

# STEPPER MOTOR

# 步进电机









常州富兴机电有限公司 Changzhou Fulling Motor Co.,Ltd

2022版

www.motiontech.com.au

#### ♡ 愿 景 Vision

成为世界级的控制电机制造商及系统集成方案提供者 Become a world-class manufacturer of control motors and a provider of system integration solutions.

#### ☆ 使 命 Mission

为客户创造价值,提供最优的行业解决方案
Create value for customers and provide the best industry solution

#### ⚠ 价值观 Values

责任,诚信,共赢 Responsibility Integrity and Win-win



# Company Profile - 公司简介

常州富兴机电有限公司是一家中、德、瑞合资企业,成立于2001年,位于中国常州。我们专业生产各类混合式步进电机,直流无刷电机,伺服电机及相关的驱动器,年生产各类电机550万台以上,另外我司有数家合资工厂,专业生产各类永磁步进电机,有刷直流电机,二相、三相交流电机,减速电机,年销售各类电机总量超650万台。产品广泛应用于自动化,AGV,机器人,纺织,印刷,包装,医疗器械,物流,通信,家电,汽车等行业,远销美国,德国,瑞士,意大利,法国,俄罗斯等30多个国家和地区。

公司技术力量雄厚,生产工艺成熟,检验设备齐全。拥有优良的品质保证体系及服务体系,我们已获得德国TUV认证的ISO9001质量管理体系证书、IATF16949质量管理体系证书以及ISO14001环境管理体系证书,所有产品获得CE认证,并符合欧盟RoHS要求,部分获得UL认证。

公司秉承以质量至上,创新和社会责任为公司发展理念,持续为全球客户提供专业化的控制电机制造和研发服务。







Changzhou Fulling Motor Co., Ltd was established in year 2001 as a joint venture of Germany-Swiss-China. We are a professional motor manufacturer in Changzhou city, China. Our Company offers four major series of products: Hybrid stepper motors, DC brushless motors, Servo motors and the motor drivers. Production capacity exceeds more than 5.5 million motors per year. Changzhou Fulling Motor Co., Ltd also has several joint venture companies who specialized in the production of PM stepper motors, and DC gear motors.

We sell nearly 6.5 million different motors to customers worldwide every year. Our products are widely used on industrial automation, AGV, robots, textile, printing, medical equipments, logistics, communication, household appliances and automobile etc. We export our motors to more than 30 countries such as Italy, Germany and United States.

At the core of our development is a professional engineering team that comprises industry experts in the fields of design and application engineering. We provide these talented individuals with access to advanced technology and cutting-edge equipment, ensuring the yield of high-quality products. Our company has successfully passed the quality management system certification for the ISO9001, IATF16949 and ISO14001, which were authorized by the German TUV group. All products are RoHS compliant and CE certified; some are UL approved. Fulling declares no 3TG remain in our products. No 3TG intentionally added or used in the products or in the production process.

Fulling insists the quality first, innovation and social responsibility as company's concept of development and continues to provide global customers with specialized control motor manufacturing and R&D services.







# APPLICATIONS - 产品应用







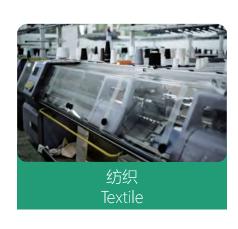


















# **Software system and Management system**



# 电机研发及设计软件 Research and Development Software for motor ANSYS 电机性能模拟设计软件 ANSYS Simulation software ANSYS Simulation software



#### 产品认证以及管理系统 Motor certification & Management System













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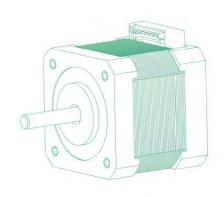
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#### FULLING MOTOR

#### 混合式步进电机 Hybrid Stepper Motor

#### ◆产品概述 (Product Overview)

步进电机是一种将电脉冲转化为角位移的执行机构,通过控制脉冲个数来控制角位移量,实现精确定位。在数字、模拟、通信等各种控制信号下,步进电机被广泛地运用在多种位置和速度控制的应用中。(Stepper motor is an actuator that converts electric pulse into angular displacement, and controls angular displacement by controlling the number of pulses, so as to achieve accurate positioning. Under various control signals such as digital and analog communication, stepper motor is widely used in various position and speed control applications)

#### ◆命名规则 (Motor Numbering Information)

FL 57 ST A 41 - 280 4 A

1 2 3 4 5 6 7

- ① 机座号 (Frame Size): 20mm,28mm,35mm,39mm,42mm,57mm,60mm,86mm,110mm
- ② 步进电动机代号 (Stepping motor code): ST or special words
- ③ 规格系列号 (Specification series no.): A,B,C.....Z or special words
- ④ 长度系列号 (Length series) : 41mm,51mm......
- ⑤ 静态电流代号 (Static current code): 280表示2.8A(280 means 2.8A),
- ⑥ 引出线数代号(Number of leads ): 4表示4线 (4 means 4 leads)
- ② A单轴 (Single shaft) , B双轴 (Double shaft) ; MA,MB表示0.9°单双轴 (means 0.9°single or double shaft)

#### ◆基本分类 (Basic Classification)

- ●步进电机有各种不同的类型,包含有(There are various types of stepper motors, including):
- ●基本型:机械和性能参数比较标准,容易使用,满足大多数使用要求(Basic type: mechanical and performance parameters comparison standard, easy to use, meet most operational requirements)
- ●IP65型: 对防尘和防水有特殊设计,满足对IP65防护等级有要求的应用 (IP65 type: specially designed for dustproof and water-proof, which can meet the requirements of IP65 protection grade)
- ●刹车型:装有失电有效式电磁刹车,满足垂直轴应用 (brake type: Equipped with disenergized effective electromagnetic brake, Meet the vertical axis application)
- ●混合式线性执行器型:加装丝杆,将旋转运动转化为丝杆的直线运动(HYBRID LINEAR ACTUATORS: Equipped with screw, it converts the rotary motion of the motor into linear motion for a screw)
- ●编码器型: 装有编码器,编码器反馈信号,可以实现闭环控制功能(Coder type: equipped with encoder, encoder feedback signal, can achieve closed-loop control function)
- ●减速机型:加装高精度行星减速机,满足大转矩的需求的应用(Reducer: it is equipped with high precision planetary reducer to meet the requirement of high torque)
- ●一体驱动器型:加装集成的驱动器,满足空间要求紧凑,系统布线简单的应用(Integrated driver type, assemble Integrated driver, Compact space requirements, simple system wiring applications)
- ●闭环伺服控制型:加装编码器,集成驱动器和控制器,满足控制智能,运行高效,结构紧凑,定位精确,响应快速的应用(Closed loop servo control,assemble encoder, Integrated driver and controller, It meets the requirements of intelligent control, efficient operation, compact structure, accurate positioning and rapid response)







# 1.8° 42mm STD Series

#### STD系列步进电机 STD Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载(Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options







接插件

齿轮箱

编码器

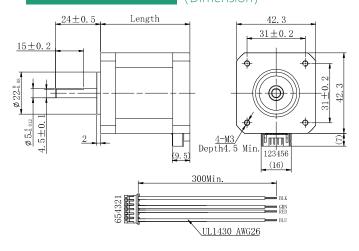
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL42STD33-1334AF	1.33	2.1	2.9	0.22	0.012	4	35	0.22	33.5
FL42STD38-1684AF	1.68	1.65	3.2	0.36	0.015	4	54	0.28	39.5
FL42STD47-1684AF	1.68	1.65	3.3	0.44	0.02	4	68	0.35	47.5

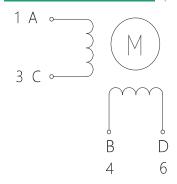
#### 机械尺寸

#### (Dimension)

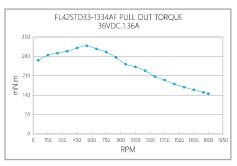


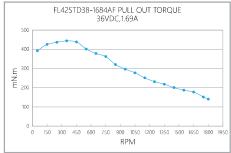
#### 接线图

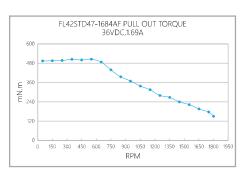
#### (Wiring Diagram)



#### 矩频曲线







# 1.8° 57mm STD Series

#### STD系列步进电机 STD Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 (Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

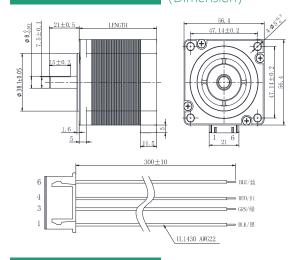
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL57STD56 - 2804ACF	2.8	1	3.4	1.4	0.045	4	300	0.7	54.5
FL57STD76 - 2804ACF	2.8	1.2	4.6	2.3	0.07	4	480	1	75

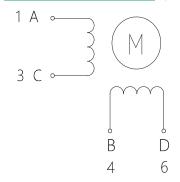
#### 机械尺寸

#### (Dimension)

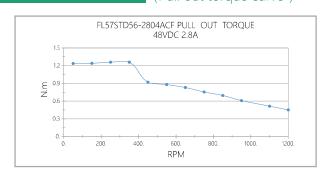


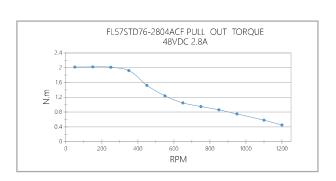


#### (Wiring Diagram)



#### 矩频曲线





# 1.8° 86mm STD Series

#### STD系列步进电机 STD Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	130N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	36N
介电强度 (Dielectric Strength)	900VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

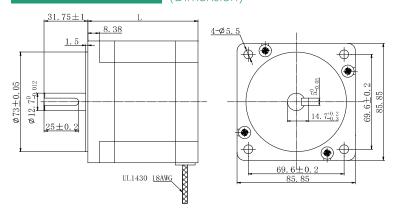
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL86STD80 -6004AK	6	0.39	3	4.5	0.12	4	1400	2.3	75
FL86STD118 -6004AK	6	0.55	6	8.5	0.24	4	2700	3.8	112

#### 机械尺寸

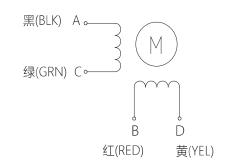
#### (Dimension)



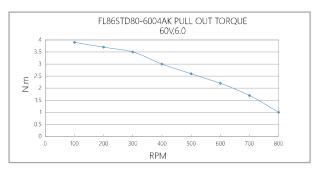
#### 接线图

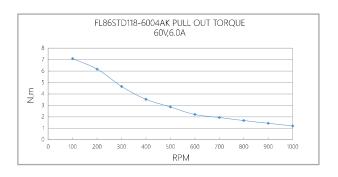
(Wiring Diagram)

#### 4线(leads)



#### 矩频曲线





# 0.9° 35mm ST Series

#### 两相步进电机 2 Phase Stepper Motor

#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	0.9°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@400 g
轴向间隙 ( Axial Play)	0.08mm@400 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options





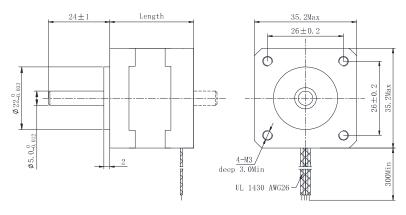
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL35ST20 -1004MA	1	10	8.5	0.05	0.005	4	8	0.1	20
FL35ST26-0504MA	0.5	6.1	6.9	0.09	0.008	4	11	0.15	26

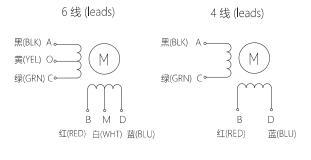
#### • 机械尺寸

#### (Dimension)

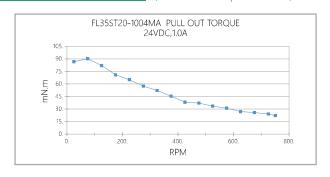


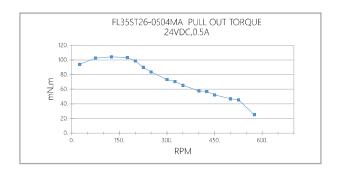
#### 接线图

#### (Wiring Diagram)



#### • 矩频曲线





# 0.9° 36mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### 特性概要

(General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	0.9°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 (Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	5.5N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	2.5N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options





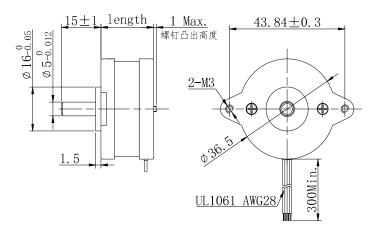
#### • 电性能

(Electrical specifications)

型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL36STH20 -0804MAN -01	0.8	5.5	4.8	0.092	0.006	4	19.6	0.09	20.5

#### 机械尺寸

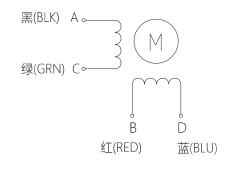
(Dimension)



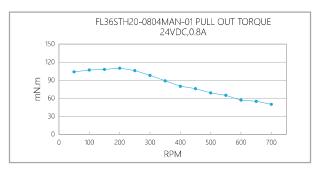
#### 接线图

(Wiring Diagram)

4线(leads)



#### 矩频曲线



# 0.9° 39mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	0.9°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)				
径向间隙 (Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载(Max. axial force)	10N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options





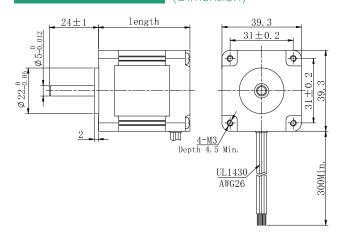
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL39STH45 -0284MA	0.28	60	145	0.297	0.02	4	36	0.29	44.5

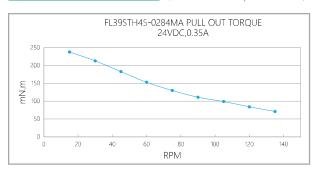
#### 机械尺寸

#### (Dimension)



#### 矩频曲线

#### (Pull out torque curve )



#### 接线图

#### (Wiring Diagram)

6线(leads)



D

蓝(BLU)

4线(leads)

06

# 0.9° 42mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

(General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	0.9°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载(Max. axial force)	10N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options





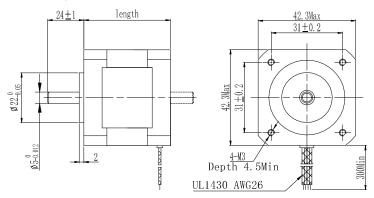
#### • 电性能

(Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL42STH33 -0956MA	0.95	4.2	4	0.158	0.02	6	35	0.22	33.5
FL42STH33 -1334MA	1.33	2.1	5.1	0.22	0.02	4	33	0.22	33.3
FL42STH38 -1206MA	1.2	3.5	4.1	0.259	0.022	6	54	0.28	39.5
FL42STH38 -1684MA	1.68	1.8	4.1	0.33	0.022	4	54	0.20	39.3
FL42STH47 -1206MA	1.2	3.3	4.9	0.317	0.025	6	68	0.35	47.5
FL42STH47 -1684MA	1.68	1.8	5.5	0.4	0.023	4	00	0.55	47.3

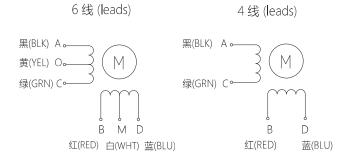
#### • 机械尺寸

#### (Dimension)



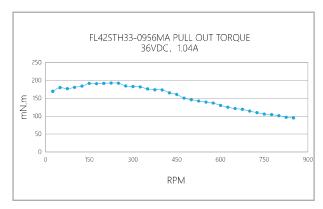
#### • 接线图

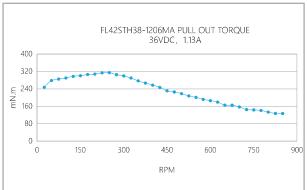
#### (Wiring Diagram)

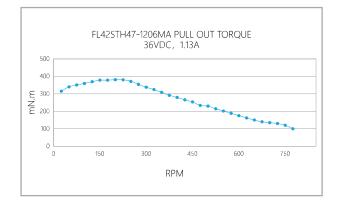


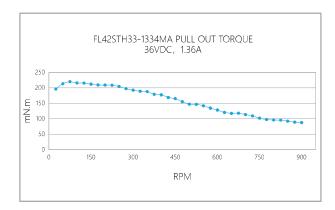


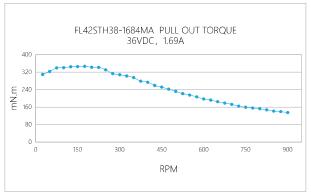
#### • 矩频曲线

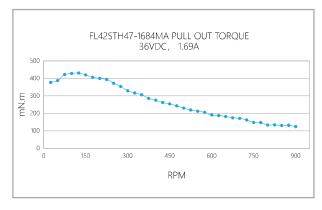












# 0.9° 57mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

(General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	0.9°				
步距角精度(Step Angle Accuracy)	±5% (整步无负载, full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	15N				
介电强度 (Dielectric Strength)	600VAC / 1S				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options



接插件

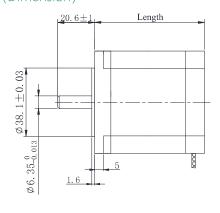
#### • 电性能

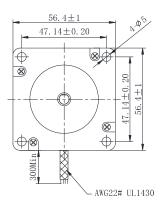
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL57STH41-2006MA	2	1.4	2.2	0.39	0.021	6	120	0.45	41
FL57STH41-2804MA	2.8	0.7	2.2	0.55	0.021	4	120	0.45	41
FL57STH56-2006MA	2	1.8	4.5	0.9	0.04	6	300	0.7	56
FL57STH56 -2804MA	2.8	0.9	4.5	1.2	0.04	4	300	0.7	56
FL57STH76-2006MA	2	2.25	5.6	1.35	0.068	6	480	1	76
FL57STH76-2804MA	2.8	1.13	5.6	1.8	0.068	4	480	1	76

#### • 机械尺寸

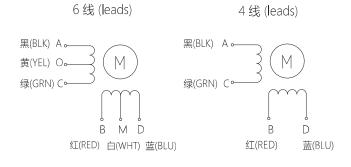
#### (Dimension)





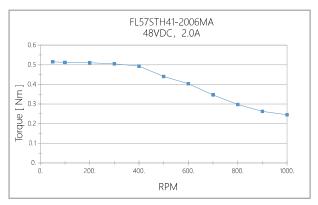
#### • 接线图

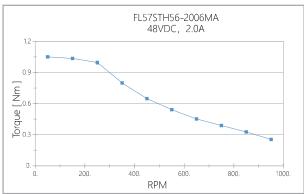
#### (Wiring Diagram)

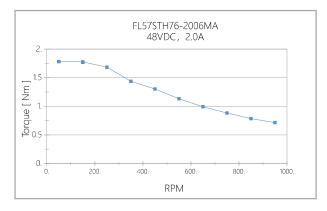


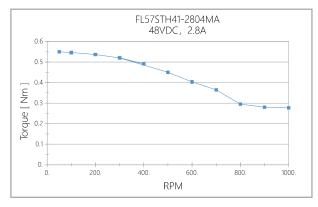


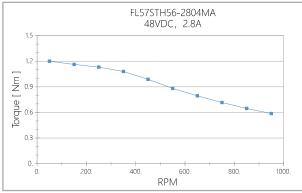
#### • 矩频曲线

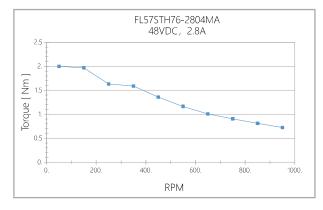












# 1.2° 42mm 3P Series

#### 三相步进电机 3 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.2°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	10N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options





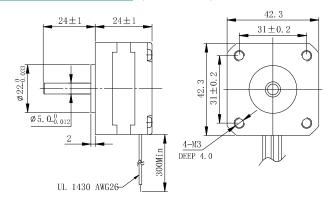
#### • 电性能

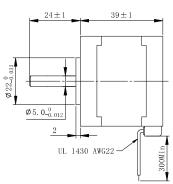
#### (Electrical specifications )

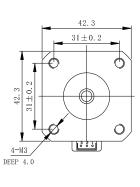
型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL423P24-0903A	0.9	6.2	3.2	0.08	0.012	3	20	0.14	24
FL423P39 -2403A	2.4	1.2	0.8	0.196	0.015	3	53	0.3	39

#### • 机械尺寸

#### (Dimension)



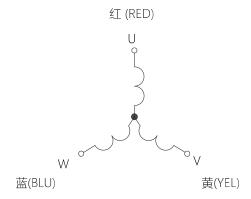




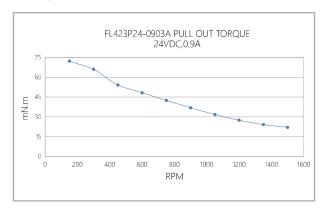


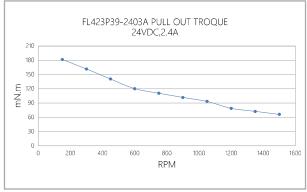
#### • 接线图

(Wiring Diagram)



#### • 矩频曲线





# 1.2° 57mm 3P Series

#### 三相步进电机 3 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.2°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	10N				
介电强度 (Dielectric Strength)	900VAC / 1s				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options









接插件

齿轮箱

9 编码器

刹车

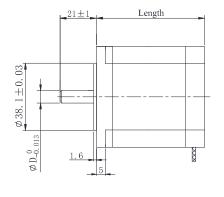
#### • 电性能

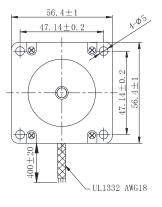
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL573P42 -5206A	5.2	1.3	1.4	0.45	0.021	6	110	0.45	42
FL573P56 -5606A	5.6	0.7	1.7	0.9	0.04	6	300	0.75	56
FL573P79 -5806A	5.8	1.05	2.4	1.5	0.068	6	480	1.1	79

#### • 机械尺寸

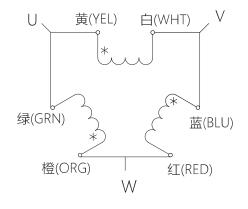
#### (Dimension)



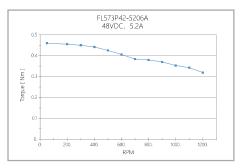


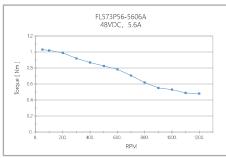
#### 接线图

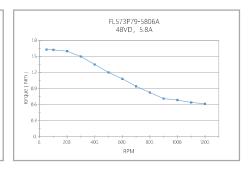
#### (Wiring Diagram)



#### • 矩频曲线







# 1.2° 60mm 3P Series

#### 三相步进电机 3 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.2°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 (Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载(Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B











接插件

齿轮箱

编码器

刹车

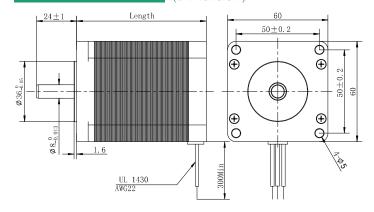
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL603P1253 -1503A	1.5	4.1	9.5	0.8	0.07	3	260	0.8	53.5
FL603P1277 -1503A	1.5	4.4	10	1.1	0.09	3	460	1.3	77.5

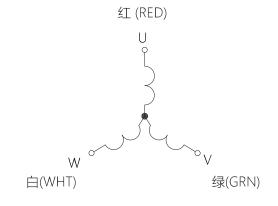
#### • 机械尺寸

#### (Dimension)

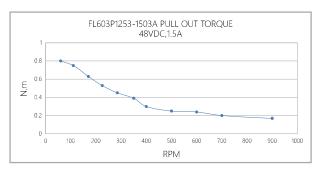


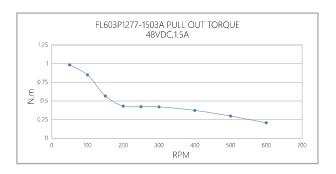
#### 接线图

#### (Wiring Diagram)



#### • 矩频曲线





# 1.2° 86mm 3P Series

#### 三相步进电机 3 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.2°				
步距角精度 (Step Angle Accuracy)	±5% (整步, 空载)				
径向间隙 ( Radial Play)	0.025mm@500 g				
轴向间隙 (Axial Play)	0.075mm@1000 g				
最大径向负载 (Max. radial force)	220N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	60N				
介电强度 (Dielectric Strength)	1200VAC /1S				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options









接插件 齿

齿轮箱

刹车

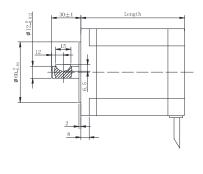
#### • 电性能

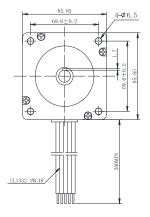
#### (Electrical specifications )

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL863P67 -01AW	1.75	4.25	11	2	0.08	6	1120	1.65	67
FL863P97 -01AW	2	5.8	23	4.52	0.15	6	2200	2.7	97
FL863P97 -02AW	5.8	0.97	3.2	4.52	0.15	6	2200		9/
FL863P127 -01AW	2.25	9	41	6.78	0.26	6	3300	3.8	127
FL863P127 - 02AW	5.2	1.8	8	6.78	0.26	6	3300	3.8	12/

#### • 机械尺寸

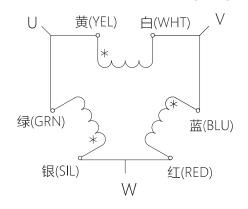
#### (Dimension)



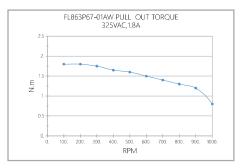


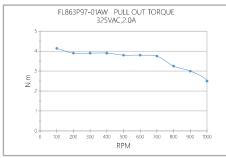
#### • 接线图

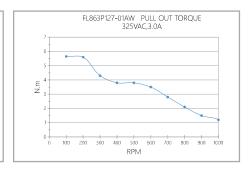
#### (Wiring Diagram)



#### • 矩频曲线







# 1.2° 110mm 3P Series

# 三相步进电机 3 Phase Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.2°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 (Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	330N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	100N
介电强度 (Dielectric Strength)	1800VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B











接插件

齿轮箱

刹车 编码器

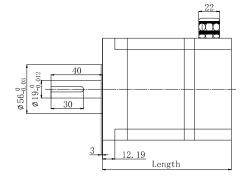
#### 电性能

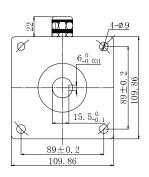
#### (Electrical specifications)

型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL1103P170 -01	4.1	1.96	18	13.92	1.01	6	10500	8	173

#### 机械尺寸

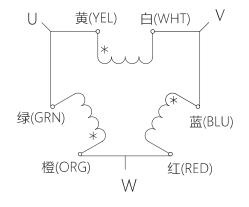
#### (Dimension)



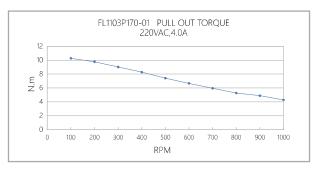


#### 接线图

#### (Wiring Diagram)



#### • 矩频曲线



# 1.8° 14mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	3.9N 距法兰20mm (20mm from the flange)
最大轴向负载(Max. axial force)	1.0N
介电强度 (Dielectric Strength)	300VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



