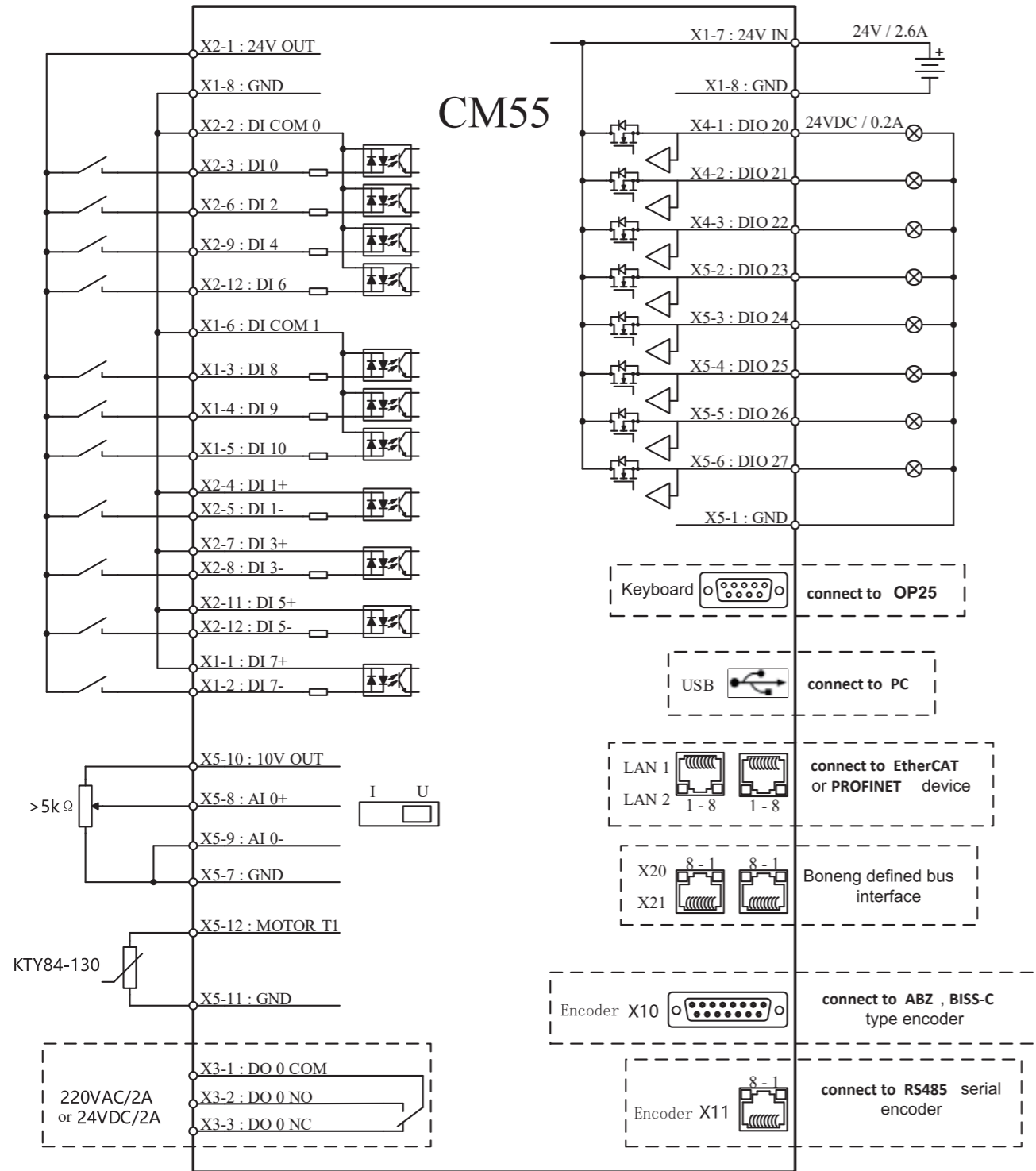
功能	Functions	技术数据		Technical data	
总线接口	Bus interface	AX-CM55-PA-PE	AX-CM55-PA-PE	<ul style="list-style-type: none"> 支持PROFINET、DriveLink RJ45接口 	<ul style="list-style-type: none"> PROFINET, DriveLink bus RJ45 interface
		AX-CM55-EA-PE	AX-CM55-EA-PE	<ul style="list-style-type: none"> 支持EtherCAT、DriveLink RJ45接口 	<ul style="list-style-type: none"> EtherCAT, DriveLink bus RJ45 interface
工作电源	Power supply	功率模块供电	By power module	<ul style="list-style-type: none"> 数字量输入/输出端子作为输出使用时需外接24V电源 	<ul style="list-style-type: none"> DI/DO terminal as an output,an external 24v power supply is required
		外部端子供电	By external terminals	<ul style="list-style-type: none"> 电压范围: DC 20.8 ... 28.8V 最大电流: 2.6A 	<ul style="list-style-type: none"> Voltage range: DC 20.8~28.8V Maximum current: 2.6A
输出电源	Power output	+24V输出	+24V output	<ul style="list-style-type: none"> 电压范围: DC 18V ... 26.8V 最大电流: 200mA 	<ul style="list-style-type: none"> Voltage range:DC 18V~26.8V Maximum current: 200mA
		+10V输出	+10V output	<ul style="list-style-type: none"> 电压范围: DC 9.5V ... 10.5V 最大电流: 40mA 	<ul style="list-style-type: none"> Voltage range:DC 9.5V~10.5V Maximum current: 40mA
		DB15接口编码器电源	DB15 encoder power supply	<ul style="list-style-type: none"> 电压: DC 5V或DC 24V 最大电流: 350mA 	<ul style="list-style-type: none"> Voltage: DC 5V or DC 24V Maximum current: 350mA
		RJ45接口编码器电源	RJ45 encoder power supply	<ul style="list-style-type: none"> 电压: DC 5V 最大电流: 200mA 	<ul style="list-style-type: none"> Voltage: DC 5V Maximum current: 200mA
数字量输入	Digital input	11个 (DIO_DI10)	11 (DIO_DI10)	<ul style="list-style-type: none"> D11、D13、D15、D17为非公共端子类型 D10、D12、D14、D16公共端子D1COM0 D18、D19、D110公共端子D1COM1 电气隔离 支持Source和Sink模式 电压: DC 24V、AC 36V "1"信号电压: >11V "0"信号电压: <5V 24V典型电流: 4mA 响应时间: 6ms (含软件滤波) 	<ul style="list-style-type: none"> Differential inputs: D11、D13、D15、D17 Single inputs: D10、D12、D14、D16 share D1COM0 Single inputs: D18、D19、D110 share D1COM1 Electrical isolation Support Source and Sink mode Voltage: DC 24V, AC 36V Level"1" voltage: > 11V Level"0" voltage: <5V 24V typical current: 4mA Response time: 6ms(Including software filter)
数字量输出	Digital output	1个继电器 (DO0)	1 relay (DO0)	<ul style="list-style-type: none"> 电压: DC 24V、AC 220V 连续电流: 2A 切换电流: 2A 触点类型: 1常开1常闭 	<ul style="list-style-type: none"> Voltage: DC 24V、AC 220V Continous current: 2A Switching current: 2A Contact type: 1 normally open and 1 close
数字量输入/输出	Bidirectional digital input and output	8个 (DIO20_DIO27)	8 (DIO20_DIO27)	<ul style="list-style-type: none"> 电压: 最大DC 30V 电流: 输出最大200mA, 24V输入典型4mA 频率: 最大100Hz 输入"1"信号电压: >15V 输入"0"信号电压: <5V 非电气隔离 外部供电端子需接24V 	<ul style="list-style-type: none"> Voltage: DC 30V maximum Current output 200mA maximum, 24V input typical 4mA Frequency:100Hz maximum Input level"1" voltage: >15V Input level"0" voltage: <5V Non -electrically isolated 24V power supply is needed for DIO
模拟量输入	Analog input	1个 (AI0)	1 (AI0)	<ul style="list-style-type: none"> 差分输入 拨码开关切换电压和电流模式 电压型支持-10V ... +10V、0V ... 10V 电流型支持0mA ... 20mA、4mA ... 20mA 电流型内阻250Ω 响应时间: 2ms (含软件滤波) 精度: ±1% 	<ul style="list-style-type: none"> Differential input Dip switch to choose voltage and current mode Voltage range(voltage mode): -10V~+10V、0V~10V Current range(current mode): 0mA~20mA、4mA~20mA Internal resistance in current mode: 250Ω Response time: 2ms(including software filter) Precision:±1%
温度传感器	Temperature sensor	2个	2	<ul style="list-style-type: none"> 分别位于端子X5和X11 支持KTY84-130、PTC 	<ul style="list-style-type: none"> Respectively at the X5and X11 Support KTY84-130、PTC
编码器信号输入	Encoder interface	ABZ	ABZ	<ul style="list-style-type: none"> 支持24V的单端信号、5V和24V的差分信号 输入频率: 最大250kHz 断线检测: 仅支持差分类型 最大长度: 5V差分类型100m 24V开集极类型50m 24V推挽类型100m 24V差分类型300m 	<ul style="list-style-type: none"> 24V single-ended signal.5V and 24V differential signal Input frequency:250kHz maximum Disconnection detection: only support differential mode Maximum wire length: 5V differential mode: 100m 24V open-collector type: 50m 24V push-pull: 100m 24V differential mode: 300m
		BISS-C	BISS-C	<ul style="list-style-type: none"> 波特率: 最大4Mbps 最大长度: 500kbps时50m 	<ul style="list-style-type: none"> Baud rate: 4 Mbps maximum Maximum wire length: 50m at 500 kbps
		RS485	RS485	<ul style="list-style-type: none"> 波特率: 最大2.5Mbps 最大长度: 500kbps时20m 	<ul style="list-style-type: none"> Baud rate: 2.5 Mbps maximum Maximum wire length: 20m at 500kbps
USB接口	USB interface	1个	1	<ul style="list-style-type: none"> USB 2.0 Mini-B 	<ul style="list-style-type: none"> USB 2.0 Mini-B
指示灯	Status LEDs	2个双色指示灯	2two-color LEDs	<ul style="list-style-type: none"> RDY指示灯: 红绿双色 BF指示灯: 红绿双色 	<ul style="list-style-type: none"> RDY LED: red and green BF LED: red and green
		3个单色指示灯	3single-color LEDs	<ul style="list-style-type: none"> SAFE指示灯: 黄色 LNK1指示灯: 绿色 LNK2指示灯: 绿色 	<ul style="list-style-type: none"> SAFE LED: yellow LNK1 LED: green LNK2 LED: green
键盘接口	Keyboard interface	支持OP25	OP25 supported	<ul style="list-style-type: none"> 可直接安装或外引安装 	<ul style="list-style-type: none"> Install directly or external with extension cable
工作温度	Use ambient temperature	-20°C ... +50°C	-20°C ... +50°C		
存储温度	Storage temperature	-40°C ... +70°C	-40°C ... +70°C		
相对湿度	Environment humidity	<95%	<95%	不允许有凝露	Condensation prohibited
污染	Pollution	符合IEC 61800-5-1	IEC 61800-5-1	适用于污染等级2的环境	Pollution degree: level 2
电磁兼容性	Electromagnetic compatibility	符合IEC 61800-3	IEC 61800-3		

