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GSSD Series

EXTERNAL LINEAR ACTUATOR

电动执行器滚珠丝杆型

上海狄兹精密机械有限公司
Shanghai Dizi Precision Machinery Co.,Ltd.

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3D选型软件
3D Selection
Software

电动执行器滚珠丝杆型 (滚珠丝杆/滑动丝杆)

GSSD Series External Linear Actuator
(Ball Screw/Lead Screw)



标准库存品

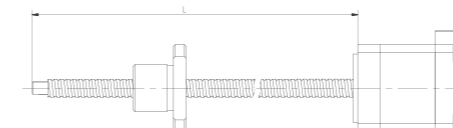
● 公称型号的构成 Model number notation

GSSD 20 - R 0601 K - 78 A - P M1 - D1 - E2000 - L5 - B - 001

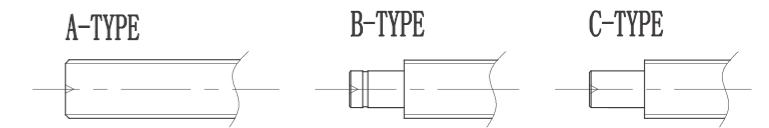
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- | | |
|--|---|
| <p>1 系列符号
GSSD:电动执行器滚珠丝杆型</p> <p>2 电机规格尺寸 (mm)
可选20/28/35/42/57步进马达</p> <p>3 丝杆类型
G: 精密滚珠丝杆 R: 冷轧滚珠丝杆
Re: 树脂滑动丝杆 GT: 精密冷轧滚珠丝杆</p> <p>4 丝杆轴外径及导程
06: 丝杆轴外径 01: 丝杆导程</p> <p>5 螺母类型
K: 螺母类型代号, 若无则省略</p> <p>6 丝杆凸出长度
详见: 丝杆轴长度图</p> <p>7 支撑端类型
可选A/B/C类型, 详见: 轴端形状图</p> <p>8 马达出线方式
N: 直接出线 P: 接插件</p> <p>9 马达类型
M1: 单叠 M2: 双叠</p> <p>10 螺母方向
D1: 螺母法兰朝马达端
D2: 螺母法兰朝支撑端</p> <p>11 编码器分辨率 (若无则省略)</p> <p>12 编码器线长
L5: 标配5米线, 若无编码器则省略。</p> <p>13 是否含刹车 (若无则省略)</p> <p>14 图纸说明 - 客户特殊样式</p> | <p>1 series of symbols
GSSD: (ball screw/lead screw)external linear actuator</p> <p>2 specification and dimension of motor (mm)
optional 20 / 28 / 35 / 42 / 57 stepping motor</p> <p>3 screw type
g: precision ball screw R: cold rolled ball screw
re: resin sliding screw GT: precision cold rolling ball screw</p> <p>4 outer diameter and lead of screw shaft
06: outer diameter of screw shaft 01: screw lead</p> <p>5 nut type
K: nut type code, if not omitted</p> <p>6 protruding length of screw rod
for details, please refer to the drawing of screw shaft length</p> <p>7 type of support end
optional A / B / C type, see shaft end shape drawing for details</p> <p>8 motor outgoing mode
N: direct outlet P: connector</p> <p>9 motor type
M1: single stack M2: double stack</p> <p>10 nut direction
D1: the nut flange is facing the Mada end
D2: nut flange towards support end</p> <p>11 encoder resolution (omitted if none)</p> <p>12 encoder wire length
L5: Standard 5m wire, if there is no encoder, it will be omitted.</p> <p>13 brake included (omitted if not)</p> <p>14 drawing description - customer special style</p> |
|--|---|

● 丝杆轴长度 Screw shaft length



● 轴端形状 Shaft end shape



电动执行器滚珠丝杆型特点

FEATURES OF EXTERNAL LINEAR ACTUATOR

◆ 结构升级 传动简易 Upgraded structure, easy transmission

在滚珠丝杆的轴端直接安装2相步进电机，将滚珠丝杆轴心作为电机旋转轴心的理想结构。

A 2-phase stepping motor is directly installed on the shaft end of the ball screw, and the ball screw axis is used as the ideal structure of the motor rotation axis.

◆ 空间紧凑 小型轻量 Compact space, Miniature and light weight

2相步进电机和轧制滚珠丝杆一体型产品，通过电机轴与滚珠丝杆轴的一体化，无需联轴器，节省了长边方向的尺寸。

Two-phase stepping motor and rolled ball screw integrated product, through the integration of the motor shaft and the ball screw shaft, no coupling is needed, saving the size of the long side direction.

◆ 高精度 高稳定性 优越的性价比 High precision, High stability, Excellent cost performance

轧制滚珠丝杆与2相步进电机的组合，节省了联轴器，一体化结构减少组合精度误差，可使重复定位精度为±0.001mm。

The combination of rolling ball screw and 2-phase stepping motor saves the coupling, and the integrated structure reduces the combined accuracy error, and can make the repeated positioning accuracy ± 0.001mm.

◆ 轴端多样性 可非标定制 Customizable variety of shaft ends

提供多种轴端形状、行程规格，可根据客户的要求定制非标产品。

Provide a variety of shaft end shapes and stroke specifications, and non-standard products can be customized according to customer requirements.

◆ 产品丰富 规格齐全 Abundant products, Complete specification

电机规格有20、28、35、42、57步进马达，可搭配滚珠丝杆、树脂滑动丝杆。

The motor specifications are 20, 28, 35, 42, 57 stepping motors, which can be matched with ball screws and resin sliding screws.

马达规格 Motor specifications

Motor Frame Size 马达框架尺寸	Motor Model 马达型号	Rated Voltage 额定电压 (V)	Rated Current 额定电流 (A/相)	Winding Impedance 卷线阻抗 (Ω)	Coefficient of Mutual Induction 感应系数 (mH)	Maximum Static Torque 最大静止扭矩 (N.m)	Motor specifications 马达规格 (mm)
20	8E2004	3.52	0.4	8.8	2.8	0.003	20
	8E2105	2.55	0.5	5.1	1.5	0.0036	27.2
28	11E2110	2.1	1.0	2.1	1.5	0.036	33.35
	11E2216	2.4	1.6	1.5	1.36	0.052	45
35	14E2110	3.5	1.0	3.5	3.6	0.06	33.6
	14E2215	4.05	1.5	2.7	3.2	0.1	45.6
42	17E2115	2.8	1.5	1.85	2.2	0.18	34.1
	17E2225	2.25	2.5	0.9	1.8	0.32	48.1
57	23E2110	6.4	1.0	6.4	1.65	0.7	45
	23E2225	5.0	2.5	2.0	5.2	1.5	65

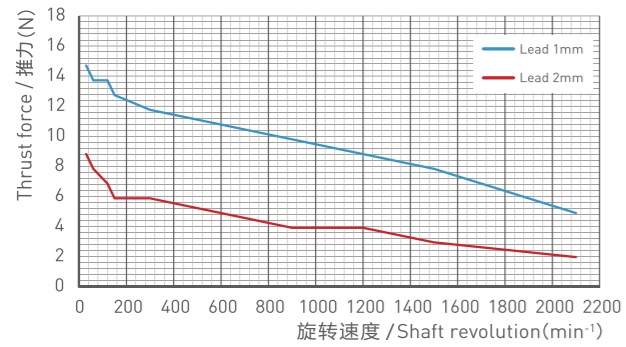
产品索引 Product index

Motor specifications 马达规格 (mm)	Model 型号	Total Length of Motor 马达全长 (mm)	Rated Current 额定电流 (A/相)	Maximum Static Torque 最大静止扭矩 (N.m)	Dia. 公称直径 (mm)	Lead 导程 (mm)	Reference Thrust 参考推力 (N)
20	GSSD20-R0401-M1	20	0.4	0.003	04	01	10
	GSSD20-R0401-M2	27.2	0.5	0.0035	04	01	15
	GSSD20-R0401K-M1	20	0.4	0.003	04	01	10
	GSSD20-R0401K-M2	27.2	0.5	0.0035	04	01	15
	GSSD20-R0402-M1	20	0.4	0.003	04	02	5
	GSSD20-R0402-M2	27.2	0.5	0.0035	04	02	7
28	GSSD28-R0504-M1	33.35	1.0	0.036	05	04	20
	GSSD28-R0504-M2	45	1.6	0.052	05	04	40
	GSSD28-R0504G-M1	33.35	1.0	0.036	05	04	20
	GSSD28-R0504G-M2	45	1.6	0.052	05	04	40
	GSSD28-R0601-M1	33.35	1.0	0.036	06	01	110
	GSSD28-R0601-M2	45	1.6	0.052	06	01	150
	GSSD28-R0601K-M1	33.35	1.0	0.036	06	01	110
	GSSD28-R0601K-M2	45	1.6	0.052	06	01	150
	GSSD28-R0602-M1	33.35	1.0	0.036	06	02	50
	GSSD28-R0602-M2	45	1.6	0.052	06	02	12
	GSSD28-R0602G-M1	33.35	1.0	0.036	06	02	50
	GSSD28-R0602G-M2	45	1.6	0.052	06	02	150
	GSSD28-R0606-M1	33.35	1.0	0.036	06	06	18
	GSSD28-R0606-M2	45	1.6	0.052	06	06	35
GSSD28-R0610-M1	33.35	1.0	0.036	06	10	10	
GSSD28-R0610-M2	45	1.6	0.052	06	10	15	
35	GSSD35-R0801-M1	33.6	1.0	0.06	08	01	175
	GSSD35-R0801-M2	45.6	1.5	1.0	08	01	230
	GSSD35-R0801K-M1	33.6	1.0	0.06	08	01	175
	GSSD35-R0801K-M2	45.6	1.5	1.0	08	01	230
	GSSD35-R0802-M1	33.6	1.0	0.06	08	02	85
	GSSD35-R0802-M2	45.6	1.5	1.0	08	02	160
	GSSD35-R0805-M1	33.6	1.0	0.06	08	05	35
	GSSD35-R0805-M2	45.6	1.5	1.0	08	05	65
	GSSD35-R0810-M1	33.6	1.0	0.06	08	10	15
	GSSD35-R0810-M2	45.6	1.5	1.0	08	10	30
42	GSSD42-R1002-M1	34.1	1.5	0.18	10	02	184
	GSSD42-R1002-M2	48.1	2.5	0.32	10	02	306
	GSSD42-R1002K-M1	34.1	1.5	0.18	10	02	184
	GSSD42-R1002K-M2	48.1	2.5	0.32	10	02	306
	GSSD42-R1005-M1	34.1	1.5	0.18	10	05	75
	GSSD42-R1005-M2	48.1	2.5	0.32	10	05	15
	GSSD42-R1010-M1	34.1	1.5	0.18	10	10	40
	GSSD42-R1010-M2	48.1	2.5	0.32	10	10	83
	GSSD42-R1015-M1	34.1	1.5	0.18	10	15	27
	GSSD42-R1015-M2	48.1	2.5	0.32	10	15	50
42	GSSD42-R1020-M1	34.1	1.5	0.18	10	20	22
	GSSD42-R1020-M2	48.1	2.5	0.32	10	20	41

