



Doncen Motor

2020 中英文1.0版

● PRODUCT MANUAL

Together with you,
we can move your business on and make you more successful.

www.nbdoncen.com

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宁波东理机电有限公司

Ningbo Doncen Electronics & Machinery CO., LTD.

公司产品手册

No. 1269, Mingshu Road, Jiangshan Town,
Yinzhou District, Ningbo City,
Zhejiang Province, China.



DEVELOPMENT 实验研发中心

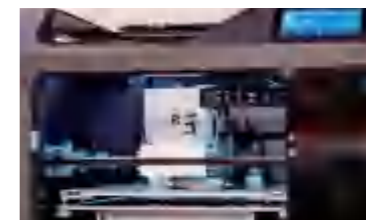
- 我们引进世界领先技术，汇聚各地高技术人才，以确保公司的稳步发展与保持长期的竞争优势。
- 经过多年的发展，公司的研发团队不断的壮大，多项研发获得国家发明专利。
- 公司制定了研发立项制度、研发核算制度、研发绩效考核制度，及每年研发费用的投入，使研究开发的新产品都具有很强的市场竞争力。



- We introduce the world's leading technology and keep high - tech talents together to ensure the company's steady development and long-term competitive advantage.
- After years of development, the company's R&D team have been continuing to grow, and have obtained national invention patents.
- The R&D project management system, R&D accounting management system, R&D personnel performance assessment system and the investment of the annual R&D make new products strong competitive in market.

强大的研发实力 Strong R&D Ability

3D打印机
3D Printer



缩短产品研发周期
Shorten Product Development Cycle

五轴加工中心
Five-axis Machining Center



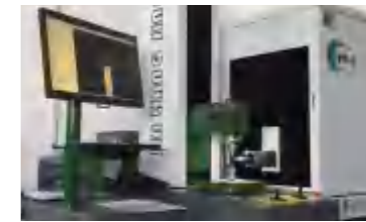
加工高精度复杂零件
Machining High-precision Complex Parts

电机功率测试系统
Motor Dynamometer Machine



测试电机全部性能
Test the Full Performance of the Motor

齿轮检测中心
Gear Testing Center



高效检查复杂轮廓形状
Efficient Inspection of Complex Shapes

研发部
R&D Department



提供从标准到定制的方案
Provide Motor solutions of standard and customized

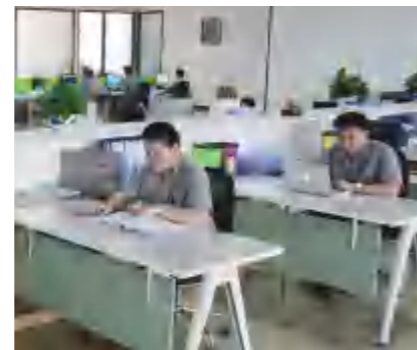


为确保技术更新，公司每年投入利润的20%以上作为研发费用
To ensure technology updates, the company invests more than 20% of its profits annually as R&D expenses.

● MANUFACTURE 制造基地

我们的精加工配件完全实现自主加工,公司拥有多台五轴加工中心和50多台CNC加工机床等先进的加工设备和检验设备。

Our finishing accessories are fully self-processing. The company has advanced processing and inspection based on 5-axis machining centers and more than 50 CNC



生产合格率保持在99.5%以上;销售额每年增长30%以上。
公司大力投入新产品的研发设计,以应对客户对市场的需求变化,每年新产品增长25%以上。
The company's annual production qualification rate remains above 99.5%. Product sales increase by more than 30% annually.
The company has been investing heavily in the development and design of new products to catch up with the changes in customers' demand for the market, with the annual growth of new products over 25%

制造基地 Manufacture



CNC
CNC lathe



精密磨床
Precision Grinding machine



高精度滚齿机
Precision hobbing machine



仓库一角
Warehouse



烧结炉
Sintering Furnace

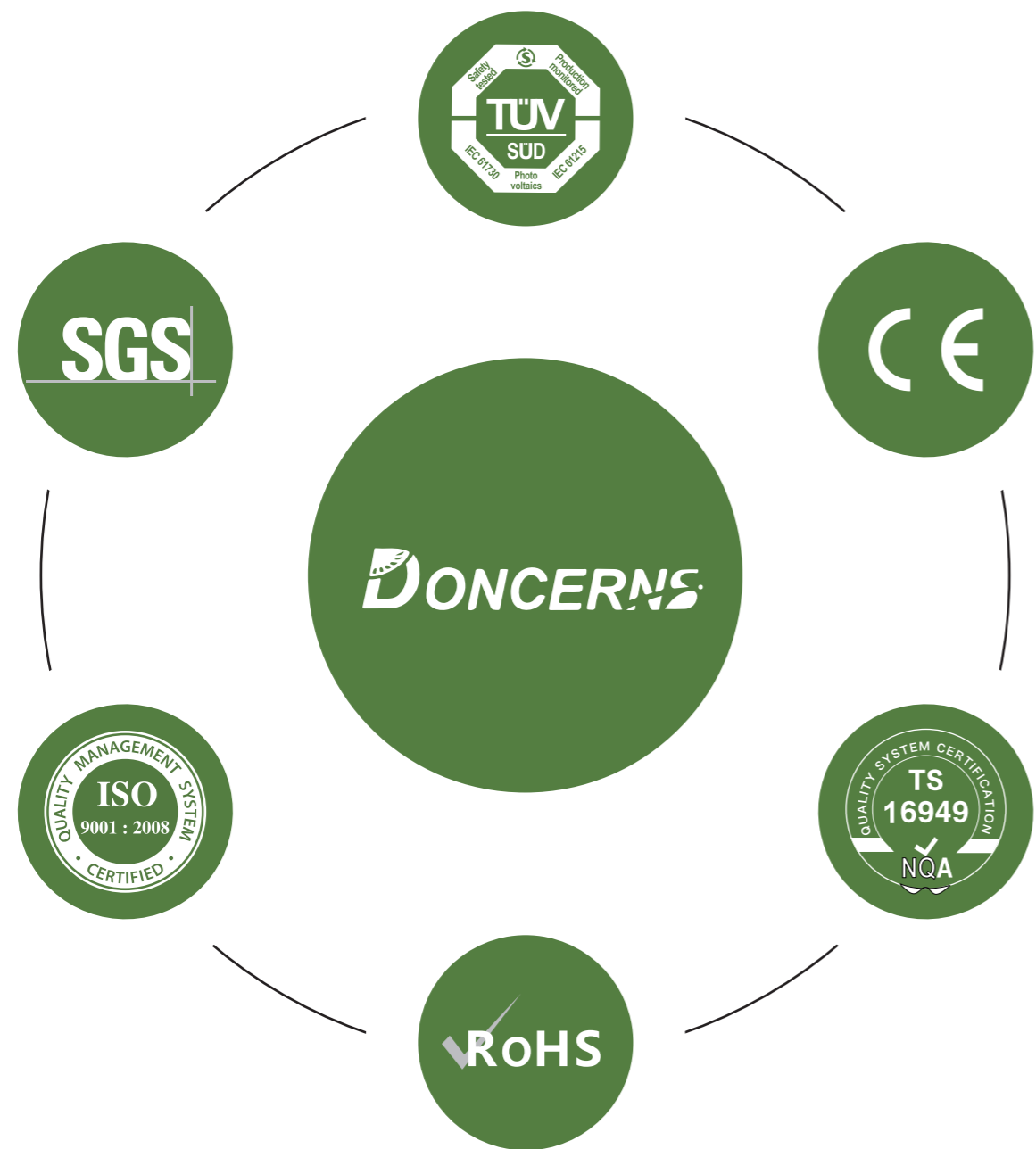


粉末压铸成型
Powder die-casting molding



关键零部件完全自制, 确保加工精度和及时交货
Core components are completely made in house to ensure accuracy and delivery in time.

HONOR 企业荣誉



i 专业的技术和过硬的品质，成为我们进入世界市场的有力后盾
Professional technology and excellent quality are the strong support of developing the world market.

全面的资质认证认可 Certifications

公司严格执行IATF16949质量管理体系，从开发设计，原料采购，进料检验、一贯化制程到成品包装出货，皆层层严格把关，更获得了世界范围的资质认可。

The company strictly implements the IATF16949 quality management system. From the development and design, raw material procurement, incoming material inspection, consistent manufacturing process and finished product packaging and shipment, all of them are strictly checked, and they have gained worldwide qualification recognition.

1	<h3>CE认证</h3> <p>CE标志是欧洲共同市场安全标志，是一种宣称产品符合欧盟相关指令的标识。使用CE标志是欧盟成员对销售产品的强制性要求。</p> 	2	<h3>ISO9001:2008</h3> <p>ISO9001是ISO9000族标准所包括的一组质量管理体系核心标准之一。ISO9000族标准是国际标准化组织在1994年提出的概念，是指由国际标准化组织质量管理和质量保证技术委员会制定的国际标准。</p> 
3	<h3>RoHS认证</h3> <p>RoHS是由欧盟立法制定的一项强制性标准，主要用于规范电子电气产品的材料及工艺标准，使之更加有利于人体健康及环境保护。</p> 	4	<h3>SGS认证</h3> <p>SGS作为全球最权威的检测认证之一，其意义在于可以很好的证明产品的质量，具有很高的公信力，可以得到全球范围认可。</p> 
5	<h3>IATF认证</h3> <p>IATF16949是国际汽车行业的技术规范，是基于ISO9001的基础，加进了汽车行业的技术规范。</p> 	6	<h3>TüV认证</h3> <p>TüV标志是德国TüV专为元器件产品定制的一个安全认证标志，在德国和欧洲得到广泛的接受。在整机认证的过程中，凡取得TüV标志的元器件均可免检。</p> 

● PRODUCT SERIES 产品系列

TRAVEL CHOICE 出行优选



FOLLOW ME 电动代步车轮毂电机

Folding electric mobility scooter



SIX ADVANTAGES

6大优势

3轮设计	稳定安全 选用3轮稳固设计,保障老人也可以安全骑行
1分钟	即学即开 操作简单易上手,孩子也能骑上玩
15秒	极速折叠 经人性化设计与研发,实现一按一拉2步到位的极速拆装
26公斤	轻韧兼得 精选镁合金航空材料,ABS+PC抗冲复合塑料,实现“轻韧双收”
25公里	超长续航 知名电机动能支持,韩国三星集团电力保障,实现安全可靠的超长续航
24寸	无碍便携 轻便携带的行李箱式代步车,收拢后超小空间占比

3 wheel design-Stable and safe tricycle design to ensure that the elder can also ride safely.

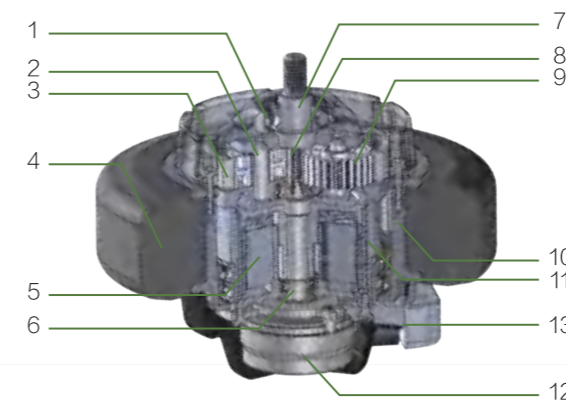
1 minute- the operation is simple and easy to learn, and the child can ride.

15 seconds-fast folding, humanized design It realized fast disassembly and assembly in one step.

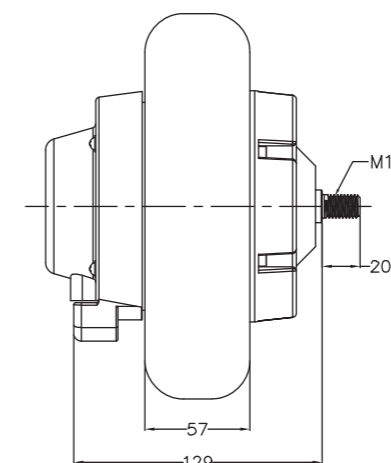
26kgs-Light and tough design. We selected magnesium alloy aviation materials, ABS+PC impact resistance composite plastics, to achieve lightness and both toughness.