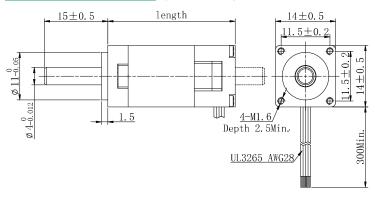
#### • 电性能

#### (Electrical specifications )

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL14STH30-0304A	0.3	21	4.2	0.0063	0.0007	4	5.8	0.03	30

#### • 机械尺寸

#### (Dimension)

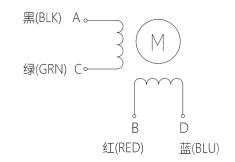


#### • 接线图

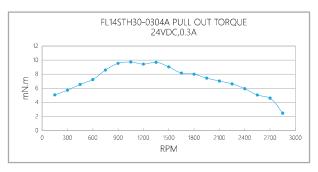
接插件

(Wiring Diagram)

4线(leads)



#### • 矩频曲线



# 1.8° 20mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.8°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	10N				
最大轴向负载 (Max. axial force)	4N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级(Insulation Class)	Class B				









接插件

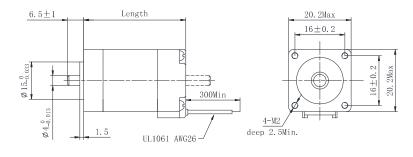
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL20STH30-0604A	0.6	6.5	1.7	0.018	0.002	4	2	0.06	30
FL20STH33-0604A	0.6	6.5	1.7	0.018	0.002	4	2	0.06	33
FL20STH42-0804A	0.8	5.4	1.5	0.03	0.002	4	3.6	0.08	42

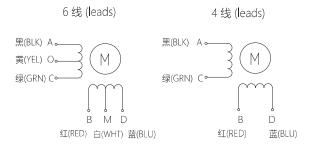
#### • 机械尺寸

#### (Dimension)

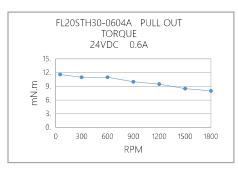


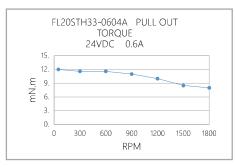
#### • 接线图

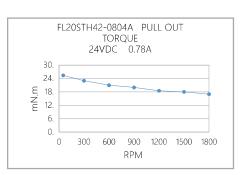
#### (Wiring Diagram)



#### • 矩频曲线







# 1.8° 25mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.8°				
步距角精度(Step Angle Accuracy)	±5% (整步无负载, full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载(Max. axial force)	7N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options





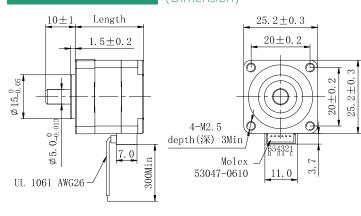
• 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL25STH23-0704A	0.7	4	2.4	0.033	0.003	4	2	0.055	24

#### • 机械尺寸

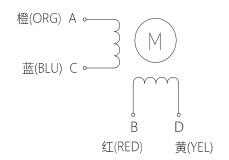
#### (Dimension)



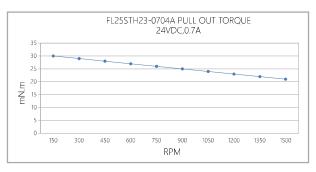
#### • 接线图

(Wiring Diagram)

4线(leads)



#### • 矩频曲线



# 1.8° 28mm ST Series



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.8°				
步距角精度(Step Angle Accuracy)	±5% (整步无负载, full step, no load)				
径向间隙 ( Radial Play)	0.02mm@400 g				
轴向间隙 ( Axial Play)	0.08mm@400 g				
最大径向负载 (Max. radial force)	10N 距法兰5mm (5mm from the flange)				
最大轴向负载 (Max. axial force)	2N				
介电强度 (Dielectric Strength)	600VAC / 1S				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options



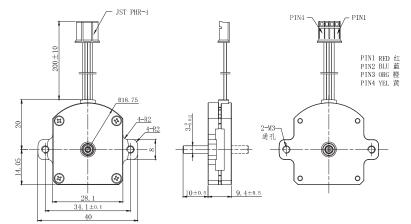
#### • 电性能

#### (Electrical specifications )

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL28ST10-0504A	0.5	3.7	0.88	0.01	0.001	4	1.7	0.028	9.4

#### • 机械尺寸

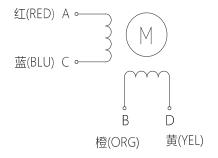
#### (Dimension)



#### • 接线图

(Wiring Diagram)

#### 4线(leads)



# 1.8° 28mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@400 g
轴向间隙 ( Axial Play)	0.08mm@400 g
最大径向负载 (Max. radial force)	28N 距法兰5mm (5mm from the flange)
最大轴向负载 (Max. axial force)	7N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options



接插件 齿轮

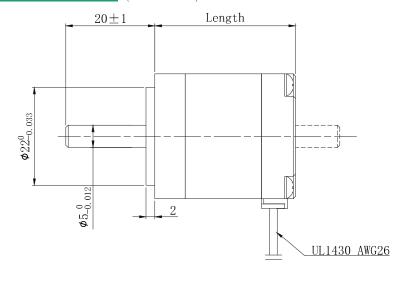
#### • 电性能

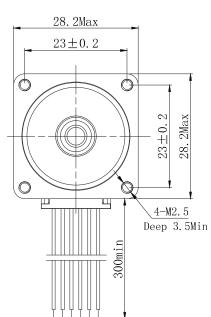
#### (Electrical specifications )

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL28STH32 -0674A	0.67	5.6	3.4	0.06	0.005	4	9	0.11	32
FL28STH32 -0956A	0.95	2.8	1	0.043	0.005	6	9	0.11	32
FL28STH45 -0674A	0.67	6.8	4.9	0.095	0.006	4	12	0.14	45
FL28STH45 -0956A	0.95	3.4	1.2	0.075	0.006	6	12	0.14	45
FL28STH51-0674A	0.67	9.2	7.2	0.12	0.008	4	18	0.2	51
FL28STH51-0956A	0.95	4.6	1.8	0.09	0.008	6	18	0.2	51

#### • 机械尺寸

#### (Dimension)

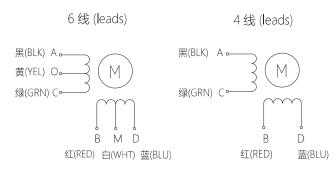




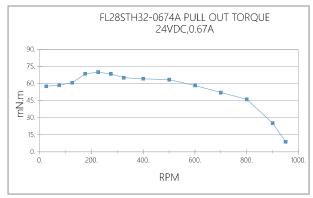


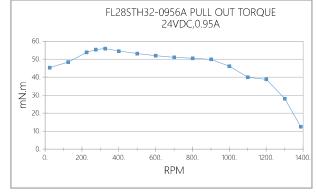
#### 接线图

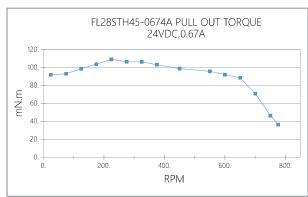
#### (Wiring Diagram)

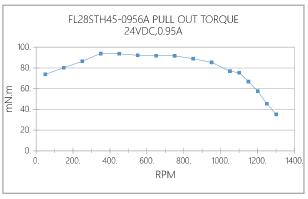


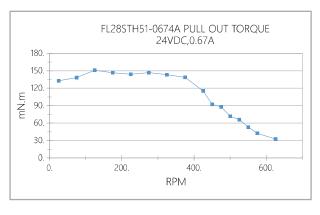
#### • 矩频曲线

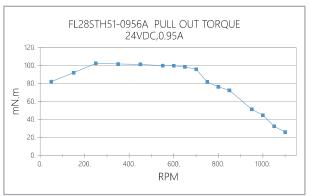












## 1.8° 35mm ST Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options





接插件

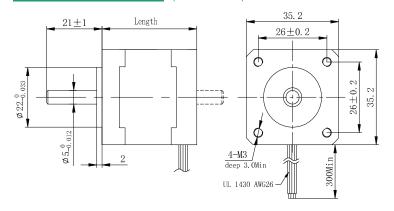
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL35ST26 -0284A	0.28	26	27	0.07	0.006	4	10	0.13	26
FL35ST28-0504A	0.5	20	14	0.1	0.008	4	11	0.14	28
FL35ST36 -1004A	1	2.7	4.3	0.14	0.01	4	14	0.18	36

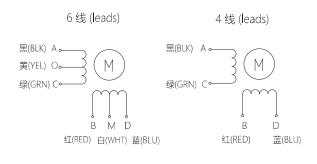
#### • 机械尺寸

#### (Dimension)

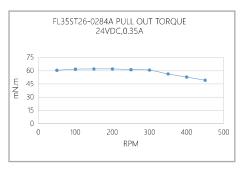


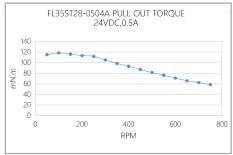
#### • 接线图

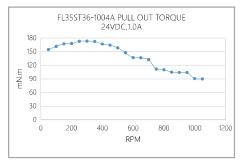
#### (Wiring Diagram)



#### • 矩频曲线







## 1.8° 39mm ST Series

#### 两相步进电机 2 Phase Stepper Motor

#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)					
步距角 (Step Angle)	1.8°					
步距角精度(Step Angle Accuracy)	±5% (整步无负载, full step, no load)					
径向间隙 ( Radial Play)	0.02mm@450 g					
轴向间隙 ( Axial Play)	0.08mm@450 g					
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)					
最大轴向负载 (Max. axial force)	10N					
介电强度 (Dielectric Strength)	600VAC / 1s					
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC					
环境温度 (Ambient Temperature)	-20°C~+50°C					
绝缘等级 (Insulation Class)	Class B					



选件 Options





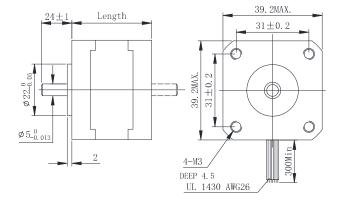
#### • 电性能

#### (Electrical specifications)

型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL39ST20 -0404A	0.4	6.6	6	0.065	0.005	4	11	0.12	20
FL39ST20 -0506A	0.5	15	6	0.065	0.005	6	III	U. IZ	20
FL39ST34-0404A	0.4	30	43	0.21	0.012	4	20	0.10	34
FL39ST34-0306A	0.3	34	20	0.13	0.012	6	20	0.18	34
FL39ST38 -0504A	0.5	22	40	0.29	0.018	4	24	0.2	38
FL39ST38 -0806A	0.8	7.5	8	0.2	0.018	6	24	0.2	38
FL39ST44-0304A	0.3	40	60	0.28	0.025	4	40	0.25	44

#### • 机械尺寸

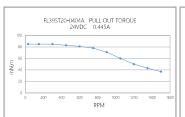
#### (Dimension)

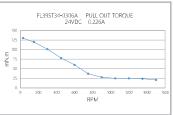


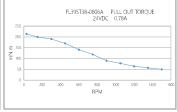
#### • 接线图

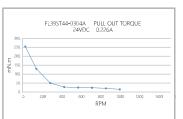
#### (Wiring Diagram)

#### • 矩频曲线









# 1.8° 39mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B







Connector Gearboo 接插件 齿轮箱

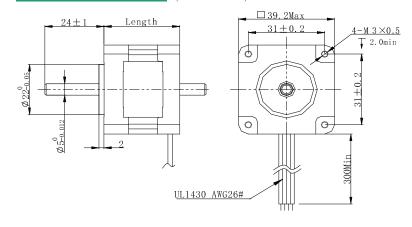
#### • 电性能

#### (Electrical specifications)

型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL39STH20 -0404A	0.4	6.6	7	0.085	0.008	4	50	0.12	20
FL39STH34-0306A	0.3	40	30	0.18	0.01	6	120	0.18	31
FL39STH38 -0504A	0.5	24	50	0.36	0.012	4	180	0.2	38

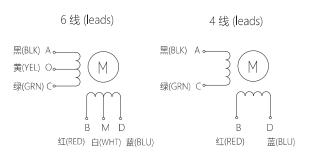
#### • 机械尺寸

#### (Dimension)

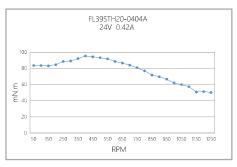


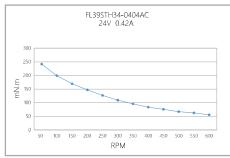
#### • 接线图

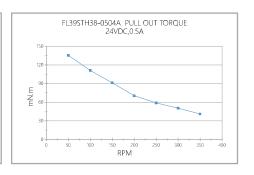
#### (Wiring Diagram)



#### • 矩频曲线







# 1.8° 42mm STH Series

#### 两相步进电机 2 Phase Stepper Motor



#### 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B









接插件

齿轮箱

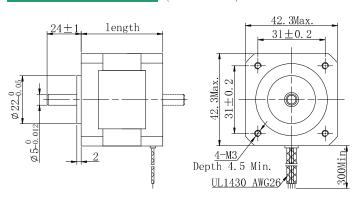
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL42STH25 -0404A	0.4	24	30	0.17	0.0075	4	20	0.15	26
FL42STH33 -0956A	0.95	4.2	2.5	0.16	0.012	6	35	0.22	33.5
FL42STH33 -1334A	1.33	2.1	2.5	0.22	0.012	4	33	0.22	33.3
FL42STH38 -1206A	1.2	3.3	3.2	0.26	0.015	6	54	0.28	39.5
FL42STH38 -1684A	1.68	1.65	3.2	0.36	0.013	4	34	0.28	39.3
FL42STH47 -1206A	1.2	3.3	2.8	0.317	0.02	6	68	0.35	47.5
FL42STH47 -1684A	1.68	1.65	2.8	0.44	0.02	4	68	0.55	47.5
FL42STH60 -1206A	1.2	6	7	0.56	0.028	6	102	0.5	60

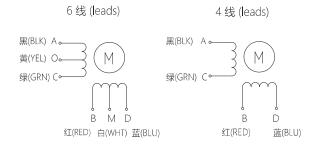
#### 机械尺寸

#### (Dimension)



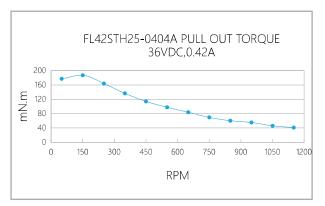
#### 接线图

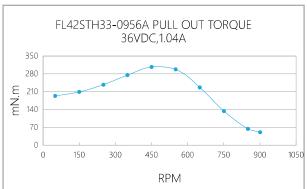
#### (Wiring Diagram)

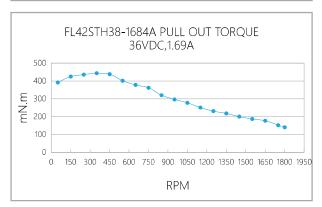


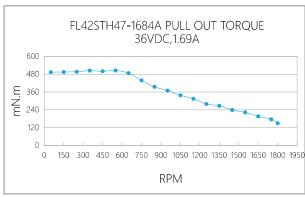


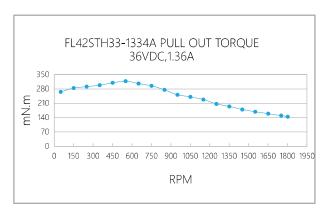
#### • 矩频曲线

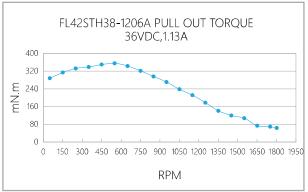


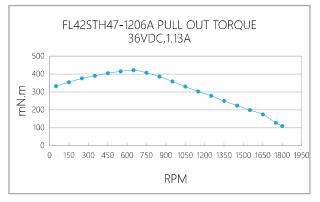


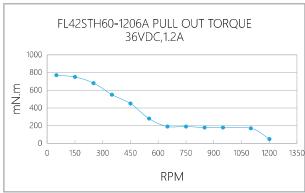












# 1.8° 46mm ST Series



# • 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	10N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	2N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options



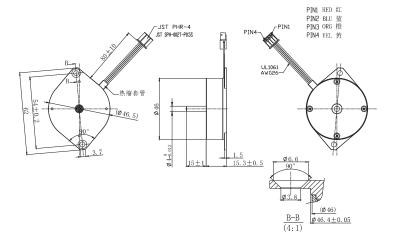
# • 电性能

#### (Electrical specifications )

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL46ST16 -1004A -01	1	3.2	2.5	0.08	0.006	4	11	0.1	15.3

#### • 机械尺寸

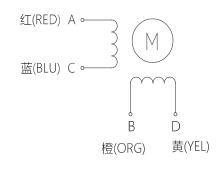
#### (Dimension)



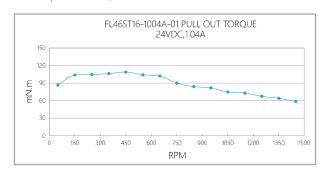
#### • 接线图

(Wiring Diagram)

4线(leads)



### • 矩频曲线



# 1.8° 57mm ST Series

# 两相步进电机(圆形) 2 Phase Stepper Motor (Round)



# 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B









接插件

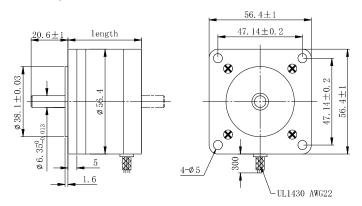
电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL57ST41 -1106A	1.1	3.6	4	0.28	0.018	6	57	0.54	41
FL57ST51-2804A	2.8	0.85	2.1	0.69	0.035	4	110	0.6	51
FL57ST56-2554A	2.55	1.1	3.6	0.84	0.042	4	135	0.65	56
FL57ST76 -1506A	1.5	3.6	6	0.9	0.072	6	200	0.95	76

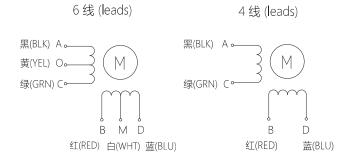
# • 机械尺寸

#### (Dimension)



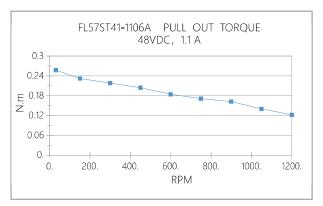
#### 接线图

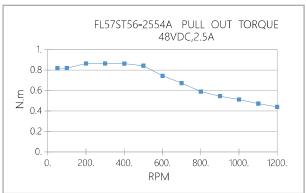
# (Wiring Diagram)

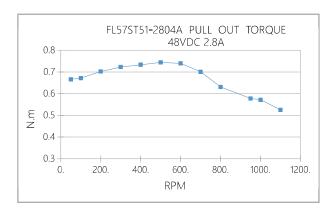


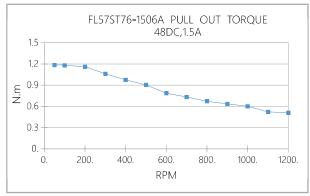


# • 矩频曲线









# 1.8° 57mm STH Series

# 两相步进电机 2 Phase Stepper Motor



# 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8。
步距角精度 (Step Angle Accuracy)	±5% (整步, 空载)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options









接插件

编码器

齿轮箱

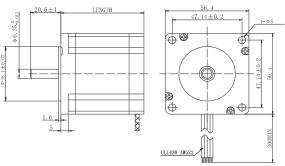
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL57STH41-2006A	2	1.4	1.4	0.39	0.02	6	120	0.45	40
FL57STH41-2804A	2.8	0.7	1.4	0.55	0.02	4	120	0.45	40
FL57STH51-2006A	2	1.65	2.2	0.72	0.035	6	275	0.65	50
FL57STH51-2804A	2.8	0.83	2.2	1	0.035	4	275	0.65	50
FL57STH56 -2006A	2	1.8	2.5	0.9	0.04	6	300	0.7	54
FL57STH56 -2804A	2.8	0.9	2.5	1.26	0.04	4	300	0.7	54
FL57STH76 -2006A	2	2.25	3.6	1.35	0.068	6	480	1	75
FL57STH76 -2804A	2.8	1.13	3.6	1.89	0.068	4	480	1	75
FL57STH115 -2804A	2.8	2.1	10	3	0.1	4	650	1.8	115

# 机械尺寸

# (Dimension)

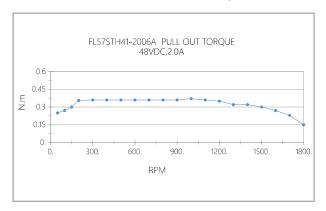


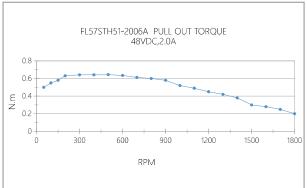
# (Wiring Diagram)

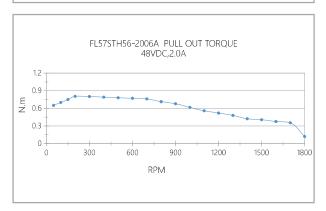
6线(leads) 4线(leads) 黑(BLK) A。 黑(BLK) A ↔ 黄(YEL) O。 绿(GRN) C。 绿(GRN) C 红(RED) 白(WHT) 蓝(BLU) 红(RED) 蓝(BLU)

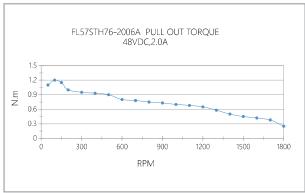


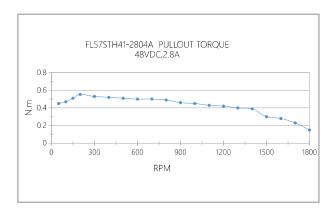
# • 矩频曲线

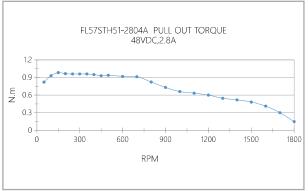


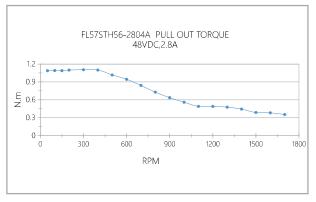


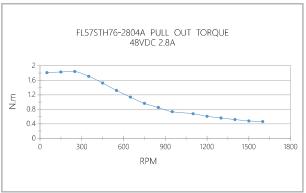












# 1.8° 60mm STH Series

# 两相步进电机 2 Phase Stepper Motor



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options









齿轮箱 编码器

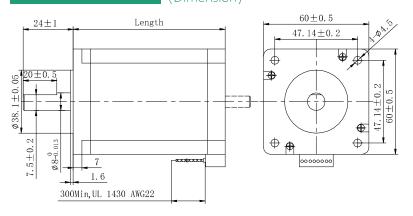
# • 电性能

#### (Electrical specifications)

型号 (Model No.)		Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身长度
单轴(Single shaft)		А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL60STH45 - 2008AF	单极性 (unipolar)	2	1.5	2	0.78	0.05	8	275	0.6	47±1
FL00311143 -2000AF	并联(paralle <b>l</b> )	2.8	0.75	2	1.1	0.05	0	2/3	0.6	4/±1
	串联(series)	1.4	3	8	1.1					
FL60STH56 -2008AF	单极性 (unipolar)	2	1.8	3.6	1.17	0.07	8	400	0.77	56±1
1 L00311130 2000A1	并联(parallel)	2.8	0.9	3.6	1.65	0.07		400		30±1
	串联(series)	1.4	3.6	14.4	1.65					
FL60STH65 - 2008AF	单极性 (unipolar)	2	2.4	4.6	1.5	0.09	8	570	1,2	67±1
1 L00311103 2000AI	并联(parallel)	2.8	1.2	4.6	2.1	0.09	0	370	1.2	0/11
	串联(series)	1.4	4.8	18.4	2.1					
FL60STH86 -2008AF	单极性 (unipolar)	2	3	6.8	2.1	0.12	8		1.4	88±1
1 L00311100 -2000AF	并联(paralle <b>l</b> )	2.8	1.5	6.8	3	] 0.12	0	8 840		00±1
	串联(series)	1.4	6	27.2	3					

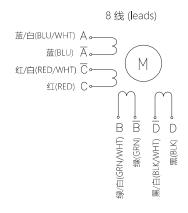
#### • 机械尺寸

#### (Dimension)



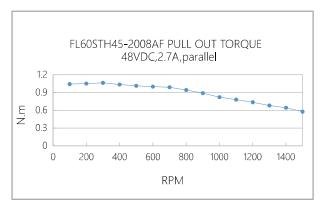
#### 接线图

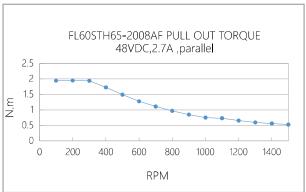
#### (Wiring Diagram)

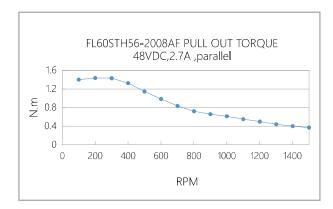


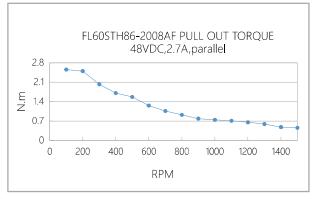


# • 矩频曲线









# 1.8° 63mm ST Series

### 两相步进电机 2 Phase Stepper Motor



# • 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@400 g
轴向间隙 ( Axial Play)	0.08mm@400 g
最大径向负载 (Max. radial force)	10N 距法兰5mm (5mm from the flange)
最大轴向负载 (Max. axial force)	2N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options



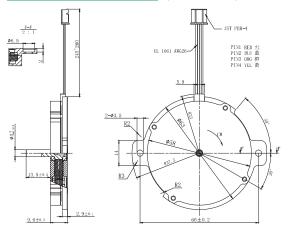
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL63ST10 -1004A -01	1	3.8	2	0.06	0.005	4	16	0.095	9.6

# • 机械尺寸

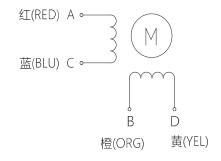
#### (Dimension)



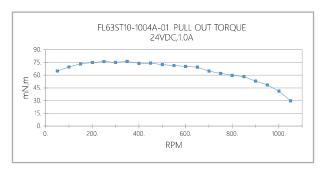
#### • 接线图

(Wiring Diagram)

4线(leads)



# • 矩频曲线



# 1.8° 86mm ST Series

# 两相步进电机 (圆形) 2 Phase Stepper Motor (Round)



# • 特性概要

#### (General specification)

说明 (Specifications)
1.8°
±5% (整步无负载,full step, no load)
0.02mm@450 g
0.08mm@450 g
220N 距法兰20mm (20mm from the flange)
60N
820VAC / 1s
100MΩ ,500VDC
-20°C~+50°C
Class B











接插件

齿轮箱 刹车

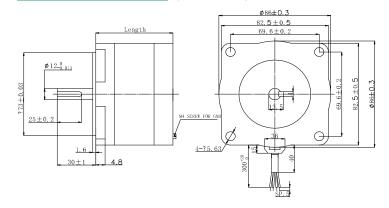
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL86ST67 -2808AH	2.8	1.3	5.1	2.8	0.12	8	660	1.6	67
FL86ST94-2808AH	2.8	1.7	7.7	4.8	0.18	8	1200	2.4	94
FL86ST125 -3508AH	3.5	1.42	7.9	7.6	0.23	8	1800	3.6	125