◆ 推力-速度线图 Force-speed diagram

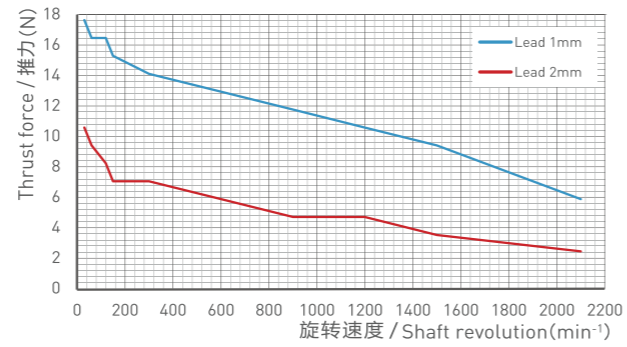
电机型号: 08E2004 (□20)

Motor model: 08E2004 (□20)



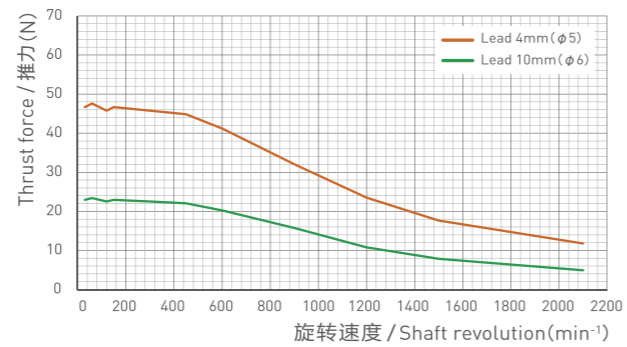
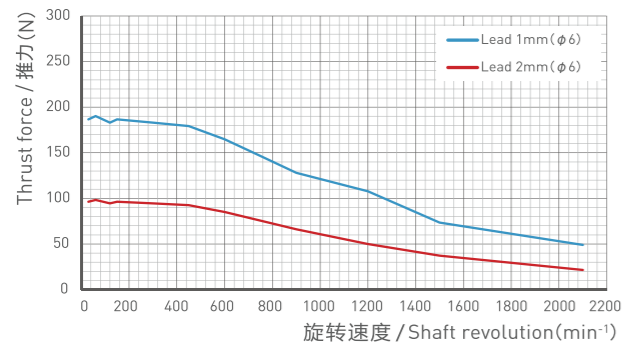
电机型号: 08E2105 (□20)

Motor model: 08E2105 (□20)



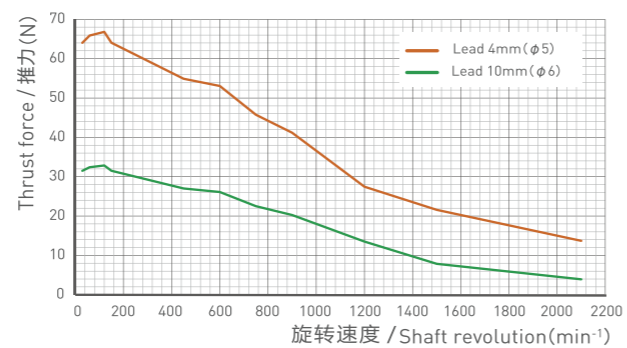
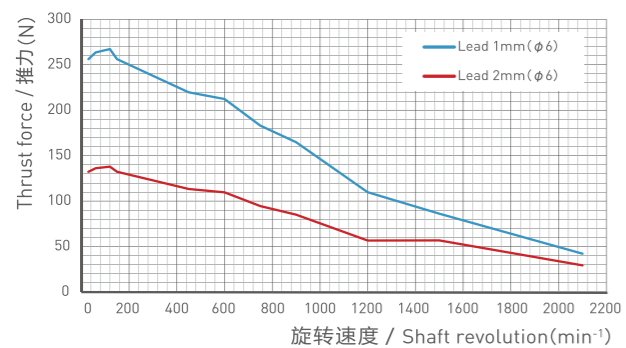
电机型号: 11E2110 (□28)

Motor model: 11E2110 (□28)



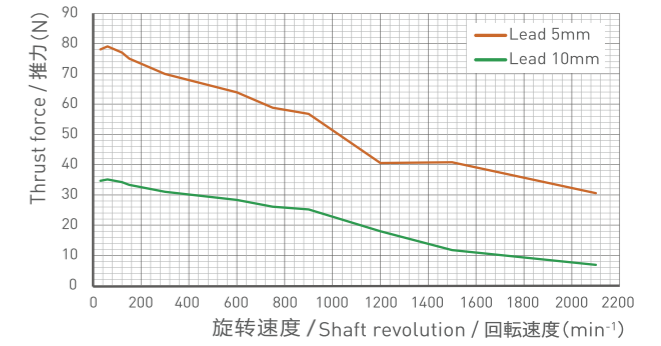
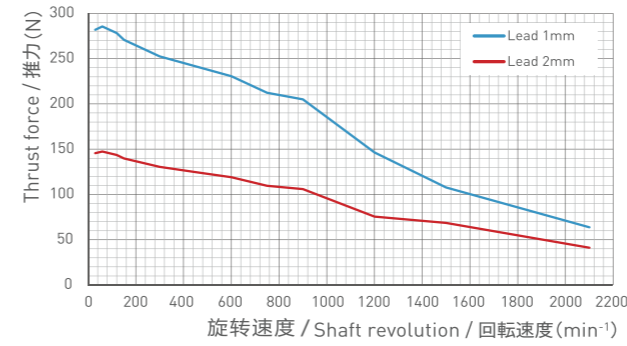
电机型号: 11E2216 (□28)

Motor model: 11E2216 (□28)



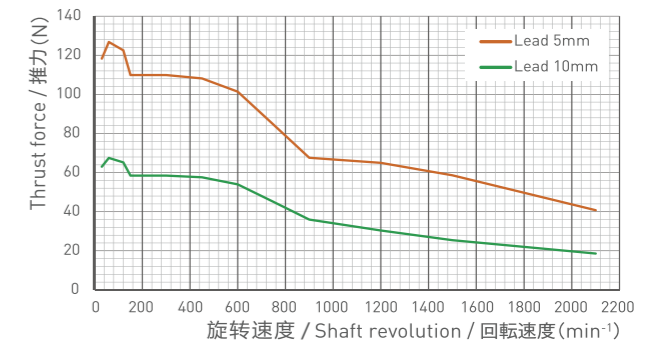
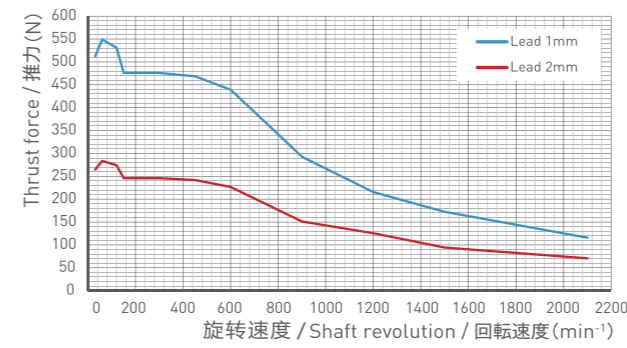
电机型号: 14E2110 (□35)

Motor model: 14E2110 (□35)



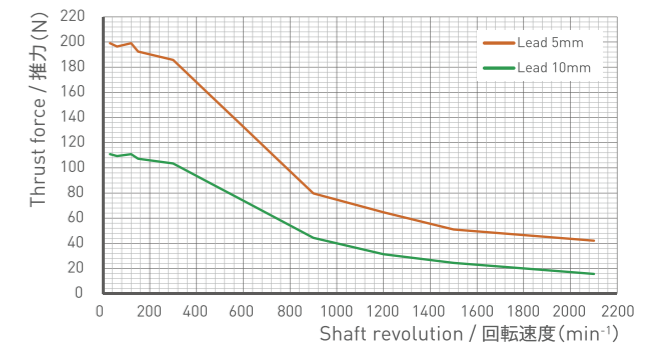
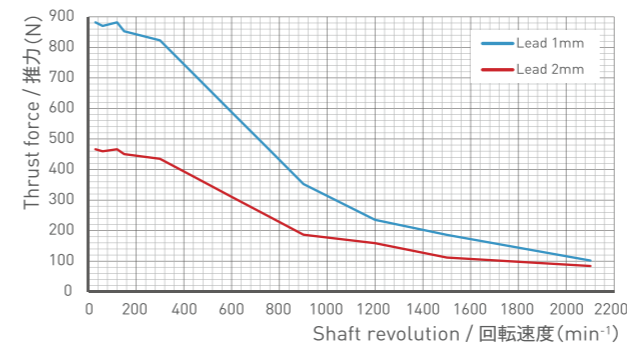
电机型号: 14E2215 (□35)

Motor model: 14E2215 (□35)



电机型号: 17E2115 (□42)

Motor model: 17E2115 (□42)

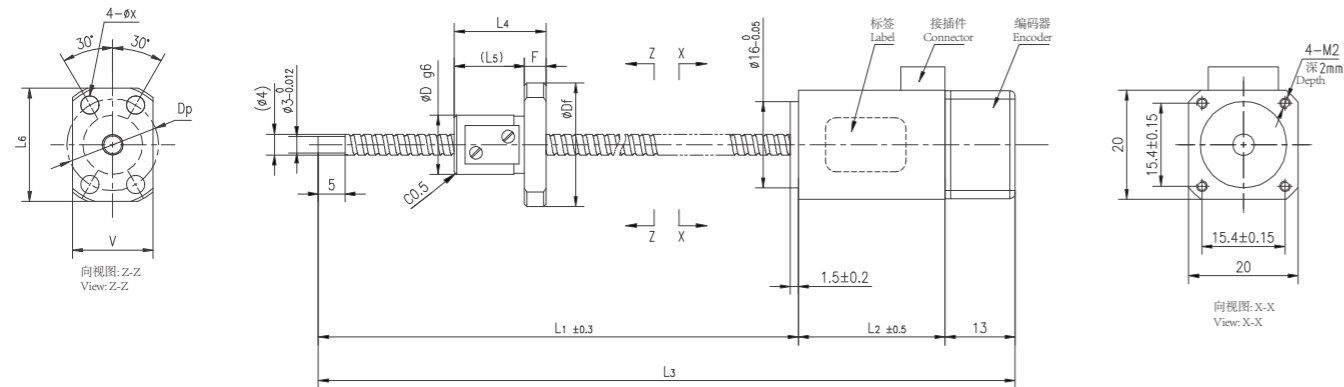


注: 推力-速度线圈是根据样品的实测值作成的。每个电机多少会有些变化, 仅作为参考。

Note) Force-speed diagrams above are measurement data of samples. It may vary depending on each motor's characteristic. Please consider these diagrams as reference data.

