

树脂螺母滑动丝杠型 (RM) Resin Lead Screw type (RM)



树脂魔博 / Resin MoBo

●特点

- 是将2相步进电机直接组装到树脂滑动丝杠轴端上的产品，通用性强。
- 具有将滑动丝杠轴心作为电机旋转轴心的理想结构。
- 直连结构省去了联轴器的使用，不仅缩短长边方向尺寸，还能减少作业工时。
- 采用滑动特性优异的聚酰胺类MRH螺母，可免润滑使用。
- 丝杠轴使用奥氏体不锈钢，具有很强的耐腐蚀性。
- 还可制作使用双螺母和中间弹簧的无齿侧间隙型产品。
- 还备有推荐的2相步进电机用驱动器。



●Features

- A 2-phase Stepping Motor is mounted directly onto the shaft end of a Resin Lead Screw, which is multi-use product.
- Lead Screw Shaft is ideally constructed to form the Motor Rotor Shaft.
- Since combining the Motor Shaft and Lead Screw Shaft, Coupling-less, saving total length, and reducing labor cost can be achieved.
- MRH Nut of polyamide type Resin with good sliding properties is employed. It can be used without Oiling.
- The Shaft is manufactured from Stainless Steel (JIS SUS304), which gives excellent corrosion resistance.
- Preload type (back lash free type) is also available by Double Nuts with a Spring in between.
- Recommended Driver for 2-phase Stepping Motor is available.

●基本规格 / Specifications

Model 型号	Shaft Nominal Dia. 丝杠轴公称外径 (mm)	Lead 导程 (mm)	Travel 行程 (mm)	Travel per pulse 1脉冲移动量 (μm)	Reference Thrust 参考推力 (N)	Mass 重量 (g)
RM0802	□8	2	50~300	10	150	See dimension table 附记
RM0805	□8	5	50~300	25	100	See dimension table 附记
RM1010	□10	10	100~300	50	100	See dimension table 附记
RM1020	□10	20	100~300	100	50	See dimension table 附记

Repeatability (reference) 重复定位精度 (参考值)	max. $\pm 0.05\text{mm}$
Lost Motion (reference) 空转 (参考值)	max. 0.05mm

※重复定位精度及空转值是安装在本公司标准滑台上时测得的值。实际值请洽询本公司。

※The reference value about Repeatability and Lost Motion represents when the MoBo built into KSS original actuator. Please make a contact to KSS for actual value.

注1) 关于详细尺寸，请参照F137页以后的规格图。

注2) 1脉冲的移动量为整步时的值。

注3) 请以100ms/kHz以上的加减速速率使用。

注4) 参考推力根据不同条件会有很大变化，请垂询本公司。

Note 1) Detail specifications & dimensions are shown in drawings from page F137.

Note 2) Travel per pulse represents the value for full step.

Note 3) Acceleration & Deceleration Rate should be 100ms/kHz or more.

Note 4) Reference Thrust may vary depending on the operating condition, please ask KSS for more detail.

●电机规格 / Motor Specifications

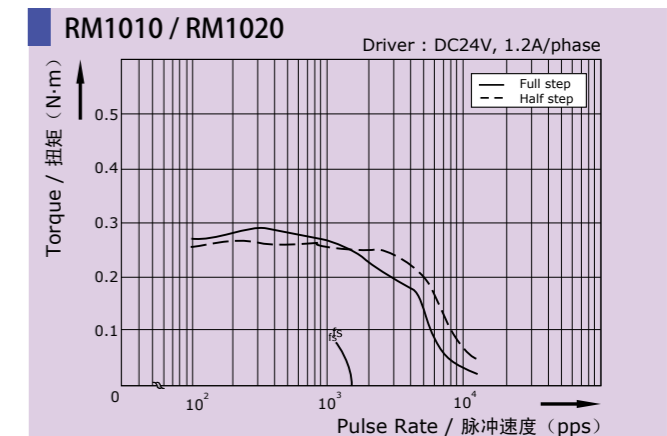
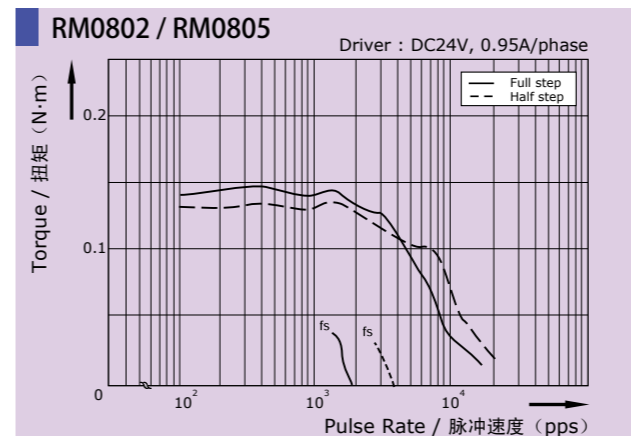
Model 型号	Motor size 电机规格 (mm)	Rated voltage 额定电压 (V)	Rated current 额定电流 (A/phase) (A/相)	Winding resistance 绕组电阻 (Ω)	Holding torque 保持扭矩 (N/m)	Rotor Inertia 转子惯量 ($\text{g} \cdot \text{cm}^2$)
RM0802	□42	DC 4.0	0.95	4.2	0.16	附记 See dimension table
RM0805	□42	DC 4.0	0.95	4.2	0.16	
RM1010	□42	DC 4.0	1.2	3.3	0.32	
RM1020	□42	DC 4.0	1.2	3.3	0.32	

注) 转子惯量为包含滑动丝杠轴的值。

Note) Rotor Inertia includes Lead Screw Shaft.

Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Basic step angle 基本步进角	1.8°

●电机特性 / Motor Characteristic



■Test condition / 测试条件

Driver / 驱动器: Maker Standard / 厂家标准机

Input Voltage / 电源电压: DC24V

Phase Current / 设定电流: See Graph above / 参照图表

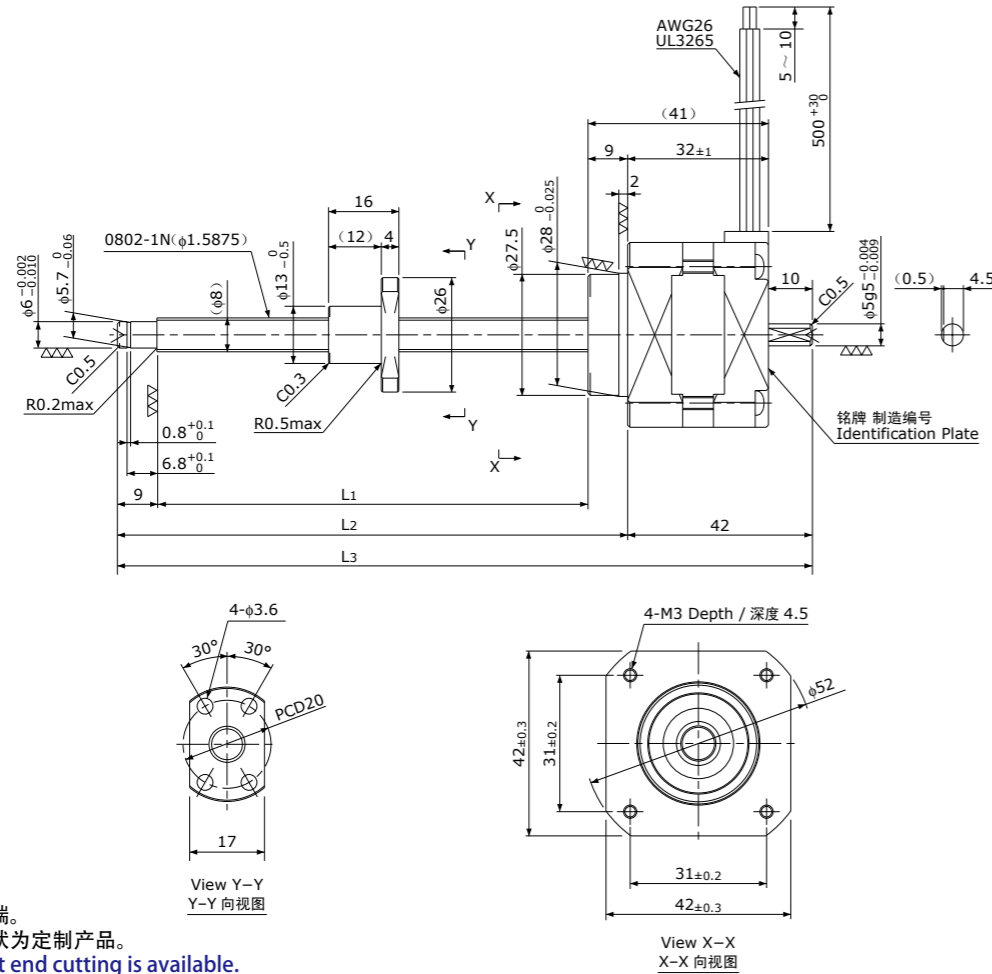
注) 电机特性因驱动器、运行条件而异。

Note) Motor characteristic will vary depending on Driver type, operating conditions.

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM0802B

Shaft dia. (轴径) $\phi 8$ Lead (导程) 2mm
Backlash type (齿侧间隙型)