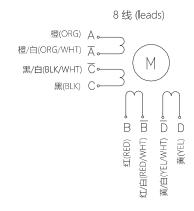
#### • 机械尺寸

#### (Dimension)

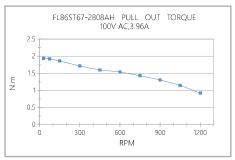


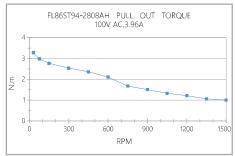
#### 接线图

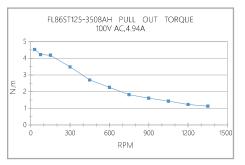
#### (Wiring Diagram)



#### • 矩频曲线







# 1.8° 86mm STH Series

# 两相步进电机 2 Phase Stepper Motor



# 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	220N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	60N
介电强度 (Dielectric Strength)	1200VAC / 1S
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options









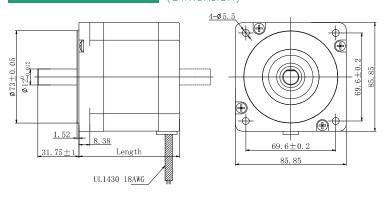
电性能

#### (Electrical specifications)

型号 (Model No.)		Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身长度
单轴(Sing <b>l</b> e shaft)		А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL86STH65 - 2808A	单极性 unipolar	2.8	1.3	3.9	2.2	0.08	8	1000	1.7	65
1 L00311103 - 2000A	串联series	2	2.6	15.6	3.5	0.00	0	1000		03
	并联parallel	4	0.65	3.9	3.5					
FL86STH80 -4208A	单极性 unipolar	4.2	0.65	3	3.2	0.12	8	1400	2.3	80
FL00311100-4200A	串联series					0.12	0	1400	2.3	00
	并联parallel	3	1.3	12	4.5					
FL86STH118 -4208A	单极性 unipo <b>l</b> ar	4.2	0.99	6	6	0.24	8	2700	2.0	118
FL0031H110-4200A	串联series	3	1.98	24	8.5	0.24	0	2700	3.8	110
	并联parallel	6	0.495	6	8.5					
FLOCGTUMES 4200A	单极性 unipo <b>l</b> ar	4.2	1.25	8	8.4	0.36	8	4000	5.3	156
FL86STH156 -4208A	串联series	3	2.5	32	12	0.36	8	4000	5.3	100
	并联parallel	6	0.63	8	12					

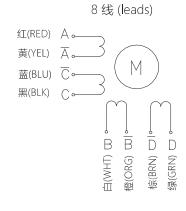
# • 机械尺寸

#### (Dimension)



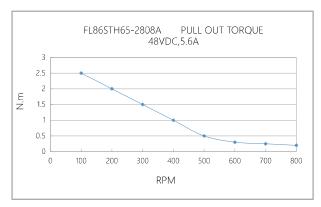
#### • 接线图

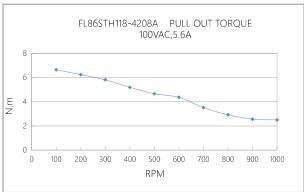
(Wiring Diagram)

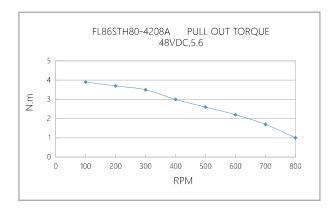


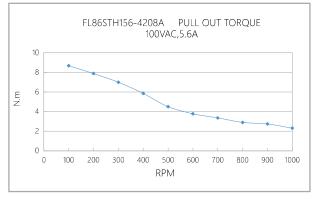


# • 矩频曲线









# 1.8° 86mm STH-C

# 两相步进电机(经济型) 2 Phase Stepper Motor (Economic)



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	130N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	36N
介电强度 (Dielectric Strength)	1200VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

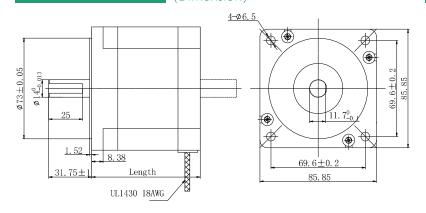
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL86STH65 -6004AC	6	0.29	1.77	3.5	0.08	4	1000	1.7	63
FL86STH80 -6004AC	6	0.39	3	4.5	0.12	4	1400	2.3	75
FL86STH118 - 6004AC	6	0.55	6	8.5	0.24	4	2700	3.8	112
FL86STH156 -6004AC	6	0.73	8.68	12	0.36	4	4000	5.3	150

# • 机械尺寸

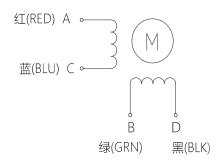
#### (Dimension)



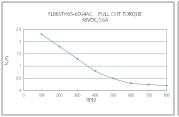
# • 接线图

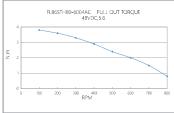
(Wiring Diagram)

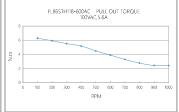
4线(leads)

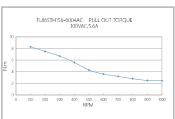


#### • 矩频曲线









# 1.8° 110mm STH Series

### 两相步进电机 2 Phase Stepper Motor

# • 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	330N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	100N
介电强度 (Dielectric Strength)	1200VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

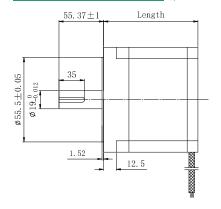
# • 电性能

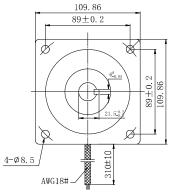
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL110STH99 - 5504A	5.5	0.7	9.8	11.2	0.55	4	5600	5	99
FL110STH150 -6504A	6.5	0.72	11.5	21	1.09	4	13000	8.4	150
FL110STH201 -8004A	8	0.67	12	28	1.62	4	173000	11.7	201

# 机械尺寸

#### (Dimension)

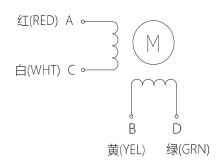




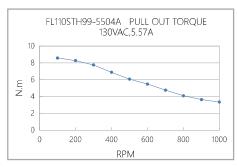
#### • 接线图

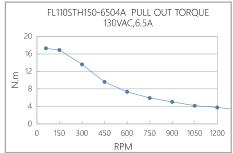
(Wiring Diagram)

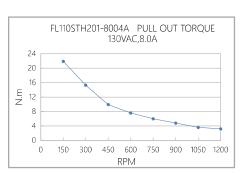
4线(leads)



#### • 矩频曲线







# 3.6° 42mm ST-D Series

# 两相步进电机 2 Phase Stepper Motor



# 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	3.6°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options







接插件

齿轮箱

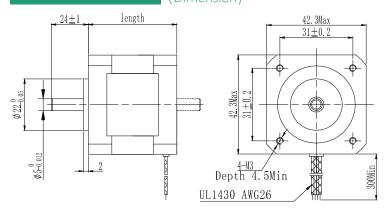
#### 电性能

#### (Electrical specifications)

型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL42ST33-0504DA	0.5	17	30	0.08	0.016	4	16	0.2	32

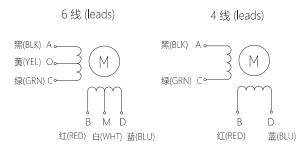
#### 机械尺寸

#### (Dimension)

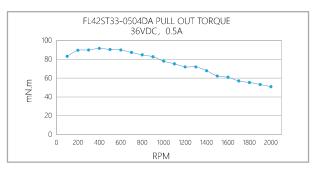


# 接线图

#### (Wiring Diagram)



#### 矩频曲线





# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	10N
最大轴向负载 (Max. axial force)	4N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options





接插件

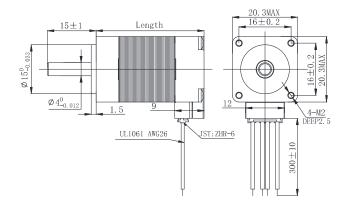
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL20STC33 -0604A	0.6	6.4	2.6	0.022	0.002	4	2	0.06	33

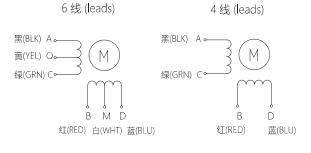
#### • 机械尺寸

#### (Dimension)

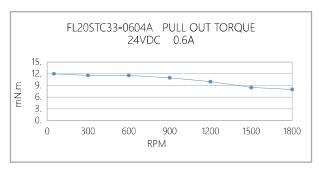


# • 接线图

# (Wiring Diagram)



#### • 矩频曲线



# 1.8° 28mm STC

# 内置接插件型步进电机 Intergrated Connector Stepper Motor



# 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 (Radial Play)	0.02mm@400 g
轴向间隙 (Axial Play)	0.08mm@400 g
最大径向负载 (Max. radial force)	28N 距法兰5mm (5mm from the flange)
最大轴向负载 (Max. axial force)	7N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B







接插件

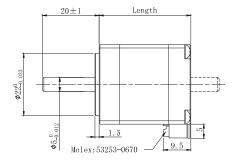
#### 电性能

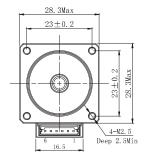
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL28STC32 -0674A	0.67	5.6	4	0.065	0.005	4	9	0.11	32
FL28STC32 -0956A	0.95	2.8	1	0.05	0.005	6	9	0.11	32
FL28STC40 -0674A	0.67	6.8	4.8	0.097	0.006	4	12	0.14	40
FL28STC40 -0956A	0.95	3.4	1.2	0.075	0.006	6	12	0.14	40
FL28STC51-0674A	0.67	9.2	5.6	0.12	0.008	4	18	0.2	51.5
FL28STC51-0956A	0.95	4.6	1.45	0.09	0.008	6	18	0.2	51.5

#### 机械尺寸

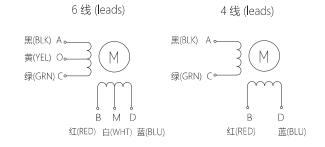
#### (Dimension)

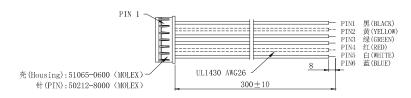




# 接线图

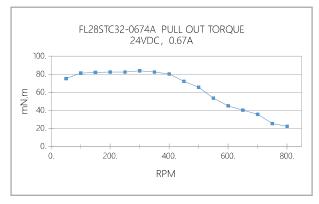
# (Wiring Diagram)

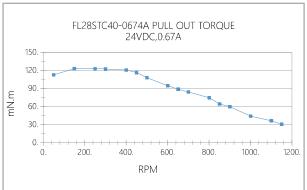


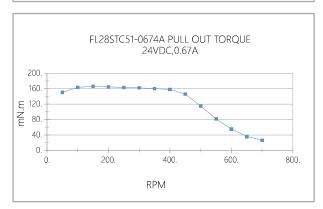


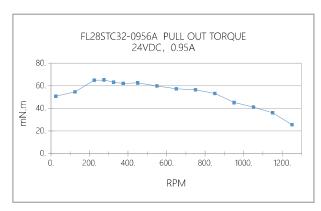


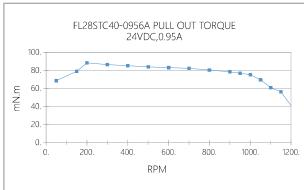
# • 矩频曲线

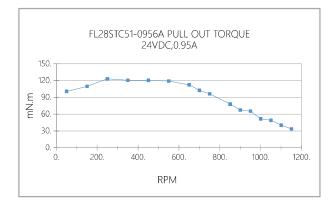












# 1.8° 35mm STC

# 内置接插件型步进电机 Intergrated Connector Stepper Motor



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



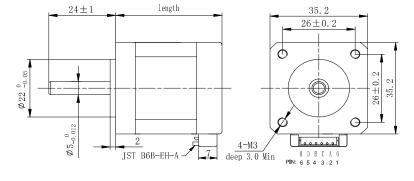
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL35STC38 -1204AC	1.2	2.7	4.2	0.18	0.018	4	20	0.21	38
FL35STC44 -1204AC	1.2	3.2	5.2	0.28	0.02	4	28	0.23	44

#### • 机械尺寸

#### (Dimension)

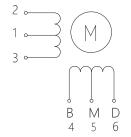


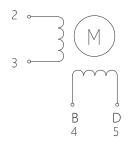
#### 接线图

# (Wiring Diagram)

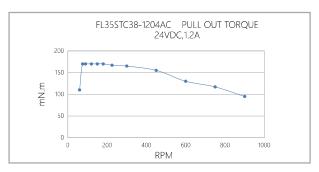
6线(leads)

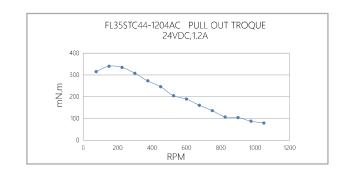






#### • 矩频曲线





# 内置接插件型步进电机 Intergrated Connector Stepper Motor

# 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B









接插件

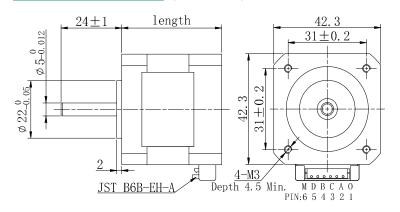
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL42STC33 -0956A	0.95	4.2	2.5	0.16	0.012	6	35	0.22	33.5
FL42STC33 -1334A	1.33	2.1	2.5	0.22	0.012	4			33.3
FL42STC38 -1206A	1.2	3.3	3.2	0.26	0.015	6	54	0.28	39.5
FL42STC38 -1684A	1.68	1.65	3.2	0.36	0.013	4	34	0.20	39.3
FL42STC47 -1206A	1.2	3.3	2.8	0.317	0.02	6	68	0.35	47.5
FL42STC47 -1684A	1.68	1.65	2.8	0.44	0.02	4	00	0.35	41.5
FL42STC60 -1206A	1.2	6	7	0.56	0.028	6	102	0.5	60

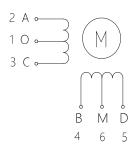
# • 机械尺寸

#### (Dimension)



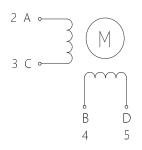
# • 接线图

# 6线 (leads)



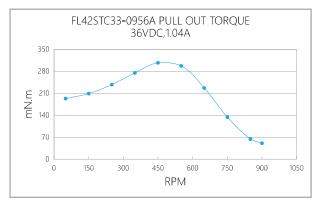
# (Wiring Diagram)

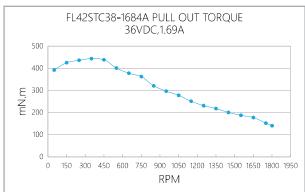
4线(leads)

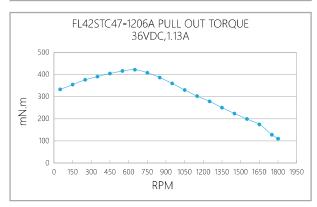


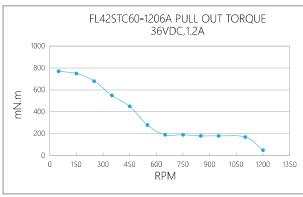


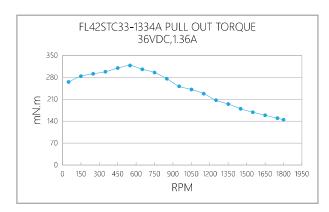
# • 矩频曲线

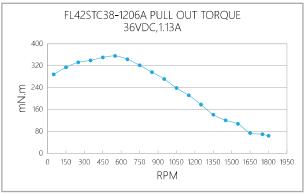


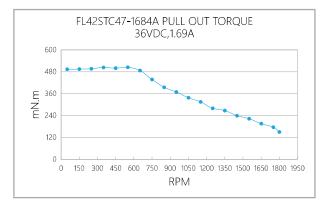












# 内置接插件型步进电机 Intergrated Connector Stepper Motor



# 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)					
步距角 (Step Angle)	1.8°					
步距角精度(Step Angle Accuracy)	±5% (整步无负载, full step, no load)					
径向间隙 ( Radial Play)	0.02mm@450 g					
轴向间隙 ( Axial Play)	0.08mm@450 g					
最大径向负载 (Max. radial force)	10N					
最大轴向负载 (Max. axial force)	4N					
介电强度 (Dielectric Strength)	600VAC / 1s					
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC					
环境温度 (Ambient Temperature)	-20°C~+50°C					
绝缘等级 (Insulation Class)	Class B					



选件 Options







编码器



刹车

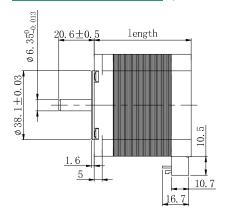
#### 电性能

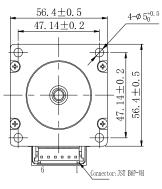
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL57STC41-2804AC	2.8	0.78	1.8	0.6	0.025	4	120	0.45	40.5
FL57STC56 -2804AC	2.8	1	3.2	1.4	0.045	4	300	0.7	56
FL57STC76 -2804AC	2.8	1.3	5.3	2.3	0.07	4	480	0.18	36

# 机械尺寸

#### (Dimension)



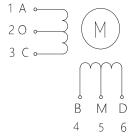


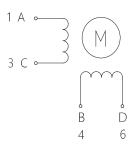
# • 接线图

# (Wiring Diagram)

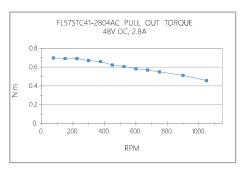
6线 (leads)

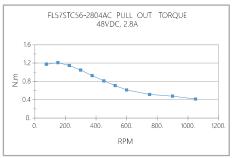


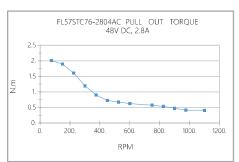




#### 矩频曲线







# 1.8° 60mm STH-C

# 内置接插件型步进电机 Intergrated Connector Stepper Motor



# 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B





4线(leads)

В

D







接插件

齿轮箱

编码器

刹车

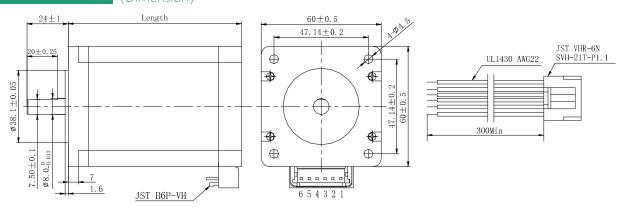
#### 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL60STH45 -2804AFC	2.8	0.75	2	1.1	0.05	4	275	0.6	47
FL60STH56 -2804AFC	2.8	0.9	3.6	1.65	0.07	4	400	0.77	56
FL60STH65 -2804AFC	2.8	1.2	4.6	2.1	0.09	4	570	1.2	67
FL60STH86 -2804AFC	2.8	1.5	6.8	3	0.12	4	840	1.4	88

# 机械尺寸

#### (Dimension)



#### • 接线图

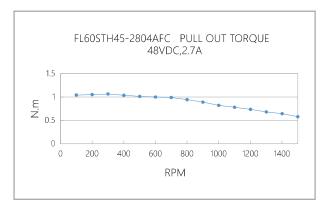
# (Wiring Diagram)

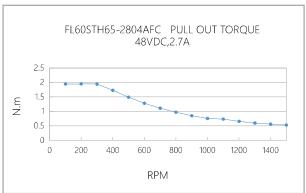
2 A -10 -3 C ⊶ В D Μ 5 6

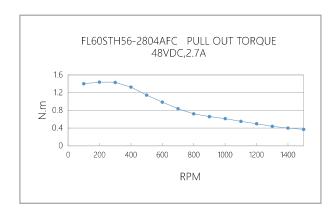
6线(leads)

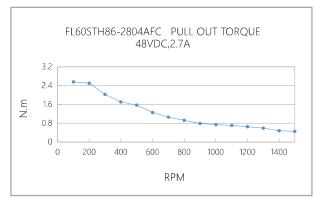


# • 矩频曲线









# 1.8° 57mm STEN

# 力矩增强型步进电机 Enhanced Torque Stepper Motor



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

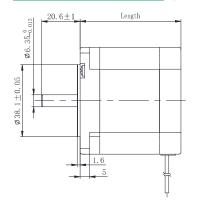
#### • 电性能

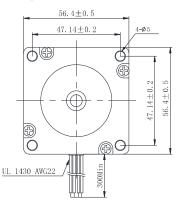
#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL57STEN56 -2804A	2.8	0.9	2.5	1.5	0.06	4	300	0.7	56
FL57STEN78 -2004A	2	2.1	6.9	2.8	0.12	4	500	1.1	78

#### • 机械尺寸

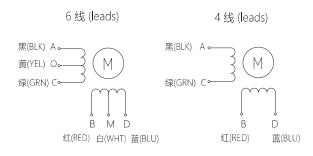
#### (Dimension)



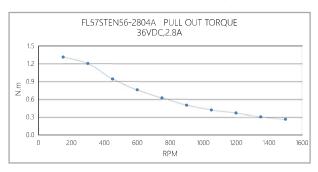


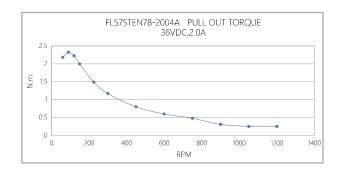
#### 接线图

#### (Wiring Diagram)



#### • 矩频曲线





# 力矩增强型步进电机 Enhanced Torque Stepper Motor

# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻(Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



选件 Options









接插件

齿轮箱

编码器

刹车

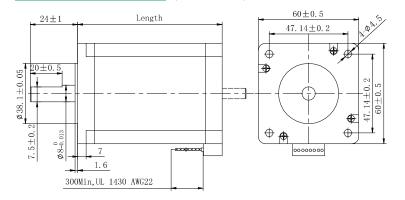
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL60STEN86 -2804AF	2.8	1.47	4.5	3.6	0.24	4	920	1.5	88

#### • 机械尺寸

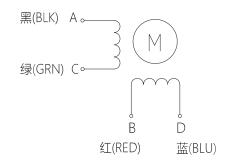
#### (Dimension)



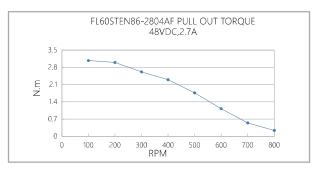
#### 接线图

(Wiring Diagram)

4线(leads)



#### • 矩频曲线





# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B
防护等级 (IP CODE)	IP65



选件 Options



接插件



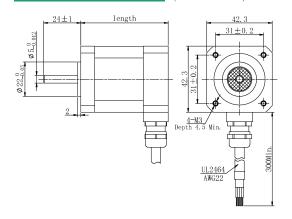
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL42STH47 -1684A -IP65	1.68	1.65	2.8	0.44	0.04	4	68	0.4	56.5

# • 机械尺寸

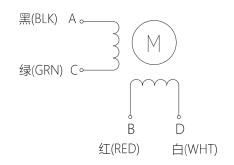
#### (Dimension)



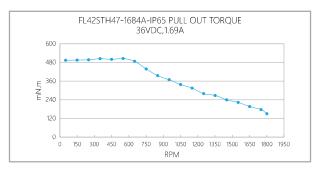
# • 接线图

(Wiring Diagram)

4线(leads)



#### • 矩频曲线



# IP65 57mm STH

# 防水型步进电机 Waterproof Stepper Motor

# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8。
步距角精度 (Step Angle Accuracy)	±5% (整步, 空载)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B
防护等级 (IP CODE)	IP65



选件 Options





接插件 齿轮箱

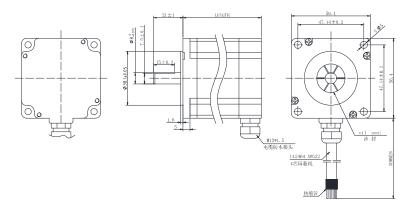
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL57STH41-2804A-IP65	2.8	0.7	1.4	0.55	0.02	4	120	0.6	46.5
FL57STH56 - 2804A - IP65	2.8	0.9	2.5	1.26	0.04	4	300	0.9	60.5
FL57STH76 - 2804A - IP65	2.8	1.13	3.6	1.89	0.068	4	480	1.2	81.5

# • 机械尺寸

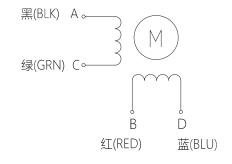
#### (Dimension)



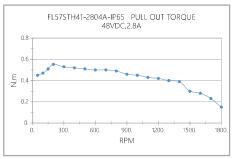
# • 接线图

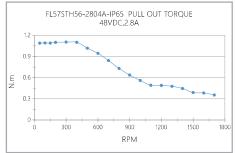
# (Wiring Diagram)

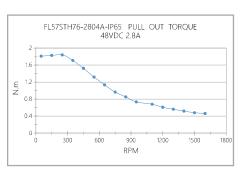
# 4线(leads)



#### • 矩频曲线







# IP65 60mm STH

# 防水型步进电机 Waterproof Stepper Motor



# • 特性概要

(General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8。
步距角精度 (Step Angle Accuracy)	±5% (整步, 空载)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B
防护等级 (IP CODE)	IP65



选件 Options



接插件



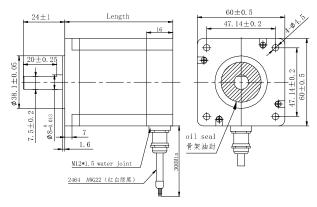
# • 电性能

(Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL60STH86 -2804AF -IP65	2.8	1.5	6.8	3	0.14	4	840	1.4	95

# • 机械尺寸

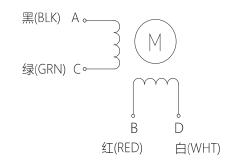
(Dimension)



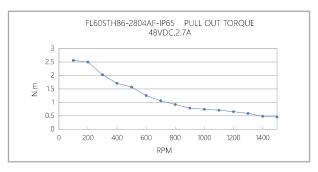
# • 接线图

(Wiring Diagram)

4线(leads)



#### • 矩频曲线



#### ш

# 防水型步进电机 Waterproof Stepper Motor

# • 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	130N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	36N
介电强度 (Dielectric Strength)	900VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B
防护等级(IP CODE)	IP65





选件 Options



接插件 齿

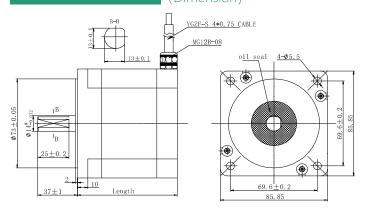
# • 电性能

#### (Electrical specifications)

型号 (№	Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single sha	aft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL86STH126	6 -7004A -IP65	7	0.48	4.4	9	0.4	4	3000	3.95	127

# • 机械尺寸

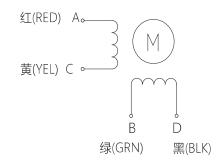
#### (Dimension)



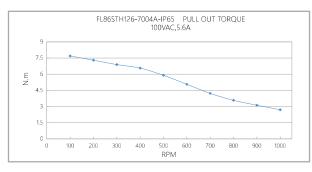
#### • 接线图

(Wiring Diagram)

4线(leads)



#### • 矩频曲线



# 1.8° 20mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# 特性概要

### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	10N
最大轴向负载 (Max. axial force)	4N
介电强度 (Dielectric Strength)	600VAC / 1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B



#### 接插件

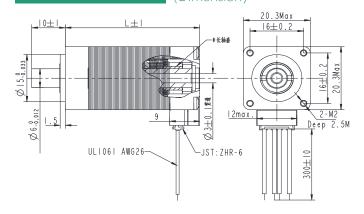
# 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL20STC33 -0604AC -H	0.6	6.4	2.6	0.022	0.002	4	2	0.06	33
FL20STC40 -0604AC -H	0.6	7.2	3.15	0.036	0.002	4	2.9	0.08	40