16.1.4 控制模块电气连接

16.1.4 Control module wiring

16.1.4.1 控制模块接线示意图

16.1.4.1 Control module wiring example



16.1.4.2 编码器接口信号定义

16.1.4.2 Encoder interface

a) 编码器接口(X10)信号定义

a) Encoder interface(X10) signals

Pin.	信号说明	Signal description
1	BISS-C的数据+	BISS-C data+
2	BISS-C的时钟+	BISS-C clock+
3	BISS-C的时钟-	BISS-C clock-
4	编码器电源(5V或24V)	Encoder power supply(5V or 24V)
5	编码器电源(5V或24V)	Encoder power supply(5V or 24V)
6	编码器电源侦测输入	Encoder power detection input
7	电源地	Power ground
8	BISS-C的数据-	BISS-C data-
9	编码器电源侦测输入接地	Encoder power detection ground
10	增量式信号Z+	Incremental type Z+
11	增量式信号Z-	Incremental type Z-
12	增量式信号B-	Incremental type B-
13	增量式信号B+	Incremental type B+
14	增量式信号A-	Incremental type A-
15	增量式信号A+	Incremental type A+

b) 编码器接口(X11)信号定义

b) Encoder interface(X11) signals

Pin.	信号说明	Signal description
1	KTY84-130或PTC输入	KTY84-130/PTC input
2	KTY84-130或PTC的接地	KTY84-130/PTC ground
3	—	—
4	RS485信号B	RS485 signal B
5	RS485信号A	RS485 signal A
6	—	—
7	编码器电源(5V)	Encoder power supply(5V)
8	编码器电源地	Power ground

16.2 控制模块CM51

16.2.1 概述

CM51模块是精简输入输出接口后，专为总线型伺服系统应用而设计的控制模块，支持PROFINET总线及RT, IRT应用，且支持同步伺服及异步伺服控制。



CM51 模块

16.2 Control module CM51

16.2.1 General information

The CM51 module is a control module designed specifically for bus type servo system applications after simplifying the input and output interfaces. It supports PROFINET bus and RT, IRT applications, as well as synchronous and asynchronous servo control.