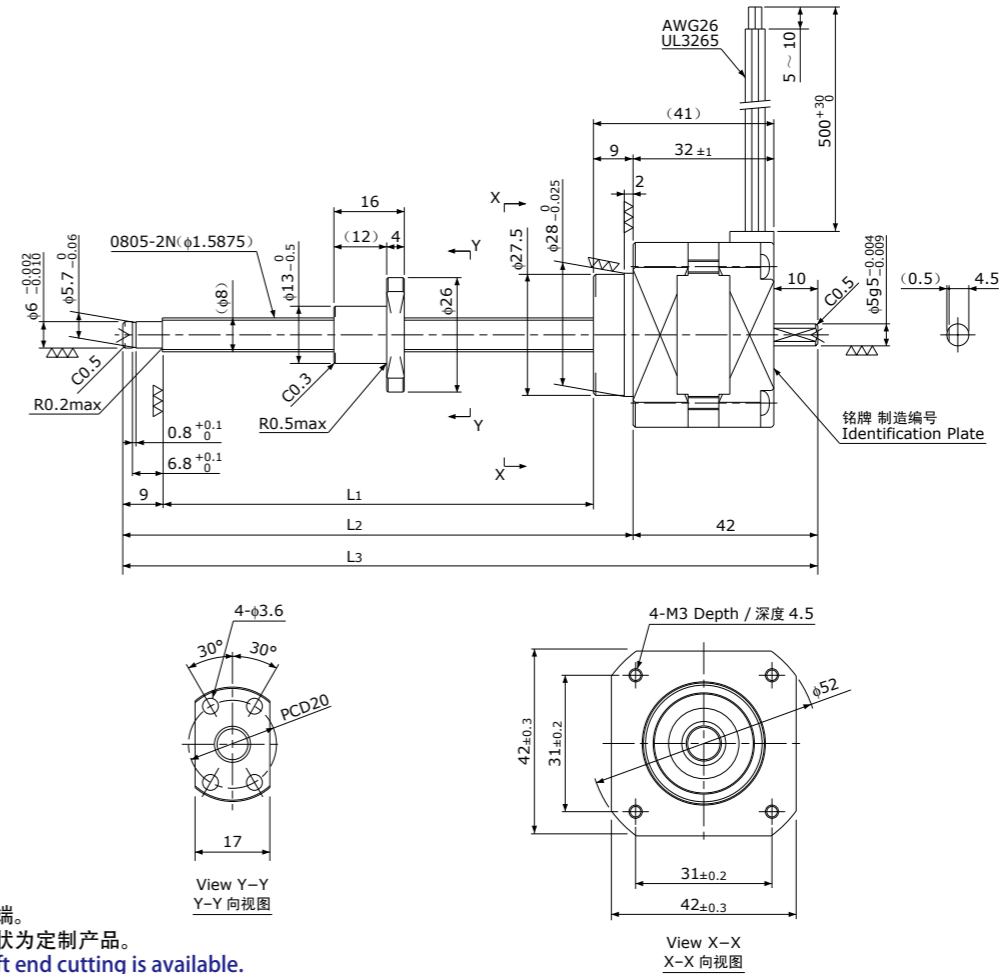
注) 只能裁切轴端。
其他轴端形状为定制产品。

Note) Only shaft end cutting is available.
Other than that, it would be customized order.

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM0805B

Shaft dia. (轴径) $\phi 8$ Lead (导程) 5mm
Backlash type (齿侧间隙型)



注) 只能裁切轴端。
其他轴端形状为定制产品。

Note) Only shaft end cutting is available.
Other than that, it would be customized order.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM0802B-050	50	90	108	150	250	38	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM0802B-100	100	140	158	200	270	40		
RM0802B-150	150	190	208	250	290	41		
RM0802B-200	200	240	258	300	310	43		
RM0802B-300	300	340	358	400	350	46		

Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0.1mm or less 0.1mm以下
Reference Thrust 参考推力	150N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	0.95A/phase 0.95A/相
Winding resistance 绕组电阻	4.2Ω
Holding Torque 保持扭矩	0.16Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM0805B-050	50	90	108	150	250	38	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM0805B-100	100	140	158	200	270	40		
RM0805B-150	150	190	208	250	290	41		
RM0805B-200	200	240	258	300	310	43		
RM0805B-300	300	340	358	400	350	46		