# • 机械尺寸

#### (Dimension)

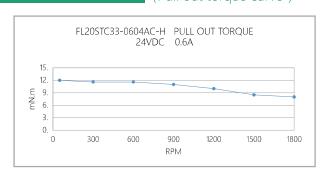


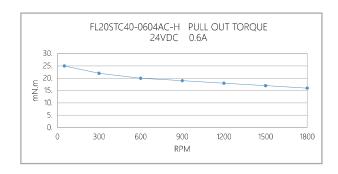
# 接线图

# (Wiring Diagram)

6线(leads) 4线(leads) 黑(BLK) A。 黑(BLK) A ⊶ 黄(YEL) O 绿(GRN) C 绿(GRN) C В 红(RED) 白(WHT) 蓝(BLU) 红(RED) 蓝(BLU)

#### 矩频曲线





# 1.8° 28mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 ( Radial Play)	0.02mm@450 g
轴向间隙 ( Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	28N 距法兰5mm (5mm from the flange)
最大轴向负载 (Max. axial force)	7N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级 (Insulation Class)	Class B







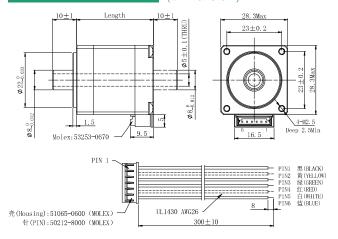
# • 电性能

(Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Double shaft (双出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL28STC32 - 0674B - H	0.67	5.6	4	0.065	0.005	4	9	0.11	32
FL28STC51-0674B-H	0.67	9.2	5.6	0.12	0.008	4	18	0.2	52

# 机械尺寸

#### (Dimension)

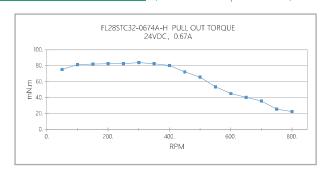


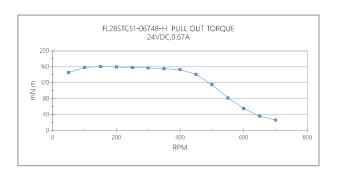
# 接线图

# (Wiring Diagram)

6线 (leads) 4线(leads) 黑(BLK) A。 黑(BLK) A。 黄(YEL) C 绿(GRN) C 绿(GRN) C В 红(RED) 白(WHT) 蓝(BLU) 红(RED) 蓝(BLU)

#### 矩频曲线





# 1.8° 35mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.8°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 (Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	10N				
介电强度 (Dielectric Strength)	600VAC / 1S				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				



选件 Options



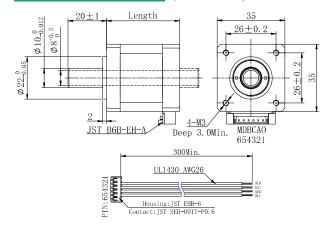
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
FL35STC38 -1204AC -H	1.2	2.8	4	0.23	0.018	4	20	0.21	38
FL35STC44 -1204AC -H	1.2	3.2	5.2	0.28	0.02	4	28	0.23	44

# • 机械尺寸

#### (Dimension)

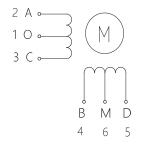


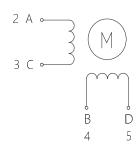
#### 接线图

# (Wiring Diagram)

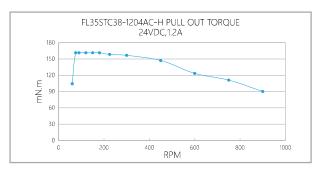
6线 (leads)

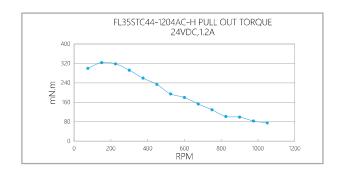
4线(leads)





#### • 矩频曲线





# 1.8° 42mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)					
步距角 (Step Angle)	1.8°					
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)					
径向间隙 (Radial Play)	0.02mm@450 g					
轴向间隙 ( Axial Play)	0.08mm@450 g					
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)					
最大轴向负载 (Max. axial force)	10N					
介电强度 (Dielectric Strength)	600VAC / 1s					
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC					
环境温度 (Ambient Temperature)	-20°C~+50°C					
绝缘等级(Insulation Class)	Class B					





选件 Options

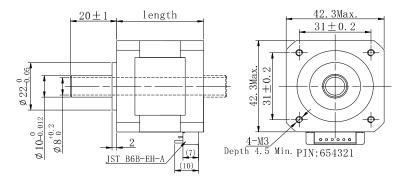
#### • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL42STC38 -1684AC - H	1.68	1.65	3.2	0.36	0.015	4	54	0.28	39.5
FL42STC47 -1684AC - H	1.68	1.65	2.8	0.44	0.02	4	68	0.35	47.5

# • 机械尺寸

#### (Dimension)

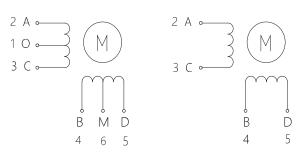


#### 接线图

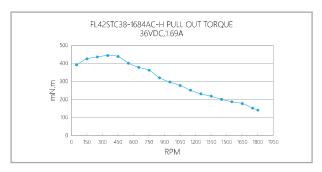
# (Wiring Diagram)

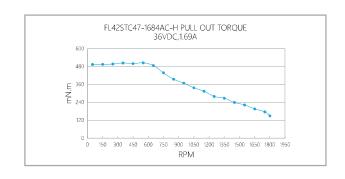
6线(leads)





#### • 矩频曲线





# 1.8° 57mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)				
步距角 (Step Angle)	1.8°				
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)				
径向间隙 ( Radial Play)	0.02mm@450 g				
轴向间隙 ( Axial Play)	0.08mm@450 g				
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)				
最大轴向负载 (Max. axial force)	15N				
介电强度 (Dielectric Strength)	600VAC / 1s				
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC				
环境温度 (Ambient Temperature)	-20°C~+50°C				
绝缘等级 (Insulation Class)	Class B				







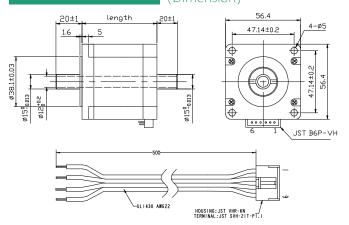
# • 电性能

#### (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Double shaft (双出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL57STC41 -2804B - H	2.8	0.78	1.8	0.6	0.025	4	120	0.45	40.5
FL57STC76 -2804B -H	2.8	1.3	5.3	2.3	0.068	4	480	1.1	77.5

# • 机械尺寸

#### (Dimension)

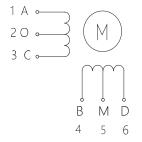


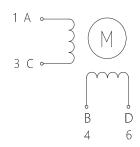
#### 接线图

# (Wiring Diagram)

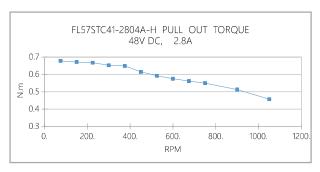
6线(leads)

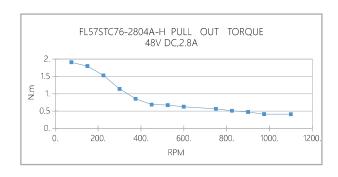
4线(leads)





#### • 矩频曲线





# 1.8° 86mm STC-H

# 空心轴步进电机 Stepper Motor with Hollow Shaft



# • 特性概要

#### (General specification)

项目 (Item)	说明 (Specifications)					
步距角 (Step Angle)	1.8°					
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)					
径向间隙 (Radial Play)	0.02mm@450 g					
轴向间隙 ( Axial Play)	0.08mm@450 g					
最大径向负载 (Max. radial force)	130N 距法兰20mm (20mm from the flange)					
最大轴向负载 (Max. axial force)	36N					
介电强度 (Dielectric Strength)	1200VAC / 1S					
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC					
环境温度 (Ambient Temperature)	-20°C~+50°C					
绝缘等级(Insulation Class)	Class B					



选件 Options



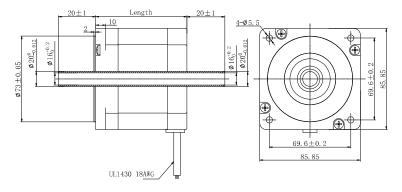
# • 电性能

#### (Electrical specifications)

型号 (Model No.)		Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Ho <b>l</b> ding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身长度
Doub <b>l</b> e shaft(双出轴)		А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
	单极性unipolar	4.2	0.8	3.5	3.3	0.12 8		8 1400	2.3	77
FL86STH80 -4208B -H	串联 series	3	1.6	14	4.5		8			
	并联 parallel	6	0.4	3.5	4.5					
	单极性unipolar	4.2	1.2	6.5	6	6 8.5 0.24 8				
FL86STH118 -4208B -H	串联 series	3	2.4	26	8.5		8	2700	3.8	114
	并联 parallel	6	0.6	6.5	8.5					

#### • 机械尺寸

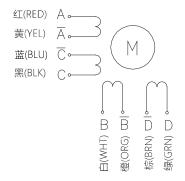
#### (Dimension)



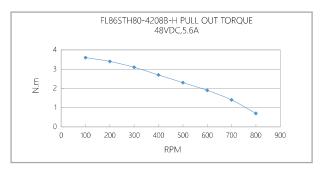
#### • 接线图

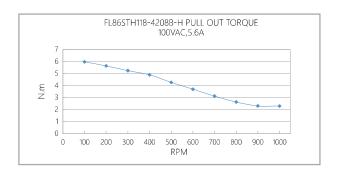
# (Wiring Diagram)

8线(leads)



# • 矩频曲线





# 1.8° 42mm STH-IE

# 内置驱动型步进电机 Stepper Motor with Integrated Driver



# • 特性概要

# (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载,full step, no load)
径向间隙 (Shaft Radial Play)	0.02mm@450 g-load
轴向间隙 (Shaft Axial Play)	0.08mm@450 g-load
最大径向负载 (Max. radial force)	28N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	10N
介电强度 (Dielectric Strength)	600VAC /1s
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B







接插件 齿

# • 电性能

# (Electrical specifications)

型号 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 毎相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm²	kg	mm
FL42STH33 -1334A -IE2	1.33	2.1	2.5	0.22	0.012	4	35	0.22	33.5
FL42STH38 -1684A -IE4	1.68	1.65	3.2	0.36	0.015	4	54	0.28	39.5
FL42STH47 -1684A -IE4	1.68	1.65	2.8	0.44	0.02	4	68	0.35	47.5

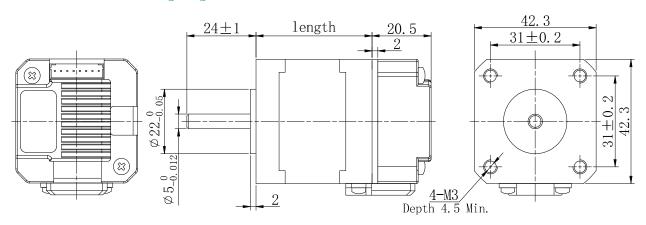
# • 驱动器电气指标

#### (Drive electrical indicator )

说明 (Specifications)	最小值(Min.)	典型值(Typ.)	最大值(Max.)	单位(Unit)
输入电压 (直流) / Input voltage (DC)	12	24	32	Vdc
输出电流(峰值)/ Output current (peak)	0.5	-	2.2	А
步进脉冲频率 / Step pulse frequency	0	-	200	KHz
脉冲电压/ Pulse voltage	-	5	5	Vdc
控制信号输入电流 / Control signal input current	7	10	16	mA
绝缘电阻 / Insulation resistance	100	-	-	ΜΩ

# • 机械尺寸

# (Wiring Diagram)





## • 细分设定

## (Microstep Resolution Selection)

细分	2	4	8	16	20	25	32	64
PU/Rev	400	800	1600	3200	4000	5000	6400	12800
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW5	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW4	ON	OFF	ON	OFF	ON	OFF	ON	OFF

## • 动态电流设定

## (Dynamic current setting)

电流Peak	0.5A	0.7A	1.0A	1.2A	1.5A	1.8A	2.0A	2.2A
电流RMS	0.35A	0.5A	0.7A	0.85A	1.0A	1.28A	1.42A	1.58A
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW2	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW1	ON	OFF	ON	OFF	ON	OFF	ON	OFF

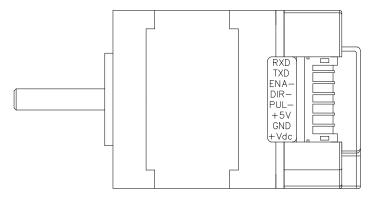
## • 控制信号输入端接口

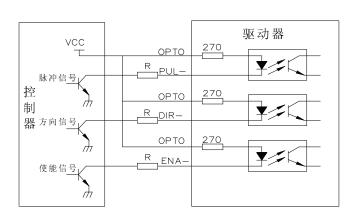
## (Control signal input interface)

引脚说明 (Pin description)	功能 (Function)						
+Vdc	电源电压:12~32 Vdc,包括电压波动和EMF电压。 Power supply:12~32 Vdc, Including voltage fluctuation and EMF voltage.						
GND	脉冲控制信号:脉冲上升沿有效;PUL-高电平时4~5V,低电平时0~0.5V。为了可靠响应脉冲信号,脉冲宽度应大于						
OPTO+ (+5V)	2.5如采用+12V或+24V时需串电阻。 Pulse control signal: pulse rising edge is valid; PUL-high level is 4~5V, low level is 0~0.5V. In order to respond reliably						
PUL-	to pulse signals, the pulse width should be greater than 2.5. If +12V or +24V is used, string resistance is required.						
OPTO+ (+5V)	方向信号:高/低电平信号,为保证电机可靠换向,方向信号应先于脉冲信号至少 5μs建立。电机的初始运行方向与电机 的接线有关, 互换任一相绕组(如A+、A-交换)可以改变电机初始运行的方向,DIR-高电平时4~5V,低电平时0~0.5V。 Direction signal: High/low level signal. To ensure reliable commutation of the motor, the direction signal should be						
DIR-	established before the pulse signal is at least 5µs. The initial running direction of the motor is related to the wiring of the motor. Interchanging any phase winding (such as A+, A-exchange) can change the direction of the initial running of the motor, DIR-high level 4~5V, low level 0~0.5V.						
OPTO+ (+5V)	使能信号:此输入信号用于使能或禁止。ENA+ 接+5V,ENA-接低电平(或内部光耦导通)时,驱动器将切断电机各相 的电流使电机处于自由状态,此时步进脉冲不被响应。当不需用此功能时,使能信号端悬空即可。 Enable signal: This input signal is used to enable or disable. When ENA+ is connected to +5V and ENA- is connected						
ENA- (ENA)	to low level (or internal optocoupler is on), the driver will cut off the current of each phase of the motor to make the motor free, and the step pulse will not be responded. When this function is not needed, the enable signal is left floating.						
TXD	RS232 transmit						
RXD	RS232 receive						

## • 系统连接框图

## (System connection diagram)





## 1.8° 57mm 1057

## 内置驱动型步进电机 Stepper Motor with Integrated Driver



## 特性概要

## (General specification)

项目 (Item)	说明 (Specifications)
步距角 (Step Angle)	1.8°
步距角精度 (Step Angle Accuracy)	±5% (整步无负载, full step, no load)
径向间隙 (Shaft Radial Play)	0.02mm@450 g
轴向间隙 (Shaft Axial Play)	0.08mm@450 g
最大径向负载 (Max. radial force)	75N 距法兰20mm (20mm from the flange)
最大轴向负载 (Max. axial force)	15N
介电强度 (Dielectric Strength)	600VAC / 1S
绝缘电阻 (Insulation Resistance)	100MΩ ,500VDC
环境温度 (Ambient Temperature)	-20°C~+50°C
绝缘等级(Insulation Class)	Class B







接插件

## • 电性能

## (Electrical specifications)

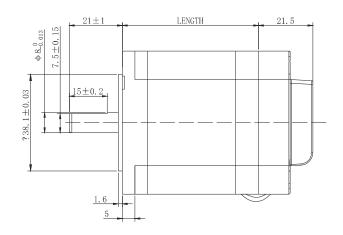
型믁 (Model No.)	Current /Phase 每相电流	Resistance /Phase 每相电阻	Inductance /Phase 每相电感	Holding Torque 保持转矩	Detent Torque 定位转矩	# of Leads 引出线数	Rotor Inertia 转动惯量	Weight 重量	Length 机身 长度
Single shaft (单出轴)	А	Ω	mH	N.m	N.m	#	g-cm <sup>2</sup>	kg	mm
IO57-10	2.8	0.9	2.5	1.26	0.04	4	300	0.9	54
IO57-22	5.6	0.4	1.8	2.2	0.07	4	500	1.5	80

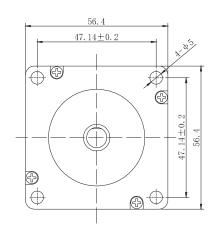
## 驱动器电气指标

#### (Drive electrical indicator )

说明 (Specifications)	最小值(Min.)	典型值(Typ.)	最大值(Max.)	单位(Unit)
输入电压 (直流) / Input voltage (DC)	20	36	50	Vdc
输出电流 (峰值) / Output current (peak)	1.5	-	5.6	А
步进脉冲频率 / Step pulse frequency	0	-	200	KHz
脉冲电压/ Pulse voltage	-	5	-	Vdc
控制信号输入电流 / Control signal input current	7	10	16	mA
绝缘电阻 / Insulation resistance	100	-	-	МΩ

## • 机械尺寸







## • 细分设定

#### (Microstep Resolution Selection)

细分	2	4	8	16	20	25	32	64
PU/Rev	400	800	1600	3200	4000	5000	6400	12800
SW6	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW5	NO	ON	OFF	OFF	ON	ON	OFF	OFF
SW4	ON	OFF	ON	OFF	ON	OFF	ON	OFF

## • 动态电流设定

## (Dynamic current setting)

电流Peak	1.5A	2.1A	2.7A	3.2A	3.8A	4.3A	4.9A	5.6A
电流RMS	1.0A	1.5A	1.9A	2.3A	2.7A	3.1A	3.5A	4.0A
SW3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW2	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW1	ON	OFF	ON	OFF	ON	OFF	ON	OFF

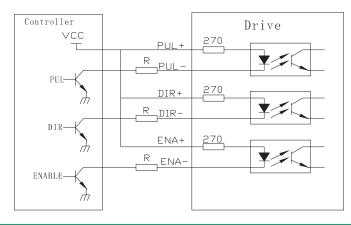
## • 控制信号输入端接口

## (Control signal input interface)

引脚说明 (Pin description)	功能 (Function)					
+Vdc	电源电压:12~32 Vdc,包括电压波动和EMF电压。 Power supply:12~32 Vdc, Including voltage fluctuation and EMF voltage.					
GND	 					
OPTO+ (+5V)	- MM中立前信号、MM中立介荷有效、FOL信息中間中で3V,似色中間0~0.5V。255 可靠响应M和信号,MM中选及歴入了 2.5如采用+12V或+24V时需串电阻。 - Pulse control signal: pulse rising edge is valid; PUL-high level is 4~5V, low level is 0~0.5V. In order to respond reliably					
PUL-	to pulse signals, the pulse width should be greater than 2.5. If +12V or +24V is used, string resistance is required.					
OPTO+ (+5V)	方向信号:高/低电平信号,为保证电机可靠换向,方向信号应先于脉冲信号至少 5μs建立。电机的初始运行方向与电机 的接线有关, 互换任一相绕组(如A+、A-交换)可以改变电机初始运行的方向,DIR-高电平时4~5V,低电平时0~0.5V。 Direction signal: High/low level signal. To ensure reliable commutation of the motor, the direction signal should be					
DIR-	established before the pulse signal is at least 5µs. The initial running direction of the motor is related to the wiring of the motor. Interchanging any phase winding (such as A+, A-exchange) can change the direction of the initial running of the motor, DIR-high level 4~5V, low level 0~0.5V.					
OPTO+ (+5V)	使能信号:此輸入信号用于使能或禁止。ENA+ 接+5V,ENA-接低电平(或内部光耦导通)时,驱动器将切断电机各相 的电流使电机处于自由状态,此时步进脉冲不被响应。当不需用此功能时,使能信号端悬空即可。 Enable signal: This input signal is used to enable or disable. When ENA+ is connected to +5V and ENA- is connected					
ENA- (ENA)	to low level (or internal optocoupler is on), the driver will cut off the current of each phase of the motor to make motor free, and the step pulse will not be responded. When this function is not needed, the enable signal is left floating.					
TXD	RS232 transmit					
RXD	RS232 receive					

## • 系统连接框图

## (System connection diagram)



注意: VCC值为5V时, R短接;

VCC值为12V时, R为1K, 大于1/8W电阻;

VCC值为24V时,R为2K,大于1/8W电阻;



## 特性概要

## (General specification)

Ratio 减速比	3.6	7.2	9	10	18	36		
Weight 重量		0.	1kg		0.125kg	0.15kg		
Number of gear trains 减速级数			2		3	4		
Nominal torque 额定转矩		2.5N.m						
Ultimate torque 极限转矩		3.0N.m						
Efficiency 效率	81% 72% 65%							
Back <b>l</b> ash 回差	0.6 deg 0.4deg					deg		



选件 Options





接插件

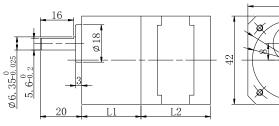
## • 电性能

## (Electrical specifications )

	3.6	7.2	a	10	18	36	
	3.0	7.2		10	10	50	
Torque(N.m) (at 300rpm)		0.5	11	1.3	1.45	2.3	
FL42STH33 -42JB	转矩(N.m) (在 300rpm)	0.5	1, 1	1.5	1.45	2.3	_
	speed(rpm) 转速(rpm)	83	41.5	33	30	16.5	-
	Torque(N.m) (at 300rpm)	0.73	1.45	1.8	า		
FL42STH38 -42JB	转矩(N.m) (在 300rpm)	0.75	1.43	1.0	4		
	speed(rpm) 转速(rpm)	83	41	33	30		

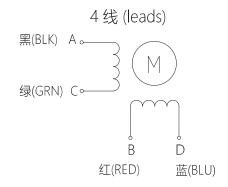
## • 机械尺寸

#### (Dimension)





## • 接线图



RATIO	L2(r	nm)	L1(mm)
减速比	FL42STH33 -42JB	Li(iiiii)	
3.636	33.5	39.5	28.5

## 正齿轮箱步进电机 Stepper Motor with Spur Gearbox

## 特性概要

## (General specification)

Ratio 减速比	3	7.5	13	15	25	30	50	75	90	100	120	150					
Weight 重量	0.24kg 2							0.3	Bkg								
Number of gear trains 减速级数			2			3				4	4						
Nominal torque 额定转矩						10N.m											
Ultimate torque 极限转矩						151											
Efficiency 效率	81%					73%				66%							
Backlash 回差	4°					3.5°				2.5°							



选件 Options







接插件

编码器

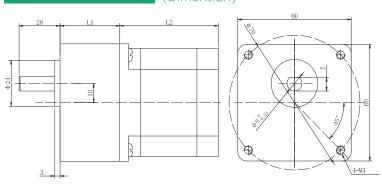
• 电性能

### (Electrical specifications)

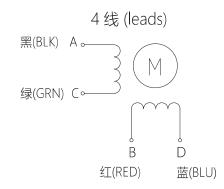
F	Ratio 减速比	3	7.5	12.5	15	25	30	50	75	90	100	120	150
FL57STH41-60JB	Torque(N.m) (at 300rpm) 转矩(N.m) (在 300rpm)	1.02	2.55	4.25	5.1	7.66	9.19						
	speed(rpm) 转速(rpm)	100	40	24	20	12	10						
FL57STH51-60JB	Torque(N.m) (at 300rpm) 转矩(N.m) (在 300rpm)	1.78	4.25	7.08	8.5								
	speed(rpm) 转速(rpm)	100	40	24	20								
FL57STH56 -60JB	Torque(N.m) (at 300rpm) 转矩(N.m) (在 300rpm)	1.84	4.61	7.69	9.23								
	speed(rpm) 转速(rpm)	100	40	24	20								
FL57STH76 -60JB	Torque(N.m) (at 300rpm) 转矩(N.m) (在 300rpm)	2.91	7.29										
	speed(rpm) 转速(rpm)	100	40										

## • 机械尺寸

#### (Dimension)



## 接线图



RATIO 减速比		L2(mm)  FL57STH41-60JB FL57STH51-60JB FL57STH56-60											
	FL57STH41-60JB	FL57STH51-60JB	FL57STH56-60JB	FL57STH76-60JB									
315	40	50	55	7.5	32								
25150	40	50	22	/5	40								



## 特性概要

## (General specification)

Ratio 减速比	3	5	6	7.5	9	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120
Weight 重量	1.3kg 1.5kg																			
Number of gear trains 减速级数	2 3 4																			
Nominal torque 额定转矩	30N.m																			
Ultimate torque 极限转矩										45N	V.m									
Efficiency 效率	81%										73	%						669	%	
Backlash 回差				4 c				3	3.50	deg			2.5deg							



选件 Options







接插件

编码器

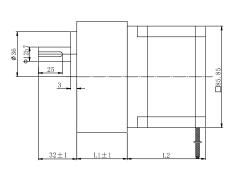
## • 电性能

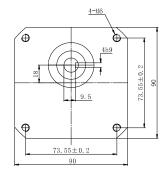
### (Electrical specifications)

	Ratio 减速比	3	5	6	7.5	9	10	13	15	18	20	25	30	36	40	50	60	75	90	100	120
FL86STH65 -90JB	Torque(N.m) (at 400rpm) 转矩(N.m) (在 400rpm)	3.6	6	7.2	9.1	11	12	15	18	20	22	27									
	speed(rpm) 转速(rpm)	133	80	67	53	44	40	32	27	22	20	16									
FL86STH80 -90JB	Torque(N.m) (at 400rpm) 转矩(N.m) (在 400rpm)	4.8	8.1	9.7	12	15	16	20	24	26	29										
	speed(rpm) 转速(rpm)	133	80	67	53	44	40	32	27	22	20										
FL86STH118 -90JB	Torque(N.m) (at 400rpm) 转矩(N.m) (在 400rpm)	9.7	16	19	24	29															
	speed(rpm) 转速(rpm)	133	80	67	53	44															
FL86STH156 -90JB	Torque(N.m) (at 400rpm) 转矩(N.m) (在 400rpm)	12	20	24	30																
	speed(rpm) 转速(rpm)	133	80	67	53																

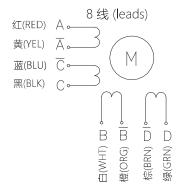
## 机械尺寸

#### (Dimension)





## • 接线图



RATIO		L2(r	nm)		L1(mm)
KATIO	FL86STH65 -90JB	FL86STH80 -90JB	FL86STH118 -90JB	FL86STH156 -90JB	LI(IIIIII)
315	6E	80	118	156	42
18120	65	00	110	130	60