GSSD20-R

Shaft dia.(轴径) $\phi 4$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-



Housing: JST SHR-09V-S
Terminal: JST SSH-003T-P0.2-H
Wire: AWG 28

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD20-R0401-PM1	01	20	L1+33	17	13	21	4	23	11	3.4	17	15
GSSD20-R0401-PM2	01	27.2	L1+40.2	17	13	21	4	23	11	3.4	17	15
GSSD20-R0401K-PM1	01	20	L1+33	13	10	-	3	19	11	2.9	14	13
GSSD20-R0401K-PM2	01	27.2	L1+40.2	13	10	-	4	19	11	2.9	14	13
GSSD20-R0402-PM2	02	20	L1+33	19	15	21	4	23	11	3.4	17	15
GSSD20-R0402-PM1	02	27.2	L1+40.2	19	15	21	4	23	11	3.4	17	15
L1以下尺寸为标准品	64 / 89 / 99 / 129 / 149 / 189											

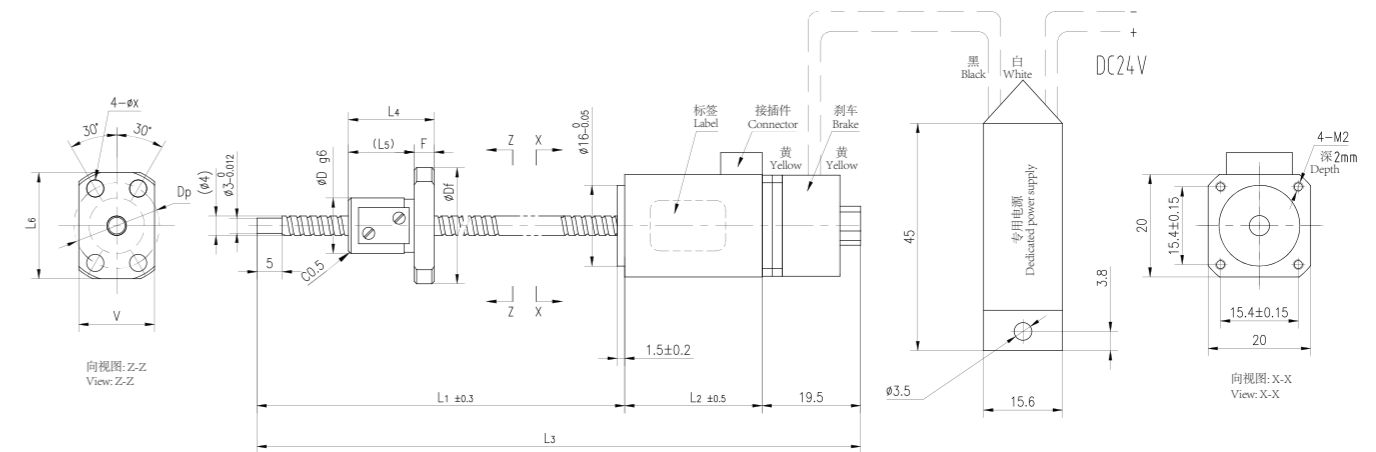
Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

Ball Screw Specifications 主要技术参数		
Motor model 马达类型	08E2004	08E2105
Motor code 马达代号	PM1	PM2
Step angel 步距角	1.8°	
Rated voltage 额定电压	3.52V	2.55V
Rated current 额定电流	0.4A	0.5A
Resistance/phase 相阻抗	2.8Ω	5.1Ω
Inductance/phase 相电感	2.8mH	1.5mH
Holding torque 静止扭矩	0.003N.M	0.0036N.M
Rotor inertia 转子惯量	2.4g.cm ²	2.6g.cm ²
Motor weight 马达重量	60g	80g
Encoder resolution 编码器分辨率	2000CPR	
Operating temperature 适用温度范围	-10°C~50°C	

可选配马达样式

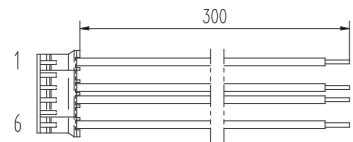
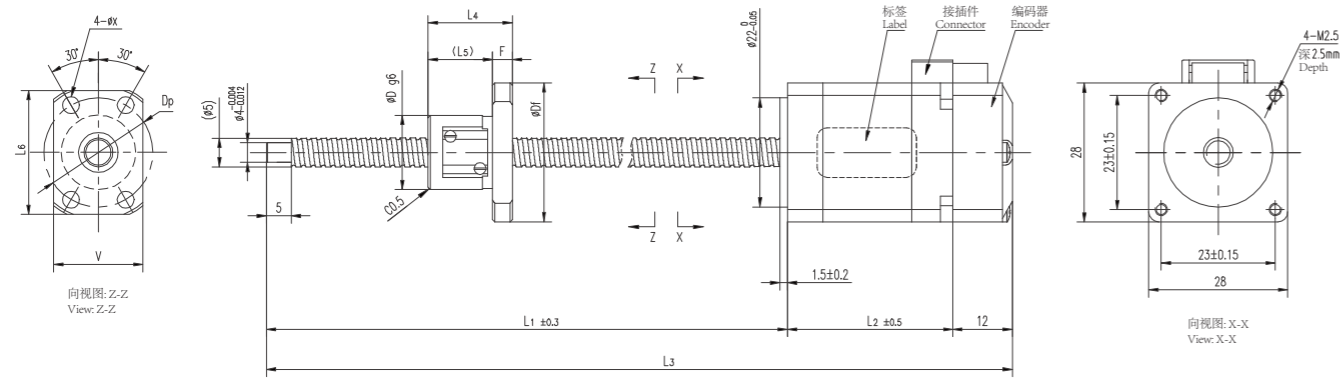
OPTIONAL MOTOR STYLE

● 马达带刹车 Motor with brake



GSSD28

Shaft dia.(轴径) $\phi 5$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-



Housing: JST SHR-09V-S
Terminal: JST SSH-003T-P0.2-H
Wire: AWG 28

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD28-R0504-PM1	04	33.35	L1+45.35	22	18	21.5	4	24	12	3.4	18	15
GSSD28-R0504-PM2	04	45	L1+57	22	18	21.5	4	24	12	3.4	18	15
GSSD28-R0504G-PM1	04	33.35	L1+45.35	22	18	-	4	24	12	3.4	18	14
GSSD28-R0504G-PM2	04	45	L1+57	22	18	-	4	24	12	3.4	18	14

L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265

备注: G型螺母为2- ϕx

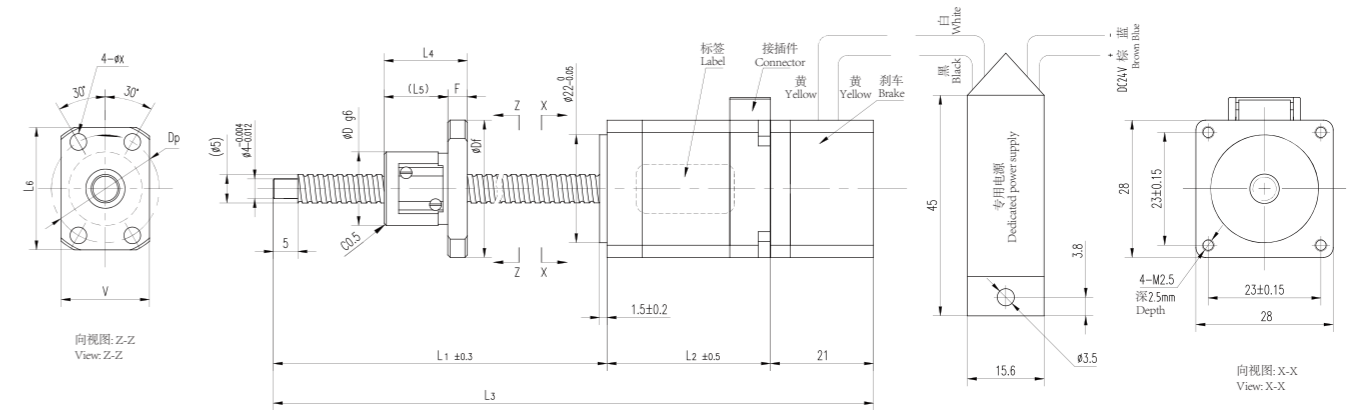
Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	± 0.02 mm

Ball Screw Specifications 主要技术参数		
Motor model 马达类型	11E2110	11E2216
Motor code 马达代号	PM1	PM2
Step angel 步距角	1.8°	
Rated voltage 额定电压	2.1V	2.4V
Rated current 额定电流	1A	1.6A
Resistance/phase 相阻抗	2.1 Ω	1.5 Ω
Inductance/phase 相电感	1.5mH	1.36mH
Holding torque 静止扭矩	0.036N.M	0.052N.M
Rotor inertia 转子惯量	7.2g.cm ²	12g.cm ²
Motor weight 马达重量	180g	200g
Encoder resolution 编码器分辨率	2000CPR	
Operating temperature 适用温度范围	-10°C~50°C	