25kms-Long endurance,supported by well-known motor energy , protected by South Korea's Samsung Group power, to achieve safe and reliable long battery life.

24 inches-The luggage-type and portable mobility scooter has the proportion of ultra-small space after folding.



- | | |
|----------|-----------------------|
| 1: 滚珠轴承 | ball bearing |
| 2: 行星轮轴 | pin |
| 3: 齿圈 | gear ring |
| 4: 橡胶轮胎 | Rubber tire |
| 5: 电机定子 | motor stator |
| 6: 电机转子 | motor rotor |
| 7: 固定支架 | Fixed bracket |
| 8: 电机齿 | pinion gear |
| 9: 行星轮 | planet gear |
| 10: 轮毂 | hub |
| 11: 电机外壳 | motor housing |
| 12: 电磁刹车 | electromagnetic brake |
| 13: 固定支架 | Fixed bracket |



产品介绍

本产品主体为外转子无刷电机减速箱,8寸实心防爆胎,尾部安装电磁刹车。

Product introduction

The main body consists of an outer rotor brushless motor gearbox,and 8-inch solid explosion-proof tire, with an electromagnetic brake at the rear.

优点

精确的车速调节功能;高扭矩输出,斜坡驻坡功能;刹车防抱死功能;高寿命动力稳定。

Advantage

Precise speed adjustment function,high torque output,good HillHold capacity, brake anti-lock function, high life and dynamic stability.

● PRODUCT SERIES 产品系列



4D影院座椅电机 4D cinema seat motor



产品介绍

本产品主体由直流有刷电机、编码器、刹车、行星减速箱总成四部分组成。直流有刷电机尾部安装译码器，通过霍尔感应能精确定位电机轴转动时的即时位置。译码器后端安装刹车制动系统。

Product introduction

The main body consists of DC brush motor, encoder, brake, planetary gear motor assembly. The DC brush motor tail is installed with an encoder. The Hall sensor can accurately positioning the shaft instantaneous position when the motor shaft rotates. Brake system is installed at the rear of the encoder.

优点

刹车制动系统; 0.8° 旋转侧隙(注:座椅的静止时的晃动<0.8°); 旋转位置精确定位; 高负荷强度。

Advantage

Brake brake system. 0.8° rotating backlash (Note: sloshing of the seat at rest <0.8°). Precise positioning of the rotating position. High load strength.

参数介绍

额定电压	24V DC
额定电流	2.8 A
额定输出功率	25 W
额定输出转速	8.5 rpm
额定输出扭矩	28 Nm
额定运行噪音 (@30cm)	≤ 52 dB

Technical data

Rated voltage	24V DC
Rated current	2.8 A
Rated output power	25 W
Rated output speed	8.5 rpm
Rated output torque	28 Nm
Rated running noise (@30cm)	≤52dB

● PRODUCT SERIES 产品系列

产品介绍

本产品主体由直流电机、行星减速箱总成、花键输出轴、编码器四部分组成。直流电机尾部安装译码器，通过霍尔感应能精确定位电机轴转动时的即时位置，精确反馈割草机的运行轨迹。

Product introduction

The main body consists of DC brush motor, planetary gear motor assembly, spline output shaft and encoder. The DC brush motor is installed with an encoder. The Hall sensor can accurately positioning the shaft instantaneous position when it rotates, and accurately feedback mower's running track.

优点

采用快拆设计，安装简便和维修；电机性能稳定噪音低。

Advantage

Module design, easy installation and maintenance, stable motor performance and low noise.

参数介绍

额定电压	24V DC
额定电流	0.4 A
额定输出功率	10 W
额定输出转速	47 rpm
额定输出扭矩	2.2 Nm
额定运行噪音 (@30cm)	≤50 dB

Technical data

Rated voltage	24V DC
Rated current	0.4 A
Rated output power	10 W
Rated output speed	47 rpm
Rated output torque	2.2 Nm
Rated running noise (@30cm)	≤50dB



自动割草机电机 Robotic lawn mower



● PRODUCT SERIES 产品系列



参数介绍	
额定电压	36V DC
额定电流	1.6 A
额定输出功率	30 W
额定输出转速	5.5 rpm
额定输出扭矩	52 Nm
额定运行噪音 (@30cm)	≤52dB
Technical data	
Rated voltage	36V DC
Rated current	1.6 A
Rated output power	30 W
Rated output speed	5.5 rpm
Rated output torque	52 Nm
Rated running noise (@30cm)	≤52dB

产品介绍

本产品主体由无刷电机、减速箱总成、输出轴三部分组成，无刷电机内部安装霍尔传感器，能精确定位电机轴转动时的即时位置，用于控制电机转动时的角度和转速。

Product introduction

The main body consists of three parts: brushless motor, gearbox assembly and output shaft. The brushless motor is installed with hall sensor inside, which can accurately position the instantaneous position when the motor shaft rotates. It is used to control the angle and speed when the motor rotates.

优点

精确定位转动角度，低噪音高扭矩，精确计数功能；高强度高寿命。

Advantage

Precise positioning of the rotation angle, low noise and high torque, accurate counting function, high strength and long life.

智能门禁电机 Intelligent access system motor



● PRODUCT SERIES 产品系列

电动液压钳电机 Electric hydraulic clamp motor



参数介绍	
额定电压	18V DC
额定电流	3 A
额定输出功率	180 W
额定输出转速	770 rpm
额定输出扭矩	2.2 Nm
额定运行噪音 (@30cm)	≤65dB
Technical data	
Rated voltage	18V DC
Rated current	3 A
Rated output power	180 W
Rated output speed	770 rpm
Rated output torque	2.2 Nm
Rated running noise (@30cm)	≤65dB

产品介绍

产品主体由直流电机、减速箱总成、凸轮出轴三部分组成。工作时运转平稳。

Product introduction

The main body consists of DC brush motor, planetary gear motor assembly and cam output shaft. It works smoothly.

优点

电机输出功率大，有效提高工作效率。

Advantage

Large motor output power improves work efficiency.

行星减速电机构造示意图 Schematic diagram of planetary gear motor constructure

产品命名 Product naming

例如: **P****G****4****5****7****7****5****2****4****6****0****0****0**-**3****6****9****K****E****7**

1 2 3 4 5 6 7 8

- 1: 行星齿轮 Planet gear
- 2: 减速箱外径 Gearbox housing
- 3: 马达型号 Motor type
- 4: 马达电压 Motor voltage
- 5: 马达转速 Motor speed
- 6: 减速箱速比 Reduction ratio
- 7: 带编码器 Encoder
- 8: 编码器脉冲数 Encoder pluse numbers

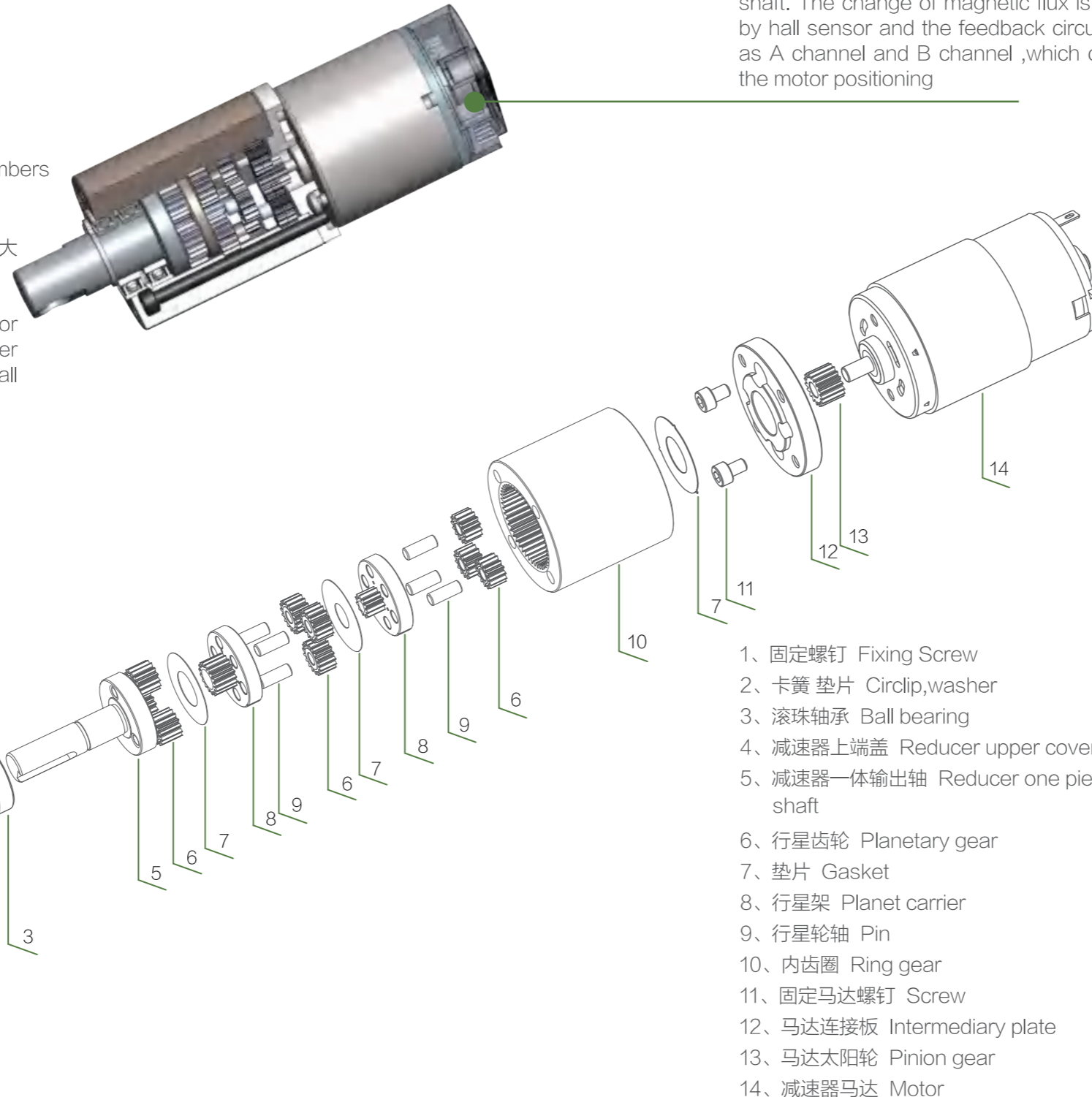
行星齿轮减速箱:

行星齿轮减速箱特别适合于高转矩的传递。直径大于22mm的齿轮箱装备滚珠轴承

Planetary gear reducer:

Planetary gearboxes are particularly suitable for transmission of high torque. Gear boxes larger than 22mm in diameter are equipped with ball bearings

- 噪音低
- 减速比4:1到3560:1
- 外径15到80mm
- 高性能、小尺寸
- 高减速比、小尺寸
- low noise
- deceleration ratio 4:1 to 3,560 :1
- outer diameter 15 to 80mm
- high performance, small size
- high deceleration ratio and small size



译码器 Encoders

根据磁原理, 电机轴上安装一个小的多极永磁体, 由霍尔传感器记录磁通量的变化并反馈回路做为A通道和B通道, 以便实现马达定位。

In the magnetic principle, A small multipole permanent magnet is installed on the motor shaft. The change of magnetic flux is recorded by hall sensor and the feedback circuit is used as A channel and B channel ,which can make the motor positioning

行星减速电机的选择

Selection of planetary reduction motor

根据需要的可用功率输出选择一个齿轮减速电机。
A geared motor is selected according to the required usable power-output.

$$\text{输出功率 useableP(W)} = \frac{2p}{60} \cdot M(N.m) \cdot N(\text{rpm})$$

$$\text{输出功率 useableP(W)} = \frac{M(\text{Kgf.cm}) \cdot N(\text{rpm})}{97.5}$$

$$\text{输出功率 useableP(W)} = \frac{M(\text{Lb.in}) \cdot N(\text{rpm})}{84.6}$$

$$\text{输出功率 useableP(W)} = \frac{M(\text{oz.in}) \cdot N(\text{rpm})}{1354}$$

力矩转换表 Torque Conversion Chart

	gf.cm	Kgf.cm	N.cm	N.m	oz.in	Lb.in	Lb.ft
gf.cm	1	10 ⁻³	9.8x10 ⁻³	9.8x10 ⁻⁵	0.01389	8.68x10 ⁻⁴	7.233x10 ⁻⁵
Kgf.cm	10 ³	1	9.8	9.8x10 ⁻²	13.89	0.868	0.07233
N.cm	102	0.102	1	10	1.416	0.0885	7.376x10 ⁻³
N.m	1.02x10 ⁻⁴	10.2	100	1	141.6	8.85	0.7376
oz.in	72.1	0.0721	0.706	7.06x10 ⁻³	1	0.0625	5.21x10 ⁻³
Lb.in	1152	1.152	11.3	0.113	16	1	0.0833
Lb.ft	1.383x10 ⁻⁴	13.83	135.6	1.356	192	12	1

例如: e.g:

$$1\text{gf.cm} = 9.8 \times 10^{-3} \text{N.cm} \quad 1\text{Kgf.cm} = 0.098\text{N.m}$$

$$1\text{lb.in} = 1.152\text{Kgf.cm} \quad 1\text{N.m} = 10.2\text{Kgf.cm}$$

$$1\text{Kg.cm} = 0.868\text{lb.in} \quad 1\text{oz.in} = 0.072\text{Kgf.cm}$$

力矩的意思, 可用下图来解释。

The mean of torque please see below figure.