## 22JM20K-20STH

## 行星减速步进电机 Planetary Gear Stepper Motor



内齿圈材质: 金属

Φ22行星减速器, 允许转矩范围: 0.6N.m~2.0N.m

22mm Planetary Gearbox Permissible Load Range: 0.6N.m~2.0N.m

## • 特性概要

#### (General specification)

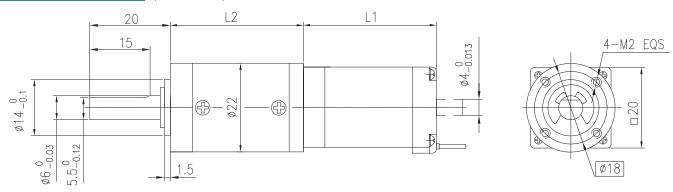
内齿圈材料 Ring material	金属 metal
输出轴轴承形式 Bearing at output	滚动轴承Ball bearings
最大允许径向负载 (离法兰10mm处)	50N
Max. Radial load (10mm from flange)	2014
最大允许轴向负载 Max. shaft axial load	30N
径向间隙 (测量点尽量接近法兰)	≤0.08 mm
Radial play of shaft (near to flange)	20.00 11111
轴向间隙 Axial play of shaft	≤0.3 mm





#### • 机械尺寸

#### (Dimension)



## • FL20STH混合式步进电机性能

## (FL20STH Hybrid Stepping Motor Specifications)

	额定电压	毎相电流	毎相电阻	毎相电感	保持转矩	引出线数	转动惯量	重量	长度L1	适配减速比
Model No.	Rated Vo <b>l</b> tage	Current /Phase	Resistance /Phase	Inductance /Phase	Ho <b>l</b> ding Torque	# of Leads	Rotor Inertia	Weight	Length L1	Max. Gear Ratio
单轴 Single Shaft	V	А	Ω	mH	g.cm		kg-m²	g	mm	
FL20STH33 -0604A	3.9	0.6	6.5	1.7	180	4	2.0x10 <sup>-7</sup>	60	33	≤1:369
FL20STH42 -0804A	4.32	0.8	5.4	1.5	300	4	3.6x10 <sup>-7</sup>	80	42	≤1:264

## • 行星减速器性能

减速比 Reduction ratio		3.71	5.18	14	19	27	51	71	100	139	189	264	369									
精确减速比 Accurate Reduction	n Ratio	63/ <sub>17</sub>	<sup>57</sup> / <sub>11</sub>	<sup>3969</sup> / <sub>289</sub>	3591/ <sub>187</sub>	<sup>3249</sup> / <sub>121</sub>	250047/4913	226233/3179	204687	185193/	538861/2857	1119000/4243	3661450/9929									
减速级数 Number of gear trains	5		1		2				3			4										
减速器长度 (L2) Length(L2)	mm	23	3.4		30			30	5.4													
最大额定转矩 Max. rated torque	kg.cm	(	5		10			20 20				42.8										
瞬间允许转矩 Short time permissible torque	kg.cm	2	0		30	30 60						60										
效率 Efficiency	%	90	)%	81%		81%		81% 73%		73%			73%		73%			66%				
背隙(无负载时)Backlash at no-lo	ad	0.	6°		1.0°		1.5°				1.5°											
重量 Weight	g	3	1		37				13	·	49											

## 28JMS40K-28STH

## 行星减速步进电机 Planetary Gear Stepper Motor



内齿圈材质: 金属 Φ28行

Φ28行星减速器,允许转矩范围: 1.2N.m~4.0N.m

28mm Planetary Gearbox Permissible Load Range: 1.2N.m~4.0N.m

## • 特性概要

#### (General specification)

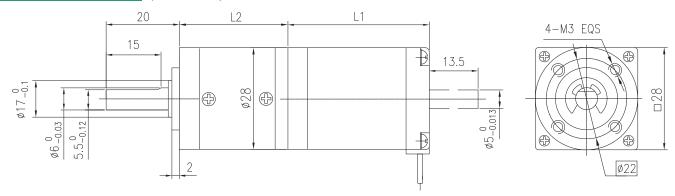
内齿圈材料 Ring material	金属 metal
输出轴轴承形式 Bearing at output	滚动轴承Ball bearings
最大允许径向负载 (离法兰10mm处)	100N
Max. Radial load (10mm from flange)	10014
最大允许轴向负载 Max. shaft axial load	50N
径向间隙 (测量点尽量接近法兰)	≤0.07 mm
Radial play of shaft (near to flange)	20.07 11111
轴向间隙 Axial play of shaft	≤0.3 mm





#### 机械尺寸

#### (Dimension)



## • FL28STH混合式步进电机性能

## (FL28STH Hybrid Stepping Motor Specifications)

	额定电压	毎相电流	毎相电阻	毎相电感	保持转矩	引出线数	转动惯量	重量	长度L1	适配减速比
Model No.	Rated Vo <b>l</b> tage	Current /Phase	Resistance /Phase	Inductance /Phase	Ho <b>l</b> ding Torque	# of Leads	Rotor Inertia	Weight	Length L1	Max. Gear Ratio
单轴 Sing <b>l</b> e Shaft	V	А	Ω	mH	g.cm		kg-m²	g	mm	
FL28STH45-0956A	3.4	0.95	3.4	1.2	750	6	12x10 <sup>-7</sup>	44.5	44.5	≤1:189
FL28STH51-0956A	4.4	0.95	4.6	1.8	900	6	18x10 <sup>-7</sup>	50.5	50.5	≤1:189

## • 行星减速器性能

减速比 Reduction ratio		3.71	5.18	14	19	27	51	72	100	139	189	264	369							
精确减速比 Accurate Reduction	n Ratio	63/ <sub>17</sub>	<sup>57</sup> / <sub>11</sub>	<sup>3969</sup> / <sub>289</sub>	3591/ <sub>187</sub>	<sup>3249</sup> / <sub>121</sub>	250047/4913	226233/3179	204687	185193 / <sub>1331</sub>	538861	1119000/4243	3661450/9929							
减速级数 Number of gear trains	5	-	1		2				3			4								
减速器长度 (L2) Length(L2)	mm	2	9		36.1		43													
最大额定转矩 Max. rated torque	kg.cm	1;	2		20			2	10		49.9 40									
瞬间允许转矩 Short time permissible torque	kg.cm	4	0		60		120					120								
效率 Efficiency	%	90	)%	81%		81%		81% 73%		73%			73%			66%				
背隙(无负载时)Backlash at no-lo	ad	0.0	6°	1.0°			1.0°			1.5°			1.5°				1.5°			
重量 Weight	g	7	5		97			1	19		141									

## 42JMGS100K-42STH

## 行星减速步进电机 Planetary Gear Stepper Motor



内齿圈材质: 金属

Φ42行星减速器,允许转矩范围:3N.m~10N.m

42mm Planetary Gearbox Permissible Load Range: 3N.m~10N.m

## • 特性概要

#### (General specification)

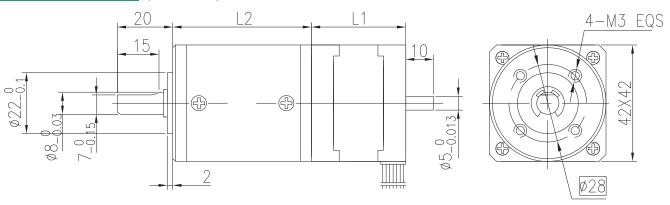
内齿圈材料 Ring material	金属 metal
输出轴轴承形式 Bearing at output	滚动轴承Ball bearings
最大允许径向负载 (离法兰10mm处)	100N
Max. Radial load (10mm from flange)	10014
最大允许轴向负载 Max. shaft axial load	50N
径向间隙 (测量点尽量接近法兰)	≤0.07 mm
Radial play of shaft (near to flange)	30.07 11111
轴向间隙 Axial play of shaft	≤0.3 mm





#### • 机械尺寸

#### (Dimension)



## • FL42STH混合式步进电机性能

## (FL42STH Hybrid Stepping Motor Specifications )

	额定电压	毎相电流	毎相电阻	毎相电感	保持转矩	引出线数	转动惯量	重量	长度L1	适配减速比
Model No.	Rated Voltage	Current /Phase	Resistance /Phase	Inductance /Phase	Ho <b>l</b> ding Torque	# of Leads	Rotor Inertia	Weight	Length L1	Max. Gear Ratio
单轴 Single Shaft	V	А	Ω	mH	g.cm		kg-m²	g	mm	
FL42STH33 -1334A	2.8	1.33	2.1	2.5	2.2	4	35	0.22	34	≤1:118
FL42STH38-1684A	2.8	1.68	1.65	3.2	3.6	4	54	0.28	40	≤1:91

## • 行星减速器性能

减速比 Reduction ratio		3.82	4.88	15	19	24	56	71	91	116	213	271	346
精确减速比 Accurate Reduction	n Ratio	<sup>42</sup> / <sub>11</sub>	<sup>39</sup> / <sub>8</sub>	1764 / <sub>121</sub>	819/ <sub>44</sub>	1521/64	74088/ <sub>1331</sub>	17199/242	31941 / <sub>352</sub>	59319/ <sub>512</sub>	411889/1938	361179/1331	670761
减速级数 Number of gear train:	5		1	2					3	4			
减速器长度 (L2) Length(L2)	mm	36	5.9		47.4			57	7.7			68	
最大额定转矩 Max. rated torque	kg.cm	3	0	50				10	00		100		
瞬间允许转矩 Short time permissible torque	kg.cm	9	0	150			300				300		
效率 Efficiency	%	90	)%		81%		73%					66%	
背隙(无负载时)Backlash at no-lo	ad	0.	5°	1.0°			1.5°				1.5°		
重量 Weight	g	22	29	300			371				442		

## 56JMES300K-57STH

## 行星减速步进电机 Planetary Gear Stepper Motor



内齿圈材质: 金属

Φ56行星减速器, 允许转矩范围: 9N.m~30N.m

56mm Planetary Gearbox Permissible Load Range: 9N.m~30N.m

## • 特性概要

#### (General specification)

内齿圈材料 Ring material	金属 metal
输出轴轴承形式 Bearing at output	滚动轴承Ball bearings
最大允许径向负载 (离法兰10mm处)	300N
Max. Radial load (10mm from flange)	30011
最大允许轴向负载 Max. shaft axial load	200N
径向间隙 (测量点尽量接近法兰)	≤0.08 mm
Radial play of shaft (near to flange)	20.00 11111
轴向间隙 Axial play of shaft	≤0.4 mm





接插件

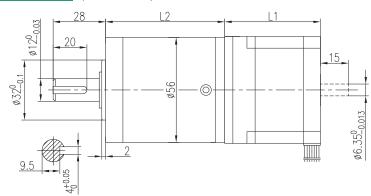


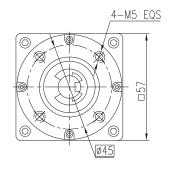




#### • 机械尺寸

#### (Dimension)





#### • 57STH混合式步进电机性能

## (57STH Hybrid Stepping Motor Specifications)

	额定电压	毎相电流	毎相电阻	毎相电感	保持转矩	引出线数	转动惯量	重量	长度L1	适配减速比
Model No.	Rated Voltage	Current /Phase	Resistance /Phase	Inductance /Phase	Ho <b>l</b> ding Torque	# of Leads	Rotor Inertia	Weight	Length L1	Max. Gear Ratio
单轴 Single Shaft	V	А	Ω	mH	g.cm		kg-m²	g	mm	
FL57STH51-2804A	2.3	2.8	0.83	2.2	10.1	4	275	0.65	51	≤1:77
FL57STH56 -2804A	2.5	2.8	0.9	2.5	12.6	4	300	0.7	56	≤1:77

## • 行星减速器性能

减速比 Reduction ratio		3.6	4.25	13	15	18	23	47	55	65	77	96	121	154	187
精确减速比 Accurate Reduction	n Ratio	<sup>18</sup> / <sub>5</sub>	17/4	<sup>324</sup> / <sub>25</sub>	153/ <sub>10</sub>	<sup>289</sup> / <sub>16</sub>	<sup>68</sup> / <sub>3</sub>	<sup>5932</sup> / <sub>125</sub>	1337/25	2601/40	<sup>4913</sup> / <sub>64</sub>	<sup>289</sup> / <sub>3</sub>	1088/8	30277/ <sub>197</sub>	23328/
减速级数 Number of gear train:	S		1			2			2						4
减速器长度 (L2) Length(L2)	mm	37	7.8		49	9.4				60	).8			7	1.9
最大额定转矩 Max. rated torque	kg.cm	9	0	150				300						3	00
瞬间允许转矩 Short time permissible torque	kg.cm	2	70	450				900						9	100
效率 Efficiency	%	90	)%		8	1%				73	3%			6	6%
背隙(无负载时)Backlash at no-lo	ad	0.	5°		0.	5°				1.	O°			1.5°	
重量 Weight	g	4.	55	610			765						920		

## 60JMS300K-60STH

## 行星减速步进电机 Planetary Gear Stepper Motor



内齿圈材质: 金属

Φ60行星减速器, 允许转矩范围: 9N.m~30N.m

60mm Planetary Gearbox Permissible Load Range: 9N.m~30N.m

## • 特性概要

#### (General specification)

内齿圈材料 Ring material	金属 metal
输出轴轴承形式 Bearing at output	滚动轴承Ball bearings
最大允许径向负载 (离法兰10mm处)	300N
Max. Radial load (10mm from flange)	30011
最大允许轴向负载 Max. shaft axial load	200N
径向间隙 (测量点尽量接近法兰)	≤0.08 mm
Radial play of shaft (near to flange)	20.00 11111
轴向间隙 Axial play of shaft	≤0.4 mm



接插件



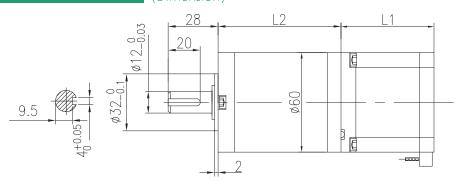


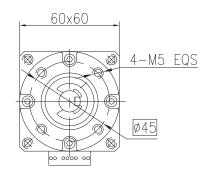




#### 机械尺寸

#### (Dimension)





## • FL60STH混合式步进电机性能

## (FL60STH Hybrid Stepping Motor Specifications)

		额定电压	毎相电流	毎相电阻	毎相电感	保持转矩	引出线数	转动惯量	重量	长度L1	适配减速比
Mode	Model No.		Current /Phase	Resistance /Phase	Inductance /Phase	Ho <b>l</b> ding Torque	# of Leads	Rotor Inertia	Weight	Length L1	Max. Gear Ratio
单轴 Sin	ıg <b>l</b> e Shaft	V	А	Ω	mH	g.cm		kg-m²	g	mm	
FL60STH45 -	-2008AF 并即	美 2.1	2.8	0.75	2	11	8	275	0.6	47	≤1:115
FL60STH56-	-2008AF 并耳	美 2.52	2.8	0.9	3.6	16.5	8	300	0.77	56	≤1:77

## • 行星减速器性能

减速比 Reduction ratio		3.6	4.25	13	15	18	23	47	55	65	77	96	121	
精确减速比 Accurate Reduction	n Ratio	<sup>18</sup> / <sub>5</sub>	17/4	<sup>324</sup> / <sub>25</sub>	153/ <sub>10</sub>	<sup>289</sup> / <sub>16</sub>	Mar-68	<sup>5932</sup> / <sub>125</sub>	1337/25	<sup>2601</sup> / <sub>40</sub>	4913/64	<sup>289</sup> / <sub>3</sub>	1088/8	
减速级数 Number of gear train:	S	1 2						3						
减速器长度 (L2) Length(L2)	mm	37	7.8		4	9.4				60	).8			
最大额定转矩 Max. rated torque	kg.cm	9	10			150			300					
瞬间允许转矩 Short time permissible torque	kg.cm	2	70		2	150		900						
效率 Efficiency	%	90	)%		8	31%				73	3%			
背隙(无负载时)Backlash at no-lo	ad	0.	5°	1.0°						1.	5°			
重量 Weight	g	50	00	688				876						

## LA20

## 贯通轴式线性执行器 (Non-Captive Linear Actuator) NEMA 8



选件 Options





## 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	衬套长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Socket	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "L"	kg
	N		Winding		Winding	Winding	mm	mm	mm	mm	
LA201S06-A-TDBA	46	40	0.6	5	6.4	2.6	3.5	1	33	8	0.054
LA201S06-B-TDBA	46	40	0.6	5	6.4	2.6	3.5	1	33	8	0.054

#### ▶ 配件

#### (ACCESSORIES)

ZST3,5-1-200-1 带梯形螺纹的丝杆 (Lead Screw with Trapezoidal Thread) ZST3,5-1-500 带梯形螺纹的丝杆 (Lead Screw with Trapezoidal Thread) NANOLUBE-50G 润滑剂 (Lubricant) • 警告

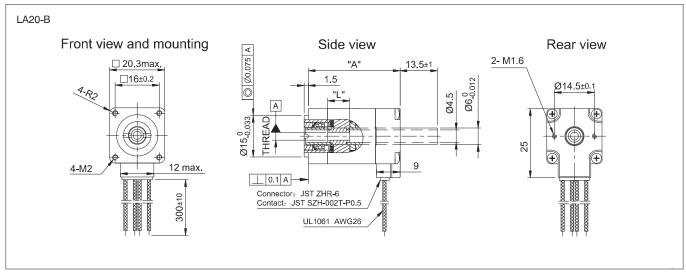
(CAUTION)

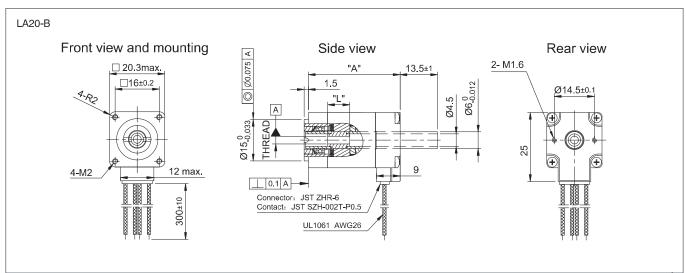
Δ

数据表中指定的力和额定功率基10%至 20% 的占空比,必须将其相应降低才能获得更大的值。应避免运行至固定的限位挡块。(The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.)



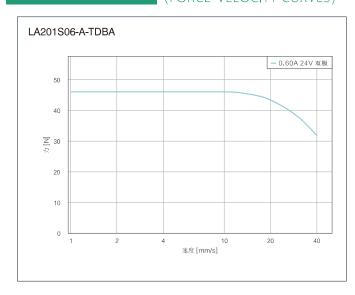
#### (DIMENSIONS)

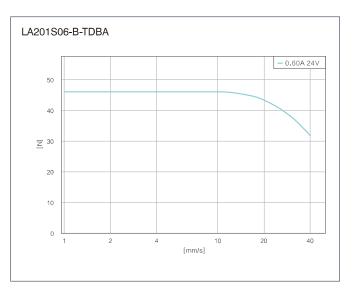




#### • 速度推力曲线

#### (FORCE-VELOCITY CURVES)







## 固定轴式线性执行器 (Captive Linear Actuator) NEMA 8



选件 Options





型号

(VERSIONS)

	型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	行程长度	重量
(	Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Stroke	Weight
			mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "X"	kg
		N		Winding		Winding	Winding	mm	mm	mm	mm	
LGA	201S06-A-TDBA-019	9 46	40	0.6	5	6.4	2.6	3.5	1	33	19.05	0.054
LGA	201S06-A-TDBA-03	8 46	40	0.6	5	6.4	2.6	3.5	1	33	38.1	0.15

• 配件

(ACCESSORIES)

NANOLUBE-50G 润滑剂(Lubricant)

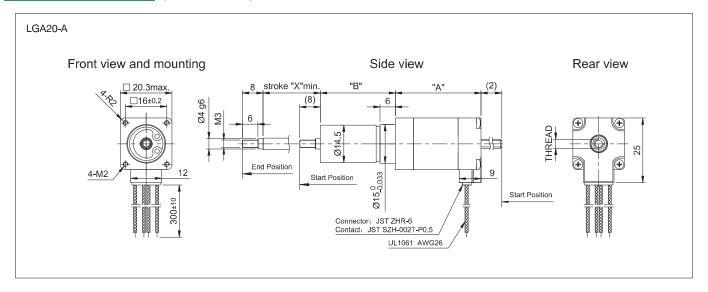
警告

(CAUTION)

Δ

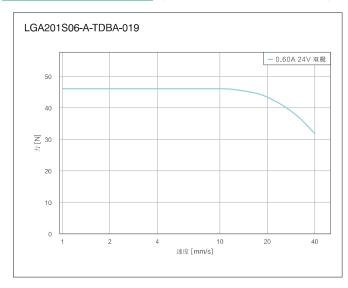
数据表中指定的力和额定功率基于 10%至 20% 的占空比, 必须将其相应降低才能获得更大的值。应避免运行至固定的限位 挡块。(The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.)

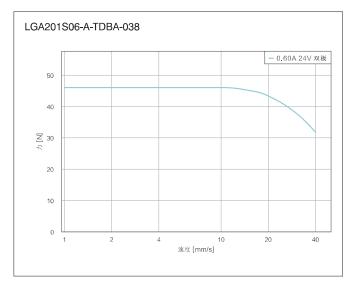
## (DIMENSIONS)



## • 速度推力曲线

#### (FORCE-VELOCITY CURVES)





## LSA20

## 外部驱动式线性执行器 (External Linear Actuator) NEMA 8



选件 Options





## 型号

## (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	丝杠长度	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Screw	Length	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	Length "L"	"A"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LSA201S06-A-TDBA-102	46	40	0.6	5	6.4	2.6	3.5	1	102	33	0.054
LSA201S06-B-TDBA-102	46	40	0.6	5	6.4	2.6	3.5	1	102	33	0.054

#### 配件

#### (ACCESSORIES)

LSNUT-AAAA-TDBA 螺纹螺母(Threaded Nut) – POM LSNUT-ZERO3,5X1

预装螺纹螺母(Loaded Threaded Nut) -PEEK NANOLUBE-50G 润滑剂(Lubricant)

## 警告

## (CAUTION)

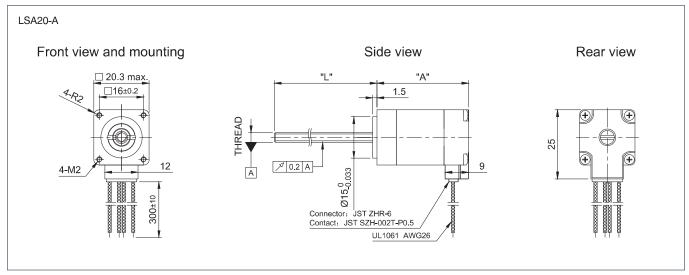


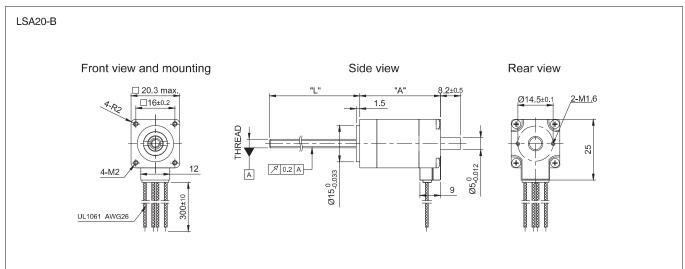
数据表中指定的力和额定功率基于 10%

至 20% 的占空比,必须将其相应降低才能获得更大的值。应避免运行至固定的限位挡块。(The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.)



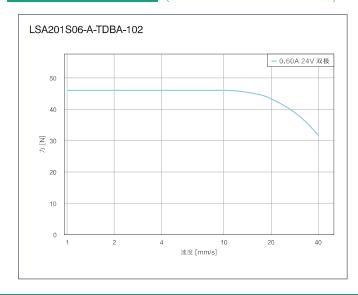
## (DIMENSIONS)

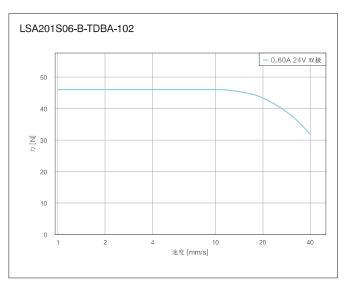




## • 速度推力曲线

#### (FORCE-VELOCITY CURVES)





## 贯通轴式线性执行器 (Non-Captive Linear Actuator) NEMA 11



选件 Options





#### • 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	衬套长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Socket	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "L"	kg
	N		Winding		Winding	Winding	mm	mm	mm	mm	
LA281S10-A-THCA	93.4	35	1	10	2.7	2.5	5	2	33	15	0.11
LA281S10-B-THCA	93.4	35	1	10	2.7	2.5	5	2	33	15	0.11
LA281S10-A-UGFC	50	120	1	25.4	2.7	2.5	4.76	5.08	33	15	0.11
LA281S10-B-UGFC	50	120	1	25.4	2.7	2.5	4.76	5.08	33	15	0.11
LA281S10-A-UGAQ	210	19	1	3.175	2.7	2.5	4.76	0.635	33	15	0.11
LA281S10-B-UGAQ	210	19	1	3.175	2.7	2.5	4.76	0.635	33	15	0.11
LA281M06-A-THCA	152	35	0.6	10	7.3	6.52	5	2	41	15	0.14
LA281M06-B-THCA	152	35	0.6	10	7.3	6.52	5	2	41	15	0.14
LA281M15-A-THCA	152	35	1.5	10	1.45	1.25	5	2	41	15	0.14
LA281M15-B-THCA	152	35	1.5	10	1.45	1.25	5	2	41	15	0.14

#### • 配件

#### (ACCESSORIES)

SCREW-ABA-UGAQ-200 带 ACME 螺纹的丝杆 SCREW-ABA-UGAQ-300 带 ACME 螺纹的丝杆 SCREW-AAA-UGAQ-1000 带 ACME 螺纹的丝杆 SCREW-ABA-UGFC-200 带 ACME 螺纹的丝杆 SCREW-ABA-UGFC-300 带 ACME 螺纹的丝杆 SCREW-ABA-UGFC-1000 带 ACME 螺纹的丝杆 NANOLUBE-50G 润滑剂

SCREW-ABA-UGAQ-200

Lead Screw with ACME Thread SCREW-ABA-UGAQ-300
Lead Screw with ACME Thread SCREW-AAA-UGAQ-1000
Lead Screw with ACME Thread SCREW-ABA-UGFC-200
Lead Screw with ACME Thread SCREW-ABA-UGFC-300
Lead Screw with ACME Thread SCREW-AAA-UGFC-1000
Lead Screw with ACME Thread NANOLUBE-50G Lubricant

警告

#### (CAUTION)

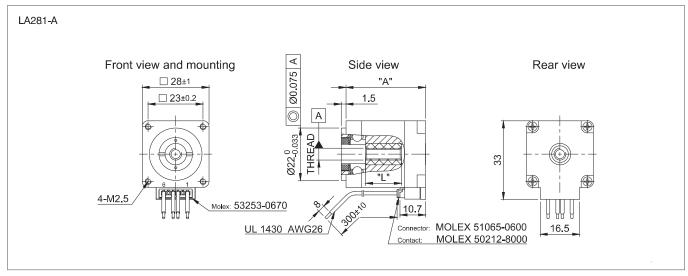


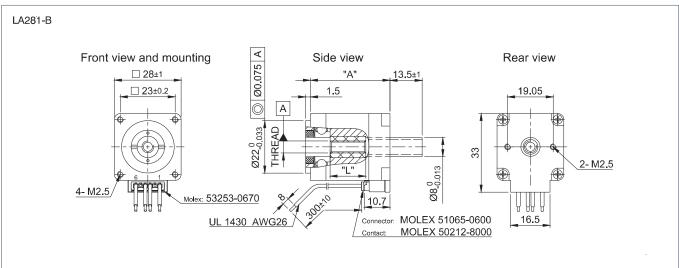
数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。

The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.