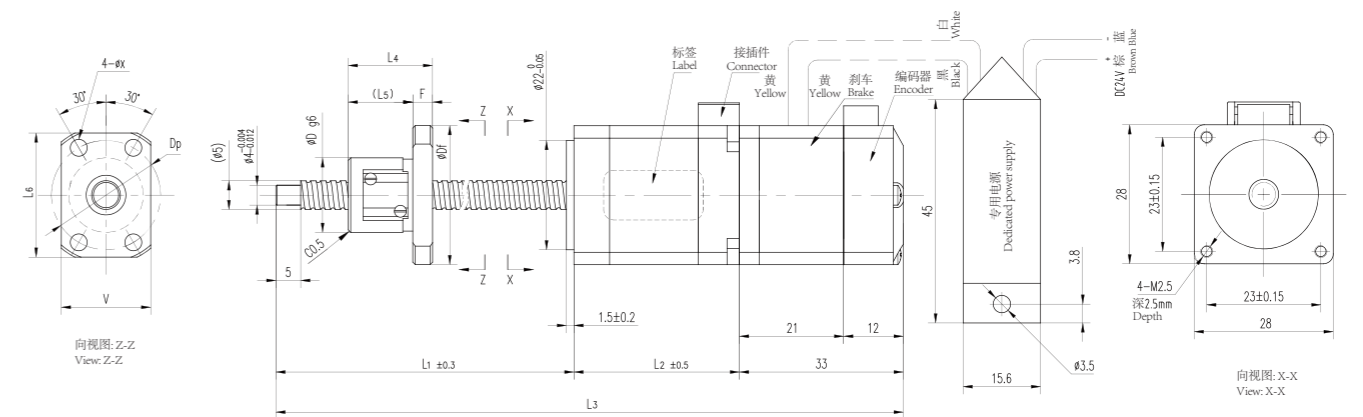
可选配马达样式

OPTIONAL MOTOR STYLE

● 马达带刹车 Motor with brake

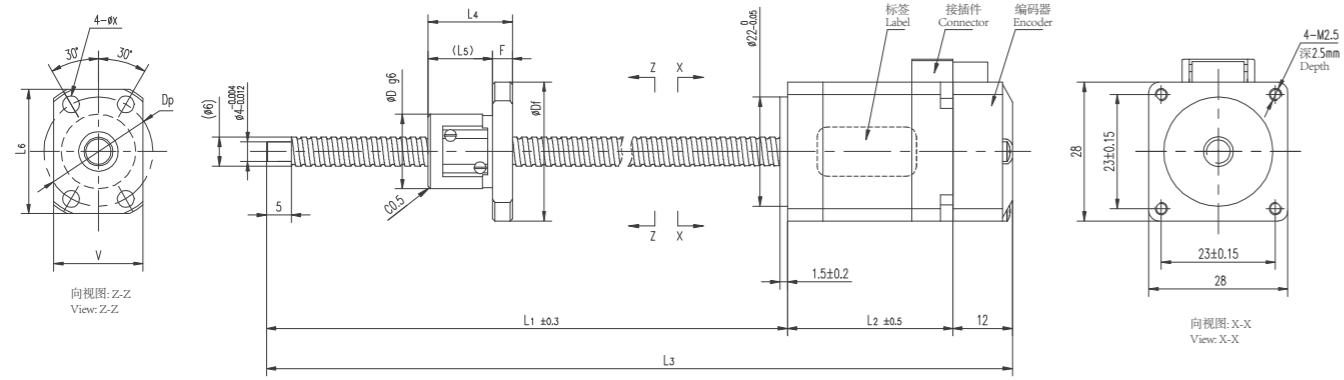


● 马达带编码器带刹车 Motor with encoder and brake



GSSD28-R

Shaft dia.(轴径) $\phi 6$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-



Housing: JST SHR-09V-S
Terminal: JST SSH-003T-P0.2-H
Wire: AWG 28

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD28-R0601-PM1	01	33.35	L1+45.35	17	13	23.5	4	26	13	3.4	20	16
GSSD28-R0601-PM2	01	45	L1+57	17	13	23.5	4	26	13	3.4	20	16
GSSD28-R0601K-PM1	01	33.35	L1+45.35	14.5	11	21	3.5	23	11	3.4	17	14
GSSD28-R0601K-PM2	01	45	L1+57	14.5	11	21	3.5	23	11	3.4	17	14
GSSD28-R0602-PM1	02	33.35	L1+45.35	17	13	25	4	28	15	3.4	22	18
GSSD28-R0602-PM2	02	45	L1+57	17	13	25	4	28	15	3.4	22	18
GSSD28-R0602G-PM1	02	33.35	L1+45.35	17	13	-	4	29	15	3.4	23	17
GSSD28-R0602G-PM2	02	45	L1+57	17	13	-	4	29	15	3.4	23	17
GSSD28-R0606-PM1	06	33.35	L1+45.35	17	8	-	4	27	14	3.4	21	16
GSSD28-R0606-PM2	06	45	L1+57	17	8	-	4	27	14	3.4	21	16
GSSD28-R0610-PM1	10	33.35	L1+45.35	23	11.5	-	4	27	14	3.4	21	16
GSSD28-R0610-PM2	10	45	L1+57	23	11.5	-	4	27	14	3.4	21	16

L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265

备注: G型螺母为2- ϕx

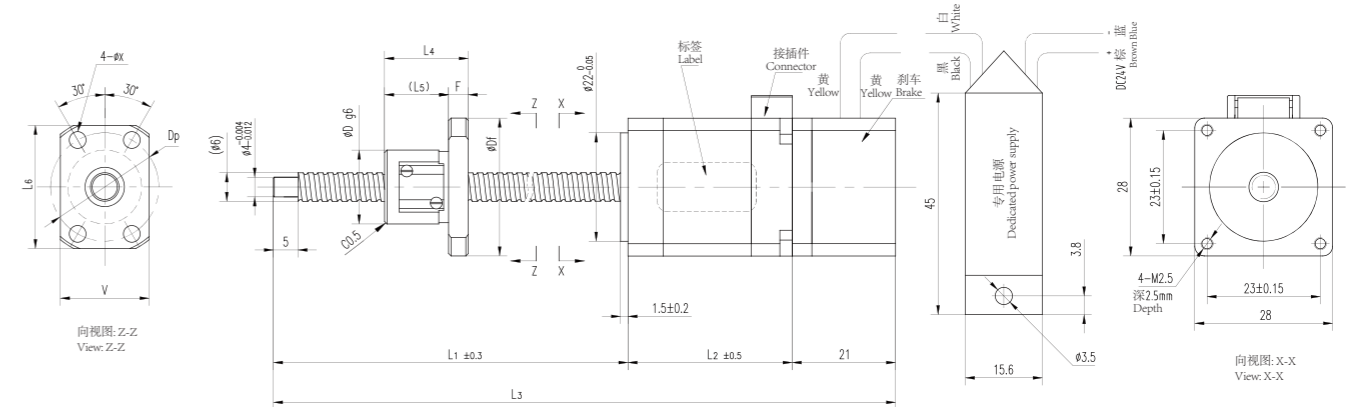
Ball Screw Specifications	主要技术参数
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	± 0.02 mm

Ball Screw Specifications	主要技术参数	
Motor model 马达类型	11E2110	11E2216
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	2.1V	2.4V
Rated current 额定电流	1A	1.6A
Resistance/phase 相阻抗	2.1 Ω	1.5 Ω
Inductance/phase 相电感	1.5mH	1.36mH
Holding torque 静止扭矩	0.036N.M	0.052N.M
Rotor inertia 转子惯量	7.2g.cm ²	12g.cm ²
Motor weight 马达重量	180g	200g
Encoder resolution 编码器分辨率	2000CPR	
Operating temperature 适用温度范围	-10°C~50°C	

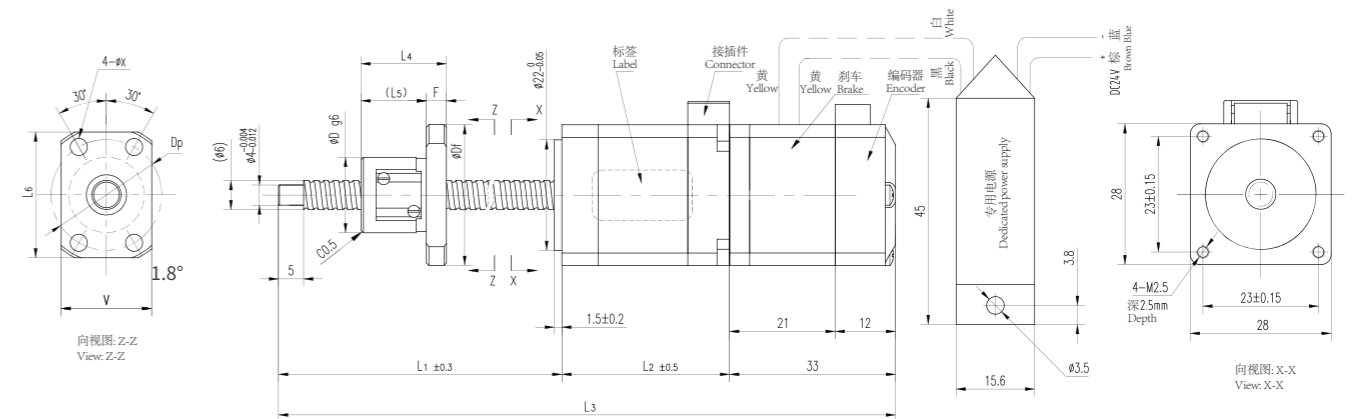
可选配马达样式

OPTIONAL MOTOR STYLE

● 马达带刹车 Motor with brake

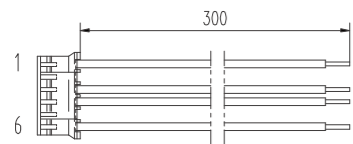
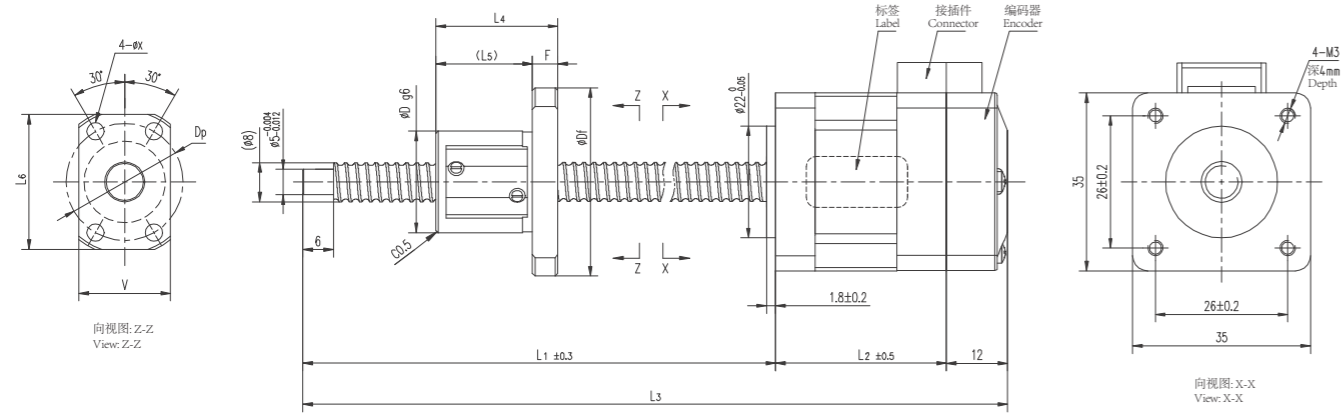