已知垂直上升的物体重量m(Kg)和上升速度V(m/s),求电机输出功率多少瓦。

It is known that the vertical lifting body weight m(Kg) and rising speed V(m/s), and how many watts can be output from the motor.

$$\text{输出功率useableP(W)} = 9.8 \cdot M(\text{Kg}) \cdot V(\text{m/s})$$

齿轮电机的有用功率必须大于或等于驱动负载时的功率要求。通过检查符合操作条件对应的点(扭矩和转速输出)是否高于额定扭矩-转速曲线图上的点来选择。

齿轮电机的输出扭矩必须在齿轮箱连续运转时的扭矩最大范围内。

The useful power of the gear motor must be greater than or equal to the power required under the driving load. Select by checking whether the points corresponding to the operating conditions (torque and speed output) are higher than the points on the torque - speed curve.

The output torque of the gear motor must be within the maximum torque range when the gear box is running continuously.

选择减速比 Selecting the reduction gear ratio

有两个选择规则。

There are two selection rules

第一个规则只和减速齿轮要求的输出速度有关。对于大多数应用这个就足够了, 并且容易使用, 给出如下:

The first rule relates only to the output speed required by the reduction gear. This is sufficient for most applications and easy to use, as shown below:

R=

N

1

B

1

{\displaystyle \ R={\frac {N1}{B1}}}

N1=齿轮电机要求的转速 Gear motor required speed
B1=电机的基本额定转速 Basic rated motor speed

第二个规则是和电机所需输出功率有关。电机的转速给出如下：

The second rule is related to the output power required by the motor.

The motor speed is given as follows:

 N = 1 / 2 (N o + √<!-- √ --> N o 2 −<!-- − --> 4 P A) with A = π<!-- π --> C d 30 N o {\displaystyle N=1/2(No+{\sqrt {No^{2}-{\frac {4P}{A}}}}\ \ with\ A={\frac {\pi Cd}{30No}}}
N=电机转速speed of motor(rpm)
No=电机空载转速no loadspeed of motor(rpm)
P=要求的输出功率required output power(W)
Cd=电机的启动扭矩start-up torque of motor(Nm)

给出以下等式（this gives the equation):R=

N

1

N

{\displaystyle R={\frac {N1}{N}}}

为了避免使用小于1的数来表示速比，常使用1/R.

由于总是使用减速齿轮而不是使用“升速”齿轮，这样做不会引起误解。To avoid using Numbers less than 1 to represent the speed ratio, 1/R is often used.

This is not misleading because you always use a reduction gear instead of a "speed up" gear.

1/R=

N

b

N

1

{\displaystyle 1/R={\frac {Nb}{N1}}}

 or 1/R=

N

N

1

{\displaystyle 1/R={\frac {N}{N1}}}

齿轮马达使用注意事项

Cautions for gear motor operation

输出轴的转动 Turning by output dhaft

请不要在安装零件时为了调整位置而从输出轴方向去回转过齿轮马达。齿轮头会成为增速机构，造成齿轮等内部损坏，致使马达成为发电机。

Do not rotate the gear motor from the output shaft in order to adjust position when installing the part. The gear head can become a growth mechanism, causing internal damage to the gears, and making the motor a generator.

安装位置 Installed position

标准安装位置为与质量检查相同的水平方向位置。

※ 请注意，使用于其他方向位置时，有可能造成齿轮马达的润滑油外漏、负荷变化，以致改变与水平方向的特性产生变化。

The standard installation position is the same horizontal position as the quality check.

Please note that it is possible to cause oil leakage and load change of gear motor when used in other direction, so as to change the property of horizontal direction.

加工处理 Additional processing

输出轴可以施行格式各样的加工。

※ 进行加工时，加工的是的负重，冲击，切削粉末等均有可能造成制品的损坏。

The output shaft can be processed in a variety of formats.

When processing, the processing of load, impact, cutting powder, etc. are likely to cause damage to products.

螺丝 Screws

安装螺丝前请先确认外观图所标示之形式及长度尺寸。

※ 安装齿轮马达时，螺丝太长，固定螺柱太大都会造成内部结构零件的变形及损坏，螺丝本身的变形会导致事故发生。另外固定螺柱太弱时，也可能造成不稳或脱落的原因。

Before installing screws, please confirm the form and size indicated in the appearance drawing.

When the gear motor is installed, the screws are too long and the fixed stud is too large to cause deformation and damage to the internal structural parts. The deformation of the screws themselves will lead to the accident. In addition, if the fixed stud is too weak, it may cause instability or fall off.

输出轴的安装 Installation of output shaft

请小心使用黏接剂。

※ 请小心使用，勿使黏接剂借由输出轴流入轴内。特别是硅胶粘剂等挥发性粘剂，可能会造成马达内部产生不良影响，请避免使用。另外请避免过度加压，以防内部机构变形及损坏。

Please use adhesive carefully.

Please use carefully, do not let the adhesive flow into the shaft by the output shaft. Especially volatile adhesives such as silica adhesive may cause adverse effects inside the motor. Please avoid using. In addition, avoid excessive pressure to prevent deformation and damage of the internal mechanism.

马达端子的处理 Handling the motor terminal

焊接作业请在短时间内实行。（推荐：焊接头温度340~400度，2~3秒内实行完毕。）

※ 端子过热会造成马达零部件的溶解及产生内部结构造成不良影响。另外对端子部分强加压力，会增添马达内部负担，造成马达内部损坏。

The welding operation should be carried out within a short time. (recommended: the temperature of welding joint is 340~400 degrees, and it is completed within 2~3 seconds.)

The overheating of the terminals will lead to the dissolution of the motor parts and produce adverse effects on the internal structure. In addition to the terminal part of the pressure will add to the internal motor burden, resulting in motor internal damage.

润滑油 Grease

涂抹于齿轮的华东部分。

※ 在特别环境下使用时请小心使用。根据马达构造特点，有可能会渗流至外部。

Apply to the east part of the gear.

Use with care in special circumstances. Depending on the motor configuration, seepage may occur.

使用温度范围 Temperature range for use

请在-30℃到+85℃的范围内使用。

目录所记载之数值为室温20℃到25℃之数值。

※ 规定范围外的温度下使用时，齿轮头的润滑油会变得无法正常作用，马达变得无法启动。根据温度条件的不同，变更润滑油及马达的零件后可以使马达在温度范围外使用。如有需要，敬请洽谈。

Please - 30 ℃ to + 85 ℃ within the scope of use.

The value recorded in the directory for the values in the room temperature is 20 ℃ to 25 ℃.

When used at temperatures outside the specified range, the lubricating oil of the gear head becomes inoperative and the motor becomes inactivated. According to the different temperature conditions, the motor can be used outside the temperature range by changing the oil and motor parts. Kindly negotiate if necessary.

保存温度范围 Temperature range for storage

请保存在-15℃到+65℃的范围。

※ 保存于温度范围外时，齿轮头的润滑油会产生性能无法运行，马达变得无法启动。

Please save in -15 ℃ to + 65 ℃.

When stored outside the temperature range, the lubricating oil of the gear head will generate performance failure and the motor will become unable to start.

相对湿度范围 Relative humidity range

请在湿度20%到82%RH，无结露的范围内使用。

※ 潮湿的环境里，因金属零件生锈而会造成性能差异，请小心处理使用。Please use in the range of 20% to 82%RH, no condensation.

In humid environment, the rust of metal parts may cause differences in performance. Please use with care.

保管 Long-term storage

请避免保存于含有腐蚀性瓦斯，有毒瓦斯的物质，高温，低温，高湿度的环境下。尤其是在2年以上的长期保存时，请特别谨慎处理。

Please do not store in high temperature, low temperature, high humidity environment with corrosive or poisonous gas. Especially for long-term preservation over 2 years, please be careful.

使用寿命 Longevity

齿轮马达的寿命，会因负荷条件，运动模式，使用环境的不同而有很大的不同。请以实际产品充分进行确认。以下的条件是影响使用寿命的原因，使用时请与我们洽询。

- 超出额定扭矩负荷的使用
- 频繁启动
- 正逆方向的瞬间反转
- 冲击装载

- 长时间的连续操作
- 强制回传输出轴
- 超出突出悬挂容许负荷重，超出容许推力负重的使用
- 制动，逆起电流，PWM制动等等的脉冲驱动
- 使用标准额定规格外的电压
- 超出使用温度范围，相对湿度范围，或是使用于特殊环境
- 其它用途，环境使用，请与我们协商，会根据需要选的适合的机型

The life of a gear motor can vary greatly depending on load conditions, movement patterns, and the environment in which it is used. Please confirm with actual product. The following conditions are the factors affecting the service life. Please contact us for more information.

- Usage beyond rated torque load
- Frequent start
- An instantaneous reversal in the direction of positive and negative
- Impact loading
- Long continuous operation
- Forced rotary output shaft
- Exceeding the allowable load of the protrusion suspension and the use of the allowable thrust load
- Braking, reverse starting current, PWM braking, etc
- Use the voltage outside the standard rating
- Use beyond the temperature range, relative humidity range, or use in a particular environment
- Other use, environment use, please negotiate with us, we will choose suitable models according to the need

使用注意事项 Notice on product usage

- 为抑制电机的干扰信号，小型减速电机安装时，可以在正极与负极之间焊接一个0.1 μ F(63V)的涤纶电容，负极要接地。或致电本公司，在电机里面安装抗干扰亚敏电阻。
- 永磁直流电机的堵转转矩一般是额定转矩的5到6倍，在安装、调试、使用中应该尽量避免堵转现象发生。
- 如果不可避免的发生了堵转，应该明确的告诉本公司，以便事先采取必要的措施。
- 大减速比、大转矩的产品要由用户自己采取限流的方法，作为防止因发生堵转而损坏减速器的措施。
- 小型减速电机尽量避免减速器出轴朝上安装和运行，因为减速器内的油脂可能受热融化，如果渗透到碳刷，可能使得碳刷很快磨损和损坏。如果不可避免的要朝上安装和运行应该事先告诉公司。
- To suppress the interference signal of the motor, a 0.1 anode F(63V) polyester capacitance can be welded between the anode and the cathode when the small reducer motor is installed, and the cathode needs to be grounded. Or call our company to install the anti-interference sub-sensitive resistor in the motor.
- The plugging torque of permanent magnet dc motor is 5 to 6 times of the rated torque. During installation, commissioning and use, the blocking torque should be avoided.
- If there is inevitable blockage, the company should be clearly informed in order to take necessary measures in advance.
- The product with large deceleration ratio and high torque should be limited by the user himself as a measure to prevent the transmission from being damaged by blocking.
- The small speed reducer should be installed and operated with the shaft of the reducer facing upward, because the grease in the reducer may be melted by heat. If the oil permeates the carbon brush, the carbon brush may wear and damage quickly. If it is unavoidable to install and run upside-down, you should tell the company in advance.