## (DIMENSIONS)

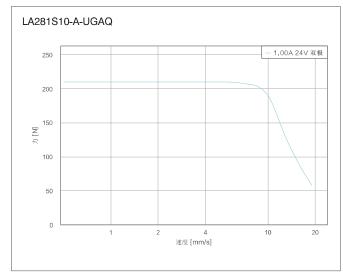


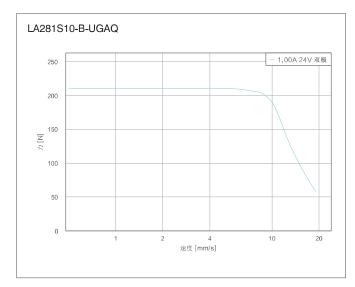


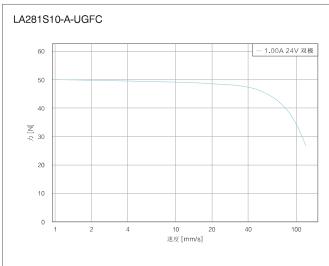


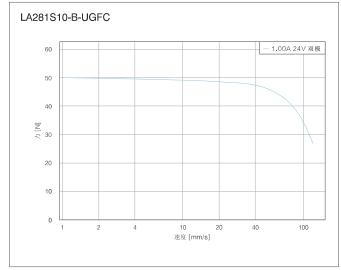
## • 速度推力曲线

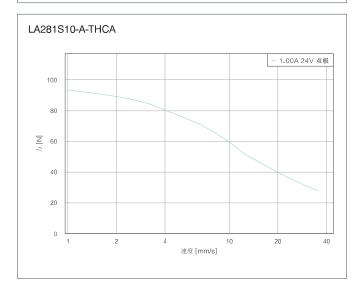
(Dimension)

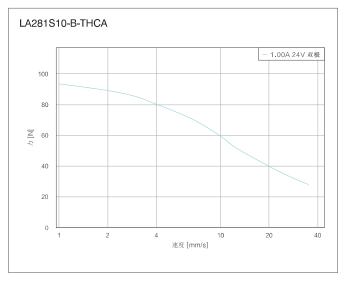




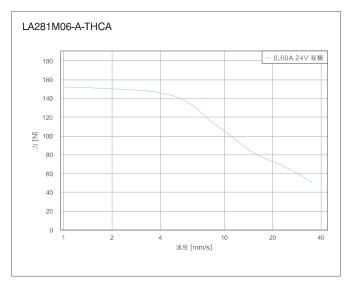


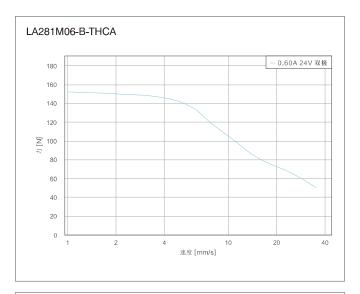


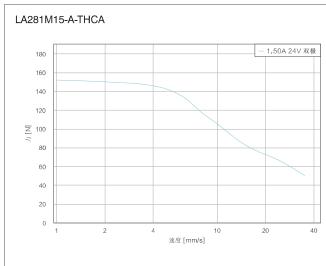


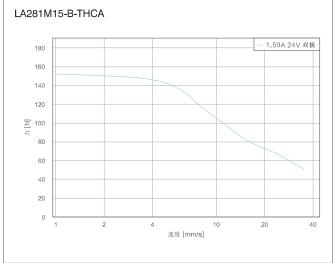












## 固定轴式线性执行器 (Captive Linear Actuator) NEMA 11



选件 Options





## • 型号

## (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	行程长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Stroke	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "X"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LGA281S10 - A - UGAQ - 019	210	19	1	3.175	2.7	2.5	4.76	0.635	33	19.05	0.14
LGA281S10-B-UGAQ-019	210	19	1	3.175	2.7	2.5	4.76	0.635	33	19.05	0.14
LGA281S10 - A - UGAQ - 038	210	19	1	3.175	2.7	2.5	4.76	0.635	33	38.1	0.15
LGA281S10 - B-UGAQ - 038	210	19	1	3.175	2.7	2.5	4.76	0.635	33	38.1	0.15
LGA281S10 - A - UGFC - 019	50	120	1	25.4	2.7	2.5	4.76	5.08	33	19.05	0.14
LGA281S10-B-UGFC-019	50	120	1	25.4	2.7	2.5	4.76	5.08	33	19.05	0.15
LGA281S10 - A - UGFC - 038	50	120	1	25.4	2.7	2.5	4.76	5.08	33	38.1	0.14
LGA281S10-B-UGAQ-038	50	120	1	25.4	2.7	2.5	4.76	5.08	33	38.1	0.15
LGA281S10 - A-THCA - 019	93.4	35	1	10	2.7	2.5	5	2	33	19.05	0.14
LGA281S10 - B - THCA - 019	93.4	35	1	10	2.7	2.5	5	2	33	19.5	0.14
LGA281S10 - A-THCA - 038	93.4	35	1	10	2.7	2.5	5	2	33	38.1	0.14
LGA281S10-B-THCA-038	93.4	35	1	10	2.7	2.5	5	2	33	38.1	0.14

• 配件

(ACCESSORIES)

NANOLUBE-50G 润滑剂 NANOLUBE-50G Lubricant 警告

(CAUTION)

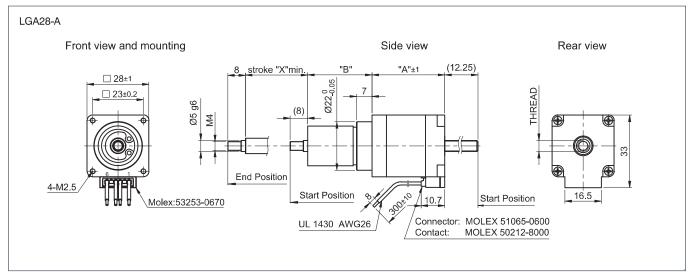
Δ

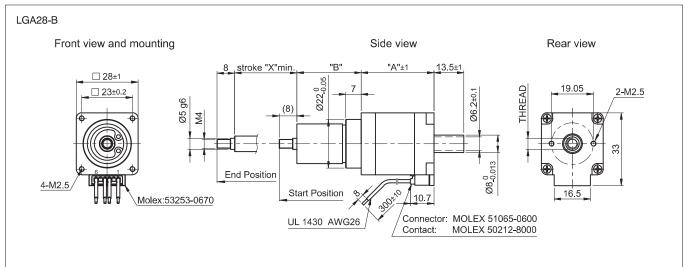
数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。

The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.

## • 机械尺寸

(DIMENSIONS)

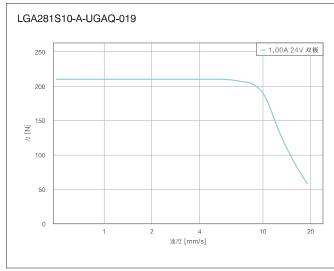


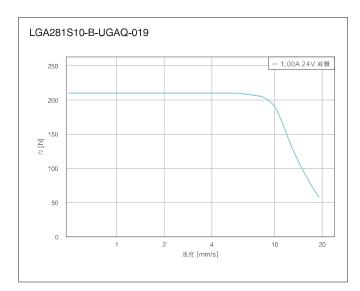


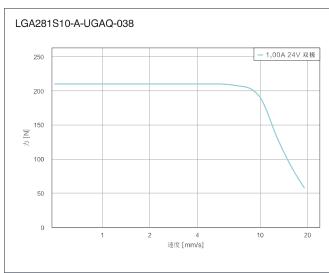


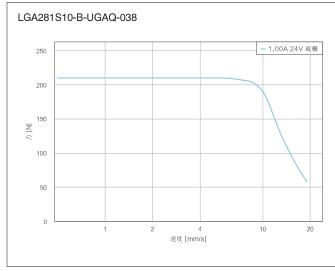
## • 速度推力曲线

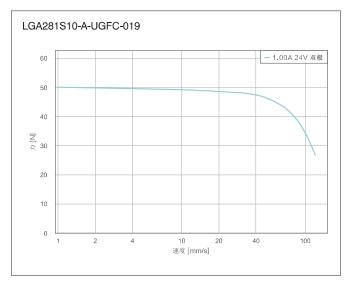
## (FORCE-VELOCITY CURVES)

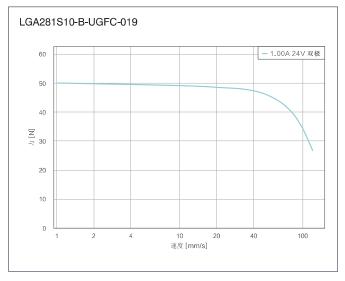




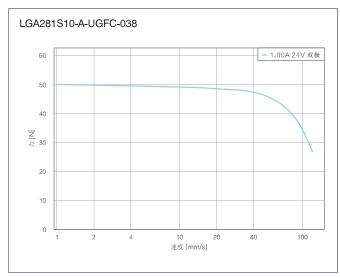


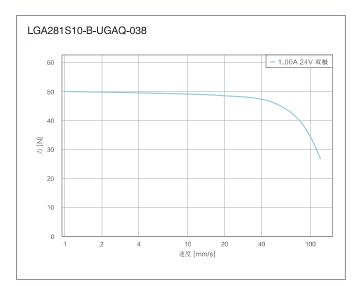


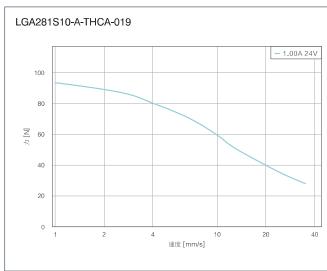


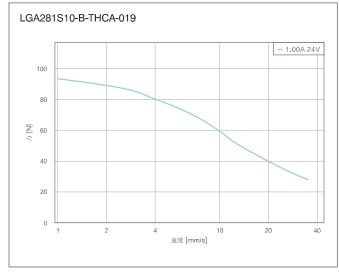


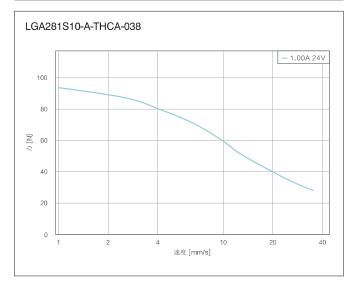


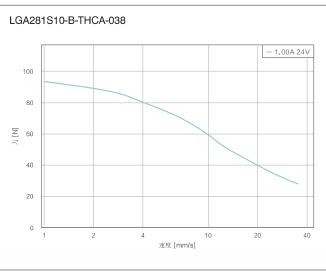












## 外部驱动式线性执行器 (External Linear Actuator) NEMA 11



选件 Options





## • 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	丝杠长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Screw	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "L"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LSA281S10 - A - UGAQ - 152	210	19	1	3.175	2.7	2.5	4.76	0.635	33	152	0.13
LSA281S10 - B-UGAQ - 152	210	19	1	3.175	2.7	2.5	4.76	0.635	33	152	0.13
LSA281S10-A-UGFC-152	50	120	1	25.4	2.7	2.5	4.76	5.08	33	152	0.13
LSA281S10 -B-UGFC-152	50	120	1	25.4	2.7	2.5	4.76	5.08	33	152	0.13
LSA281S10-A-THCA-152	93.4	35	1	10	2.7	2.5	5	2	33	152	0.13
LSA281S10-B-THCA-152	93.4	35	1	10	2.7	2.5	5	2	33	152	0.13

## • 配件

#### (ACCESSORIES)

LSNUT-AAAA-UGAQ 螺纹螺母 -POM LSNUT-AAAA-UGFC 螺纹螺母 -POM LSNUT-AAAA-THCA 螺纹螺母 -POM NANOLUBE-50G 润滑剂

LSNUT-AAAA-UGAQ Threaded Nut - POM LSNUT-AAAA-UGFC Threaded Nut – POM LSNUT-AAAA-THCA Threaded Nut - POM NANOLUBE-50G Lubricant

# ● 警告 (CAUTION)



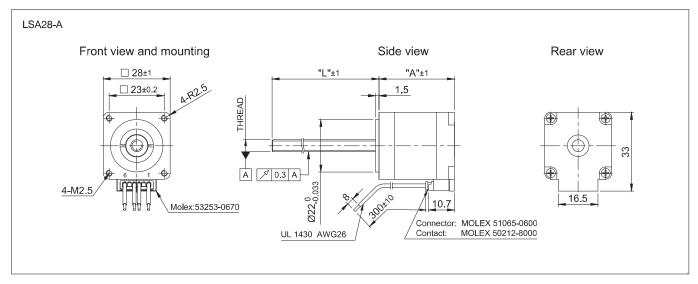
数据表中指定的力和额定功率基于 10%

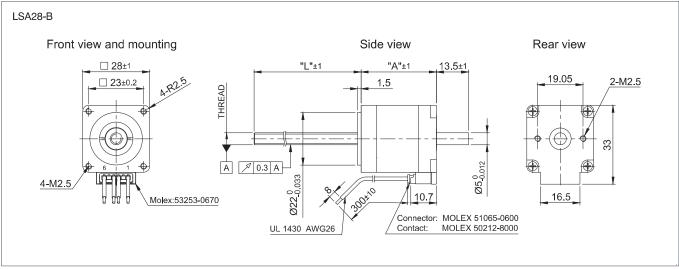
至 20% 的占空比,必须将其相应降低才能获得更大的值。 应避免运行至固定的限位挡块。

The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.



## (DIMENSIONS)

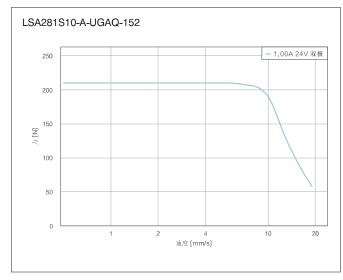


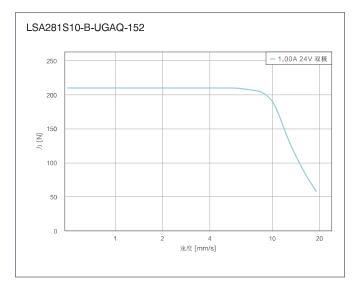


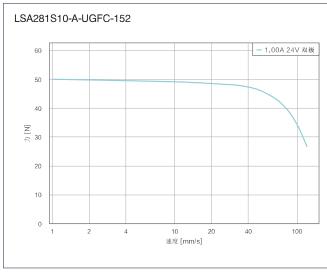


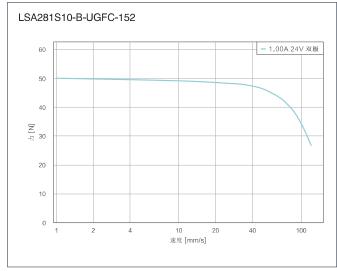
## • 速度推力曲线

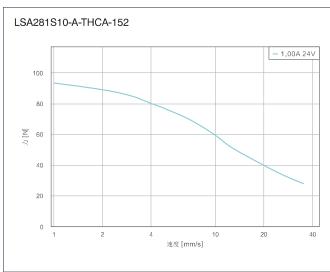
## (FORCE-VELOCITY CURVES)

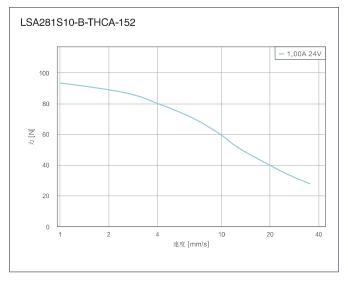












## LA35

### 贯通轴式线性执行器 (Non-Captive Linear Actuator) NEMA 14



选件 Options





#### 型号

## (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Weight
			per		per	per	Diameter	Lead	"A"	
	N	mm/s	Α	µm/步	Ohm	mH	mm	mm	mm	kg
LA351S12-A-TJBA	220	24	1.2	5	1.85	2	6	1	33.6	0.15
LA351S12-B-TJBA	220	24	1.2	5	1.85	2	6	1	33.6	0.15
LA351S12-A-TJCA	150	50	1.2	10	1.85	2	6	2	33.6	0.15
LA351S12-B-TJCA	150	50	1.2	10	1.85	2	6	2	33.6	0.15
LA351S12-A-UKGI	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	0.15
LA351S12 - B - UKGI	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	0.15
LA351M12-A-TJBA	350	30	1.2	5	3.2	3.4	6	1	43.6	0.22
LA351M12 -B-TJBA	350	30	1.2	5	3.2	3.4	6	1	43.6	0.22
LA351M12 - A - UKGI	120	110	1.2	31.75	3.2	3.4	6.35	6.35	43.6	0.22
LA351M12 -B-UKGI	120	110	1.2	31.75	3.2	3.4	6.35	6.35	43.6	0.22

## • 配件

### (ACCESSORIES)

SCREW-ABA-TJCA-200

带梯形螺纹的丝杆(Lead Screw with Trapezoidal Thread) SCREW-ABA-TJCA-300

带梯形螺纹的丝杆(Lead Screw with Trapezoidal Thread) SCREW-AAA-TJCA-1000

带梯形螺纹的丝杆 (Lead Screw with Trapezoidal Thread) SCREW-ABA-UKGI-200

带 ACME 螺纹的丝杆(Lead Screw with ACME Thread) SCREW-ABA-UKGI-300

带 ACME 螺纹的丝杆(Lead Screw with ACME Thread) SCREW-AAA-UKGI-1000

带 ACME 螺纹的丝杆 (Lead Screw with ACME Thread) ZK-JST-EHR-6-0.5M-S

电机线缆 0.5米 (Motor Cable 0.5 m) NANOLUBE-50G 润滑剂 (Lubricant)

## • 警告

#### (CAUTION)

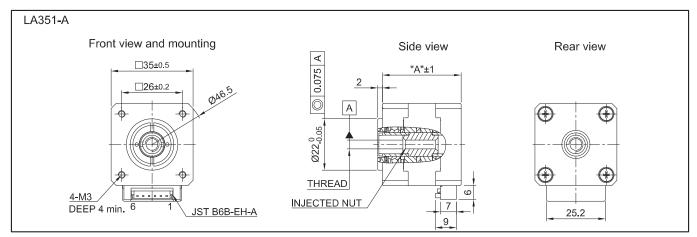


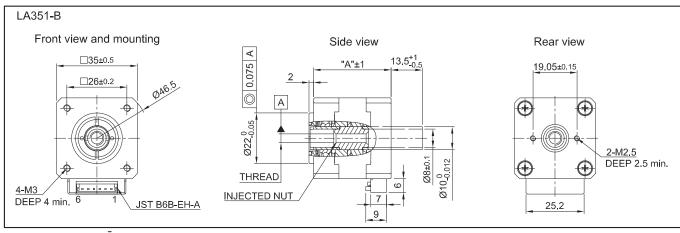
数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。

(The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.)



## (DIMENSIONS)





## 固定轴式线性执行器 (Captive Linear Actuator) NEMA 14



选件 Options





## 型号

## (VERSIONS)

	型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	行程长度"X"	重量
	(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Stroke	Weight
			mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length	kg
		Ν		Winding		Winding	Winding	mm	mm	mm	mm	
L	GA351S12 - A - UKGI - 019	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	19.05	0.2
L	.GA351S12 - B - UKGI - 019	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	19.05	0.2
L	GA351S12 - A - UKGI - 038	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	38.1	0.2
ı	GA351S12 - B-UKGI - 038	70	100	1.2	31.75	1.85	2	6.35	6.35	33.6	38.1	0.2
L	GA351M12 - B - UKGI - 025	120	110	1.2	31.75	3.2	3.4	6.35	6.35	43.6	25.4	0.27
L	GA351M12 - B - UKGI - 063	120	110	1.2	31.75	3.2	3.4	6.35	6.35	43.6	63.5	0.27

## • 配件

#### (ACCESSORIES)

ZK-JST-EHR-6-0.5M-S 电机线缆 0.5米 Motor Cable 0.5 m

## ● 警告

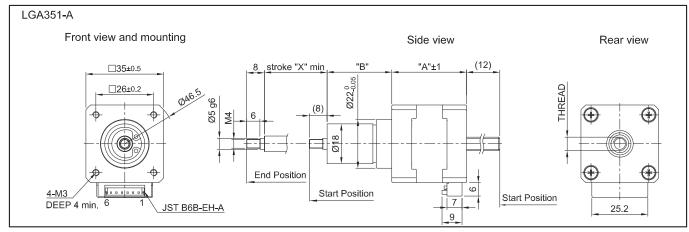
## (CAUTION)

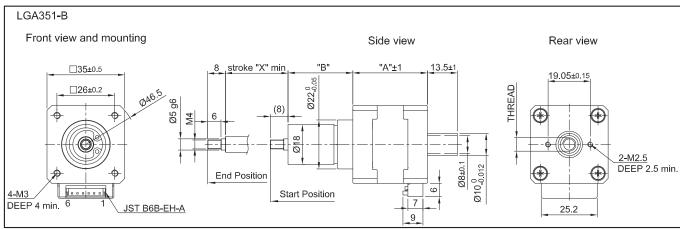


数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。 The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.



## (DIMENSIONS)





## LSA35

## 外部驱动式线性执行器 (External Linear Actuatr) NEMA 14



选件 Options





### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	丝杠长度	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Screw	Length	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	Length "L"	"A"	kg
	N		Winding		Winding	Winding	mm	mm	mm	mm	
LSA351S12 - A - UKGI - 152	70	100	1.2	31.75	1.85	2	6.35	6.35	152	33.6	0.18
LSA351S12 - B - UKGI - 152	70	100	1.2	31.75	1.85	2	6.35	6.35	152	33.6	0.18
LSA351M12 - B-TJCA-152	210	55	1.2	10	3.2	3.4	6	2	152	43.6	0.25
LSA351M12 - B - UKGI - 152	120	110	1.2	31.75	3.2	3.4	6.35	6.35	152	43.6	0.25

## • 配件

#### (ACCESSORIES)

LSNUT-AAAE-TJCA 螺纹螺母 – POM (Threaded Nut – POM)
LSNUT-AAAE-UKGI 螺纹螺母 – POM (Threaded Nut – POM)
LSNUT-AEAE-TJCA

预装螺纹螺母 – POM (pre-Loaded Threaded Nut - POM) LSNUT-AEAE-UKGI

预装螺纹螺母 – POM(Loaded Threaded Nut - POM) ZK-JST-EHR-6-0.5M-S 电机线缆 0.5米(Motor Cable 0.5 m) NANOLUBE-50G 润滑剂(Lubricant)

## • 警告

## (CAUTION)



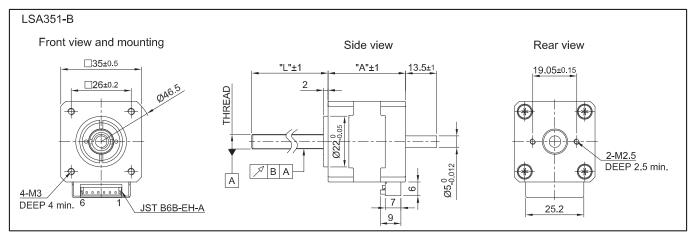
数据表中指定的力和额定功率基于 10%

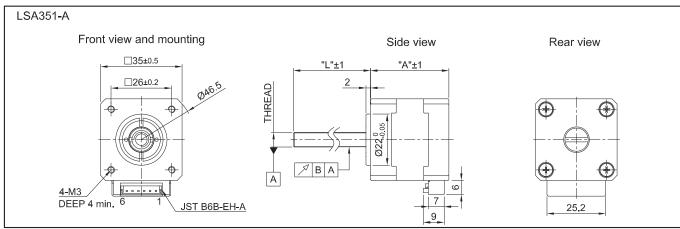
至 20% 的占空比,必须将其相应降低才能获得更大的值。 应避免运行至固定的限位挡块。

The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided



## (DIMENSIONS)







选件 Options





#### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	衬套长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Socket	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "L"	kg
	N		Winding		Winding	Winding	mm	mm	mm	mm	
LA421S07 - A-TJCA	258	55	0.7	10	9.3	12.8	6	2	33.4	15	0.2
LA421S07 -B-TJCA	258	55	0.7	10	9.3	12.8	6	2	33.4	15	0.2
LA421S14-A-TJCA	258	55	1.4	10	2	2.8	6	2	33.4	15	0.2
LA421S14 - A - UKGI	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	15	0.2
LA421S14-B-UKGI	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	15	0.2
LA421S14-B-TJCA	258	55	1.4	10	2	2.8	6	2	33.4	15	0.2
LA421L13 - A-TJCA	369	50	1.3	10	3.8	6.15	6	2	47.4	15	0.34
LA421L13 - B-TJCA	369	50	1.3	10	3.8	6.15	6	2	47.4	15	0.34
LA421L18 - A-TJCA	369	50	1.8	10	1.75	3.25	6	2	47.4	15	0.34
LA421L18-B-TJCA	369	50	1.8	10	1.75	3.25	6	2	47.4	15	0.34
LA421L18 - B-UKGI	275	80	1.8	31.75	1.75	3.4	6.35	6.35	47.4	15	0.34

#### • 配件

#### (ACCESSORIES)

SCREW-ABA-TJCA-200

带梯形螺纹的丝杆(Lead Screw with Trapezoidal Thread) SCREW-ABA-TJCA-300

带梯形螺纹的丝杆 (Lead Screw with Trapezoidal Thread) SCREW-AAA-TJCA-1000

带梯形螺纹的丝杆(Lead Screw with Trapezoidal Thread) SCREW-ABA-UKGI-200

带 ACME 螺纹的丝杆 (Lead Screw with ACME Thread) SCREW-ABA-UKGI-300

带 ACME 螺纹的丝杆 (Lead Screw with ACME Thread) SCREW-AAA-UKGI-1000

带 ACME 螺纹的丝杆(Lead Screw with ACME Thread) ZK-JST-EHR-6-0.5M-S

电机线缆 0.5米 (Motor Cable 0.5 m) NANOLUBE-50G 润滑剂 (Lubricant)

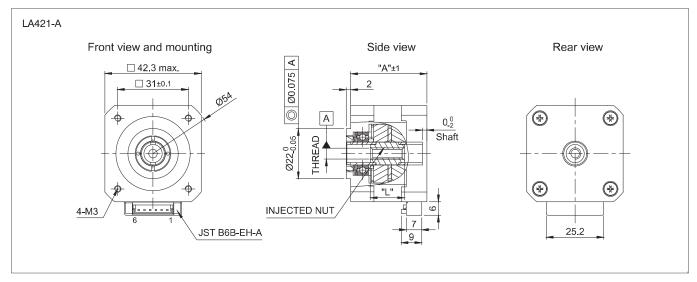
#### 警告

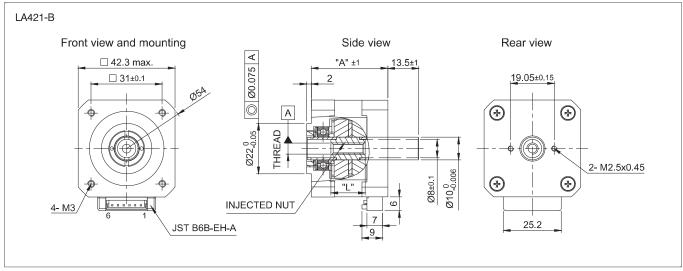
#### (CAUTION)

Λ

数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。 (The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.)