● 马达带编码器带刹车 Motor with encoder and brake



GSSD35-R

Shaft dia.(轴径) $\phi 8$



Housing: JST PHR-6
Terminal: JST SPH-002T-P0.5S
Wire: AWG 26

Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-



Housing: JST SHR-09V-S
Terminal: JST SSH-003T-P0.2-H
Wire: AWG 28

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD35-R0801-PM1	01	33.6	L1+45.6	17	13	26.5	4	29	16	3.4	23	18
GSSD35-R0801-PM2	01	45.6	L1+57.6	17	13	26.5	4	29	16	3.4	23	18
GSSD35-R0801K-PM1	01	33.6	L1+45.6	15	11	24	4	26	13	3.4	20	17
GSSD35-R0801K-PM2	01	45.6	L1+57.6	15	11	24	4	26	13	3.4	20	17
GSSD35-R0802-PM1	02	33.6	L1+45.6	24	19	-	5	37	20	3.4	29	22
GSSD35-R0802-PM2	02	45.6	L1+57.6	24	19	-	5	37	20	3.4	29	22
GSSD35-R0805-PM1	05	33.6	L1+45.6	28	24	-	4	31	18	3.4	25	20
GSSD35-R0805-PM2	05	45.6	L1+57.6	28	24	-	4	31	18	3.4	25	20
GSSD35-R0808-PM1	08	33.6	L1+45.6	20	10	-	4	31	18	3.4	25	20
GSSD35-R0808-PM2	08	45.6	L1+57.6	20	10	-	4	31	18	3.4	25	20
GSSD35-R0810-PM1	10	33.6	L1+45.6	24	13	-	4	31	18	3.4	25	20
GSSD35-R0810-PM2	10	45.6	L1+57.6	24	13	-	4	31	18	3.4	25	20
L1以下尺寸为标准品	98 / 123 / 148 / 173 / 198 / 223 / 248 / 273 / 323											

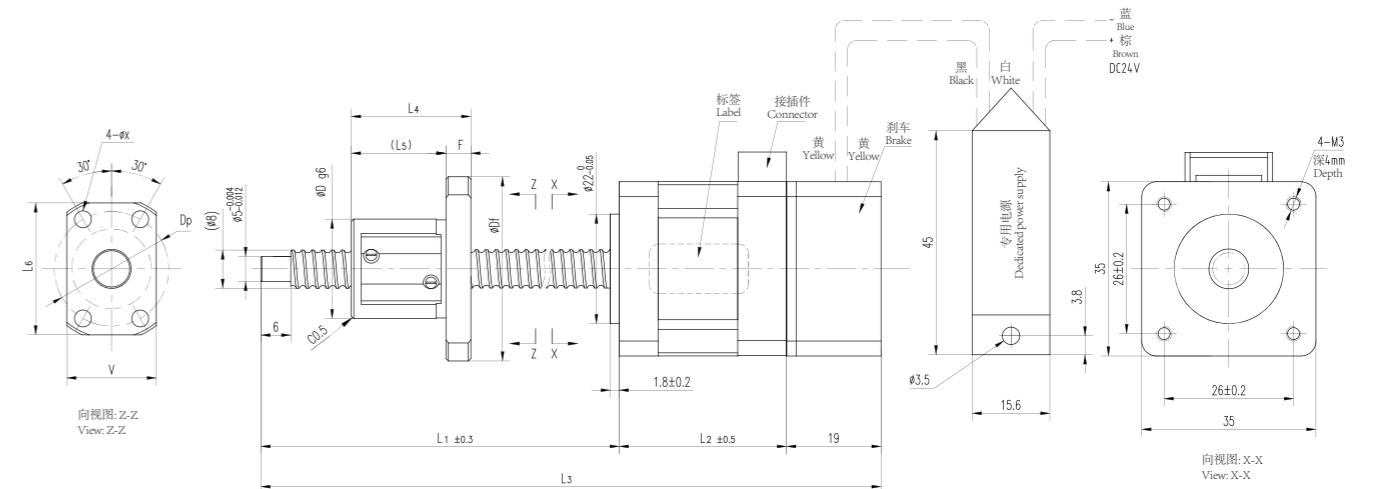
Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

Ball Screw Specifications 主要技术参数		
Motor model 马达类型	14E2110	14E2215
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	3.5V	4.05V
Rated current 额定电流	1A	1.5A
Resistance/phase 相阻抗	3.5Ω	2.7Ω
Inductance/phase 相电感	3.6mH	3.2mH
Holding torque 静止扭矩	0.06N.M	0.1N.M
Rotor inertia 转子惯量	21g.cm ²	32g.cm ²
Motor weight 马达重量	200g	250g
Encoder resolution 编码器分辨率	2000CPR	
Operating temperature 适用温度范围	-10°C~50°C	

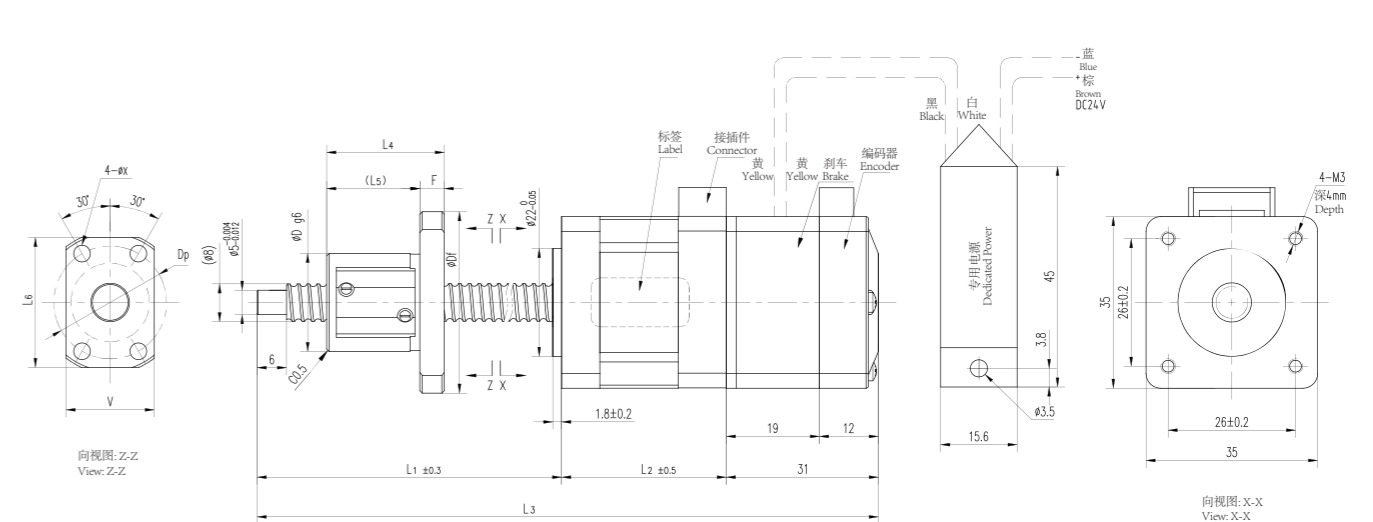
可选配马达样式

OPTIONAL MOTOR STYLE

● 马达带刹车 Motor with brake

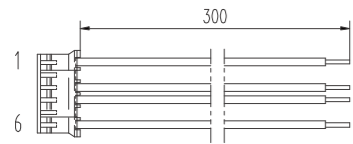
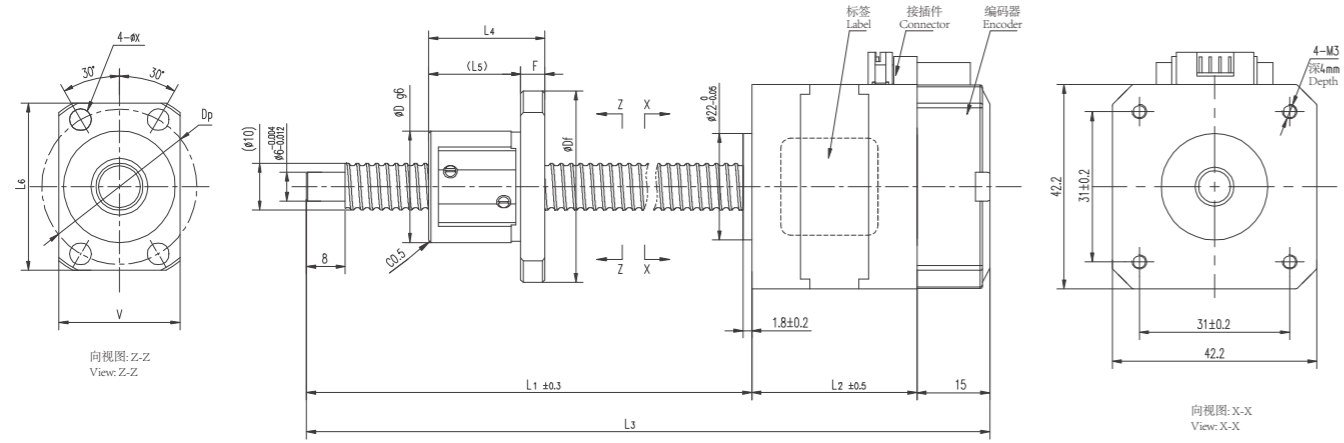


● 马达带编码器带刹车 Motor with encoder and brake



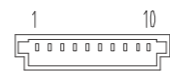
GSSD42-R

Shaft dia.(轴径) $\phi 10$



Housing: JST PHR-6
Terminal: JST SHP-002T-P0.5S
Wire: AWG 26

Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-



Housing: JST GHR-10V-S
Terminal: JST SSSL-002T-P0.2
Wire: AWG 26

Pin No.	1	2	3	4	5	6	7	8	9	10
Description 定义	+PE	EA-	EA+	EB-	EB+	Z-	Z+	GND	VCC	PE

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD42-R1002-PM1	02	34.1	L1+49.1	24	19	-	5	39.5	23	4.5	32	25
GSSD42-R1002-PM2	02	48.1	L1+63.1	24	19	-	5	39.5	23	4.5	32	25
GSSD42-R1002K-PM1	02	34.1	L1+49.1	19	14	31	5	34	17	4.5	26	21
GSSD42-R1002K-PM2	02	48.1	L1+63.1	19	14	31	5	34	17	4.5	26	21
GSSD42-R1005-PM1	05	34.1	L1+49.1	26	21	-	5	40	23	4.5	32	25
GSSD42-R1005-PM2	05	48.1	L1+63.1	26	21	-	5	40	23	4.5	32	25
GSSD42-R1010-PM1	10	34.1	L1+49.1	24	13	-	5	40	23	4.5	32	25
GSSD42-R1010-PM2	10	48.1	L1+63.1	24	13	-	5	40	23	4.5	32	25
GSSD42-R1015-PM1	15	34.1	L1+49.1	33	22	-	5	40	23	4.5	32	25
GSSD42-R1015-PM2	15	48.1	L1+63.1	33	22	-	5	40	23	4.5	32	25
GSSD42-R1020-PM1	20	34.1	L1+49.1	23	13	-	5	37	20	4.5	29	22
GSSD42-R1020-PM2	20	48.1	L1+63.1	23	13	-	5	37	20	4.5	29	22
L1以下尺寸为标准品		152 / 202 / 252 / 202 / 352										