安装注意事项 Notice on installation

- 在安装前对减速电机进行通电运转检查，确认性能符合要求在投入安装。不要擅自打开减速器，否则会有噪音增加。
- 在安装过程中不应使减速电机受到冲击、跌落。在减速器出轴上安装结构件时，不允许直接在减速器出轴上敲打或压配。
- 大电机的引线不能够用力拉，小电机的接线端子不能够受到冲击，不能弯曲，否则会发生内部导电不良，影响性能。
- 不要用力从输出轴端旋转减速器，否则会造成齿轮损坏。在减速器出轴上用力粘结剂固定传动部件时，不能粘着减速器的轴承。
- 在安装圆形齿轮减速器电机、行星减速器的时候，一定要控制好安装螺钉的长度。旋入过长会定坏减速器里面的结构件。
- 电机安装前要先检查被电机拖动的传动系统是否有故障，否则电机通电后会发生堵转，可能使得减速器齿轮损坏。

● Check the running of the motor before installation, and confirm that the performance meets the requirements before installation. Do not open the reducer without permission, otherwise noise will increase.

● The gear motor should not be impacted or dropped during installation. It is not allowed to beat or press the structural parts directly on the reducer output shaft when installing the structural parts.

● The leads of large motors cannot be pulled hard, and the terminals of small motors cannot be impacted or bent. Otherwise, internal electrical conduction will be poor and the performance will be affected.

● Do not force the reducer from the output shaft end, otherwise it will cause gear damage. The bearing of the reducer cannot be attached when the driving part is fixed by a strong binder on the outlet shaft of the reducer.

● When installing circular gear reducer motor and planetary reducer, make sure to control the length of mounting screws. Too long in the speed reducer will fix the structure.

● Before the motor is installed, check if the drive system driven by the motor is faulty, otherwise the motor will be blocked and may cause damage to the reducer gear.

产品技术介绍 Product technology introduction

微型齿轮减速器、行星齿轮减速器、涡轮减速器 Miniature gear reducer Planetary gear reducer Turbine reducer

1.一般把最常见的单对齿传动、平行轴结构、定轴轮系的减速器称之为齿轮减速器，在微型齿轮减速器中多使用外啮合直齿和斜齿轮，除了非常微小型的减速器以外，微型齿轮器的减速比一般设计在1:200以内。

1. Generally speaking, the most common reducer of single-pair gear transmission, parallel shaft structure and fixed shaft gear train is called gear reducer. External meshing straight teeth and helical gears are often used in the miniature gear reducer.

2.行星齿轮减速器最多对齿传动、动轴轮系的传动结构，减速比范围大，本公司产品最大减速比可达到1： 3730。行星减速器具有体积小、重量轻、承载能力大、效率高、工作平稳的特点。现在行星减速器也较多的应用于高转速场合，原因是直流电机很难做到1000左右，而较高转速直流电机配置小减速比的行星齿轮减速器，既能减速又能增大扭矩。

2. Planetary gear reducer has a maximum transmission structure for gear transmission and dynamic shaft gear train, with a large reduction ratio range. The maximum reduction ratio of our products can reach 1:3730. The planetary reducer has the characteristics of small size, light weight, large carrying capacity, high efficiency and stable operation. At present, planetary reducer is also widely used in high speed situations. The reason is that it is difficult for dc motor to achieve around 1000. However, planetary gear reducer with small speed reduction ratio for dc motor of higher speed can not only reduce speed but also increase torque.

3.涡轮减速器的最大特点是交错轴传动，电动机输入轴与减速器输出轴成90度，而且工作平稳、噪音低，在一定条件下有自锁性，缺点是效率低。3. The biggest characteristic of turbine reducer is staggered shaft transmission, with motor input shaft and reducer output shaft at 90 degrees, stable operation, low noise, self-locking under certain conditions, and low efficiency.

4.额定负载转矩：电机在额定电压、额定转速时输出的转矩。

一般的计算公式

 额定负载转矩=电动机额定转矩×减速比×减速器传动效率

大减速比电机受减速器最大允许转矩的限制，额定负载转矩计算值大于最大允许转矩的，则以最大允许扭矩为额定值。

4. Rated load torque: the torque output of the motor at rated voltage and speed.

General formulas

Rated load torque = the motor's rated torque X deceleration ratio X reducer transmission efficiency

The large deceleration ratio motor is limited by the maximum allowable torque of the reducer. If the calculated value of torque under rated load is greater than the maximum allowable torque, the maximum allowable torque is the rated value.

● PRODUCT SERIES 产品系列

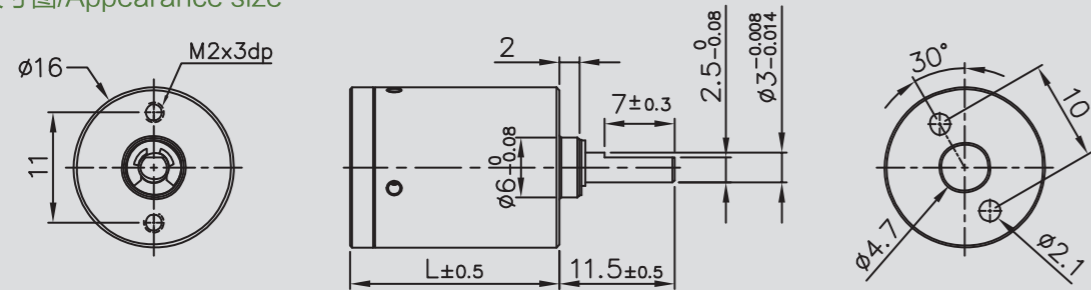
行星减速箱 Planetary Gearbox PG16



外壳材质 (Housing material): _____ Powder metallurgy
 背隙,无负荷时 (Backlash,at no-load): _____ $\leq 1.5^\circ$
 轴承型号 (Bearing at output): _____ Sleeve bearings
 径向间隙 (Radial play of shaft): _____ ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): _____ ≤ 0.2 mm
 齿轮箱适用于F-139,RF-030和RF-050马达。
 (The gear box can apply to F-139,RF-030 and RF-050 motors)

⚠ 马达瞬间允许扭矩12kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed, high gear ratio will cause gear motor torque more than 12kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.3	0.3	0.3
齿数 NO.of teeth	12	15	18
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	φ 1.48	φ 1.48	φ 1.48

使用温度范围/Operating temperature range: -30℃~+85℃
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
4, 4.75	4, 4 _{3/4}	1.0kgf·cm	3.0kgf·cm	90%	1	13.7	=
16, 19, 22.5	16, 19, 22 _{9/16}	1.5kgf·cm	4.5kgf·cm	81%	2	17.3	=
42.8, 64, 76	42 _{7/8} , 64, 76,	2.0kgf·cm	6.0kgf·cm	73%	3	20.9	=
90, 107	90 _{1/4} , 107 _{11/64}	2.0kgf·cm	6.0kgf·cm	73%	3	20.9	=
150, 256, 304	150 _{1/16} , 256, 304	3.0kgf·cm	9.0kgf·cm	65%	4	24.5	=
361, 428	361, 428 _{11/16}	3.0kgf·cm	9.0kgf·cm	65%	4	24.5	=
509	509 _{17/256}	3.0kgf·cm	9.0kgf·cm	65%	4	24.5	=
1024, 1216	1024, 1216	4.0kgf·cm	12.0kgf·cm	59%	5	28.1	=
1444, 1715	1444, 1714 _{3/4}	4.0kgf·cm	12.0kgf·cm	59%	5	28.1	=
2036, 2418	2036 _{17/64} , 2418 _{67/1024}	4.0kgf·cm	12.0kgf·cm	59%	5	28.1	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG16M050

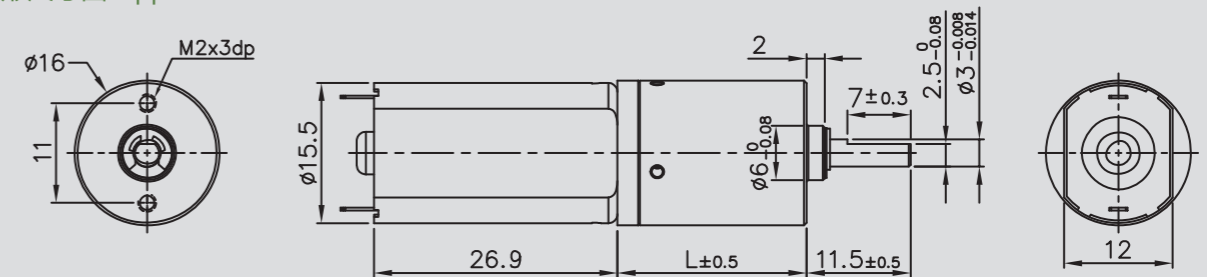
适用范围/Scope of application

光学仪器 | 调教照相机 | 指纹锁 | 自动节能器 | 水表IC卡 | 玩具礼品
 办公设备 | 家用电器 | 通信基站 等等。

Optical instruments | Tune camera | Fingerprint lock | Automatic energy saver | Water meter IC card | Toy gift | Office equipment | Household appliances | Telecommunication base station, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	4,4.75	12.3,16,19,22.5	42.8,64,76,90,107	150,256,304,361,428	712,1024,1216,1444,1715,2036
齿轮箱长度 Gearbox length "L" mm	13.7	17.3	20.9	24.5	28.1
额定扭矩 Max. Running torque	1.0kgf·cm	1.5kgf·cm	4.0kgf·cm	4.0kgf·cm	4.0kgf·cm
损坏扭矩 Gear breaking torque	3.0kgf·cm	4.5kgf·cm	12.0kgf·cm	12.0kgf·cm	12.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

可选马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
F-050129000	12	9000	≤45	7000	≤140	8	0.5	45	≤500
F-0501212000	12	12000	≤55	9600	≤180	10	0.96	50	≤750
F-0502413000	24	13000	≤45	10000	≤110	12	1.2	49	≤400

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见50页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 50
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

PRODUCT SERIES 产品系列

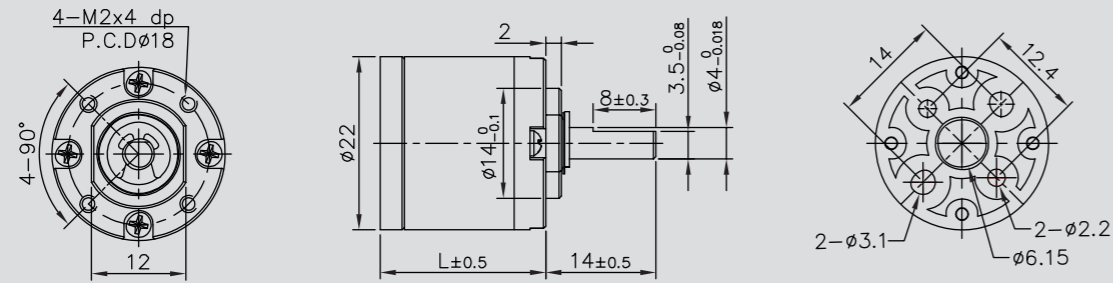
行星减速箱 Planetary Gearbox PG22



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Sleeve bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于RF-180和2238马达。
 (The gear box can apply to RF-180 and 2238 motors)

⚠ 马达瞬间允许扭矩12kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed, high gear ratio will cause gear motor torque more than 12kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.3	0.3
齿数 NO.of teeth	15	18
压力角 Pressure angle	20°	20°
孔径 Hole diameter	$\phi 1.98$	$\phi 1.98$