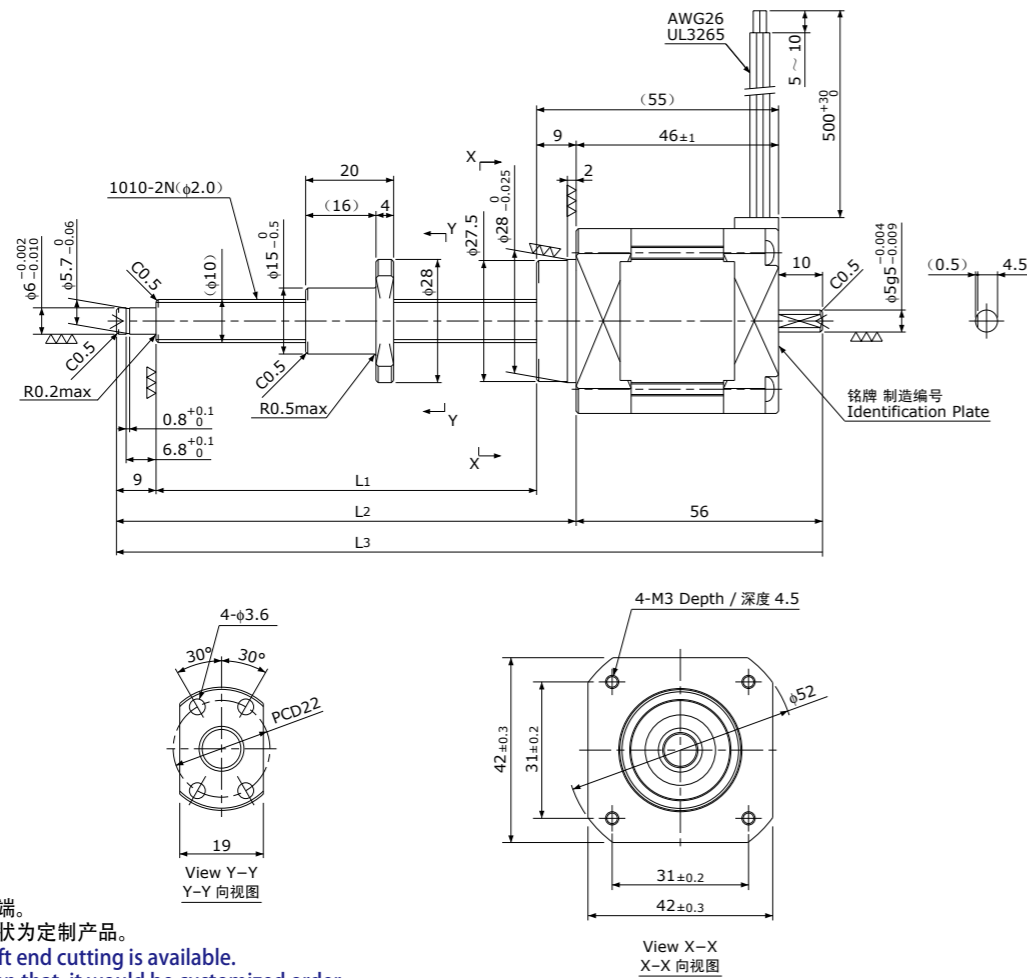
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0.1mm or less 0.1mm以下
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	0.95A/phase 0.95A/相
Winding resistance 绕组电阻	4.2Ω
Holding Torque 保持扭矩	0.16Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM1010B

Shaft dia. (轴径) $\phi 10$ Lead (导程) 10mm
Backlash type (齿侧间隙型)



注) 只能裁切轴端。
其他轴端形状为定制产品。
Note) Only shaft end cutting is available.
Other than that, it would be customized order.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM1010B-100	100	146	164	220	450	79	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM1010B-150	150	196	214	270	480	83		
RM1010B-200	200	246	264	320	510	87		
RM1010B-300	300	346	364	420	570	95		

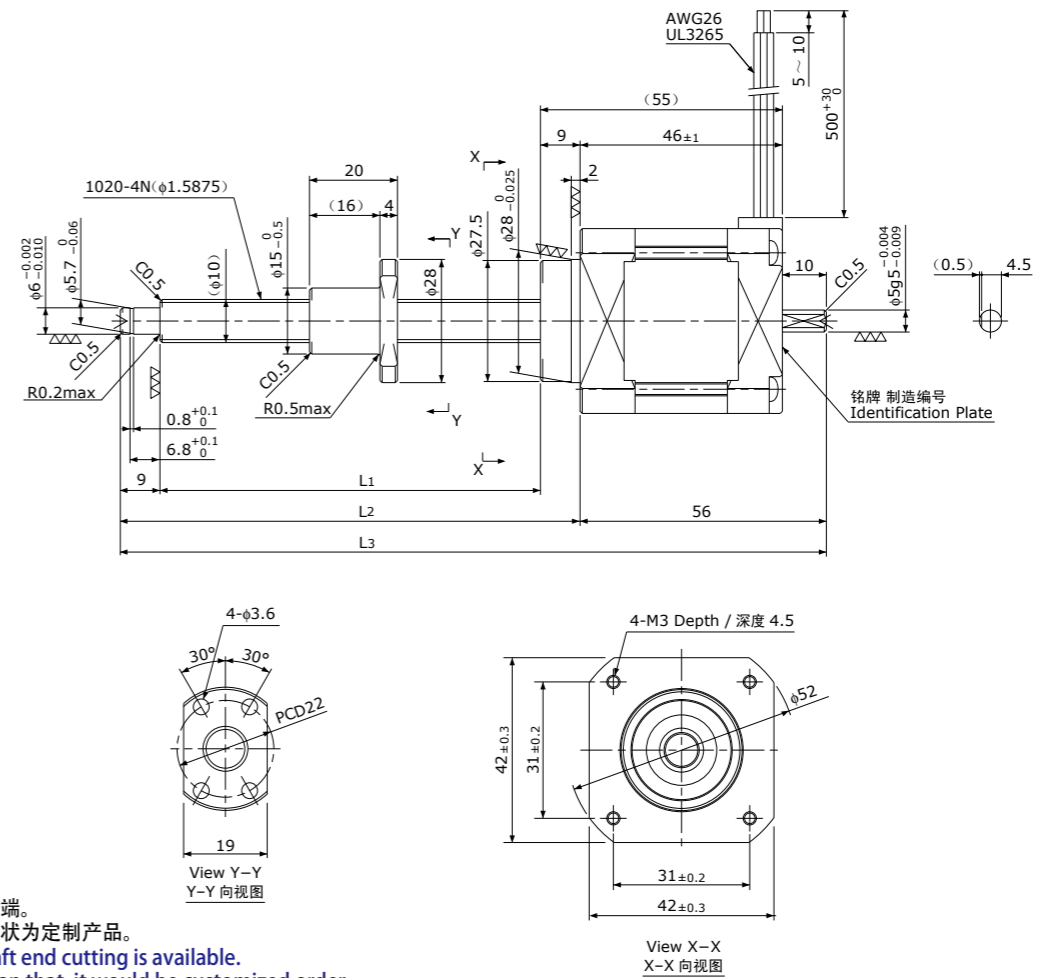
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0.1mm or less 0.1mm以下
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.32Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM1020B