CM51 module

16.2.3 CM51控制模块技术参数

16.2.3 CM51 Technical data

功能	Functions			技术数据	Technical data
总线接口	Bus interface	AX-CM51-PN-PE	AX-CM51-PN-PE	<ul style="list-style-type: none"> 支持PROFINET RJ45接口 	<ul style="list-style-type: none"> PROFINET RJ45 interface
工作电源	Power supply	功率模块供电	By power module	<ul style="list-style-type: none"> DC 24V/0.6A 	<ul style="list-style-type: none"> DC 24V/0.6A
		外部端子供电	By external terminals	<ul style="list-style-type: none"> 电压范围: DC 20.8 ... 28.8V 最大电流: 0.6A 	<ul style="list-style-type: none"> Voltage range: DC 20.8~28.8V Maximum current: 0.6A
输出电源	Power output	+24V输出	+24V output	<ul style="list-style-type: none"> 电压范围: DC 18V ... 26.8V 最大电流: 100mA 	<ul style="list-style-type: none"> Voltage range: DC 18V~26.8V Maximum current: 100mA
		DB9接口编码器电源	DB9 encoder power supply	<ul style="list-style-type: none"> 电压: DC 24V 最大电流: 200mA 	<ul style="list-style-type: none"> Voltage: DC 24V Maximum current: 200mA
		RJ45接口编码器电源	RJ45 encoder power supply	<ul style="list-style-type: none"> 电压: DC 5V 最大电流: 200mA 	<ul style="list-style-type: none"> Voltage: DC 5V Maximum current: 200mA
数字量输入	Digital input	2个	2	<ul style="list-style-type: none"> DI0、DI1公共端子M0 电气隔离 支持Source和Sink模式 电压: DC 24V "1"信号电压: >11V "0"信号电压: <5V 24V典型电流: 4mA 响应时间: 6ms (含软件滤波) 	<ul style="list-style-type: none"> Single inputs: DI0、DI1 share M0 Electrical isolation Support Source and Sink mode Voltage: DC 24V Level"1" voltage: >11V Level"0" voltage: <5V 24V typical current: 4mA Response time: 6ms (including software filter)
数字量输出	Digital output	1个继电器 (DO0)	1 relay (DO0)	<ul style="list-style-type: none"> 电压: DC 24V、AC 220V 连续电流: 2A 切换电流: 2A 触点类型: 1常开1常闭 	<ul style="list-style-type: none"> Voltage: DC 24V、AC 220V Continuous current: 2A Switching current: 2A Contact type: 1 normally open and 1 close
温度传感器	Temperature sensor	1个	1	<ul style="list-style-type: none"> 位于RS485类型编码器端子X11 支持KTY84-130、PTC 	<ul style="list-style-type: none"> Respectively at the X11 Support KTY84-130、PTC
编码器信号输入	Encoder interface	ABZ	ABZ	<ul style="list-style-type: none"> 支持24V的差分信号 输入频率: 最大250kHz 最大长度: 300m 	<ul style="list-style-type: none"> 24V differential signal Input frequency: 250kHz maximum Maximum wire length: 300m
		RS485	RS485	<ul style="list-style-type: none"> 波特率: 最大2.5Mbps 最大长度: 500kbps时20m 	<ul style="list-style-type: none"> Baud rate: 2.5 Mbps maximum Maximum wire length: 20m at 500kbps
USB接口	USB interface	1个	1	<ul style="list-style-type: none"> USB 2.0 Mini-B 	<ul style="list-style-type: none"> USB 2.0 Mini-B
指示灯	Status LEDs	2个双色指示灯	2two-color LEDs	<ul style="list-style-type: none"> RDY指示灯: 红绿双色 COM指示灯: 红绿双色 	<ul style="list-style-type: none"> RDY LED: red and green COM LED: red and green
键盘接口	Keyboard interface	支持OP25	OP25 supported	<ul style="list-style-type: none"> 仅支持外引安装 	<ul style="list-style-type: none"> Only external with extension cable
工作温度	Use ambient temperature	-20°C ... +50°C	-20°C ... +50°C		
存储温度	Storage temperature	-40°C ... +70°C	-40°C ... +70°C		
相对空气湿度	Environment humidity	<95%	<95%	不允许有凝露	Condensation prohibited
污染	Pollution	符合IEC 61800-5-1	IEC 61800-5-1	适用于污染等级2的环境	Pollution degree: level 2
电磁兼容性	Electromagnetic compatibility	符合IEC 61800-3	IEC 61800-3		