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.5, 4	3 _{1/2} , 4	1.0kgf·cm	3.0kgf·cm	90%	1	13.9	=
12.3, 16, 19	12 _{1/4} , 16, 19	2.0kgf·cm	6.0kgf·cm	81%	2	17.5	=
42.8, 64, 90	42 _{7/8} , 64, 90 _{1/4}	4.0kgf·cm	12.0kgf·cm	73%	3	21.1	=
150, 256	150 _{1/16} , 256	4.0kgf·cm	12.0kgf·cm	65%	4	24.7	=
304, 361, 428	304, 361, 428 _{11/16}	4.0kgf·cm	12.0kgf·cm	65%	4	24.7	=
813, 1024	813 _{51/64} , 1024	4.0kgf·cm	12.0kgf·cm	59%	5	28.3	=
1263, 1444	1263 _{1/2} , 1444	4.0kgf·cm	12.0kgf·cm	59%	5	28.3	=
1500, 2036	1500 _{13/32} , 2036 _{17/64}	4.0kgf·cm	12.0kgf·cm	59%	5	28.3	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG22M180

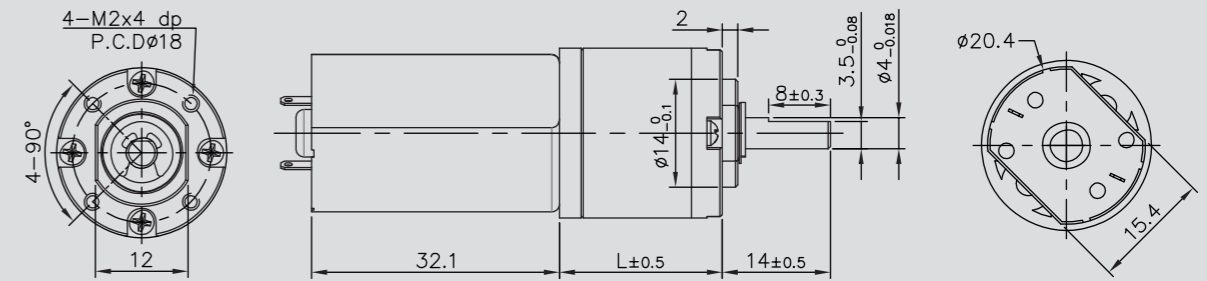
适用范围/Scope of application

光学仪器 | 调教照相机 | 指纹锁 | 美容卷发器 | 水表IC卡 | 玩具礼品
 办公设备 | 家用电器 | 自动执行器 等等。

Optical instruments | Tune camera | Fingerprint lock | Beauty curler | Water meter IC card | Toy gift | Office equipment | Household appliances | Automatic actuators, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.5,4	12.3,16,19	42.8,64,90	150,256,304,361,428	813,1024,1263,1444,1500,2036
齿轮箱长度 Gearbox length "L" mm	13.9	17.5	21.0	24.7	28.3
额定扭矩 Max. Running torque	1.0kgf·cm	2.0kgf·cm	4.0kgf·cm	4.0kgf·cm	4.0kgf·cm
损坏扭矩 Gear breaking torque	3.0kgf·cm	6.0kgf·cm	12.0kgf·cm	12.0kgf·cm	12.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
F-180129000	12	9000	≤ 58	7200	≤ 300	25.00	1.81	100	≤ 950
F-1801215000	12	15000	≤ 120	12494	≤ 600	35.28	4.49	210	≤ 3000
F-180249000	24	9000	≤ 25	7416	≤ 110	23.01	1.74	130	≤ 550
F-1802415000	24	15000	≤ 55	12660	≤ 290	34.54	4.45	220	≤ 1600
2238126000	12	6000	≤ 120	4800	≤ 350	49.2	2.42	248	≤ 1360
2238246400	24	6400	≤ 62	5388	≤ 186	49.6	2.74	317	≤ 950

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见51、52页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 51、52
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

● PRODUCT SERIES 产品系列

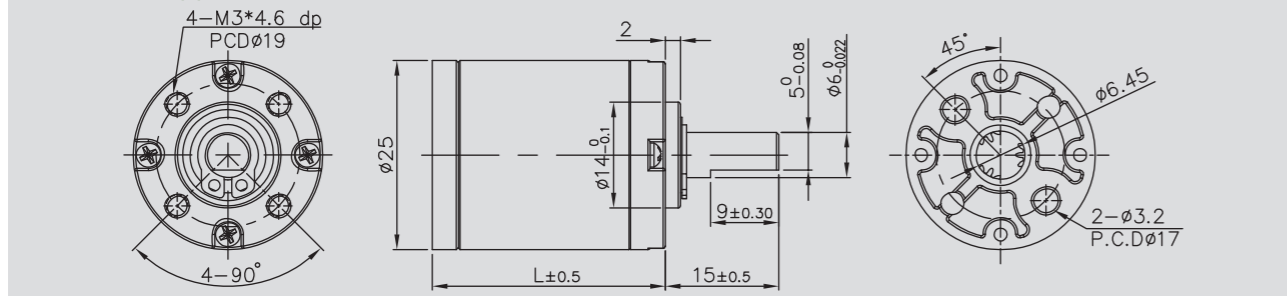
行星减速箱 Planetary Gearbox PG25



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Sleeve bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于RF-370和2238马达。
 (The gear box can apply to RF-370 and 2238 motors)

⚠ 马达瞬间允许扭矩30kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed, high gear ratio will cause gear motor torque more than 30kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.4	0.4		
齿数 NO.of teeth	12	15		
压力角 Pressure angle	20°	20°		
孔径 Hole diameter	$\phi 1.98$	$\phi 2.28$		

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.6, 4.25	33/5, 41/4	3.0kgf·cm	9.0kgf·cm	90%	1	18.3	=
13, 15.3, 18	1224/25, 153/10, 191/16	5.0kgf·cm	15.0kgf·cm	81%	2	25	=
36, 46.7	361/10, 4682/125	10.0kgf·cm	30.0kgf·cm	73%	3	30.8	=
55, 65, 76.8	552/25, 651/40, 7649/64	10.0kgf·cm	30.0kgf·cm	73%	3	30.8	=
114, 130	11419/60, 12924/25	10.0kgf·cm	30.0kgf·cm	65%	4	36.6	=
168, 198	167601/625, 19836/125	10.0kgf·cm	30.0kgf·cm	65%	4	36.6	=
234, 276, 326	2341/100, 2769/25, 3261/4	10.0kgf·cm	30.0kgf·cm	65%	4	36.6	=
467, 604, 713	4673/4, 60433/50, 7137/10	10.0kgf·cm	30.0kgf·cm	59%	5	42.4	=
842, 994	8427/10, 99422/25	10.0kgf·cm	30.0kgf·cm	59%	5	42.4	=
1174, 1386	11741/2, 13862/3	10.0kgf·cm	30.0kgf·cm	59%	5	42.4	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG25370

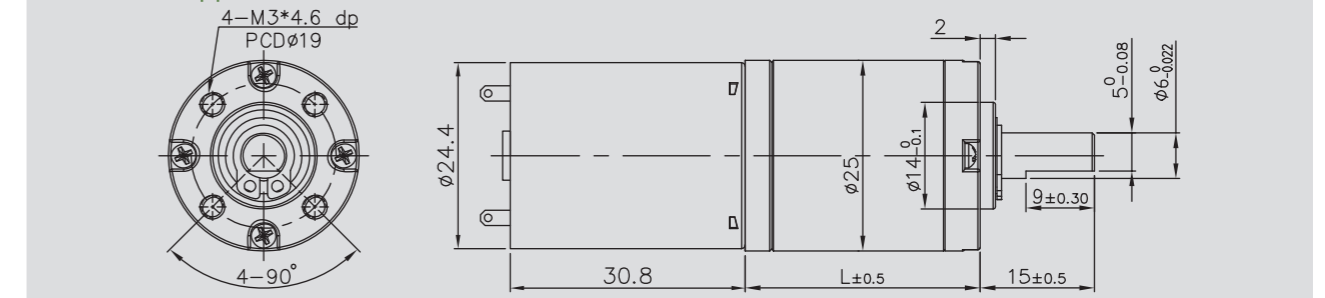
适用范围/Scope of application

蠕动泵 | 微型数控设备 | 自动取款机 | 出卡机 | 遥控窗帘 | 电动推杆
 油印机 | 家用电器 | 办公设备 | 自动执行器 等等。

Peristaltic pump | Micro CNC machine | Automated teller machine |
 Card machine | Remote control curtain | Electric push rod | Mimeo-
 graph | Household appliances | Office equipment | Automatic
 actuators, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.6,4.25	13,15.3,18	36,46.7,55,65,76.8	114,130,168,198,234,276,198	467,604,713,842,994,1174,1386
齿轮箱长度 Gearbox length "L" mm	18.3	25.0	30.8	36.6	42.2
额定扭矩 Max.Running torque	3.0kgf·cm	5.0kgf·cm	10.0kgf·cm	10.0kgf·cm	10.0kgf·cm
损坏扭矩 Gear breaking torque	9.0kgf·cm	15.0kgf·cm	30.0kgf·cm	30.0kgf·cm	30.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
RF-370123000	12	3000	≤ 15	2200	≤ 55	15	0.33	60	≤ 280
RF-370126000	12	6000	≤ 35	5264	≤ 180	30	1.57	240	≤ 1260
RF-370246000	24	6000	≤ 25	5295	≤ 110	30	1.68	265	≤ 750

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见53页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 53
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

● PRODUCT SERIES 产品系列

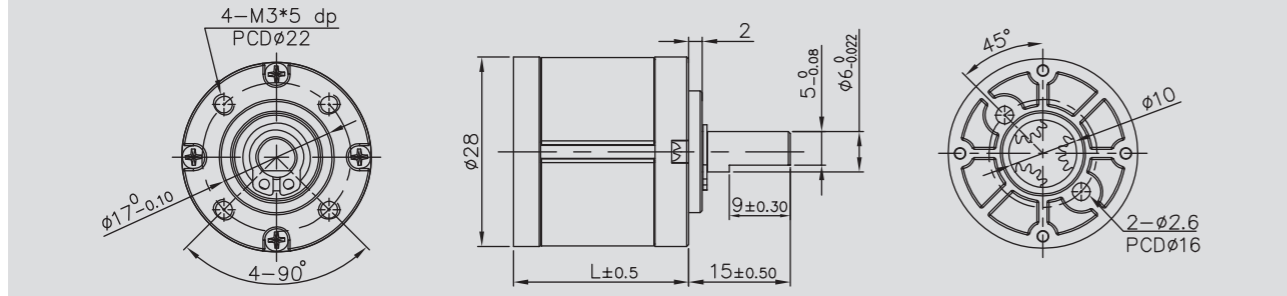
行星减速箱 Planetary Gearbox PG28



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Ball bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于BL28,RS-385和RS-395马达。
 (The gear box can apply to BL28,RS385 and RS-395 motors)

⚠ 马达瞬间允许扭矩75kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed , high gear ratio will cause gear motor torque more than 75kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.48	0.48	0.48
齿数 NO.of teeth	11	17	17
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	$\phi 1.98$	$\phi 2.28$	$\phi 3.14$

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.3, 4.6	3.353, 4.636	10.0kgf·cm	30.0kgf·cm	90%	1	20.2	=
11.2, 15.5, 21.5	12.242, 15.545, 21.496	20.0kgf·cm	60.0kgf·cm	81%	2	25.9	=
37.7, 52.1	37.694, 52.123	50.0kgf·cm	150.0kgf·cm	73%	3	31.7	=
72, 100	72.074, 99.663	50.0kgf·cm	150.0kgf·cm	73%	3	31.7	=
126, 174, 241	126.387, 174.765, 241.661	50.0kgf·cm	150.0kgf·cm	65%	4	37.5	=
334, 462	334.163, 462.072	50.0kgf·cm	150.0kgf·cm	65%	4	37.5	=
423, 585	423.769, 585.978	50.0kgf·cm	150.0kgf·cm	59%	5	43.3	=
810, 1120	810.276, 1120.429	50.0kgf·cm	150.0kgf·cm	59%	5	43.3	=
1549, 2142	1549.301, 2142.335	50.0kgf·cm	150.0kgf·cm	59%	5	43.3	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG28M395