Shaft dia. (轴径) $\phi 10$ Lead (导程) 20mm
Backlash type (齿侧间隙型)



注) 只能裁切轴端。
其他轴端形状为定制产品。
Note) Only shaft end cutting is available.
Other than that, it would be customized order.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM1020B-100	100	146	164	220	450	79	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM1020B-150	150	196	214	270	480	83		
RM1020B-200	200	246	264	320	510	87		
RM1020B-300	300	346	364	420	570	95		

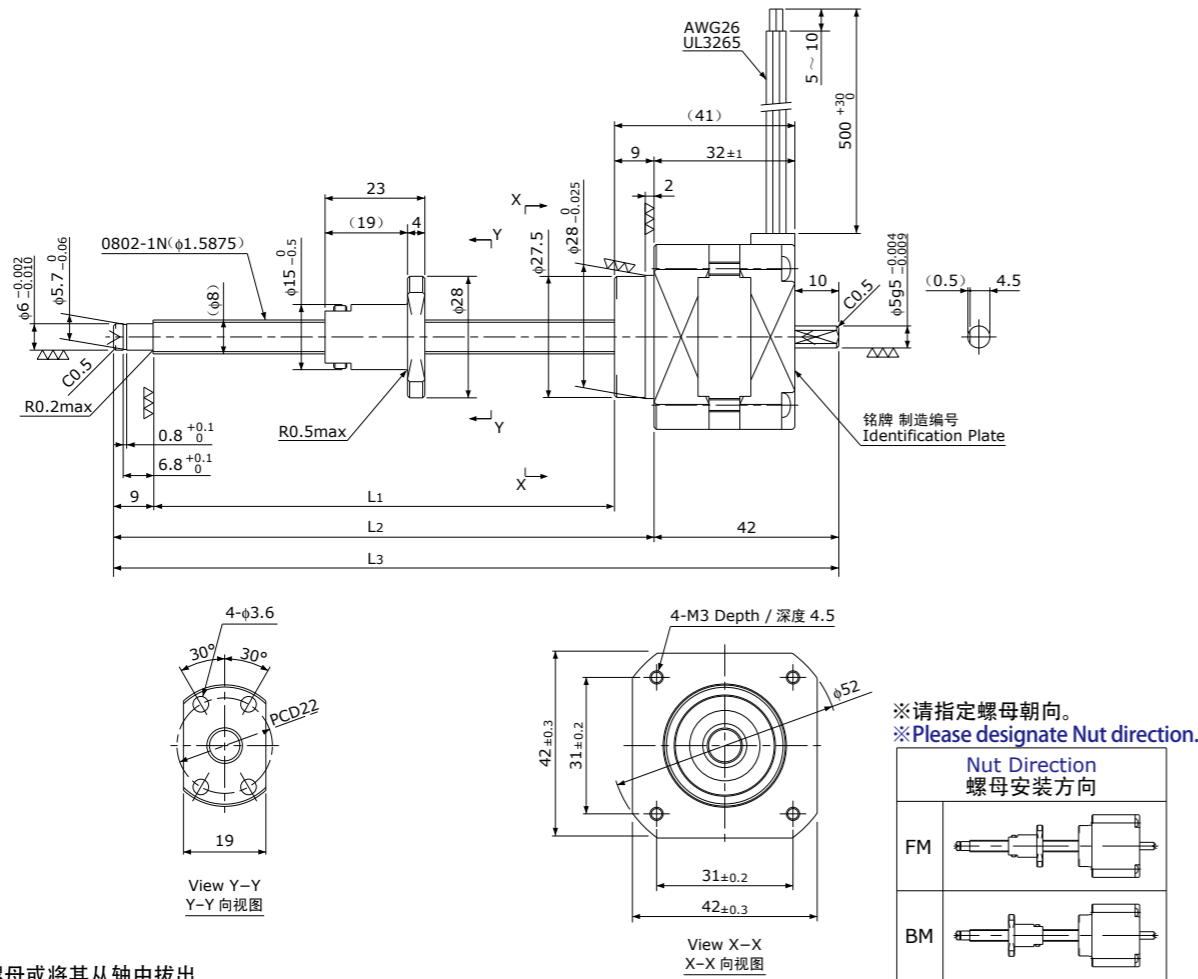
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0.1mm or less 0.1mm以下
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.32Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM0802BP2

Shaft dia.(轴径) $\phi 8$ Lead(导程) 2mm
Backlash free type (无齿侧间隙型)