16.2.2 控制模块型号表示方法

16.2.2 Designation rules and nameplate for control module

博能精准系列伺服驱动器

控制模块

通讯协议

PN = PROFINET

编码器接口

PE=增量式/绝对值编码器

Boneng AX-series precision servo drive

Control module

Communication protocol

PN = PROFINET

Encoder Interface

PE=photoelectric incremental /absolute encoder

AX-CM51-PN-PE

订货号

Order number

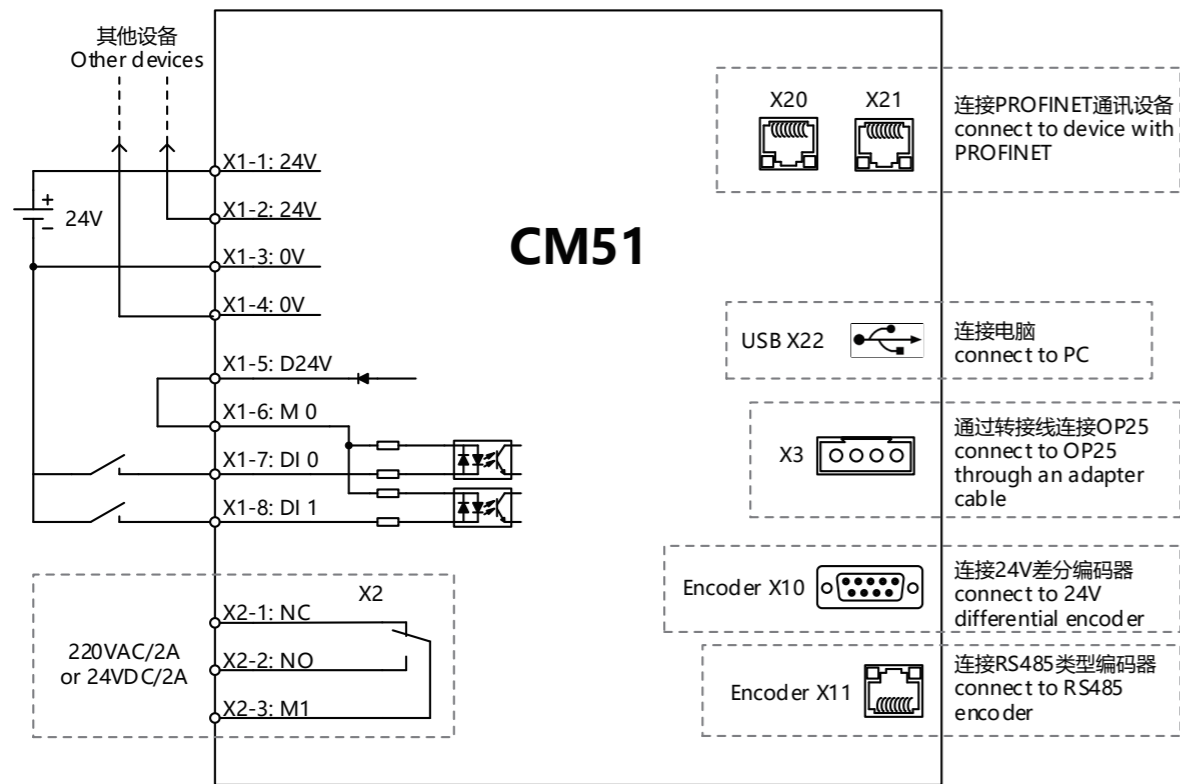
型号 Model	接口类型描述	Interface type description
AX-CM51-PN-PE	支持PROFINET通讯, 增量/绝对式光电编码器	Support PROFINET, incremental / absoluteoptical encoder

16.2.4 控制模块电气连接

16.2.4 Control module wiring

16.2.4.1 控制模块接线示意图

16.2.4.1 Control module wiring example



16.2.4.2 编码器接口信号定义

16.2.4.2 Encoder interface

a) 编码器接口(X10)信号定义

a) Encoder interface(X10) signals

Pin.	信号说明	Signal description
1	编码器信号Z+	Incremental type Z+
2	编码器信号Z-	Incremental type Z-
3	编码器信号B+	Incremental type B+
4	编码器信号A+	Incremental type A+
5	编码器电源地	Power ground
6	-	-
7	编码器信号B-	Incremental type B-
8	编码器信号A-	Incremental type A-
9	编码器电源 (24V)	Encoder power supply (24V)

b) 编码器接口(X11)信号定义

b) Encoder interface(X11) signals

Pin.	信号说明	Signal description
1	KTY84-130或PTC输入	KTY84-130/PTC input
2	KTY84-130或PTC的接地	KTY84-130/PTC ground
3	—	—
4	RS485信号B	RS485 signal B
5	RS485信号A	RS485 signal A
6	—	—
7	编码器电源(5V)	Encoder power supply(5V)
8	编码器电源地	Power ground

17 驱动器功率模块

17 Power module

17.1 功率模块概述

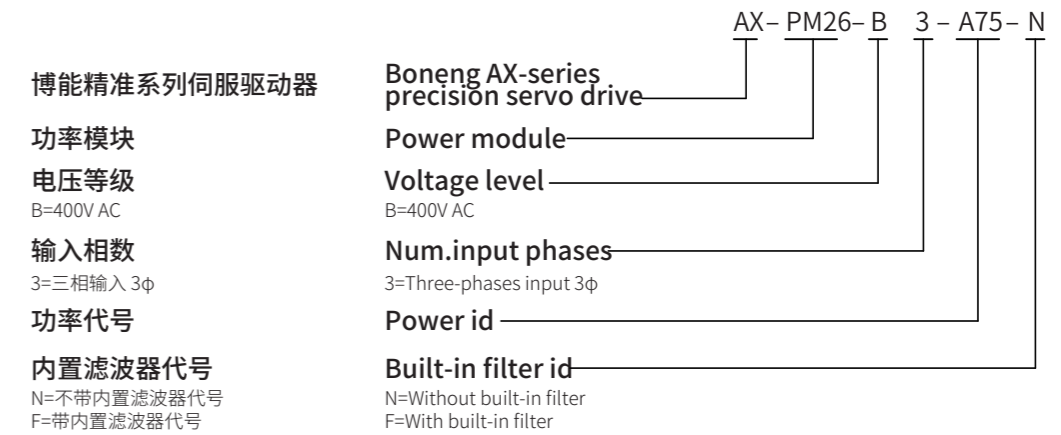
17.1 General information

伺服驱动器功率模块AX-PM26的功率范围为0.75kW-132kW,可适配博能MX系列伺服马达,用户无需担心MX伺服马达和AX-PM26的选型匹配问题,只需要按样本前面章节中厂家推荐的默认选型匹配表进行匹配即可。AX-PM26伺服功率模块匹配AX-CM55伺服控制模块,构成了博能精准定位的伺服驱动器。

The power module AX-PM26 has a power range from 0.75 kW to 132 kW, can be adapted to the MX-series motor, which makes it easily for users to choose motor and AX-PM26(just select as what recommended in the default model matching table) without worrying about matching problems. The AX-PM26 can be matched to AX-CM55 to form a precisely positioned servo drive.