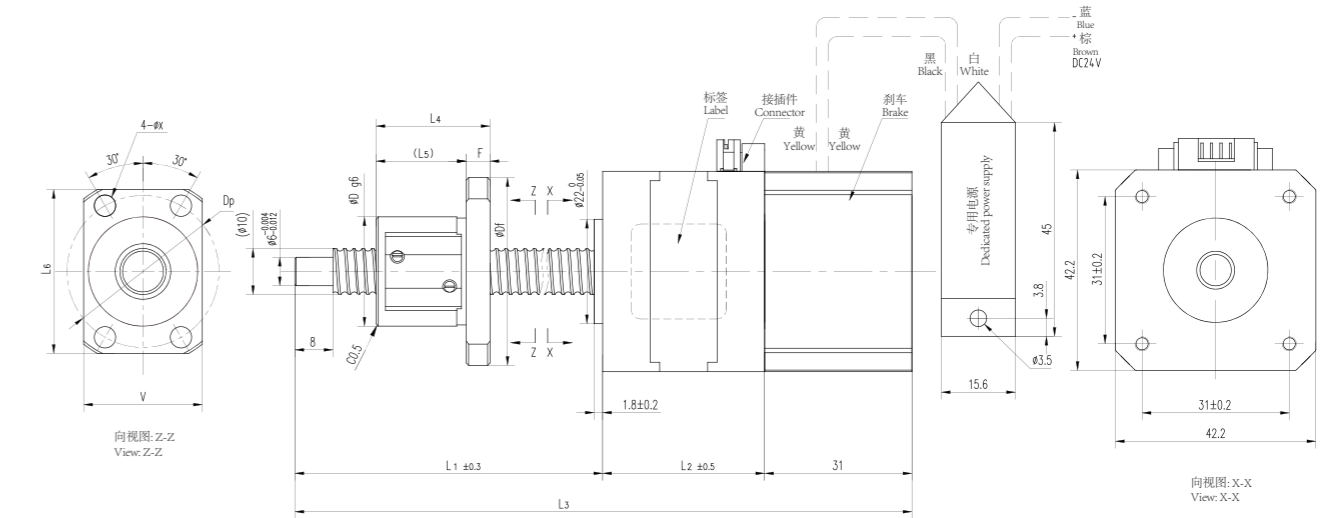
Ball Screw Specifications	主要技术参数
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	$\pm 0.02\text{mm}$

Ball Screw Specifications	主要技术参数	
Motor model 马达类型	17E2115	17E2225
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	2.8V	2.25V
Rated current 额定电流	1.5A	2.5A
Resistance/phase 相阻抗	1.85 Ω	0.9 Ω
Inductance/phase 相电感	2.2mH	1.8mH
Holding torque 静止扭矩	0.18N.M	0.32N.M
Rotor inertia 转子惯量	36g.cm ²	58g.cm ²
Motor weight 马达重量	280g	380g
Encoder resolution 编码器分辨率	5000CPR	
Operating temperature 适用温度范围	-10°C~50°C	

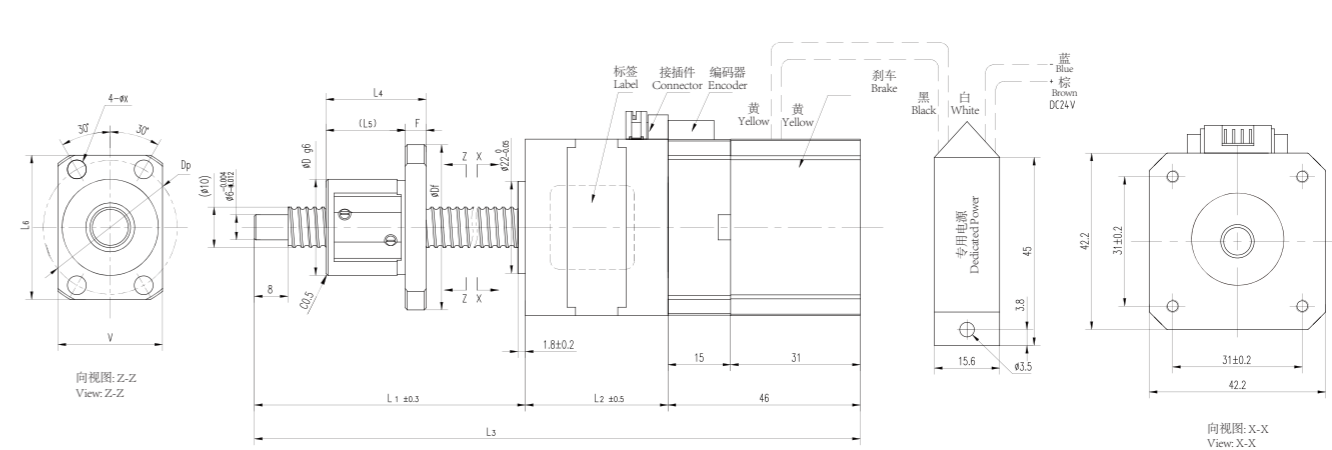
可选配马达样式

OPTIONAL MOTOR STYLE

● 马达带刹车 Motor with brake

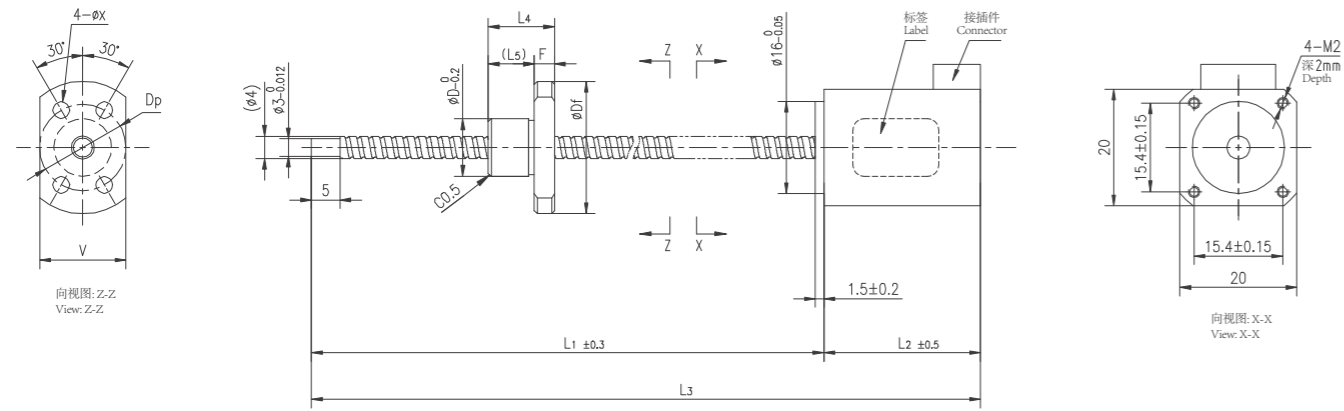


● 马达带编码器带刹车 Motor with encoder and brake



GSSD20-Re

Shaft dia.(轴径) $\phi 4$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD20-Re0401-PM1	01	20	L1+20	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0401-PM2	01	27.2	L1+27.2	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0402-PM1	02	20	L1+20	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0402-PM2	02	27.2	L1+27.2	11.5	8	3.5	23	10	2.9	15	15

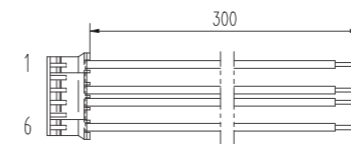
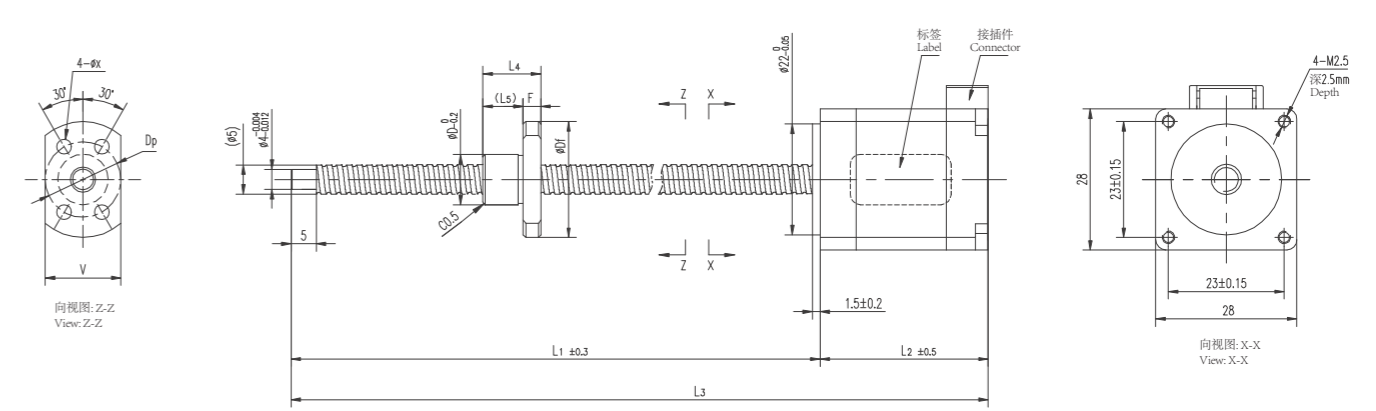
L1以下尺寸为标准品 64 / 89 / 99 / 129 / 149 / 189

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数		
Motor model 马达类型	08E2004	08E2105
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	3.52V	2.55V
Rated current 额定电流	0.4A	0.5A
Resistance/phase 相阻抗	2.8Ω	5.1Ω
Inductance/phase 相电感	2.8mH	1.5mH
Holding torque 静止扭矩	0.003N.M	0.0036N.M
Rotor inertia 转子惯量	2.4g.cm ²	2.6g.cm ²
Motor weight 马达重量	60g	80g
Operating temperature 适用温度范围	-10°C~50°C	

GSSD28-Re

Shaft dia.(轴径) $\phi 5$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD28-Re0504-PM1	04	33.35	L1+33.35	11.5	8	3.5	23	10	2.9	15	15
GSSD28-Re0504-PM2	04	45	L1+45	11.5	8	3.5	23	10	2.9	15	15