注) 请勿拆分螺母或将其从轴中拔出。
Note) Plastic Nut (back-lash free type) should not be disassembled or pulled out from Shaft.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM0802BP2-050FM/BM	50	90	108	150	250	38	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM0802BP2-100FM/BM	100	140	158	200	270	40		
RM0802BP2-150FM/BM	150	190	208	250	290	41		
RM0802BP2-200FM/BM	200	240	258	300	310	43		
RM0802BP2-300FM/BM	300	340	358	400	350	46		

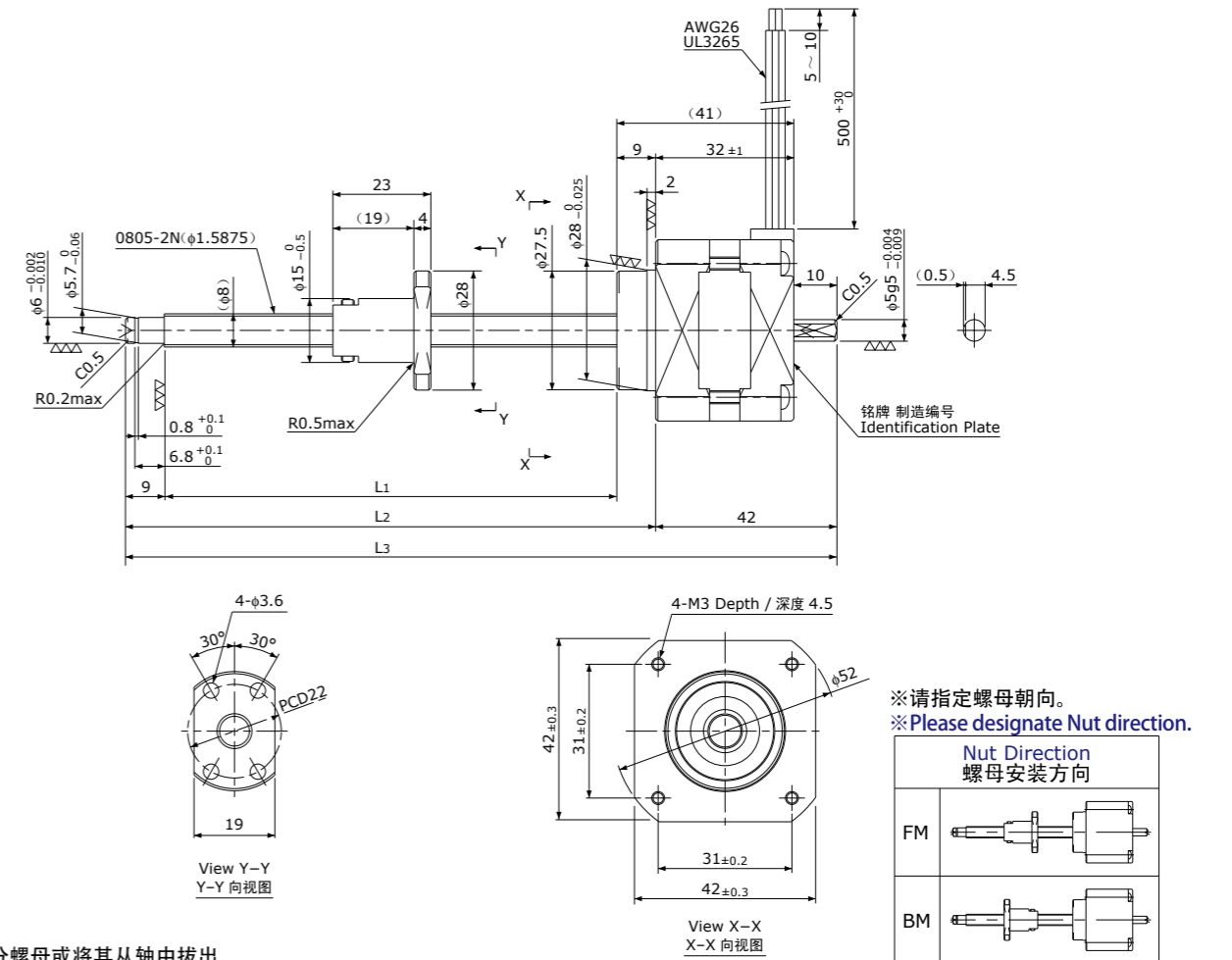
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0mm
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	0.95A/phase 0.95A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.16Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM0805BP2

Shaft dia.(轴径) $\phi 8$ Lead(导程) 5mm
Backlash free type (无齿侧间隙型)



注) 请勿拆分螺母或将其从轴中拔出。
Note) Plastic Nut (back-lash free type) should not be disassembled or pulled out from Shaft.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM0805BP2-050FM/BM	50	90	108	150	250	38	Motor side Supporting plate 电机侧支架板 MP-42A or MP-42B Supported side Bracket 支撑侧托架 SP-42 KS9110 SD4030B (Micro Step)	
RM0805BP2-100FM/BM	100	140	158	200	270	40		
RM0805BP2-150FM/BM	150	190	208	250	290	41		
RM0805BP2-200FM/BM	200	240	258	300	310	43		
RM0805BP2-300FM/BM	300	340	358	400	350	46		