#### (DIMENSIONS)

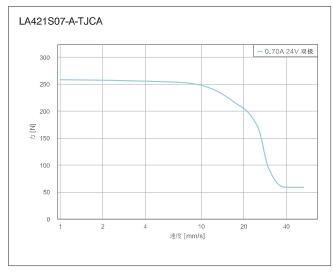


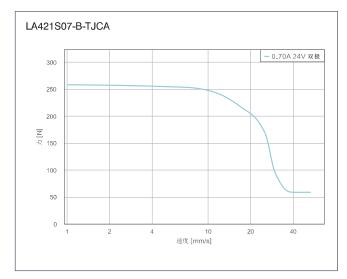


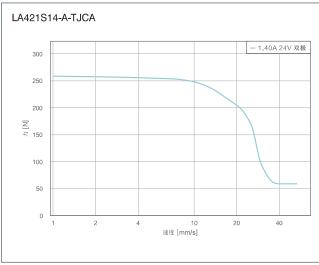


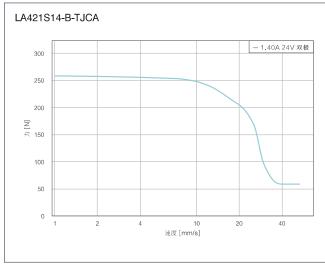
#### • 速度推力曲线

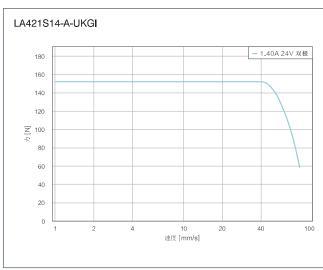
#### (FORCE-VELOCITY CURVES)

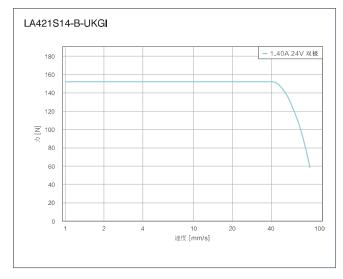




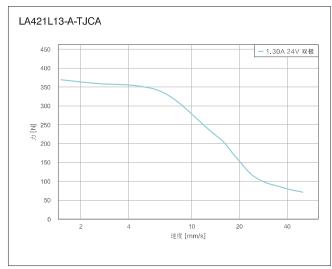


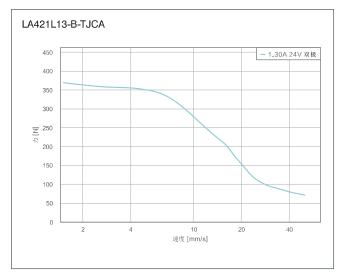


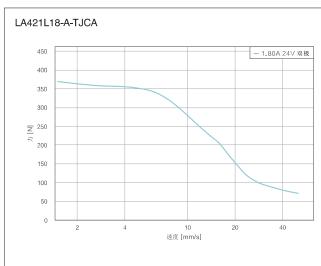


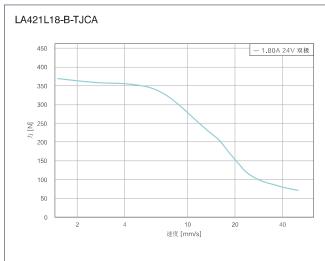


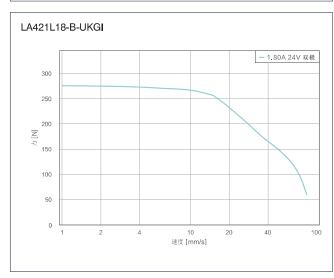












### 固定轴式线性执行器 (Captive Linear Actuator) NEMA 17



选件 Options





#### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	行程长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Stroke	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A"	Length "L"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LGA421S14 - A - UKGI - 019	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	19.05	0.24
LGA421S14-B-UKGI-019	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	19.05	0.24
LGA421S14 - A - UKGI - 038	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	38.1	0.25
LGA421S14 - B - UKGI - 038	152	80	1.4	31.75	2	2.8	6.35	6.35	33.4	38.1	0.25
LGA421L18 -B-UKGI-025	275	80	1.8	31.75	1.75	3.4	6.35	6.35	47.4	25.4	0.34
LGA421L18 -B-UKGI-063	275	80	1.8	31.75	1.75	3.4	6.35	6.35	47.4	63.5	0.39

#### • 配件

#### (ACCESSORIES)

ZK-JST-EHR-6-0.5M-S 电机线缆 0.5米(Motor Cable 0.5 m)

# ● 警告

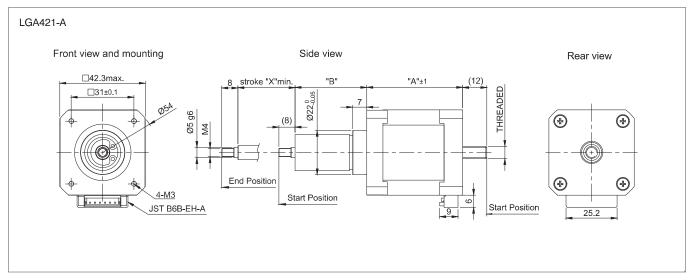
#### (CAUTION)

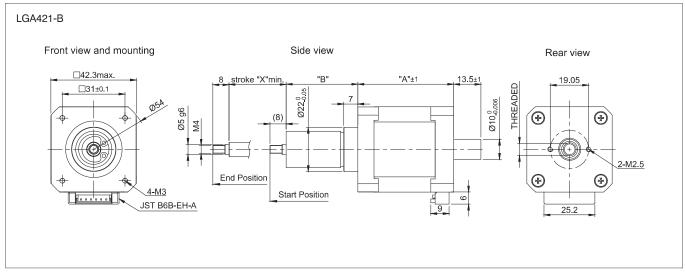


数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。(The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided)



#### (DIMENSIONS)

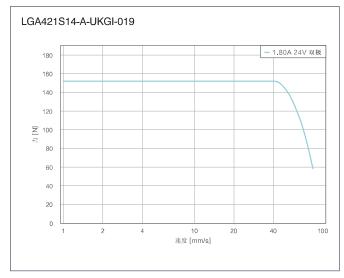


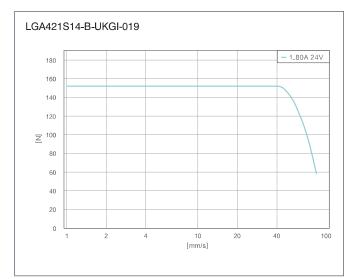


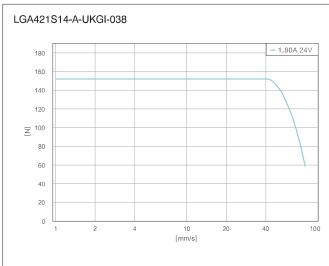


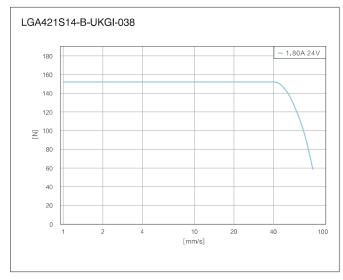
#### • 速度推力曲线

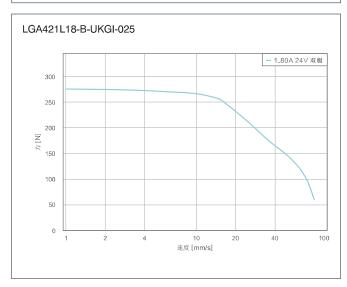
#### (FORCE-VELOCITY CURVES)

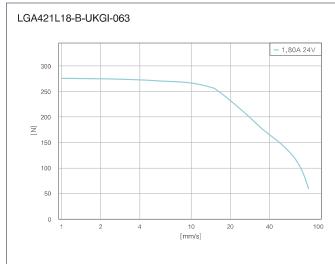














选件 Options





#### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	丝杠长度	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Screw	Length	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	Length "L"	"A"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LSA421S14 - A - UKGI - 152	152	80	1.4	31.75	2	2.8	6.35	6.35	152	33.4	0.26
LSA421S14 - B - UKGI - 152	152	80	1.4	31.75	2	2.8	6.35	6.35	152	33.4	0.26
LSA421L18-B-TJCA-152	369	50	1.8	10	1.75	3.25	6	2	152	47.4	0.4
LSA421L18 -B-UKGI-152	275	80	1.8	31.75	1.75	3.4	6.35	6.35	152	47.4	0.4

#### • 配件

#### (ACCESSORIES)

LSNUT-AAAE-TJCA 螺纹螺母(Threaded Nut) – POM LSNUT-AAAE-UKGI 螺纹螺母(Threaded Nut) – POM LSNUT-AEAE-TJCA 预装螺纹螺母(Loaded Threaded Nut) – POM

LSNUT-AEAE-UKGI 预装螺纹螺母(Loaded Threaded Nut) — POM

ZK-JST-EHR-6-0.5M-S 电机线缆 0.5米(Motor Cable 0.5 m) NANOLUBE-50G 润滑剂(Lubricant)

#### ● 警告

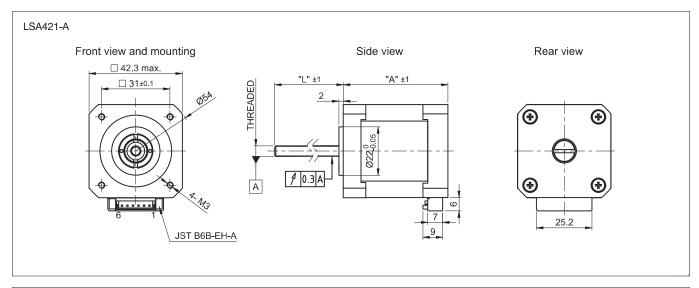
#### (CAUTION)

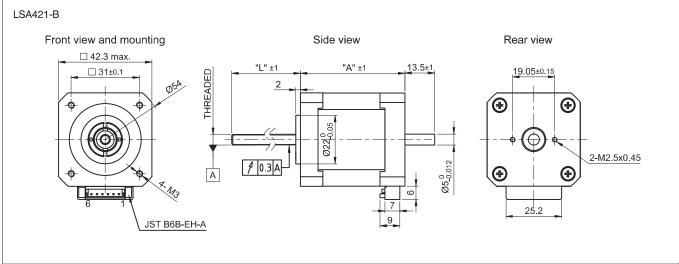


数据表中指定的力和额定功率基于 10%至 20% 的占空比, 必须将其相应降低才能获得更大的值。应避免运行至固定的限位 挡块。(The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.)



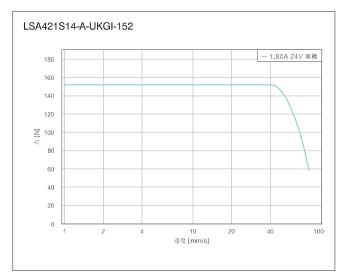
#### (DIMENSIONS)

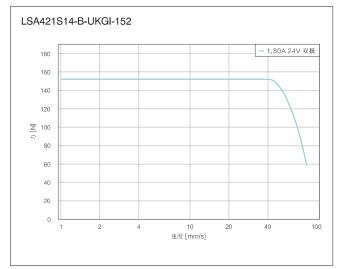


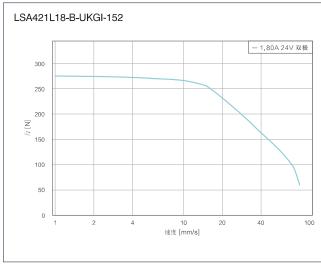


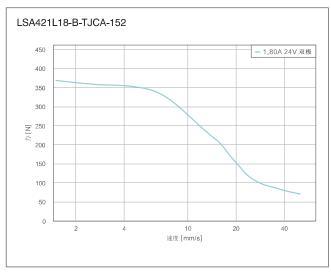
#### • 速度推力曲线

#### (FORCE-VELOCITY CURVES)











选件 Options





型号

(VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Weight
			per		per	per	Diameter	Lead	"A"	
	N	mm/s	А	µm/步	Ohm	mH	mm	mm	mm	kg
LA561S20-A-TSCA	800	50	2	10	1.6	3.5	10	2	50.3	0.65
LA561S20-B-TSCA	800	50	2	10	1.6	3.5	10	2	50.3	0.65
LA561S20-A-TSGA	500	130	2	30	1.6	3.5	10	6	50.3	0.65
LA561S20-B-TSGA	500	130	2	30	1.6	3.5	10	6	50.3	0.65
LA561S20-A-UQBG	1000	40	2	6.35	1.6	3.5	9.525	1.27	50.3	0.65
LA561S20-B-UQBG	1000	40	2	6.35	1.6	3.5	9.525	1.27	50.3	0.65
LA561S20 - A-UQCN	750	65	2	12.7	1.6	3.5	9.525	2.54	50.3	0.65
LA561S20 -B-UQCN	750	65	2	12.7	1.6	3.5	9.525	2.54	50.3	0.65
LA561L42 - A-TSCA	1000	60	4.2	10	0.54	2.4	10	2	77.3	1
LA561L42-B-TSCA	1000	60	4.2	10	0.54	2.4	10	2	77.3	1
LA561L42 - A-TSGA	700	150	4.2	30	0.54	2.4	10	6	77.3	1
LA561L42-B-TSGA	700	150	4.2	30	0.54	2.4	10	6	77.3	1
LA561L42 - A - UQBG	1200	45	4.2	6.35	0.54	2.4	9.525	1.27	77.3	1
LA561L42-B-UQBG	1200	45	4.2	6.35	0.54	2.4	9.525	1.27	77.3	1
LA561L42 - A-UQCN	1100	60	4.2	12.7	0.54	2.4	9.525	2.54	77.3	1
LA561L42 -B-UQCN	1100	60	4.2	12.7	0.54	2.4	9.525	2.54	77.3	1

#### • 配件

#### (ACCESSORIES)

SCREW-ABA-TSCA-200 带梯形螺纹的丝杆 Lead Screw with Trapezoidal Thread SCREW-ABA-TSCA-300 带梯形螺纹的丝杆 Lead Screw with Trapezoidal Thread SCREW-AAA-TSCA-1000 带梯形螺纹的丝杆 Lead Screw with Trapezoidal Thread SCREW-ABA-UQBG-200 带 ACME 螺纹的丝杆 Lead Screw with ACME Thread SCREW-ABA-UQBG-300 带 ACME 螺纹的丝杆 Lead Screw with ACME Thread SCREW-AAA-UQBG-1000 带 ACME 螺纹的丝杆 Lead Screw with ACME Thread ZK-JST-VHR-6N-0.5M-S 电机线缆 0.5米 Motor Cable 0.5 m

NANOLUBE-50G 润滑剂Lubricant

#### 警告

#### (CAUTION)

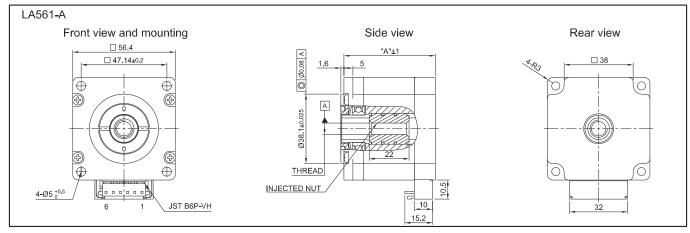


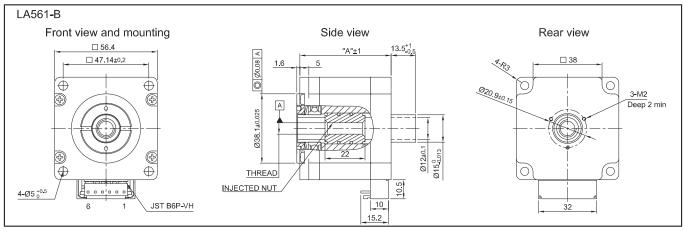
数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块

The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.

#### • 机械尺寸

#### (DIMENSIONS)





#### 固定轴式线性执行器 (Captive Linear Actuator) NEMA 23



选件 Options





#### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	机身长度	行程长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Length	Stroke	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	"A" "B"	Length "X"	kg
	Ν		Winding		Winding	Winding	mm	mm	mm	mm	
LGA561S20 - A-TSCA - 019	800	50	2	10	1.6	3.5	10	2	50.3/31.15	19.05	0.8
LGA561S20 - B-TSCA - 019	800	50	2	10	1.6	3.5	10	2	50.3/31.15	19.05	0.8
LGA561S20 - A-TSCA - 038	800	50	2	10	1.6	3.5	10	2	50.3/50.2	38.1	0.85
LGA561S20 -B-TSCA-038	800	50	2	10	1.6	3.5	10	2	50.3/50.2	38.1	0.85
LGA561L42-B-UQBG-025	1200	45	4.2	6.35	0.54	2.4	9.525	1.27	77.3/37.1	25.4	1.2
LGA561L42-B-UQBG-063	1200	45	4.2	6.35	0.54	2.4	9.525	1.27	77.3/75.6	63.5	1.35
LGA561L42 - B - UQCN - 025	1100	60	4.2	12.7	0.54	2.4	9.525	2.54	77.3/37.1	25.4	1.2
LGA561L42 - B - UQCN - 063	1100	60	4.2	12.7	0.54	2.4	9.525	2.54	77.3/75.6	63.5	1.35

#### • 配件

#### (ACCESSORIES)

ZK-JST-VHR-6N-0.5M-S 电机线缆 0.5米 ZK-JST-VHR-6N-0.5M-S Motor Cable 0.5 m

#### 警告

#### (CAUTION)

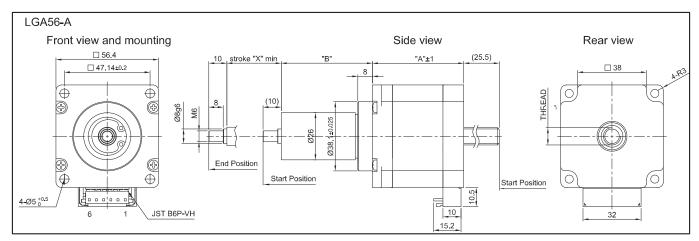


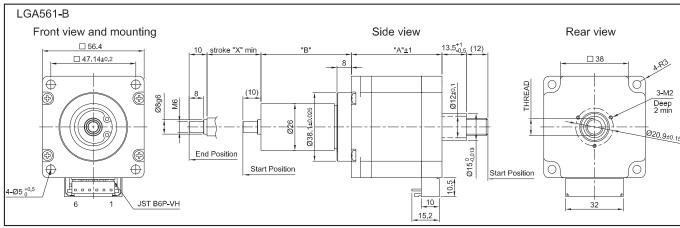
数据表中列出的力和额定输出功率基于约 10% 至 20% 的占空比,必须相应降低才能获得更大的值。应避免运行至固定的挡块。

The force and output power ratings listed in the data sheets are based on a duty cycle of approx. 10% to 20% and must be reduced for higher values. Moving against fixed limit stops should be avoided.



#### (DIMENSIONS)







选件 Options





#### 型号

#### (VERSIONS)

型号	推力	速度	相电流	分辨率	相电阻	相电感	丝杆直径	导程	丝杠长度	机身长度	重量
(Type)	Force	Speed	Current	Resolution	Resistance	Inductance	Thread	Thread	Screw	Length	Weight
		mm/s	per	µm/步(step)	per	per	Diameter	Lead	Length "L"	"A"	kg
	N		Winding		Winding	Winding	mm	mm	mm	mm	
LSA561S20 - A-TSCA - 152	800	50	2	10	1.6	3.5	10	2	152	50.3	0.82
LSA561S20-B-TSCA-152	800	50	2	10	1.6	3.5	10	2	152	50.3	0.82
LSA561S20 - A-TSGA - 152	500	130	2	30	1.6	3.5	10	6	152	50.3	0.82
LSA561S20-B-TSGA-152	500	130	2	30	1.6	3.5	10	6	152	50.3	0.82
LSA561S20 - A - UQBG - 152	1000	40	2	6.35	1.6	3.5	9.525	1.27	152	50.3	0.82
LSA561S20 -B-UQBG-152	1000	40	2	6.35	1.6	3.5	9.525	1.27	152	50.3	0.82
LSA561S20 - A-UQCN - 152	750	65	2	12.7	1.6	3.5	9.525	2.54	152	50.3	0.82
LSA561S20-B-UQCN-152	750	65	2	12.7	1.6	3.5	9.525	2.54	152	50.3	0.82

#### 配件

#### (ACCESSORIES)

LSNUT-AAAG-TSCA 螺纹螺母 – POM

Threaded Nut – POM

LSNUT-AAAG-UQBG 螺纹螺母 – POM

Threaded Nut – POM

LSNUT-AEAG-TSCA

预装螺纹螺母 - POM

Loaded Threaded Nut - POM

LSNUT-AEAG-UQBG

预装螺纹螺母 - POM

Loaded Threaded Nut - POM

ZK-JST-VHR-6N-0.5M-S 电机线缆 0.5米

Motor Cable 0.5 m NANOLUBE-50G 润滑剂

NANOLUBE-50G Lubricant

警告

(CAUTION)

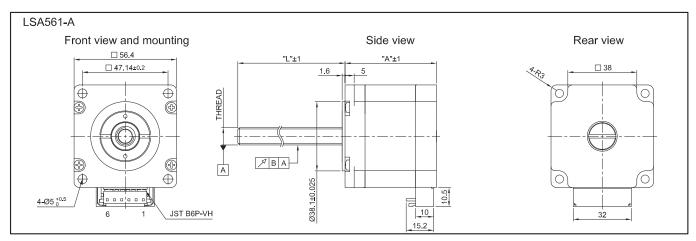
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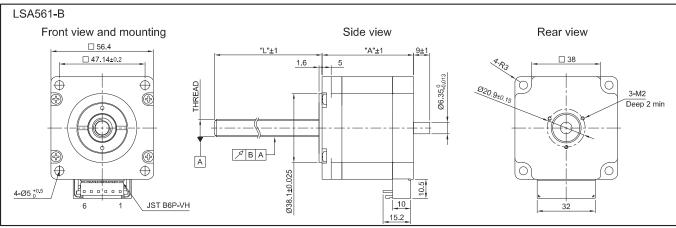
数据表中指定的力和额定功率基于 10% 至 20% 的占空比, 必须将其相应降低才能获得更大的值。应避免运行至固定的限位 挡块。

The force and power ratings specified in the data sheets are based on a duty cycle of 10% to 20% and must be reduced for higher values. Moving against fixed end stops should be avoided.



#### (DIMENSIONS)







#### • 特性概要

#### (General specification)

Item	Specifications
步距角精度Step Angle Accuracy	±8% (整步空载full step, no load)
电阻公差Resistance Accuracy	±10%
电感公差Inductance Accuracy	±20%
温升Temperature Rise	80℃ Max.(额定电流,2相通电 rated current,2 phase on)
环境温度Ambient Temperature	-20°C+50°C
绝缘电阻Insulation Resistance	100MΩMin. ,500VDC
介电强度Dielectric Strength	500VAC/1s
径向间隙Shaft Radial Play	0.06Max. (450 g-load)
轴向间隙Shaft Axial Play	0.08Max. (450 g-load)









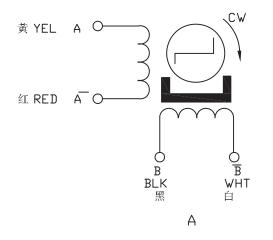
#### • 电性能

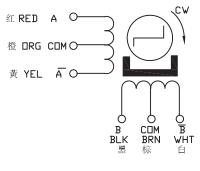
#### (Electrical specifications )

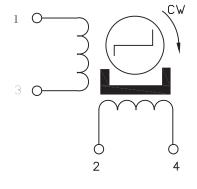
TUE	步距角	相数	电压	相电流	相电阻	保持力矩	定位力矩	转子惯量	接线图
型 <del>号</del> Model	Step Angle	No. of	Voltage	Current	Resistance	Ho <b>l</b> ding	Detent	Rotor	Wire
Wiodel		Phase		/Phase	/Phase	Torque	Torque	Inertia	Diagram
	(Deg.)		(V)	(A)	(ohms)	(g.cm)	(g.cm)	(g.cm^2)	
PM1020L03	18	2	3.3	0.22	15	16.3	10		А
PM1020L06 -1	18	2	3.3	0.22	15	16.3	10		А
PM1512-01	18	2	12	0.04	300	40	10		А
PM1512 - 02	18	2	5	0.5	10	27	6		С
PM2018-01	18	4	12	0.24	50	80	25	<1	В
PM2018-02	18	2	5	0.5	10	60	20		Α
PM2516-01	15	4	9	0.45	20	140	75		В
PM2515-01	7.5	2	12	0.24	50	170	45		Α
PM2515-02	7.5	4	12	0.25	50	160	35		В

#### • 接线图

#### (WIRING DIAGRAM)





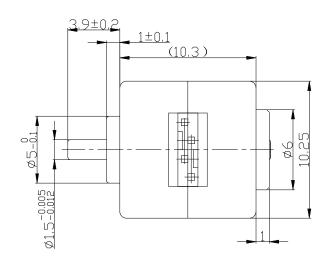


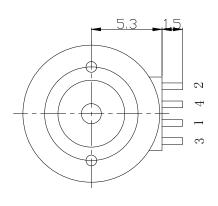
В

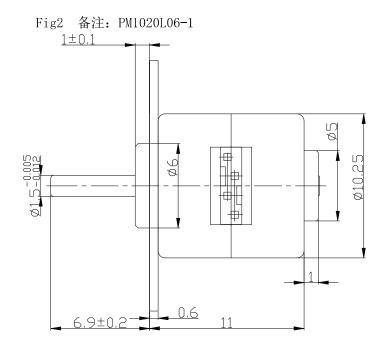


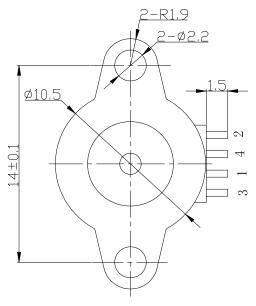
(Dimension)

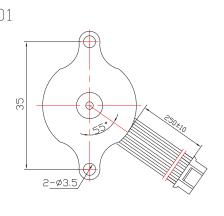
Fig1 备注: PM1020L03













#### • 特性概要

#### (General specification)

<b>I</b> tem	Specifications
步距角精度Step Angle Accuracy	±8% (整步空载full step, no load)
电阻公差Resistance Accuracy	±10%
电感公差Inductance Accuracy	±20%
温升Temperature Rise	80℃ Max.(额定电流,2相通电
	rated current,2 phase on)
环境温度Ambient Temperature	-20°C+50°C
绝缘电阻Insulation Resistance	100MΩMin. ,500VDC
介电强度Dielectric Strength	500VAC/1s
径向间隙Shaft Radial Play	0.06Max. (450 g-load)
轴向间隙Shaft Axial Play	0.08Max. (450 g-load)



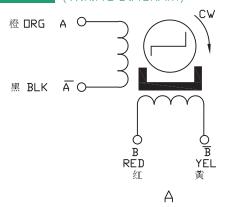
#### • 电性能

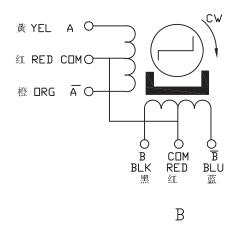
#### (Electrical specifications )

II.	步距角	相数	电压	相电流	相电阻	保持力矩	定位力矩	转子惯量	接线图
型号 Model	Step Angle	No. of	Voltage	Current	Resistance	Ho <b>l</b> ding	Detent	Rotor	Wire
Wodel		Phase		/Phase	/Phase	Torque	Torque	Inertia	Diagram
	(Deg.)		(V)	(A)	(ohms)	(g.cm)	(g.cm)	(g.cm^2)	
PM3522-01A	15	2	5	0.46	11	335			А
PM3522-02A	15	4	5	0.46	11	300			В
PM3522-01B	7.5	4	5	0.862	5.8		125		Ь
PM3522-02B	7.5	2	5	0.5	10	550		7.5	Λ.
PM3522-03B	7.5	2	12	0.2	608				A
PM3516-01	7.5	4	12	0.255	47	300	65		В
PM3516-02	7.5	2	5	0.42	12	350	75		А
PM4222-01A	7.5	4	12	0.8	15	800	210	9.6	В
PM4222-02A	7.5	2	4.2	0.6	7	800	210	9.0	
PM4222-01B	7.5	2	12	0.13	95	550	100	7.5	A
PM4222 -02B	7.5	4	5	0.81	6.2	600	110	7.5	В
PM4217 - 01	7.5	4	12	0.24	50	600	90	0.6	В
PM4217-02	7.5	2	5	0.59	8.6	500	100	9.6	А
PM4930-01	7.5	2	5	0.9	5.5	1700	350	<14.5	
PM5725-01	7.5	4	12	0.6	21	1500	425	,12 F	В
PM5725-02	7.5	2	5.6	0.625	9	1200	425	<12.5	А