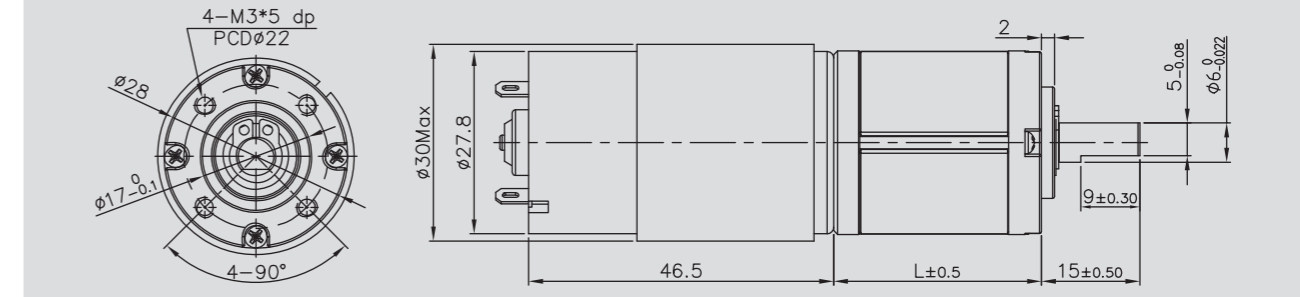


适用范围/Scope of application

蠕动泵 | 微型数控设备 | 自动取款机 | 出卡机 | 遥控窗帘 | 太阳能油印机 | 家用电器 | 办公设备 | 自动执行器 等等。

Peristaltic pump | Miniature CNC equipment | Automated teller machine | Card dispenser | Remote control curtain | Solar energy | Mimeograph | Household appliances | Office equipment | Automatic actuators, etc.

外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	20.2	25.9	31.7	37.5	43.3
额定扭矩 Max.Running torque	10.0kgf·cm	20.0kgf·cm	50.0kgf·cm	50.0kgf·cm	50.0kgf·cm
损坏扭矩 Gear breaking torque	30.0kgf·cm	60.0kgf·cm	150.0kgf·cm	150.0kgf·cm	150.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-395124500	12	4500	≤ 110	3800	≤ 470	95	3.79	643	≤ 2.6
RS-395126000	12	6000	≤ 180	5370	≤ 770	110	6.54	847	≤ 4.6
RS-395129000	12	9000	≤ 300	7800	≤ 1100	112	8.93	850	≤ 6.9
RS-395244500	24	4500	≤ 65	4000	≤ 260	104	4.27	722	≤ 1.52
RS-395246000	24	6000	≤ 110	5200	≤ 490	140	7.73	973	≤ 2.72
RS-395249000	24	9000	≤ 180	7800	≤ 600	127	10.2	972	≤ 3.93

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见54、62页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 54、62
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

● PRODUCT SERIES 产品系列

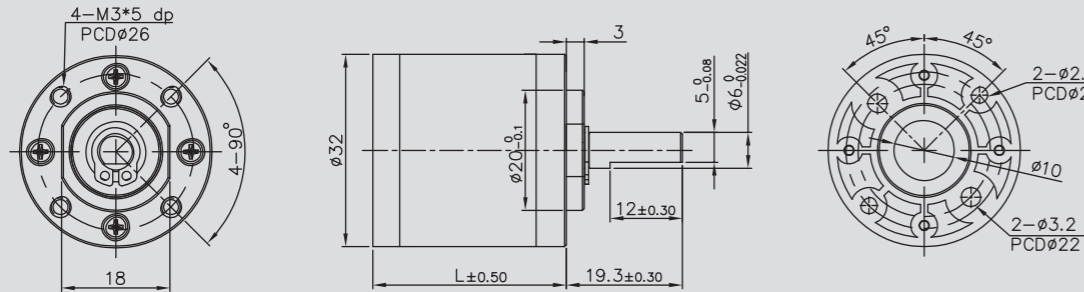
行星减速箱 Planetary Gearbox PG32



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Ball bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于ZY31,BL32和RS-528马达。
 (The gear box can apply to ZY31,BL32and RS-528 motors)

⚠ 马达瞬间允许扭矩75kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed , high gear ratio will cause gear motor torque more than 75kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.48	0.48	0.48
齿数 NO.of teeth	11	17	17
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	ϕ 1.98	ϕ 2.28	ϕ 3.14

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.3, 4.6	3.353, 4.636	10.0kgf·cm	20.0kgf·cm	90%	1	20.7	=
11.2, 15.5, 21.5	12.242, 15.545, 21.496	20.0kgf·cm	60.0kgf·cm	81%	2	26.4	=
37.7, 52.1	37.694, 52.123	50.0kgf·cm	150.0kgf·cm	73%	3	32.2	=
72, 100	72.074, 99.663	50.0kgf·cm	150.0kgf·cm	73%	3	32.2	=
126, 174, 241	126.387, 174.765, 241.661	50.0kgf·cm	150.0kgf·cm	65%	4	38	=
334, 462	334.163, 462.072	50.0kgf·cm	150.0kgf·cm	65%	4	38	=
423, 585	423.769, 585.978	50.0kgf·cm	150.0kgf·cm	59%	5	43.8	=
810, 1120	810.276, 1120.429	50.0kgf·cm	150.0kgf·cm	59%	5	43.8	=
1549, 2142	1549.301, 2142.335	50.0kgf·cm	150.0kgf·cm	59%	5	43.8	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG32GR

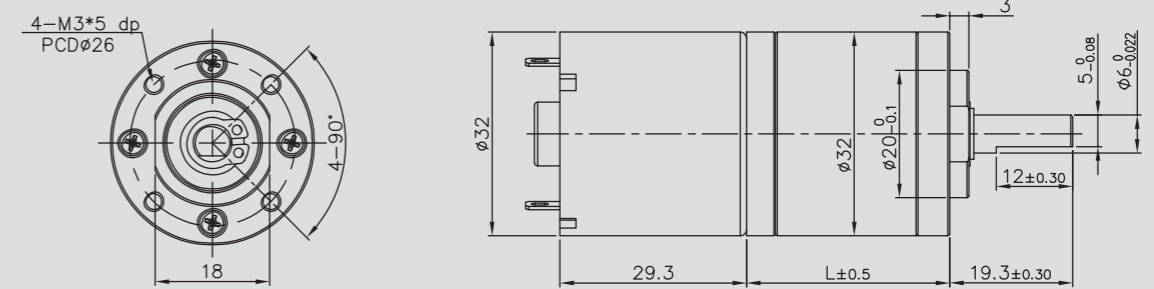


适用范围/Scope of application

机器人 | 微型数控设备 | 自动取款机 | 柔巾机 | 遥控窗帘 | 舞台灯光
 电动广告 | 家用电器 | 电视支架 | 自动执行器 | 可调价望远镜 等等

Robot | Micro CNC Equipment | Automated Teller Machine | Soft
 Tissue Machine | Remote Control Curtains | Stage Lighting | Electric
 Advertising | Home Appliances | TV Stand | Auto Actuator |
 Adjustable Price Telescope, etc.

外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	20.7	26.4	32.2	38	43.8
额定扭矩 Max.Running torque	10.0kgf·cm	20.0kgf·cm	50.0kgf·cm	50.0kgf·cm	50.0kgf·cm
损坏扭矩 Gear breaking torque	30.0kgf·cm	60.0kgf·cm	150.0kgf·cm	150.0kgf·cm	150.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
GR123400	12	3400	≤ 70	2950	≤ 140	30	0.9	242	≤ 0.76
GR127000	12	7000	≤ 140	5650	≤ 614	79.7	4.6	472	≤ 3.03
GR124500	12	4500	≤ 100	3600	≤ 260	48.9	1.8	261	≤ 1.1
GR244500	24	4500	≤ 60	3670	≤ 131	47.6	1.8	281	≤ 0.59
GR247000	24	7000	≤ 85	6000	≤ 280	70.6	4.4	455	≤ 1.54

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见55、58、63页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 48、58、63
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG32395

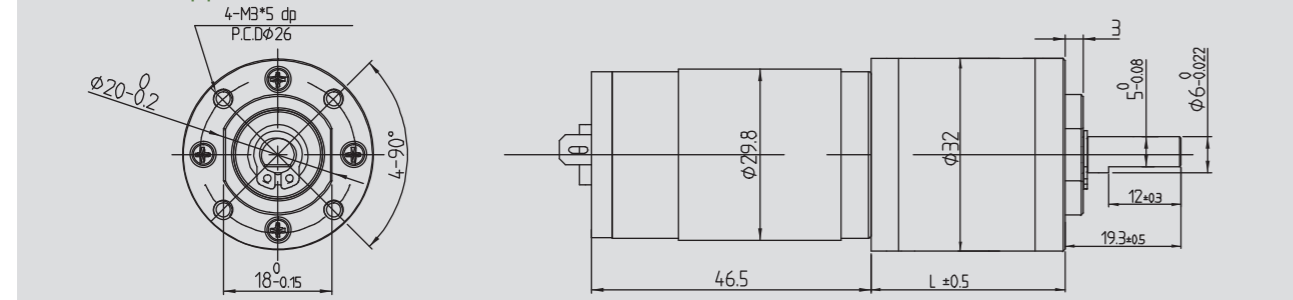
适用范围/Scope of application

机器人 | 微型数控设备 | 自动取款机 | 柔巾机 | 遥控窗帘 | 舞台灯光
电动广告 | 家用电器 | 电视支架 | 自动执行器 | 可调价望远镜 等等

Robot | Micro CNC Equipment | Automated Teller Machine | Soft
Tissue Machine | Remote Control Curtains | Stage Lighting | Electric
Advertising | Home Appliances | TV Stand | Auto Actuator |
Adjustable Price Telescope, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	20.7	26.4	32.2	38	43.8
额定扭矩 Max. Running torque	10.0kgf · cm	20.0kgf · cm	50.0kgf · cm	50.0kgf · cm	50.0kgf · cm
损坏扭矩 Gear breaking torque	30.0kgf · cm	60.0kgf · cm	150.0kgf · cm	150.0kgf · cm	150.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-395124500	12	4500	≤110	3800	≤470	95	3.79	643	≤2.6
RS-395126000	12	6000	≤180	5370	≤770	110	6.54	847	≤4.6
RS-395129000	12	9000	≤300	7800	≤1100	112	8.93	850	≤6.9
RS-395244500	24	4500	≤65	4000	≤260	104	4.27	722	≤1.52
RS-395246000	24	6000	≤110	5200	≤490	140	7.73	973	≤2.72
RS-395249000	24	9000	≤180	7800	≤600	127	10.2	972	≤3.93

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见55、58、63页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 48、58、63
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG32555