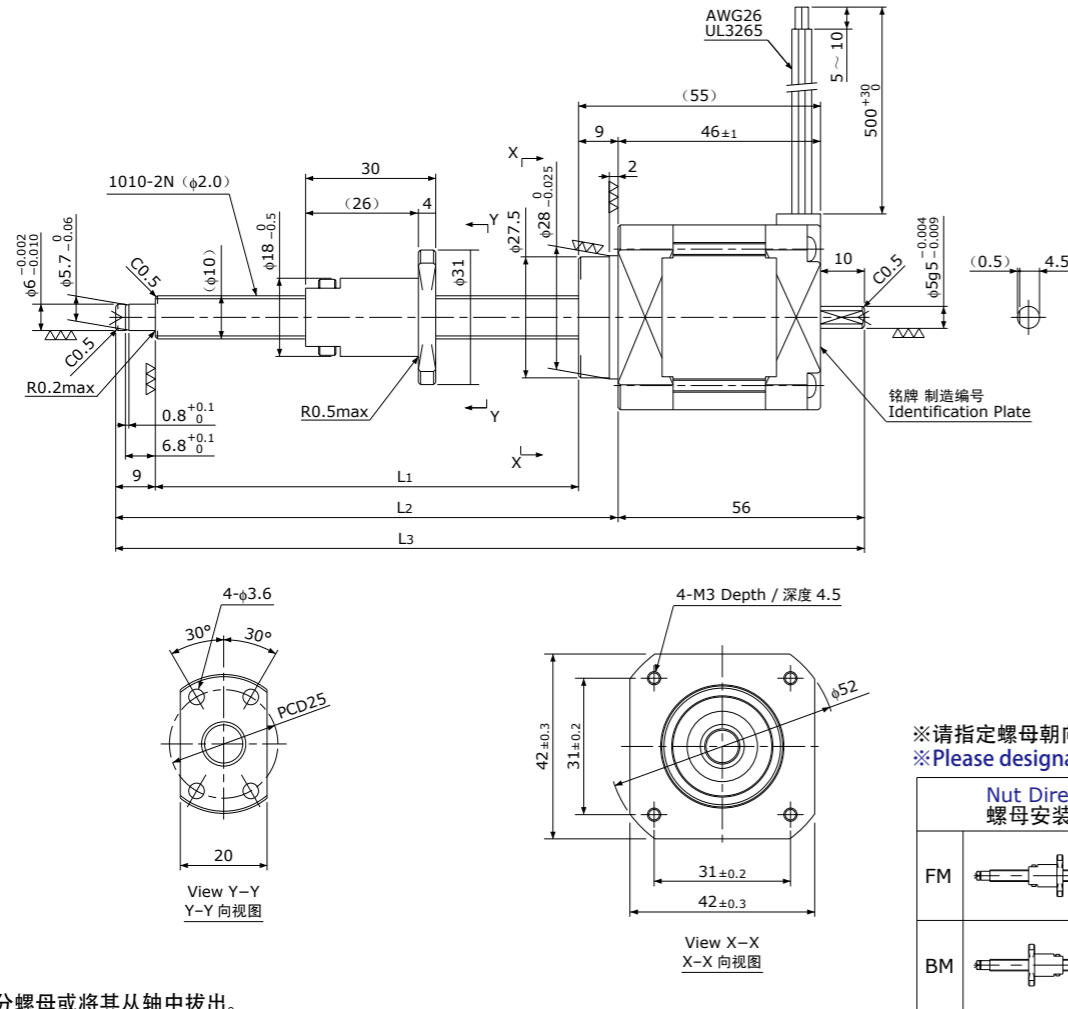
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0mm
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	0.95A/phase 0.95A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.16Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM1010BP2

Shaft dia. (轴径) $\square 10$ Lead (导程) 10mm
Backlash free type (无齿侧间隙型)



注) 请勿拆分螺母或将其从轴中拔出。
Note) Plastic Nut (back-lash free type) should not be disassembled or pulled out from Shaft.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM1010BP2-100FM/BM	100	146	164	220	450	79	Motor side Supporting plate 电机侧支架板	KS9110 SD4030B (Micro Step)
RM1010BP2-150FM/BM	150	196	214	270	480	83	MP-42A or MP-42B	
RM1010BP2-200FM/BM	200	246	264	320	510	87	Supported side Bracket 支撑侧托架	
RM1010BP2-300FM/BM	300	346	364	420	570	95	SP-42	