#### • 接线图

#### (WIRING DIAGRAM)

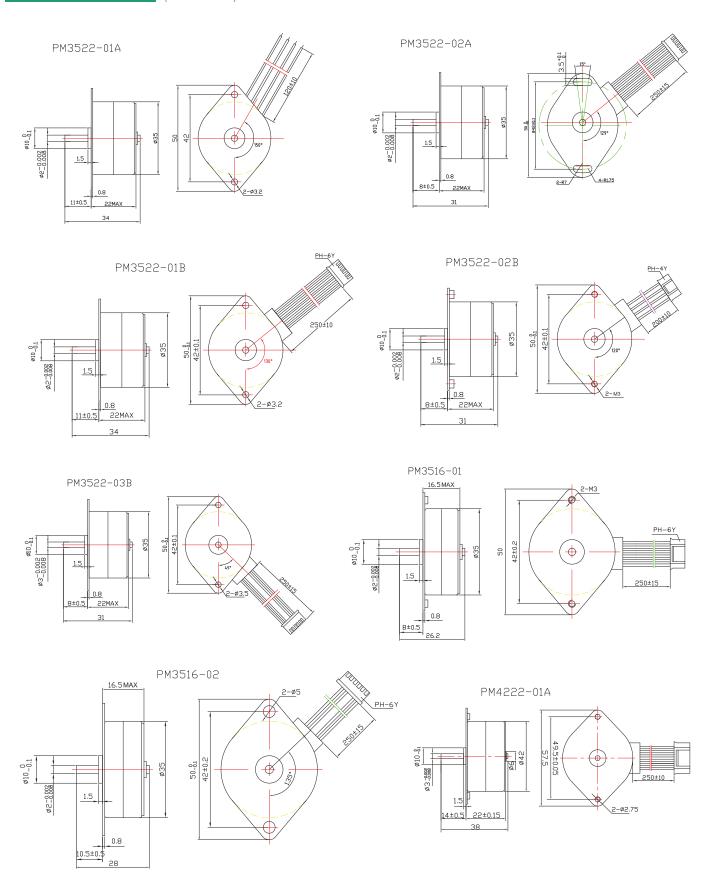


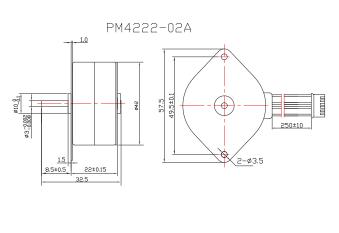


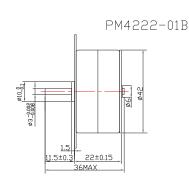
# FULLING MOTOR

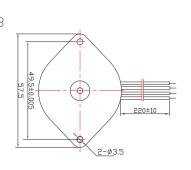
# • 机械尺寸

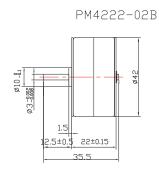
(Dimension)

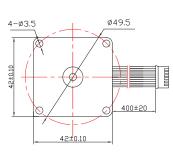


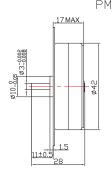


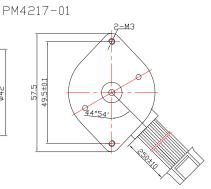


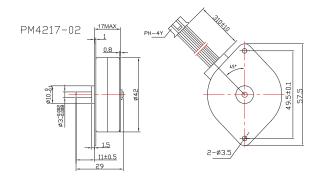


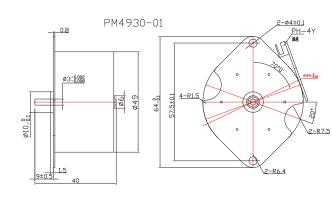


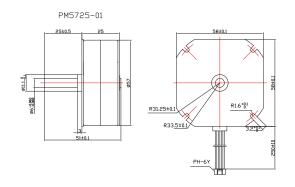


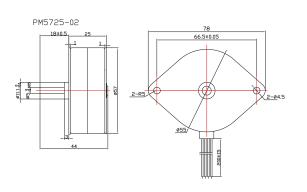












# 永磁式减速步进电机 PM Stepper Gearmotor



# • 特性概要

#### (General specification)

Item	Specifications
步距角精度Step Angle Accuracy	±7% (整步,空载full step, no load)
电阻公差Resistance Accuracy	±10%
电感公差Inductance Accuracy	±20%
温升Temperature Rise	65K Max. ambient temperature 40℃ 65K 环境温度40℃
环境温度Ambient Temperature	-10°C~+50°C
绝缘电阻Insulation Resistance	100MΩMin. ,500VDC
绝缘等级Insulation Class	Class E
介电强度Dielectric Strength	650VAC for one second, leakage current 1mA 650VAC 一秒,漏电电流1mA



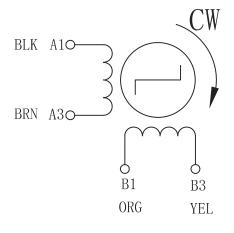
#### • 电性能

#### (Electrical specifications )

TUE	步距角	相数	电压	相电流	相电阻	相电感	牵入力矩	最大牵入频率	保持力矩	减速比	重量
型号 Model	Step Angle	No. of	Voltage	Current	Resistance	Inductance	Pull-in Torque	Max. Pull-In Rate (pps)	Holding	Ratio	Weight
IVIOGE		Phase		/Phase	/Phase	/Phase	(g.cm)	No Load,	Torque		
	(Deg.)		(V)	(A)	(ohms)	(mH)	5VDC	5VDC	(g.cm)		(g)
PMG1550-01	18/50	2	5	0.5	10	2.3	360	1280	1350	1:50	12.2
F WIG 1550 - 01	10/ 50	۷	J	0.5	10	2.3	@200pps	1200	1330	1.50	12.2
PMG1550 - 03	18/50	2	5	0.5	10	2.8	140	1150	2000	1:50	13
1 10101330 03	10/30	_	,	0.5	10	2.0	@200pps	1130	2000	1.50	15
PMG15102 -01	18/102.5	2	5	0.5	10	2.3	350	1000	2000	1:102.5	12.2
1 101013102 01	10/102.3		3	0.5	10	2.5	@200pps	1000	2000	1.102.5	12.2

#### • 接线图

#### (WIRING DIAGRAM)





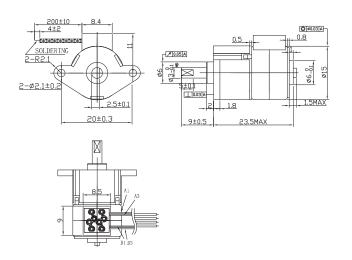
Pin		STEP									
No.	黑 BLK	棕 BRN	橙 ORG	黄 YEL							
1	_	+	+								
2	_	+	_	+							
3	+	_	_	+							
4	+	_	+	_							



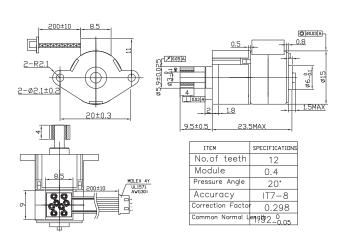


(Dimension)

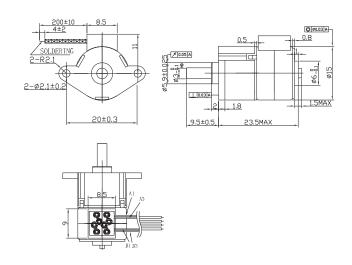
#### PMG1550-01



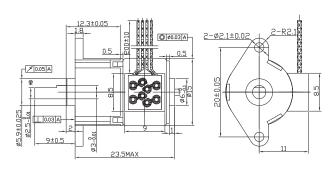
#### PMG1550-02



#### PMG1550-03



#### PMG15102-01





#### • 特性概要

# (General specification)

Item	Specifications					
步距角精度Step Angle Accuracy	±7% (整步,空载full step, no load)					
电阻公差Resistance Accuracy	±10%					
电感公差Inductance Accuracy	±20%					
温升Temperature Rise	80K Max. ambient temperature 40。C 80K 环境温度40℃					
环境温度Ambient Temperature	-10°C~+50°C					
绝缘电阻Insulation Resistance	100MΩMin. ,500VDC					
绝缘等级Insulation Class	Class E					
介电强度Dielectric Strength	650VAC for one second, leakage current 1mA 650VAC 一秒,漏电电流1mA					



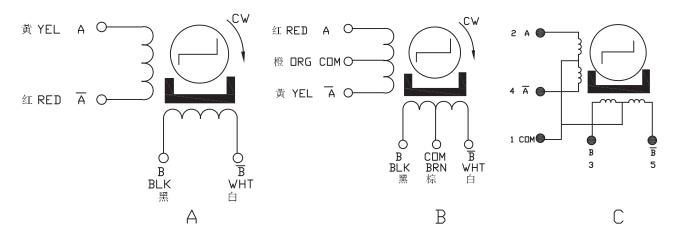
#### • 电性能

#### (Electrical specifications )

							1				
=10	步距角	相数	电压	相电流	相电阻	空载牵入频率	牵入扭矩	保持力矩	定位力矩	减速比	接线图
型号 Model	Step Angle	No. of	Voltage	Current	Resistance	No-load	Pull-in Torque	Holding	Detent	Ratio	Wire
Ivioue		Phase		/Phase	/Phase	Pull-in Frequency		Torque	Torque		Diagra
	(Deg.)		(V)	(A)	(ohms)	(pps)	(g.cm)	(g.cm)olHol	(g.cm)		
PMG2505 -01	7.5/5	2	2.6	0.52	5	450	75 at 200pps	450	<150	1:05	
PMG2505 -02	5/15	2	3.5	0.365	9.6	420	100 at 100pps	500	<150	1:05	] A
PMG2510 -01	7.5/10	2	2.8	0.467	6	550	200 at 200pps	1400	<500	1:10	
PMG2530 - 01	7.5/30	4	13.3	0.11	120	680	750 at 100pps	4000	<1400	1:30	В
PMG3519 -01	7.5/19	4	24	0.218	110	360	2280 at 200pps	4500	<2280	1:19	
PMG3519-02	7.5/19	4	12	0.4	30	360	1900 at 200pps	4000	<2600	1:19	
PMG3508-01	7.5/8.4	4	12	0.4	30	500	840 at 400pps	1150	<500	1:8.4	
PMG3530-01	7.5/30	4	12	0.4	30	500	3000 at 400pps	5000	<1500	1:30	
PMG3560-01	7.5/60	4	12	0.4	30	420	6000 at 400pps	8000	<3000	1:60	
PMG35120 - 01	7.5/120	4	12	0.4	30	400	8000 at 300pps	10000	<6000	1:120	1

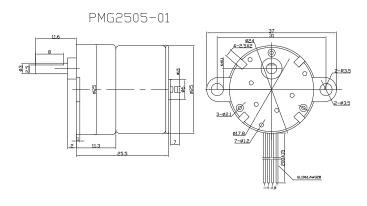
#### • 接线图

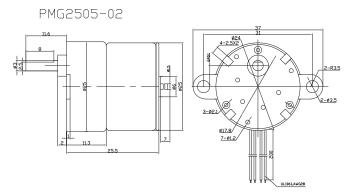
#### (WIRING DIAGRAM)



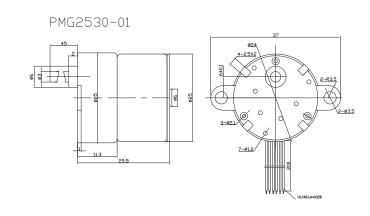


(Dimension)

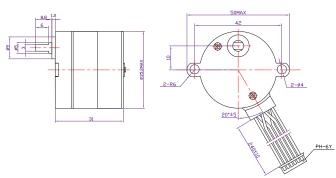




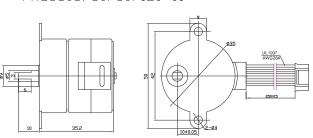
PMG2510-01

















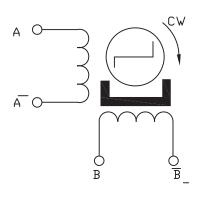
# • 电性能参数

(Specifications)

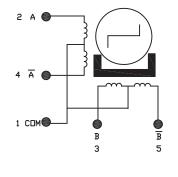
	步距角	相数	电压	电流	电阻	电感	减速比	空载启动频率	牵出力矩	引出线数	接线图	外形图
型号 Model	Step Angle	No. of	Voltage	Current	Resistance	Inductance	Ratio	No-load Starting	Pull-out	Leads	Wdg	Fig
		Phase						Frequency				
	(Deg.)		(V)	(A)	(Ω)	(mH)		(pps)	(g.cm)			
42BYHJ01	7.5	4	12	0.44	27	15.1	1/24	380	1600	UL 1007 26#	b	1
42BYHJ3 -01	7.5	2	12	0.22	54	58	1/3	270	800	UL 1007 26#	а	2
42BYHJ05-01	7.5	4	12	0.5)	10.7	5.2	1/5	450	1300	UL 1007 26#	С	3
42BYHJ7 -01	7.5	2	12	0.22	54	57.6	1/7	300	1000	UL 1007 26#	а	2
42BYHJ10 - 06	7.5	2	24	0.133	180	260	1/10	260	1600	UL 1007 26#	а	4
42BYHJ12.25 -01	3.6	2	12	0.16	75	75	1/12.25	350	90N(push)	AF 200 24#	а	5
42BYHJ15 -01	7.5	4	12	0.18	66	31.6	1/15	270	1500	UL 1061 28#	С	6
42BYHJ20-01	15	4	12	0.18	66	41.6	1/20	240	1200	UL 1095 28#	С	7
42BYHJ25 -02	7.5	4	12	0.44	27	63	1/24	380	1660	UL 1007 26#	b	1
42BYHJ50 -08	15	4	24	0.08	300	175	1/50	210	2100	UL 1007 24#	С	8

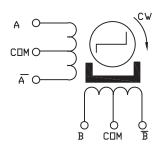
#### • 接线图

(WIRING DIAGRAM)



Α



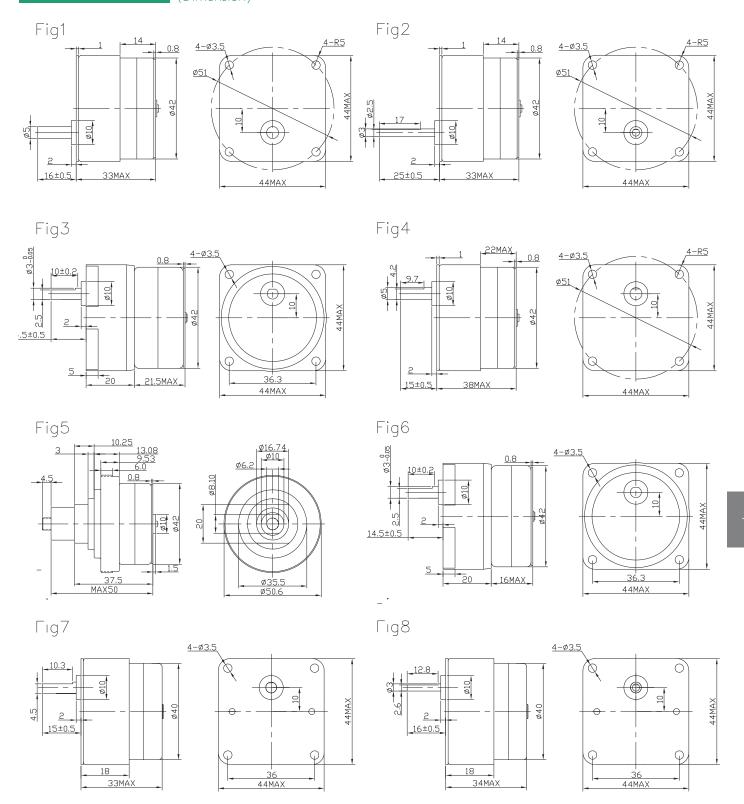


В

С



(Dimension)









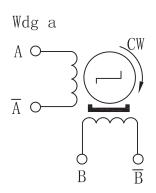
#### • 电性能参数

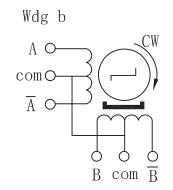
(Specifications)

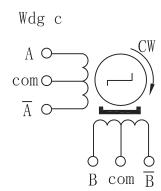
W.C.	步距角	相数	电压	电流	电阻	电感	保持力矩	牵出力矩/推力	定位力矩	引出线型号	接线图	外形图
型号 Model	Step Angle	No. of	Voltage	Current	Resistance	Inductance	Holding	Pull-in Torque	Detent	Leads	Wdg	Fig
IVIOGEI		Phase					Torque	(g.cm))/	Torque			
	(Deg.)		(V)	(A)	(Ω)	(mH)	(g.cm)	Push Torque(N )	(g.cm)			
15BYT-01	18	2	12	0.07	170	28	25	5g.cm	10	UL 1571 30#	а	1
18BY30Z -01	18	2	12	0.11	110			6N			а	2
20BYT-01	18	2	5	0.5	10	4.6	60	10g.cm	20	UL 1068 28#	а	3
20BYZ-09	18	2	12	0.6	20	12.8		10N		UL 1571 28#	а	4
25BY24T-04	15	2	12	0.48	25	10.9	180	45g.cm	35	UL 1068 28#	а	6
25BY24T -12	15	2	3.3	0.33	10	4.7	100	25g.cm	40	UL 1068 28#	а	5
25BY48T -12	7.5	2	12	0.143	84	48	150	50g.cm	30	UL 1068 28#	а	7
25BY48T-31	7.5	2	3.3	0.33	10	4.7	100	25g.cm	40	UL 1068 28#	а	5
35BY24LZ -01	15	4	24	0.28	85	32.9	450	110g.cm	130	UL 1007 26#	b	8
35BY48LZ -01	7.5	4	12	0.2	60	31.6	520	50g.cm	125	UL 1007 26#	b	8
35BY48SZ -01	7.5	4	5	0.71	7	3	450	60g.cm	75	UL 1007 26#	b	9
42BY48LZ -01	7.5	4	12	0.18	70	50.5	500	60g.cm	125	UL 1007 26#	С	10
42BY48SZ -01	7.5	4	12	0.3	40	20.7	550	70g.cm	100	UL 1095 26#	b	11
57BY48Z-01	7.5	4	12	0.6	21	23.5	1500	320g.cm	425	UL 1007 26#	b	12

#### • 接线图

(WIRING DIAGRAM)



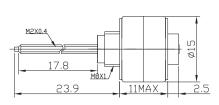




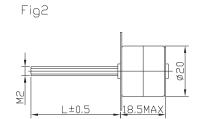


(Dimension)

Fig1







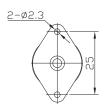
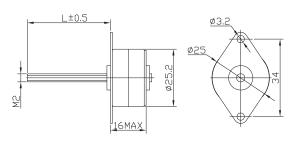
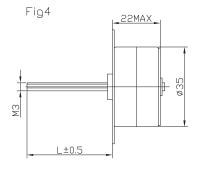
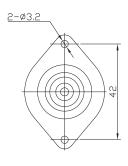
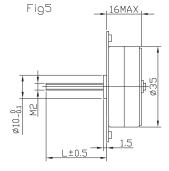


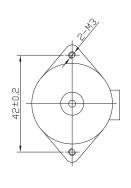
Fig3

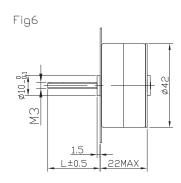












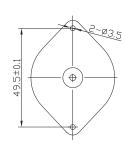
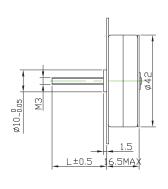
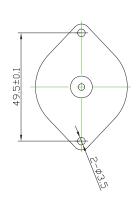
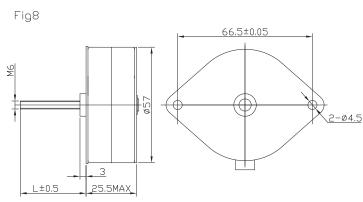


Fig7









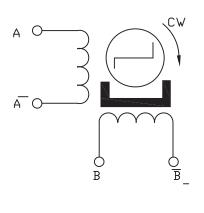
# • 电性能参数

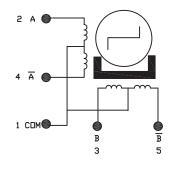
(Specifications)

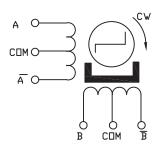
规格型号	步距角	相数	电压	电流	电阻	电感	步长	推拉力	行程	引出线型号	接线图	外形图
	Step Angle	No. of	Voltage	Current	Resistance	Inductance	Step	Push/	Journey	Leads	Wdg	Fig
Model		Phase					Avail	Pull Torque				
	(Deg.)		(V)	(A)	(Ω)	(mH)	(mm)	(N)	(mm)			
15BYZ-13	18	2	24	0.1	30	6	0.02	4	≥12	UL1061 30#	а	1
25BYZ-A04	15	4	5	0.23	22	4.3	0.0417	7	≥12	UL1061 28#	С	2
25BYZ-A01(09)	15	2	12	0.23	53	23.5	0.0417	25	≧12	AF-200 28#	а	3
25BYZ-A022	15	4	2	0.23	53	9	0.0417	15	≥22	UL1061 28#	С	4
25BYZ-A035B	7.5	2	12	0.14	84	48	0.0127	33	≧14	UL1061 28#	а	5
25BYZ-B01	15	2	12	0.23	53	23.5	0.0417	20	≥40	UL1061 28#	а	6
25BYZ-B058A	15	2	5	0.625	8	4.7	0.0508	20	≧35	UL1061 26#	а	7
25BYZ-C06	7.5	2	5	0.34	14.7	7.5	0.0254	30	≥13	UL1061 26#	а	8
25BYZ-C07	7.5	2	5	0.34	14.7	7.5	0.0254	30	≧13	UL1061 26#	а	9
25BYZ-C017	7.5	2	7	0.15	47	17.8	0.0254	9.8	≥13	UL1095 28#	а	10

#### • 接线图

(WIRING DIAGRAM)







Α

В

С



#### 机械尺寸 (Dimension) Fig2 Fig1 M5X0.8 ø8.5 M12X1.75 4 19±0.5 Fig3 Fig4 5.6 Fig6 Fig5 42.82 34.9 Ø12.03±0.13 15.18±0.2 9.5<u>8</u>±0.2 21.31MAX <u>2-ø3.3</u> 5±0.13 12.4±0.15 22.5±0.13 11±0.13 15.6 Fig7 <sub>0.6</sub> Fig8 42.82 88 10.8 15.9MAX MAX15 41.7±0.3 70.2±0.3 2-ø3.6+0.1 Fig10 Fig9 42.82 34.9±0.1 ø4.8 80 43.6±0.5 16.7MAX 10.8 10.8 2-ø3.3 0.8



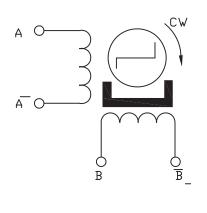


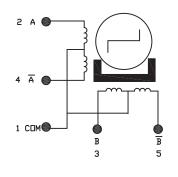
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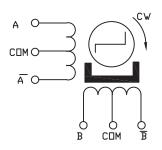
规格型号	步距角	相数	电压	电流	电阻	电感	步长	推拉力	行程	引出线型号	接线图	外形图
Model	Step Angle	No. of Phase	Voltage	Current	Resistance	Inductance	Step Avai <b>l</b>	Push/ Pull Torque	Journey	Leads	Wdg	Fig
	(Deg.)		(V)	(A)	(Ω)	(mH)	(mm)	(N)	(mm)			
28BYZ-09	15	2	5	0.46	10.8		0.0417	40	≧87		а	1
28BYZ-A01	15	2	24	0.16	150	85	0.0417	65	≥12		а	2
35BY16Z	7.5	2	9	0.5	7.7	8.1	0.0167	35	≧14	UL1332 24#	а	3
35YC25Z-A02	7.5	2	12	0.6	11	8.2	0.0254	100	≧5.3	UL1061 28#	а	4
35BYZ-B01F	7.5	4	5	0.46	11		0.0254	40	≧75	UL1061 28#	С	5
57BYZ-B022	7.5	4	12	0.67	18	18.7	0.0254	90	≥130	UL1007 26#	С	6

#### • 接线图

(WIRING DIAGRAM)





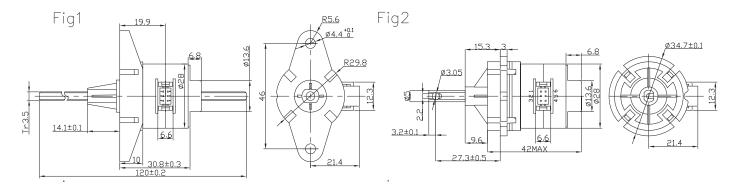


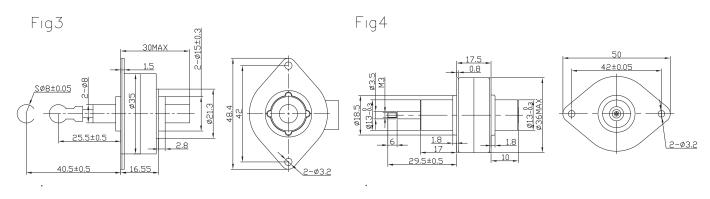
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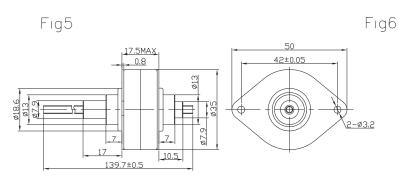
В

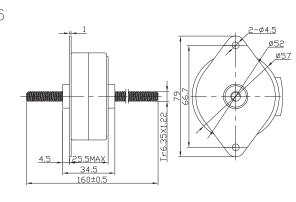
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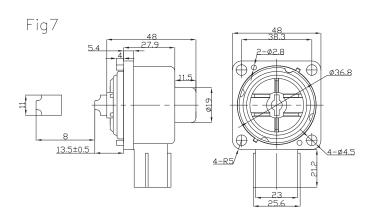
(Dimension)







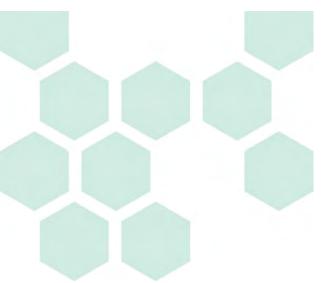








注意事项: 本样册中所有信息均为参考值。因检测和测量方法不同,可能存在偏差。请直接联系我 们,以了解详细信息。我们原则上保留技术变更的权利。 Attentions: All figures are approximate values. Variations are possible and may arise for example due to non-standardized inspection and measurement methods. For more detailed information, please contact us directly. Fulling Motor company always reserves the right to make technical modifications.





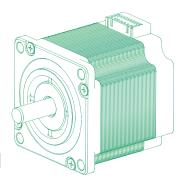
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