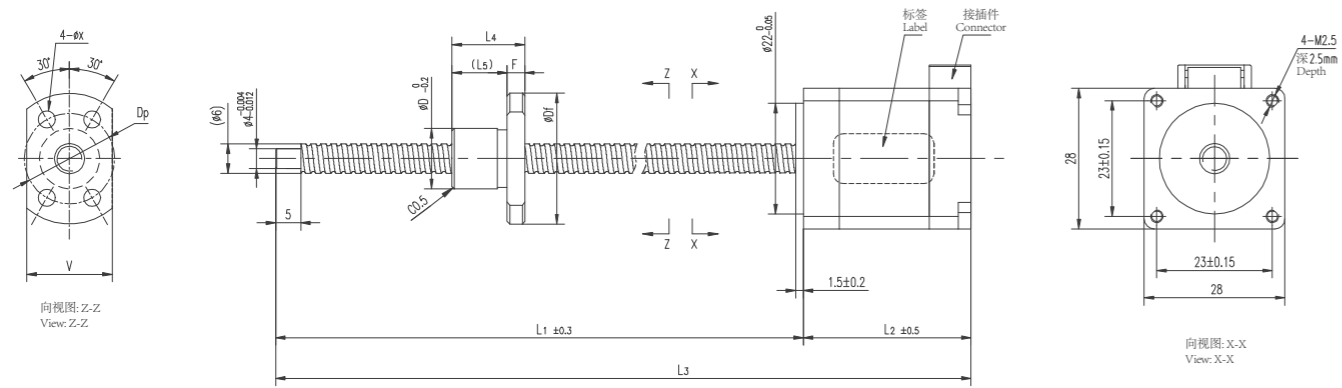
L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数		
Motor model 马达类型	11E2110	11E2216
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	2.1V	2.4V
Rated current 额定电流	1A	1.6A
Resistance/phase 相阻抗	2.1Ω	1.5Ω
Inductance/phase 相电感	1.5mH	1.36mH
Holding torque 静止扭矩	0.036N.M	0.052N.M
Rotor inertia 转子惯量	7.2g.cm ²	12g.cm ²
Motor weight 马达重量	180g	200g
Operating temperature 适用温度范围	-10°C~50°C	

GSSD28-Re

Shaft dia.(轴径) $\phi 6$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD28-Re0601-PM1	01	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0601-PM2	01	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0602-PM1	02	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0602-PM2	02	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0606-PM1	06	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0606-PM2	06	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0610-PM1	10	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0610-PM2	10	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0618-PM1	18	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0618-PM2	18	45	L1+45	14.5	11	3.5	26	12	3.4	18	17

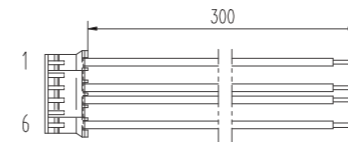
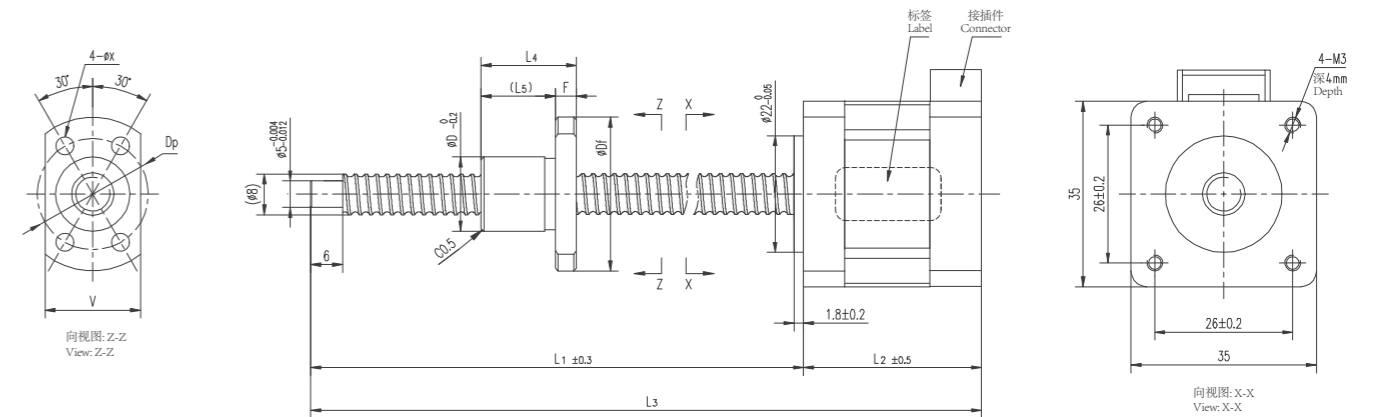
L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数		
Motor model 马达类型	11E2110	11E2216
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	2.1V	2.4V
Rated current 额定电流	1A	1.6A
Resistance/phase 相阻抗	2.1Ω	1.5Ω
Inductance/phase 相电感	1.5mH	1.36mH
Holding torque 静止扭矩	0.036N.M	0.052N.M
Rotor inertia 转子惯量	7.2g.cm ²	12g.cm ²
Motor weight 马达重量	180g	200g
Operating temperature 适用温度范围	-10°C~50°C	

GSSD35-Re

Shaft dia.(轴径) $\phi 8$



Housing: JST PHR-6
Terminal: JST SPH-002T-P0.5S
Wire: AWG 26

Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度	±0.05mm

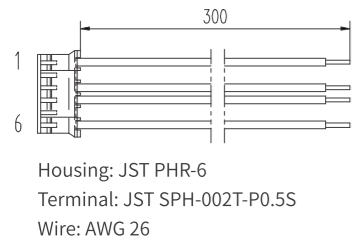
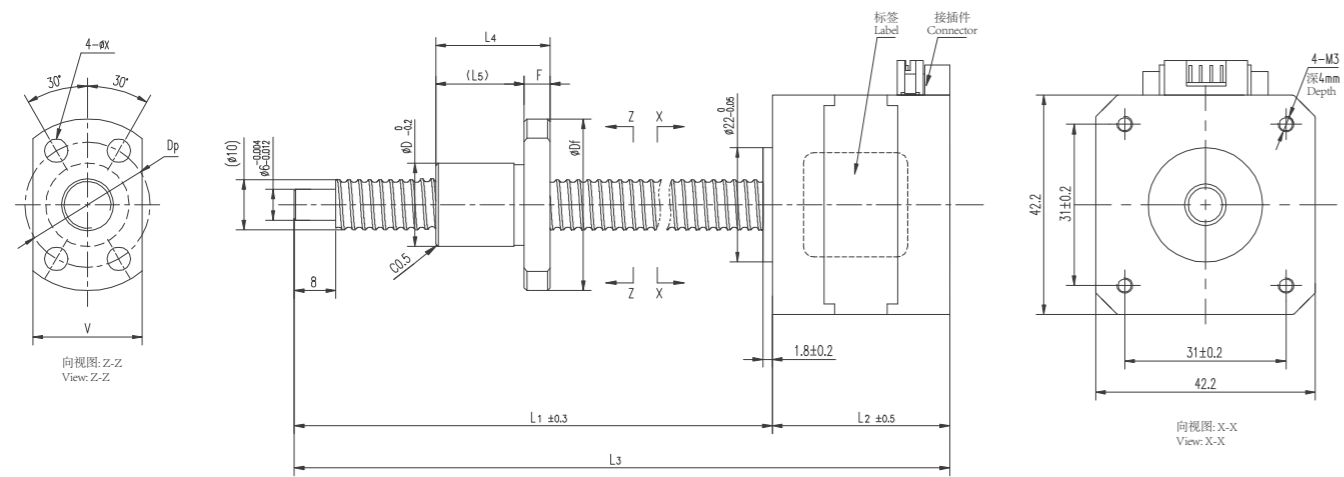
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD35-Re0801-PM1	01	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0801-PM2	01	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0802-PM1	02	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0802-PM2	02	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0803-PM1	03	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0803-PM2	03	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0805-PM1	05	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0805-PM2	05	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0808-PM1	08	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0808-PM2	08	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0810-PM1	10	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0810-PM2	10	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0812-PM1	12	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0812-PM2	12	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0818-PM1	18	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0818-PM2	18	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0824-PM1	24	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0824-PM2	24	45.6	L1+45.6	18	14	4	29	14	3.4	21	18

L1以下尺寸为标准品 98 / 123 / 148 / 173 / 198 / 223 / 248 / 273 / 323 / 373

Sliding Specifications 主要技术参数		
Motor model 马达类型	14E2110	14E2215
Motor code 马达代号	PM1	PM2
Step angle 步距角	1.8°	
Rated voltage 额定电压	3.5V	4.05V
Rated current 额定电流	1A	1.5A
Resistance/phase 相阻抗	3.5Ω	2.7Ω
Inductance/phase 相电感	3.6mH	3.2mH
Holding torque 静止扭矩	0.06N.M	0.1N.M
Rotor inertia 转子惯量	21g.cm ²	32g.cm ²
Motor weight 马达重量	200g	250g
Operating temperature 适用温度范围	-10°C~50°C	

GSSD42-Re

Shaft dia.(轴径) $\phi 10$



Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度	$\pm 0.05\text{mm}$

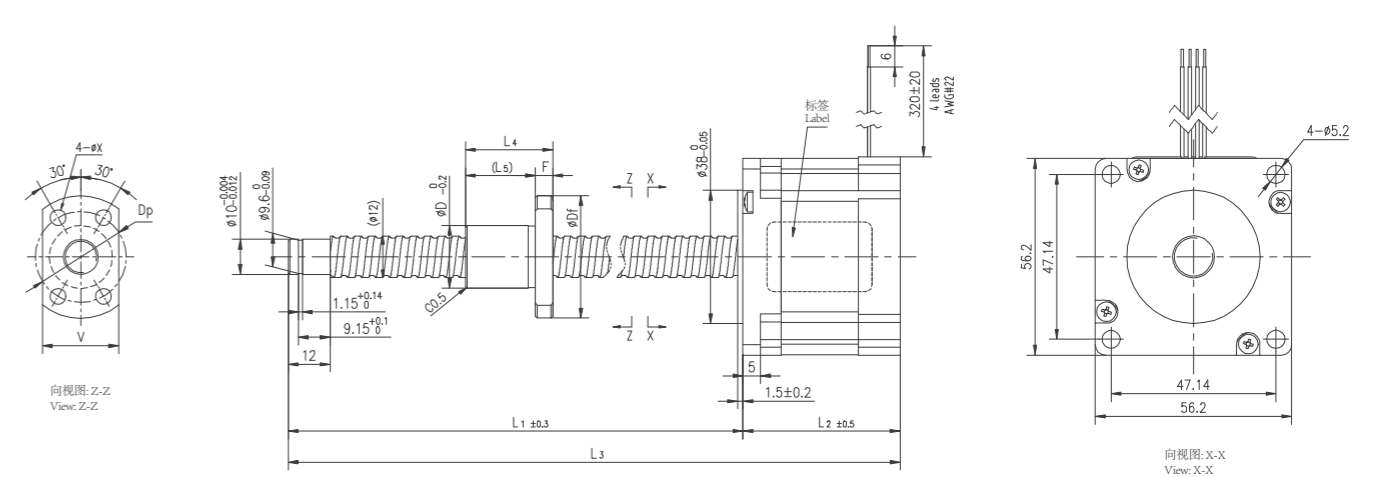
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD42-Re1001-PM1	01	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1001-PM2	01	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1002-PM1	02	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1002-PM2	02	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1004-PM1	04	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1004-PM2	04	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1005-PM1	05	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1005-PM2	05	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1010-PM1	10	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1010-PM2	10	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1015-PM1	15	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1015-PM2	15	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1020-PM1	20	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1020-PM2	20	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1030-PM1	30	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1030-PM2	30	48.1	L1+48.1	22	17	5	33	16	4.5	24	21