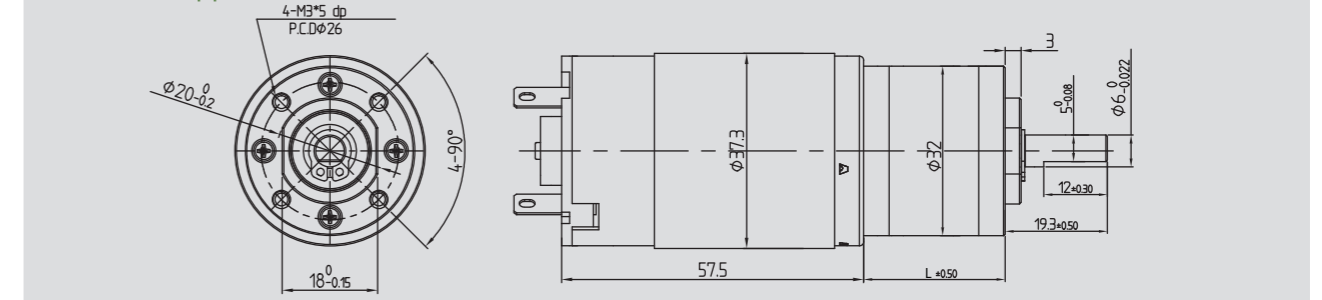
适用范围/Scope of application

机器人 | 微型数控设备 | 自动取款机 | 柔巾机 | 遥控窗帘 | 舞台灯光
电动广告 | 家用电器 | 电视支架 | 自动执行器 | 可调价望远镜 等等

Robot | Micro CNC Equipment | Automated Teller Machine | Soft
Tissue Machine | Remote Control Curtains | Stage Lighting | Electric
Advertising | Home Appliances | TV Stand | Auto Actuator |
Adjustable Price Telescope, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	21.7	27.4	33.2	39	44.8
额定扭矩 Max. Running torque	10.0kgf · cm	20.0kgf · cm	50.0kgf · cm	50.0kgf · cm	50.0kgf · cm
损坏扭矩 Gear breaking torque	30.0kgf · cm	60.0kgf · cm	150.0kgf · cm	150.0kgf · cm	150.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-555123000	12	3000	≤140	2500	≤540	179	4.51	1210	≤3.1
RS-555124500	12	4500	≤200	3950	≤850	183	7.42	1508	≤5.9
RS-555126000	12	6000	≤320	5240	≤1340	215	11.5	1722	≤9.3
RS-555243500	24	3500	≤115	2920	≤450	246	7.5	1762	≤2.7
RS-555244500	24	4500	≤140	3980	≤440	189	7.8	1713	≤3.4
RS-555246000	24	6000	≤140	5300	≤850	284	15.7	2360	≤6.2

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见55、58、63页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 48、58、63
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

● PRODUCT SERIES 产品系列

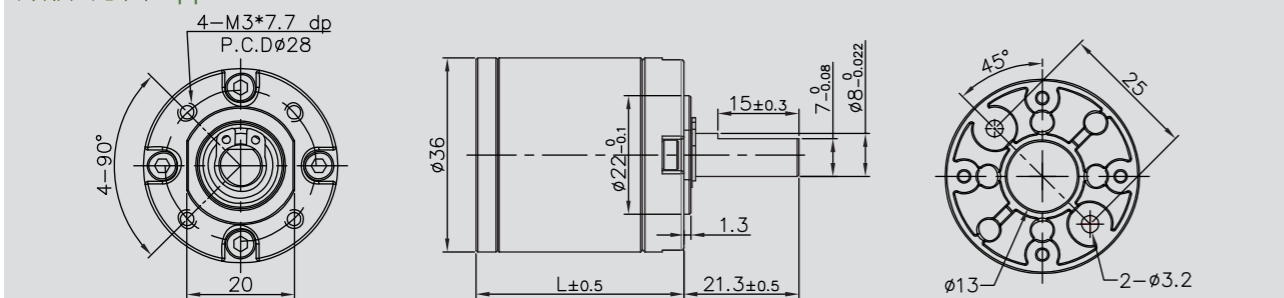
行星减速箱 Planetary Gearbox PG36



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Ball bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于RS-528, BL36, RS-555和ZY36马达。
 (The gear box can apply to RS-528,BL36,RS-555 and ZY36 motors)

⚠ 马达瞬间允许扭矩150kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed , high gear ratio will cause gear motor torque more than 150kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.48	0.48	0.48
齿数 NO.of teeth	11	17	17
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	ϕ 1.98	ϕ 2.28	ϕ 3.14

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Reduction ratio	精确减速比 Reduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.7, 5.2	312/17, 52/11	20.0kgf·cm	60.0kgf·cm	90%	1	25.1	=
13.7, 19.2, 26.9	133/4, 1938/187, 26103/121	50.0kgf·cm	150.0kgf·cm	81%	2	32.3	=
50.9, 71.2	504397/4913, 71524/3179	100.0kgf·cm	300.0kgf·cm	73%	3	38.5	=
99.5, 139	991044/2057, 139184/1331	100.0kgf·cm	300.0kgf·cm	73%	3	38.5	=
188, 264, 369	188.611, 263.729, 369.763	100.0kgf·cm	300.0kgf·cm	65%	4	44.7	=
516, 721	515.630, 720.989	100.0kgf·cm	300.0kgf·cm	65%	4	44.7	=
699, 997	698.969, 977.347	100.0kgf·cm	300.0kgf·cm	59%	5	50.9	=
1367, 1911	1366.593, 1910.864	100.0kgf·cm	300.0kgf·cm	59%	5	50.9	=
2672, 3736	2671.901, 3736.034	100.0kgf·cm	300.0kgf·cm	59%	5	50.9	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG36555

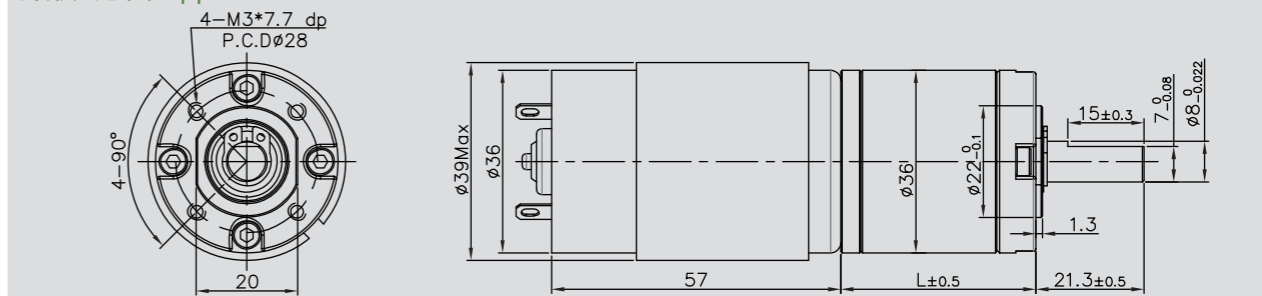
适用范围/Scope of application

遥控窗帘 | 监控云台 | 自动售货机 | 验钞机 | 硬币退币机 | 点钞机
 柔巾机 | 自动门 | 覆膜机 | 自动电视架 | 办公设备 | 家用电器 等等

Remote Control Curtains | Monitor PTZ | Vending Machine | Money Detector | Coin Refund | Order money | Soft Tissue Machine | Automatic door | Laminating machine | Automatic TV stand | Office equipment | Household appliances etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7,5.2	13.7,19.2,26.9	50.9,71.2,99.5,139	188,264,369,516,721	699,977,1367,1911,2672,3736
齿轮箱长度 Gearbox length "L" mm	25.1	32.3	38.5	44.7	50.9
额定扭矩 Max.Running torque	20.0kgf·cm	50.0kgf·cm	100.0kgf·cm	100.0kgf·cm	100.0kgf·cm
损坏扭矩 Gear breaking torque	60.0kgf·cm	150.0kgf·cm	300.0kgf·cm	300.0kgf·cm	300.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-555123000	12	3000	≤ 140	2500	≤ 540	179	4.51	1210	≤ 3.1
RS-555124500	12	4500	≤ 200	3950	≤ 850	183	7.42	1508	≤ 5.9
RS-555126000	12	6000	≤ 320	5240	≤ 1340	215	11.5	1722	≤ 9.3
RS-555243500	24	3500	≤ 115	2920	≤ 450	246	7.5	1762	≤ 2.7
RS-555244500	24	4500	≤ 140	3980	≤ 440	189	7.8	1713	≤ 3.4
RS-555246000	24	6000	≤ 140	5300	≤ 850	284	15.7	2360	≤ 6.2

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见55、56页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 55、56
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG36GR

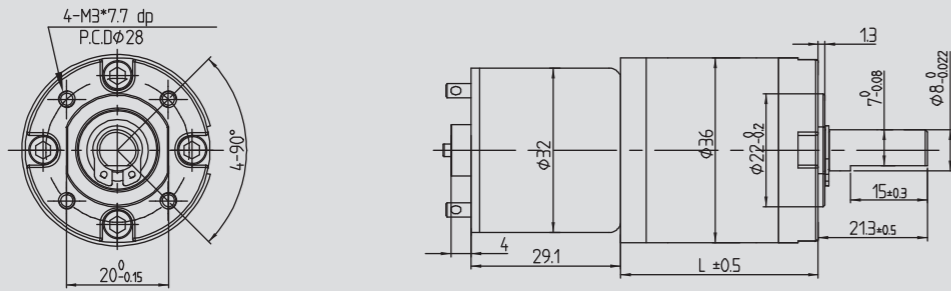
适用范围/Scope of application

遥控窗帘 | 监控云台 | 自动售货机 | 验钞机 | 硬币退币机 | 点钞机
柔巾机 | 自动门 | 覆膜机 | 自动电视架 | 办公设备 | 家用电器 等等

Remote Control Curtains | Monitor PTZ | Vending Machine | Money
Detector | Coin Refund | Order money | Soft Tissue Machine |
Automatic door | Laminating machine | Automatic TV stand | Office
equipment | Household appliances etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7,5.2	13.7,19.2,26.9	50.9,71.2,99.5,139	188,264,369,516,721	699,977,1367,1911,2672,3736
齿轮箱长度 Gearbox length "L" mm	25.1	32.3	38.5	44.7	50.9
额定扭矩 Max. Running torque	20.0kgf · cm	50.0kgf · cm	100.0kgf · cm	100.0kgf · cm	100.0kgf · cm
损坏扭矩 Gear breaking torque	60.0kgf · cm	150.0kgf · cm	300.0kgf · cm	300.0kgf · cm	300.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
GR123400	12	3400	≤70	2950	≤140	30	0.9	242	≤0.76
GR127000	12	7000	≤140	5650	≤614	79.7	4.6	472	≤3.03
GR124500	12	4500	≤100	3600	≤260	48.9	1.8	261	≤1.1
GR244500	24	4500	≤60	3670	≤131	47.6	1.8	281	≤0.59
GR247000	24	7000	≤85	6000	≤280	70.6	4.4	455	≤1.54

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见55、56页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 55、56
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
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● PRODUCT SERIES 产品系列

行星减速箱 Planetary Gearbox PG42

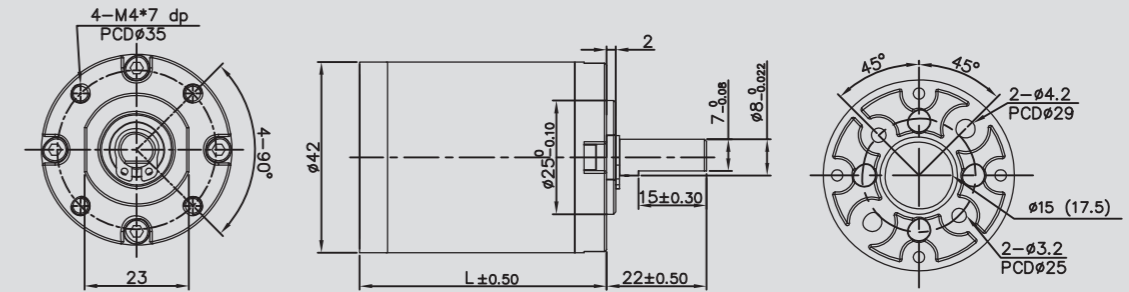


外壳材质 (Housing material): metal
背隙,无负荷时 (Backlash,at no-load): ≤1.5°
轴承型号 (Bearing at output): Ball bearings
径向间隙 (Radial play of shaft): ≤0.1 mm
轴向间隙 (Thrust play shaft): ≤0.2 mm
齿轮箱适用于ZY40和RS-775马达。
(The gear box can apply to ZY40 and RS-775 motors)

△ 马达瞬间允许扭矩360kgf · cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。

(When the motors using at low speed , high gear ratio will cause gear motor torque more than360kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.6	0.6	0.6
齿数 NO.of teeth	17	17	21
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	φ 3.19(2.9)	φ 5	φ 5