17.2 功率模块型号表示方法

17.2 Designation rules and nameplate for power module



功率模块订货数据

Power module order number

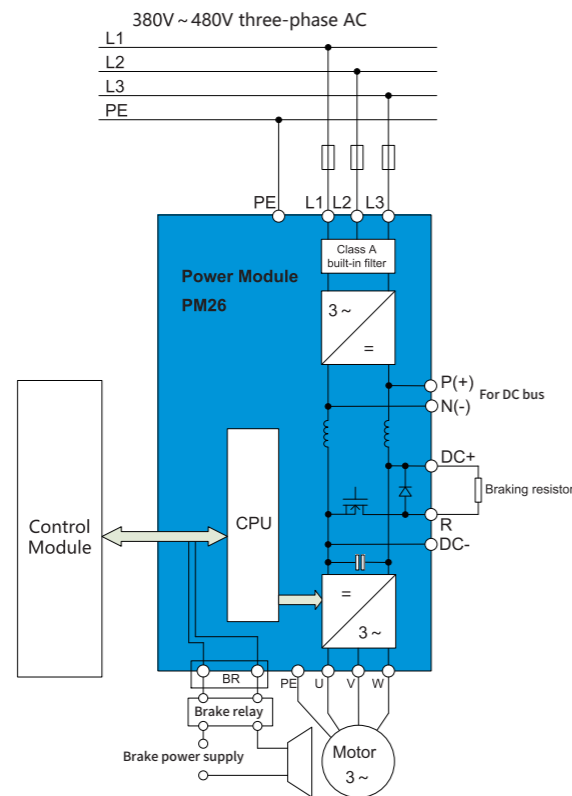
380V~480V 3AC输入					380V~480V 3AC input	
额定数据			Rated data		外形尺寸	Dimension type
额定功率(kW)	Rated Power(kW)	额定电流(A)	额定电流(A)	Rated Current(A)		
0.75			1.25		B1	AX-PM26-B3A75-N
1.5			2.42			AX-PM26-B3B15-N
2.2			3.43			AX-PM26-B3B22-N
3			4.51			AX-PM26-B3B30-N
4			5.93		B2	AX-PM26-B3B40-N
5.5			7.69			AX-PM26-B3B55-N
7.5			10.53		B3	AX-PM26-B3B75-N
11			15.2			AX-PM26-B3C11-N
15			18.71		B4	AX-PM26-B3C15-N
18.5			22.22			AX-PM26-B3C18-N
22			26.32			AX-PM26-B3C22-N
30			35.09			AX-PM26-B3C30-N
37			43.86		B6	AX-PM26-B3C37-N
45			52.63			AX-PM26-B3C45-N
55			64.33			AX-PM26-B3C55-N
75			84.79			AX-PM26-B3C75-N
90			104.09			AX-PM26-B3C90-N
110			119.88			AX-PM26-B3D11-N
132			146.2			AX-PM26-B3D13-N

注:带内置滤波器的功率模块PM26无现货库存,如需要,请咨询厂家。

Note: PM26 with built-in filter is out of stock, contact us if need.

17.3 功率模块电气连接

17.3 Power module wiring



注: PM26的BR接口仅在配合控制模块CM55时可用,配合控制模块CM51时不可用,可以接端子上的继电器来控制抱闸。

Note: The BR interface of PM26 is only available when working with control module CM55, but not when working with control module CM51. It can be connected to a relay on the terminal to control the holding brake.

17.4 功率模块通用技术参数

17.4 General technical data for power module

		PM26功率模块 (通用参数)	PM26 power module(general parameters)
输入电压	Voltage input	380~480V 3AC ±10%	380~480V 3AC ±10%
输入频率	Input frequency	47~63Hz	47~63Hz
默认载波频率	Default carrier frequency	变频模式: 90kW及以下 4kHz,110kW及以上2kHz	Frequency conversion mode: 4 kHz for 90 kW and below; 2 kHz for 110 kW and above.
		伺服模式: 90kW及以下 8kHz,110kW及以上4kHz	Servo mode: 8 kHz for 90 kW and below; 4 kHz for 110kW and above.
功率因数	Power factor	0.95	0.95
驱动器效率	Drive efficiency	95~97%	95~97%
过载能力	Overload capacity	在30s周期性冲击负载下,可实现3倍3s的过载能力	Under 30s periodic impact load,can withstand 3 times the overload for 3s.
电磁兼容	Electromagnetic compatibility	可选符合EN 55011标准的A级滤波器和B级滤波器	Optional A-level and B-level filters complying with EN 55011.
可选制动方式	Optional braking method	●DC制动	●DC brake
		●外挂制动单元	●External brake unit
		直流电流制动,制动力有限	DC current braking, with limited braking force.
		直流母线上外接制动单元,或外接反馈单元制动	External braking unit on DC bus /external feedback unit braking.
		●内置制动斩波器,需外接制动电阻	●Built-in braking chopper, external resistor is required.
防护等级	Protection level	IP20	IP20
工作温度	Use ambient temperature	-20...+40°C无需降额; +40°C...+50°C每升高1°C降额1.5%; +50°C...+60°C每升高1°C降额5%	-20~+40C: no derating; +40C~+50C: decrease by 1.5% for every 1C increase; +50C~+60C: decrease by 5% for every 1C increase.
存储温度	Storage temperature	-40...+70°C	-40...+70°C
相对湿度	Relative humidity	< 95% RH, 无结露	<95% RH,no condensation
冷却方式	Cooling method	内部风冷	功率部分采用内置风扇强制风冷
安装海拔高度	Installation altitude	海拔1000m以下无需降额; 1000m...4000m每升高100m降额1%	Built-in fan for forced air cooling.
标准	Standard	小于100kA	No derating within 1000m; 1000m_4000m: decrease by 1% for every 100m rise in altitude
标准	Standard	小于100kA	Less than 100kA
保护功能	Protective function	●欠电压	●Under voltage
		●过电压	●Over voltage
		●过载	●Overload
		●接地故障	●Ground fault
		●短路	●Short-circuit
		●马达抱闸保护	●Motor braking protection
		●马达过温	●Motor over temperature
		●输出缺相	●Output phase loss
		●变频器过温	●Inverter over temperature