L1以下尺寸为标准品 152 / 202 / 252 / 202 / 352

Sliding Specifications 主要技术参数	
Motor model 马达类型	17E2115 17E3225
Motor code 马达代号	PM1 PM2
Step angle 步距角	1.8°
Rated voltage 额定电压	2.8V 2.25V
Rated current 额定电流	1.5A 2.5A
Resistance/phase 相阻抗	1.85Ω 0.9Ω
Inductance/phase 相电感	2.2mH 1.8mH
Holding torque 静止扭矩	0.18N.M 0.32N.M
Rotor inertia 转子惯量	36g.cm ² 58g.cm ²
Motor weight 马达重量	280g 380g
Operating temperature 适用温度范围	-10°C~50°C

GSSD57-Re

Shaft dia.(轴径) $\phi 12$



Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD57-Re1202-PM1	02	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1202-PM2	02	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1204-PM1	04	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1204-PM2	04	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1205-PM1	05	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1205-PM2	05	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1210-PM1	10	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1210-PM2	10	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1220-PM1	20	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1220-PM2	20	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1230-PM1	30	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1230-PM2	30	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1236-PM1	36	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1236-PM2	36	65	L1+65	25	20	5	35	18	4.5	26	22

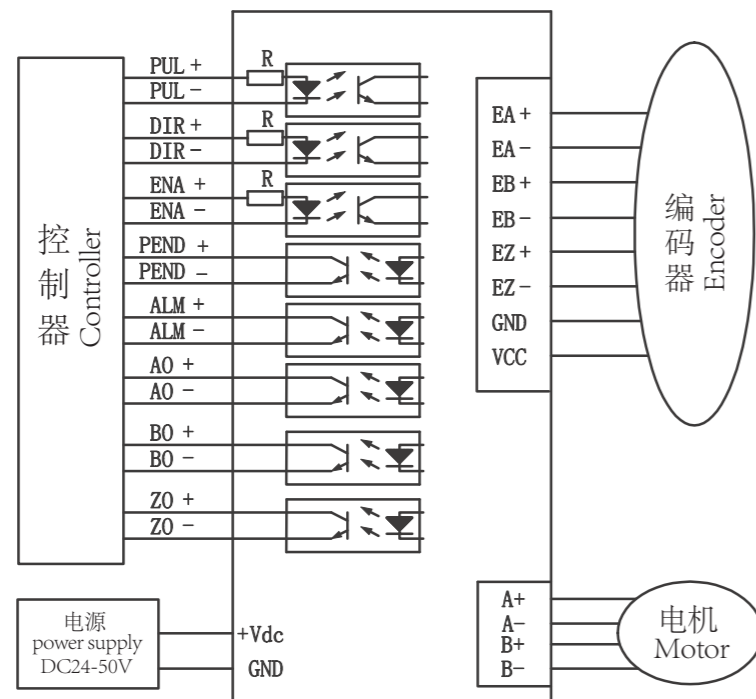
Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	$\pm 0.05\text{mm}$

Sliding Specifications 主要技术参数	
Motor model 马达类型	23E2110 23E2225
Motor code 马达代号	PM1 PM2
Step angle 步距角	1.8°
Rated voltage 额定电压	6.4V 5.0V
Rated current 额定电流	1.0A 2.5A
Resistance/phase 相阻抗	6.4Ω 2.0Ω
Inductance/phase 相电感	1.65mH 5.2mH
Holding torque 静止扭矩	0.7N.M 1.5N.M
Rotor inertia 转子惯量	147g.cm ² 281g.cm ²
Motor weight 马达重量	585g 880g
Operating temperature 适用温度范围	-10°C~50°C

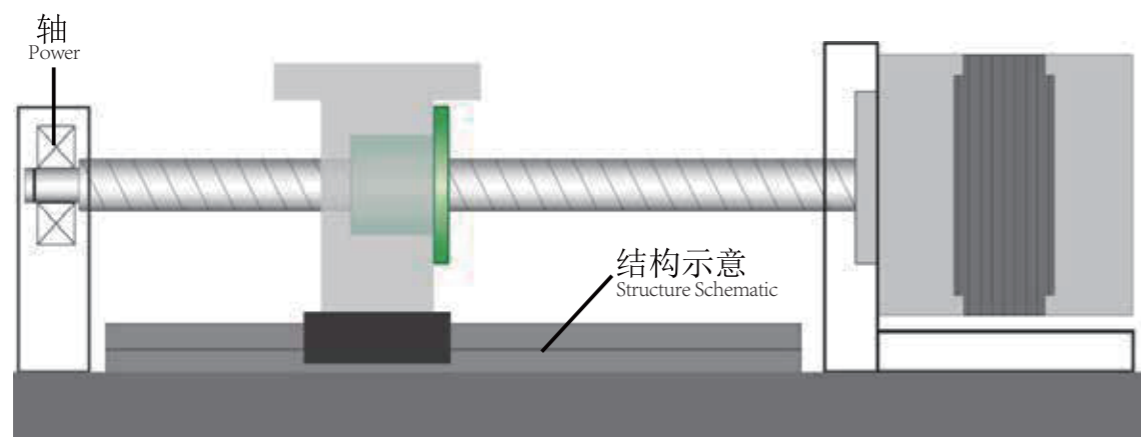
配线图

WIRING DIAGRAM



安装注意

INSTALLATION NOTES



- External执行器不是旋转停止结构。使用时需要设置外部旋转停止结构。(参照上图) 轴端请务必用轴承支撑。
The External actuator is not a rotary stop structure. An external rotary stop structure is required for use. (Refer to the above figure.) Be sure to support the shaft end with bearings.

操作、使用注意事项

PRECAUTIONS FOR OPERATION AND USE

本产品是电机轴与丝杆轴一体型结构，因此无论是丝杆轴还是电机轴任意一方损坏，都不能维修。敬请了解。

This product is an integral structure of motor shaft and screw shaft, so no matter the screw shaft or motor shaft is damaged, it cannot be repaired. Please understand.

使用上注意

- 使用时请仔细阅读使用说明书，充分理解说明书内容，并务必严格遵守安全注意事项。
- 敲击本产品、将产品掉落或对其施加超过规定值的轴向负载、径向负载，将会导致产品损坏，请谨慎操作。
- 开封后请检查产品是否有异常，是否与所订购的产品一致。
- 若分解各部位，可能会导致异物进入及各部位组装精度降低，因此请勿分解本产品。
- 若异物进入，将会导致滚珠循环部位损坏、缩短产品寿命或导致功能失效等，因此请确实防止垃圾、切削粉末等异物的进入。
- 使用滚珠丝杆时，请务必涂抹润滑剂。在常规使用时，请每2~3个月检查一次油脂，并补充油。
使用过程中油脂变脏时，请擦去旧的油脂后涂抹新的指定油脂。
- 请勿在超过本公司规定的负载、容许转速等规格值的状态下使用。
- 加减速速率，请以20ms/kHz以上为目标进行使用。
- 请勿拉扯电机导线。另外电机导线用于固定。请勿将其用于活动用途。
- 请勿靠近磁性存储媒体。
- 负载条件及使用驱动器不同，电机转矩速率的规格值也将不同。

Attention to Use

- Please read the operation manual carefully, fully understand the contents of the manual, and strictly observe the safety precautions.
- Knock the product, drop the product or apply axial load or radial load exceeding the specified value to it, which will cause damage to the product. Please operate carefully.
- After opening, please check whether the product is abnormal and consistent with the ordered product.
- If the parts are disassembled, foreign matters may enter and the assembly accuracy of each part may be reduced. Therefore, do not disassemble this product.
- If foreign matters enter, it will damage the ball circulation part, shorten the product life or cause the function failure, etc., so please do prevent the entry of garbage, cutting powder and other foreign matters.
- When using the ball screw, be sure to apply lubricant. In normal use, please check the grease every 2-3 months and add oil.
When the grease becomes dirty during use, please wipe off the old grease and apply new specified grease.
- Do not use under the condition that the load, allowable speed and other specifications specified by the company are exceeded.
- Acceleration and deceleration rate, please use the target of more than 20ms / kHz.
- Do not pull the motor lead. In addition, the motor wire is used for fixing. Do not use it for activities.
- Keep away from magnetic storage media.
- The specification value of motor torque rate will be different with different load conditions and different drivers.

安全注意事项

- 发生异味、异常声音、冒烟、异常发热、振动等时，请立即停止运行，切断电源。
- 使用电流不能超过额定电流。
- 电机可能因负载条件及使用的驱动器而异常发热。使用时，请将电机表面温度控制在80°C以下。
- 请确认接线方式、驱动方式以及相序。错误接线将会导致电机异常动作。
- 请务必进行接地。
- 请勿强行弯曲、拉扯、夹住电机导线。
- 动作中请勿触摸活动部位。
- 维护检查前，请切断驱动器的输入电源。

Safety Precautions

- In case of peculiar smell, abnormal sound, smoke, abnormal heat, vibration, etc., please stop the operation immediately and cut off the power supply.
- The current used shall not exceed the rated current.
- The motor may overheat abnormally due to the load conditions and the driver used. When using, please control the motor surface temperature below 80 ° C.
- Please confirm the wiring mode, driving mode and phase sequence. Wrong wiring will lead to abnormal operation of the motor.
- Be sure to ground.
- Do not bend, pull or clamp the motor wire by force.
- Do not touch the moving parts during the action.
- Before maintenance check, please cut off the input power of the drive.

使用环境

- 请勿在环境温度超过温度0~40、环境湿度超过20~80%RH、有结露、腐蚀性气体、易燃气体的场所使用。
- 请勿在产生强电场、强磁场的场所使用。
- 请勿在有铁粉等粉体、尘埃、油污、切削液、水分、盐分、有机溶剂发生或飞散的场所使用。
- 请勿在经常发生振动的场所以及有冲击、真空等特殊环境下使用。

Use Environment

- Do not use in places where the ambient temperature exceeds 0-40, the ambient humidity exceeds 20-80% RH, condensation, corrosive gas and flammable gas are present.
- Do not use in places where strong electric and magnetic fields are generated.
- Do not use it in places where iron powder, dust, oil, cutting fluid, moisture, salt and organic solvent occur or disperse.
- Do not use it in places where vibration often occurs or in special environments such as shock and vacuum.