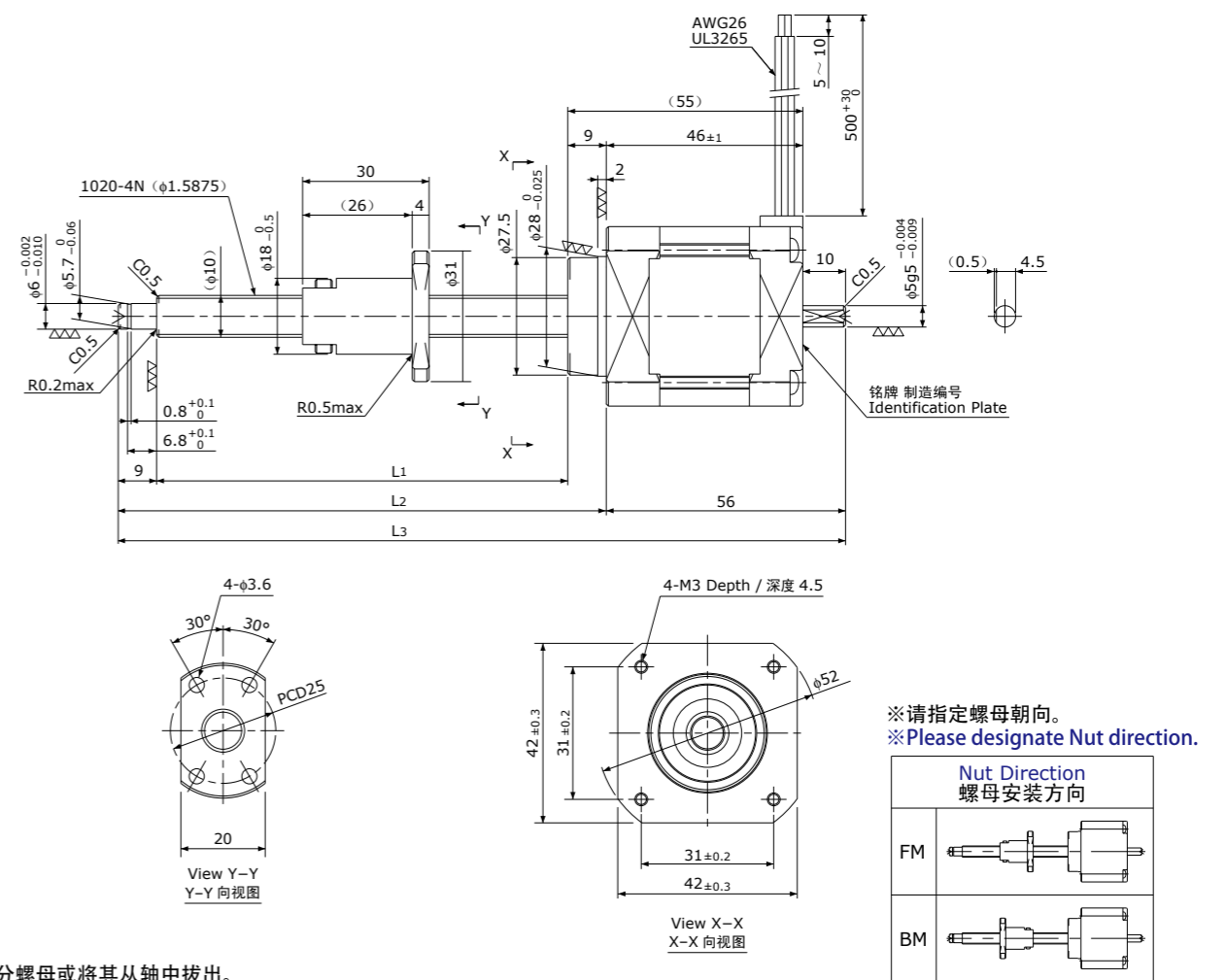
Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0mm
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.32Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C

树脂导程丝杠+2相步进电机 / Resin Lead Screw + 2-phase Stepping Motor

RM1020BP2

Shaft dia. (轴径) $\square 10$ Lead (导程) 20mm
Backlash free type (无齿侧间隙型)



注) 请勿拆分螺母或将其从轴中拔出。
Note) Plastic Nut (back-lash free type) should not be disassembled or pulled out from Shaft.

Model 型号	Travel 行程 (mm)	Shaft Length 螺纹部长度 (mm)			Mass 重量 (g)	Rotor inertia 转子惯量 (g · cm ²)	Recommended accessories 推荐的配件	Recommended Drivers 推荐的驱动器
		L ₁	L ₂	L ₃				
RM1020BP2-100FM/BM	100	146	164	220	450	79	Motor side Supporting plate 电机侧支架板	KS9110 SD4030B (Micro Step)
RM1020BP2-150FM/BM	150	196	214	270	480	83	MP-42A or MP-42B	
RM1020BP2-200FM/BM	200	246	264	320	510	87	Supported side Bracket 支撑侧托架	
RM1020BP2-300FM/BM	300	346	364	420	570	95	SP-42	

Lead Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Equivalent to JIS Ct10 相当于Ct10
Thread direction 旋向	Right 右
Axial play 轴向间隙	0mm
Reference Thrust 参考推力	100N
Shaft material 丝杠轴材质	Stainless steel 不锈钢
Nut material 螺母材质	MC nylon (Nippon Polypenco) MC尼龙(日本POLYPENCO公司)
Surface hardness 螺纹部表面硬度	—
Lubricant 润滑剂	—

Motor Specifications 电机参数	
Basic step angle 基本步进角	1.8°
Driving method 励磁方式	2-phase Uni-polar 2相单极方式
Rated Voltage 额定电压	DC 4.0 V
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕组电阻	3.3Ω
Holding Torque 保持扭矩	0.32Nm
Rotor inertia 转子惯量	See table above 参照上表
Operating temperature 使用温度范围	-20° C~50° C