17.5 功率模块详细技术参数

17.5 Detailed technical parameters

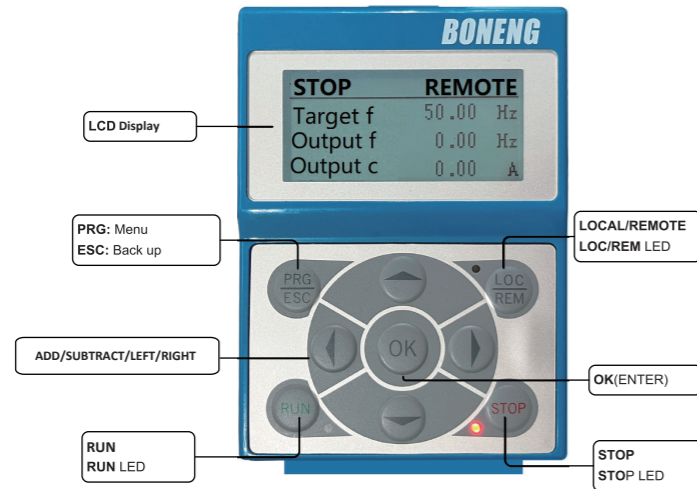
		进线电压380~480V 3AC				Incoming line voltage 380~480V 3AC				
技术参数		Technical data		AX-PM26-B3A75	AX-PM26-B3B15	AX-PM26-B3B22	AX-PM26-B3B30	AX-PM26-B3B40	AX-PM26-B3B55	AX-PM26-B3B75
额定输出功率 kW		Rated output power kW		0.75	1.5	2.2	3	4	5.5	7.5
额定输入电流	Rated output current	带进线电抗器A With incoming line reactorA		2.3	4.3	6.1	8	10.4	15.3	18.7
		不带进线电抗器A Without incoming line reactorA		2.6	4.9	7.6	10.2	13.4	17.2	21.9
额定输出电流 A		Rated output current A		1.25	2.42	3.43	4.51	5.93	7.69	10.53
效率η		Efficiencyη		> 0.95						
功率损失kW		Power loss kW		0.1	0.11	0.14	0.16	0.18	0.24	0.3
冷却风量要求 m³/s		Cooling air requirement m³/s		0.005		0.024		0.055		
噪声水平 dB(A)		Noise level dB(A)		< 40			< 50			
控制单元接口		Interface with control unit		1						
制动电阻连接电缆的最大长度m		Maximum cable length of braking resistor m		15						
进线电源连接	Power supply wiring	L1、L2、L3		螺钉端子 Screw terminal						
		电缆截面积mm² Cable sectional Area mm²		1~2.5			2.5~6			
马达连接	Motor wiring	U、V、W		螺钉端子 Screw terminal						
		电缆截面积mm² Cable sectional Area mm²		1~2.5			2.5~6			
直流母线连接(制动电阻的连接)	DC bus connection (connection of braking resistor)	DC+、DC-、R		螺钉端子 Screw terminal						
		电缆截面积mm² Cable sectional Area mm²		1~2.5			2.5~6			
PE连接		PE connection		外壳上的M4螺钉 M4 screws on the housing						
最大马达电缆长度	Maximum motor cable length	屏蔽电缆 m Shielded cable m		50						
		非屏蔽电缆 m Unshielded cable m		100						
防护等级		Protection level		IP20						
外形尺寸		Dimensions		B1			B2			
大约重量 kg		Weight kg		1.7			2.8			

AX-PM26-B3C11	AX-PM26-B3C15	AX-PM26-B3C18	AX-PM26-B3C22	AX-PM26-B3C30	AX-PM26-B3C37	AX-PM26-B3C45	AX-PM26-B3C55	AX-PM26-B3C75	AX-PM26-B3C90	AX-PM26-B3D11	AX-PM26-B3D13
11	15	18.5	22	30	37	45	55	75	90	110	132
26	33	39	46	63	78	86	104	140	172	198	242
32	39	46	53	73	88	78	94	117	154	189	218
15.2	18.71	22.22	26.32	35.09	43.86	52.63	64.33	84.79	104.09	119.88	146.2
> 0.95											
0.4		0.5	0.7	1	1.3		1.67	1.93	2.48	2.3	3.02
0.055				2x0.055		0.083		0.153			
< 40				< 50		< 75					
1											
15											
螺钉端子 Screw terminal						电缆终端 Cable termination					
4~10			6~25			35~2x120					
螺钉端子 Screw terminal						电缆终端 Cable termination					
4~10			6~25			35~2x120					
螺钉端子 Screw terminal											
4~10			6~25			25~70					
外壳上的M4螺钉 M4 screws on the housing		M4 screws on the housing		外壳上的M5螺钉 M5 screws on the housing		电缆终端 Cable termination					
50											
100											
IP20											
B3			B4			B6					
7			16			65					

18 驱动器操作面板

18.1操作面板概述

操作面板OP25为驱动器调试提供更加灵活的调试诊断方式，AX系列伺服驱动器可以通过PC及上位机进行调试，也可以使用OP25进行快捷调试。



操作面板订货型号为：
A1-OP25

注：A1-OP25和AX-CM51-PN-PE匹配时，需要通过专用转接线来连接，请直接订购AD-OP25即可，既包含了操作键盘也包含了转接线。

18 Operation panel

18.1General information

The AX-series drive can be debugged with either PC-Software (BonengDrivesoft) or Operation Panel(OP25). The operation Panel (OP25) can make drive debugging and diagnosis easier and more flexible.

The Operation Panel order number is: A1-OP25

Note: When A1-OP25 and AX-CM51-PN-PE are matched, they need to be connected through a dedicated adapter cable. Please order AD-OP25 directly, which includes both the operation keyboard and the adapter cable.

19 驱动器可选件

19.1 制动电阻

制动电阻用于使大转动惯量的负载迅速制动。在马达和负载制动时，动能转换成的再生电能会返回到驱动器中，直流母线电压因此抬高，驱动器将这些再生的能量几乎全部消耗在制动电阻上；400V 50/60Hz AX精准系列伺服驱动器可选的制动电阻推荐规格如下：

框架	驱动器		允许的最小 制动电阻	推荐值		博能型号	
	无内置滤波器型号	有内置滤波器型号		功率(W)	阻值(Ω)	订货号	等效制动电阻
Frame size	Article number without filter	Article number with filter	Minimum allowable resistance value for the brake resistor	Power (W)	Resistance (Ω)	BONENG Type	
B1	AX-PM26-B3A75-N	AX-PM26-B3A75-F	374Ω	60	750	A1-H02-A06-K-D75	60W 750Ω
	AX-PM26-B3B15-N	AX-PM26-B3B15-F	374Ω	80	390	A1-H02-A08-K-D39	80W 390Ω
	AX-PM26-B3B22-N	AX-PM26-B3B22-F	140Ω	150	180	A1-H02-A15-K-D18	150W 180Ω
	AX-PM26-B3B30-N	AX-PM26-B3B30-F	140Ω	150	180	A1-H02-A15-K-D18	150W 180Ω
B2	AX-PM26-B3B40-N	AX-PM26-B3B40-F	75Ω	300	100	A1-H02-A30-K-D10	300W 100Ω
	AX-PM26-B3B55-N	AX-PM26-B3B55-F	75Ω	300	100	A1-H02-A30-K-D10	300W 100Ω
	AX-PM26-B3B75-N	AX-PM26-B3B75-F	75Ω	400	75	A1-H02-A40-K-C75	400W 75Ω
B3	AX-PM26-B3C11-N	AX-PM26-B3C11-F	30Ω	800	36	A1-H02-A80-K-C36	800W 36Ω
	AX-PM26-B3C15-N	AX-PM26-B3C15-F	30Ω	800	36	A1-H02-A80-K-C36	800W 36Ω
B4	AX-PM26-B3C18-N	AX-PM26-B3C18-F	27Ω	1000	27	A1-H02-B10-K-C27	1000W 27Ω
	AX-PM26-B3C22-N	AX-PM26-B3C22-F	27Ω	1000	27	A1-H02-B10-K-C27	1000W 27Ω
	AX-PM26-B3C30-N	AX-PM26-B3C30-F	15Ω	2000	15	A1-H02-B20-K-C15	2000W 15Ω
B6	AX-PM26-B3C37-N	AX-PM26-B3C37-F	15Ω	2000	15	A1-H02-B20-K-C15	2000W 15Ω
	AX-PM26-B3C45-N	AX-PM26-B3C45-F	10Ω	3000	10	A1-H02-B30-K-C10	3000W 10Ω
	AX-PM26-B3C55-N	AX-PM26-B3C55-F	10Ω	3000	10	A1-H02-B30-K-C10	3000W 10Ω
	AX-PM26-B3C75-N	AX-PM26-B3C75-F	7.1Ω	4000	7.5	A1-H02-B40-K-B75	4000W 7.5Ω
	AX-PM26-B3D11-N	AX-PM26-B3D11-F	5Ω	6000	5	A1-H02-B60-K-B50	6000W 5Ω
	AX-PM26-B3D13-N	AX-PM26-B3D13-F	5Ω	6000	5	A1-H02-B60-K-B50	6000W 5Ω

19 Options

19.1 Braking Resistor

The braking resistor is used to quickly brake the load with large moment of inertia. When the load and motor brake, the regenerative energy converted from kinetic energy will be returned to the driver, and then the DC bus voltage will be raised. The braking resistor is installed to consume almost all of this part of energy to keep the DC bus voltage level. The recommended model of optional Braking Resistor for 400V-50/60 Hz AX-series servo drives are as follows:

19.2 进线电抗器

当系统的故障率高时，需要加装进线电抗器以保护驱动器不受过大的谐波电流的干扰，改善驱动器的输入侧功率因数；防止过载，并将进线谐波限制在允许的值内，以确保驱动器达到期望的使用寿命。400V 50/60Hz AX精准系列伺服驱动器可选的进线电抗器推荐型号如下表：

19.2 Incoming line reactors

A incoming line reactor is required and needful to prevent the drive from being disturbed by excessive harmonic currents, and improve the Input side power factor, when the system has a high failure rate. In addition, the incoming line reactor can limit the line harmonics to allowable values to ensure the drive's expected service life, when the overload occurs. The recommended model of optional incoming line reactors for 400V-50/60 Hz AX-series servo drives are listed below:

驱动器		进线电抗器 推荐参数		Recommended parameters of reactors		订货 号 Order number
框架 Dimension types	无内置 滤波器 型号 Without built-in filter	额定 电流 (A)	Rated current (A)	电感 (mH)	Rated inductance (A)	
B1	AX-PM26-B3A75-N	2.6		5.9		A1-H12-TB280
	AX-PM26-B3B15-N	4.9		3.1		A1-H12-TB280
	AX-PM26-B3B22-N	7.1		2.2		A1-H12-TB200
	AX-PM26-B3B30-N	9.2		1.7		A1-H12-TB140
B2	AX-PM26-B3B40-N	12.2		1.3		A1-H12-TA930
	AX-PM26-B3B55-N	15.8		1		A1-H12-TA700
	AX-PM26-B3B75-N	21.6		0.8		A1-H12-TA700
B3	AX-PM26-B3C11-N	31.2		0.5		A1-H12-TA470
	AX-PM26-B3C15-N	38.4		0.4		A1-H12-TA350
B4	AX-PM26-B3C18-N	45.6		0.5		A1-H12-TA280
	AX-PM26-B3C22-N	54		0.4		A1-H12-TA240
	AX-PM26-B3C30-N	72		0.3		A1-H12-TA160
	AX-PM26-B3C37-N	90		0.2		A1-H12-TA160
B6	AX-PM26-B3C45-N	120		0.117		A1-H12-TB120
	AX-PM26-B3C55-N	150		0.094		A1-H12-TA095
	AX-PM26-B3C75-N	200		0.07		A1-H12-TA070
	AX-PM26-B3C90-N	250		0.056		A1-H12-TA056
	AX-PM26-B3D11-N	250		0.056		A1-H12-TA056
	AX-PM26-B3D13-N	290		0.048		A1-H12-TA048

19.3 进线滤波器

进线滤波器的作用是抑制驱动器通过输入电源线所传输到公共电网中的电磁干扰,同时也衰减从电源线进入驱动器的干扰;在安装时请尽量靠近驱动器的输入端子侧进行安装,请使用驱动器专用的进线滤波器。400V 50/60Hz AX精准系列伺服驱动器可选的进线滤波器推荐型号如下表：

19.3 Incoming filter

The function of the incoming line filter is to suppress the electromagnetic interference transmitted from/to the drive to/from the public power supply network through the power supply line. When use it, please choose recommended drive specific line filter, and install it as close to the input end of the drive as possible. The recommended types of incoming line filter for 400V-50/60 Hz AX-series servo drives are as follows:

驱动器		EMC 滤波器		EMC filter		订货号 Order number
框架 Dimension types	无内置 滤波器 型号 Without built-in filter	额定 电流 (A)	Rated current (A)	额定 电流 (A)	Rated current (A)	
B1	AX-PM26-B3A75-N	2.9				A1-H11-A-C10
	AX-PM26-B3B15-N	5.5				A1-H11-A-C10
	AX-PM26-B3B22-N	7.7				A1-H11-A-C10
	AX-PM26-B3B30-N	10.1				A1-H11-A-C10
B2	AX-PM26-B3B40-N	13.3				A1-H11-A-C20
	AX-PM26-B3B55-N	17.2				A1-H11-A-C20
	AX-PM26-B3B75-N	22.2				A1-H11-A-C30
B3	AX-PM26-B3C11-N	32.6				A1-H11-A-C36
	AX-PM26-B3C15-N	39.9				A1-H11-A-C50
B4	AX-PM26-B3C18-N	36				A1-H11-A-C50
	AX-PM26-B3C22-N	42				A1-H11-A-C50
	AX-PM26-B3C30-N	57				A1-H11-A-C65
	AX-PM26-B3C37-N	70				A1-H11-A-C80
B6	AX-PM26-B3C45-N	100				A1-H11-A-D10
	AX-PM26-B3C55-N	130				A1-H11-A-D13
	AX-PM26-B3C75-N	150				A1-H11-A-D15
	AX-PM26-B3C90-N	180				A1-H11-A-D18
	AX-PM26-B3D11-N	200				A1-H11-A-D20
	AX-PM26-B3D13-N	250				A1-H11-A-D25

19.4 出线电抗器

当驱动器和马达之间的距离超过50米时，由于长电缆对地的寄生电容效应导致漏电流过大，驱动器容易频繁发生过流保护，同时为了避免马达绝缘损坏，须加输出电抗器补偿，输出电抗器可以减小马达绕组上的电压负载，以及采用长的马达电缆时，容性充放电电流加在功率部分的附加负载。400V 50/60Hz AX 精准系列伺服驱动器可选的输出电抗器推荐型号如下表：

19.4 Outlet reactor

When the motor is more than 50m away from the drive, due to the parasitic capacitance effect of the long cable to the ground, the leakage current will become too large to trigger the over-current fault to protect the drive. To avoid this case and prevent motors from being damaged, a outlet reactor can be used. Because the outlet reactor can reduce the voltage applied to the motor windings and the additional load that capacitive charge/discharge current added to the power module when long cable used. The recommended model of optional Outlet Reactor for 400V-50/60 Hz AX-series servo drives are as follows:

驱动器		Drives		进线电抗器 推荐参数		Recommended parameters of reactors		订货 号	Order number
框架	Dimension types	无内置 滤波器 型号	Without built-in filter	额定 电流 (A)	Rated current (A)	电感 (mH)	Rated inductance (A)		
B1		AX-PM26-B3A75-N		2.6		3.2		A1-H13-TB140	
		AX-PM26-B3B15-N		4.9		1.7		A1-H13-TB140	
		AX-PM26-B3B22-N		7.1		1.2		A1-H13-TB100	
		AX-PM26-B3B30-N		9.2		0.9		A1-H13-TA700	
B2		AX-PM26-B3B40-N		12.2		0.7		A1-H13-TA470	
		AX-PM26-B3B55-N		15.8		0.5		A1-H13-TA350	
		AX-PM26-B3B75-N		21.6		0.4		A1-H13-TA230	
B3		AX-PM26-B3C11-N		31.2		0.3		A1-H13-TA180	
		AX-PM26-B3C15-N		38.4		0.2		A1-H13-TA180	
B4		AX-PM26-B3C18-N		45.6		0.2		A1-H13-TA140	
		AX-PM26-B3C22-N		54		0.2		A1-H13-TA120	
		AX-PM26-B3C30-N		72		0.1		A1-H13-TA087	
		AX-PM26-B3C37-N		90		0.1		A1-H13-TA078	
B6		AX-PM26-B3C45-N		120		0.058		A1-H13-TA058	
		AX-PM26-B3C55-N		150		0.047		A1-H13-TA047	
		AX-PM26-B3C75-N		200		0.035		A1-H13-TA035	
		AX-PM26-B3C90-N		250		0.028		A1-H13-TA028	
		AX-PM26-B3D11-N		250		0.028		A1-H13-TA028	
		AX-PM26-B3D13-N		290		0.024		A1-H13-TA024	

控制层 CONTROL

驱动层 DRIVE

马达层 MOTOR

齿轮层 GEAR

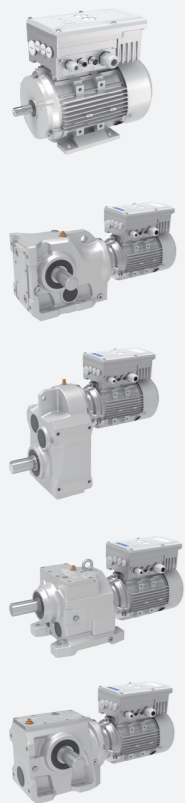


X3010 PLC
EtherCAT&Modbus
24VDC



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
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



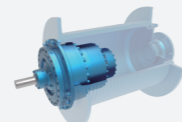
4.2~15775kW
i=5.6~450

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



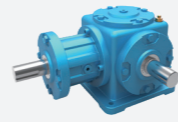
1~1626kW
i=14~947

J/JB
升降机
Jack



0.35~22.63kW
i=5~34

T
转向箱
Spiral Bevel
Gearbox



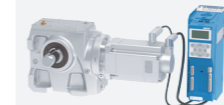
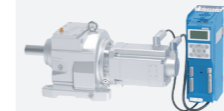
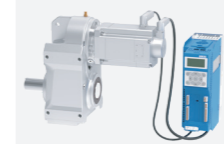
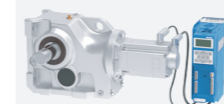
0.08~303kW
i=1:1~3:1

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



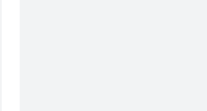
EtherCAT/
PROFINET
380~480VAC
0.28~14kW
1500/2000r/min
3000/4500r/min

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

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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

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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

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