使用温度范围/Operating temperature range: -30℃~+85℃
使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Raduction ratio	精确减速比 Raduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.7	312/17	50.0kgf · cm	150.0kgf · cm	90%	1	31.8	=
10.2, 13.7, 19.2	10.179, 13212/289, 1938/187	100.0kgf · cm	300.0kgf · cm	81%	2	43.1	=
32.5, 50.9	32.476, 504397/4913	200.0kgf · cm	600.0kgf · cm	73%	3	54.4	=
71.2, 99.5	71524/3179, 991044/2057	200.0kgf · cm	600.0kgf · cm	73%	3	54.4	=
139, 188, 264	139.796, 188.611, 263.729	200.0kgf · cm	600.0kgf · cm	65%	4	65.7	=
396, 516	368.763, 515.630	200.0kgf · cm	600.0kgf · cm	65%	4	65.7	=
699, 997	698.969, 977.347	200.0kgf · cm	600.0kgf · cm	59%	5	77	=
1367, 1911	1366.593, 1910.864	200.0kgf · cm	600.0kgf · cm	59%	5	77	=
2672	2671.901	200.0kgf · cm	600.0kgf · cm	59%	5	77	=

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG42775

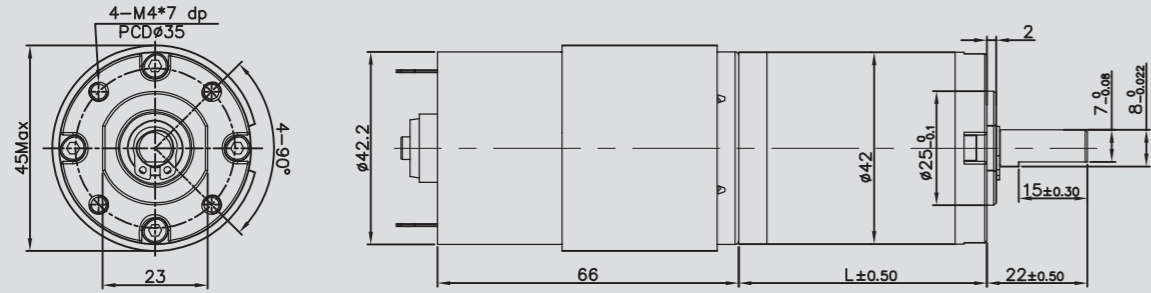
适用范围/Scope of application

监控云台 | 烘烤架 | 烤炉 | 清洗机 | 垃圾处理 | 捆钞机 | 稳压器
割草机 | 游戏机 | 灌流泵 | 办公设备 | 家用电器 等等

Monitoring PTZ | Baking rack | Oven | Washing machine | Garbage
disposer | Binding machine | Regulator | Lawn mower | game
machine | perfusion pump | office equipment | home appliances, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7	10.2,13.7,19.2	32.5,50.9,71.2,99.5	139,188,264,369,516	699,977,1367,1911,2672
齿轮箱长度 Gearbox length "L" mm	31.8	43.1	54.4	65.7	77
额定扭矩 Max. Running torque	50.0kgf · cm	100.0kgf · cm	200.0kgf · cm	200.0kgf · cm	200.0kgf · cm
损坏扭矩 Gear breaking torque	100.0kgf · cm	300.0kgf · cm	600.0kgf · cm	600.0kgf · cm	600.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-775123000	12	3000	≤420	2430	≤1300	408	10.4	2484	≤6.7
RS-775124500	12	4500	≤750	3710	≤2100	476	17.6	2714	≤10.4
RS-775126000	12	6000	≤1400	5000	≤3500	478	25.5	3129	≤18.5
RS-775243000	24	3000	≤230	2590	≤700	405	11.5	2686	≤3.9
RS-775244500	24	4500	≤250	3850	≤1250	538	21.1	4134	≤8.3
RS-775246000	24	6000	≤600	5100	≤1800	574	30.8	4565	≤12.1
BL42126000	12	6000	≤620	5133	≤2785	469	24.7	3396	≤17.1
BL42246000	24	6000	≤340	5319	≤1968	669	36.5	5496	≤14.1

注: 减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率; 输出转速=马达转速/减速比; 马达曲线图详见57、65页
本公司可定做各种非标产品, 如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 57、65
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考, 具体以实物为准。
The above parameters are for reference only.

● PRODUCT SERIES 产品系列

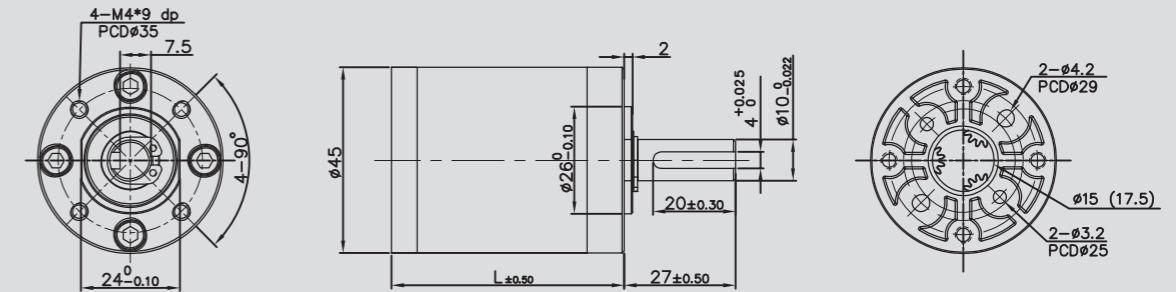
行星减速箱 Planetary Gearbox PG45



外壳材质 (Housing material): metal
背隙,无负荷时 (Backlash,at no-load): ≤1.5°
轴承型号 (Bearing at output): Ball bearings
径向间隙 (Radial play of shaft): ≤0.1 mm
轴向间隙 (Thrust play shaft): ≤0.2 mm
齿轮箱适用于ZY45和RS-775马达。
(The gear box can apply to ZY45 and RS-775 motors)

△ 马达瞬间允许扭矩360kgf · cm。当使用低转速、高速比时, 请选用低功率马达, 请做好保护措施。
(When the motors using at low speed, high gear ratio will cause gear motor torque more than360kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.6	0.6	0.6
齿数 NO.of teeth	17	17	21
压力角 Pressure angle	20°	20°	20°
孔径 Hole diameter	φ 3.19(2.9)	φ 5	φ 5

使用温度范围/Operating temperature range: -30℃~+85℃
使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Reduction ratio	精确减速比 Reduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.7	312/17	50.0kgf · cm	100.0kgf · cm	90%	1	33.6	=
10.2, 13.7, 19.2	10.179, 13212/289, 1938/187	100.0kgf · cm	300.0kgf · cm	81%	2	44.9	=
32.5, 50.9	32.476, 504397/4913	200.0kgf · cm	600.0kgf · cm	73%	3	56.2	=
71.2, 99.5	71524/3179, 991044/2057	200.0kgf · cm	600.0kgf · cm	73%	3	56.2	=
139, 188, 264	139.796, 188.611, 263.729	200.0kgf · cm	600.0kgf · cm	65%	4	67.5	=
396, 516	368.763, 515.630	200.0kgf · cm	600.0kgf · cm	65%	4	67.5	=
699, 997	698.969, 977.347	200.0kgf · cm	600.0kgf · cm	59%	5	78.8	=
1367, 1911	1366.593, 1910.864	200.0kgf · cm	600.0kgf · cm	59%	5	78.8	=
2672	2671.901	200.0kgf · cm	600.0kgf · cm	59%	5	78.8	=

○ 以上参数仅供参考, 具体以实物为准。
The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG45775

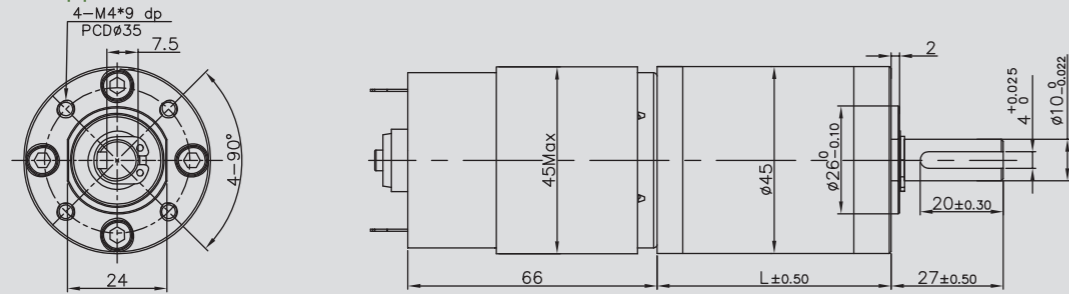
适用范围/Scope of application

监控云台 | 烘烤架 | 烤炉 | 清洗机 | 广告牌 | 捆钞机 | 稳压器
自动开门器 | 游戏机 | 灌流泵 | 办公设备 | 呼吸机电机 等等

Monitoring PTZ | Baking rack | Oven | Washing machine | Billboard
| Binding machine | Regulator | Automatic door opener | Game
machine | Irrigation pump | Office equipment | Electronic components
for medical Ventilato, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7	10.2,13.7,19.2	32.5,50.9,71.2,99.5	139,188,264,369,516	699,977,1367,1911,2672
齿轮箱长度 Gearbox length "L" mm	33.6	44.9	56.2	67.5	78.8
额定扭矩 Max. Running torque	50.0kgf · cm	100.0kgf · cm	200.0kgf · cm	200.0kgf · cm	200.0kgf · cm
损坏扭矩 Gear breaking torque	100.0kgf · cm	300.0kgf · cm	600.0kgf · cm	600.0kgf · cm	600.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-775123000	12	3000	≤420	2430	≤1300	408	10.4	2484	≤6.7
RS-775124500	12	4500	≤750	3710	≤2100	476	17.6	2714	≤10.4
RS-775126000	12	6000	≤1400	5000	≤3500	478	25.5	3129	≤18.5
RS-775243000	24	3000	≤230	2590	≤700	405	11.5	2686	≤3.9
RS-775244500	24	4500	≤250	3850	≤1250	538	21.1	4134	≤8.3
RS-775246000	24	6000	≤600	5100	≤1800	574	30.8	4565	≤12.1

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见57、59页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 57、59
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG45ZY45

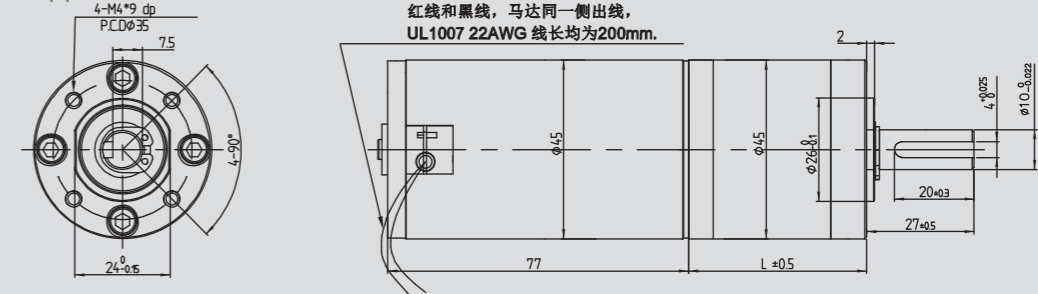
适用范围/Scope of application

监控云台 | 烘烤架 | 烤炉 | 清洗机 | 广告牌 | 捆钞机 | 稳压器
自动开门器 | 游戏机 | 灌流泵 | 办公设备 | 呼吸机电机 等等

Monitoring PTZ | Baking rack | Oven | Washing machine | Billboard
| Binding machine | Regulator | Automatic door opener | Game
machine | Irrigation pump | Office equipment | Electronic components
for medical Ventilato, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7	10.2,13.7,19.2	32.5,50.9,71.2,99.5	139,188,264,369,516	699,977,1367,1911,2672
齿轮箱长度 Gearbox length "L" mm	33.6	44.9	56.2	67.5	78.8
额定扭矩 Max. Running torque	50.0kgf · cm	100.0kgf · cm	200.0kgf · cm	200.0kgf · cm	200.0kgf · cm
损坏扭矩 Gear breaking torque	100.0kgf · cm	300.0kgf · cm	600.0kgf · cm	600.0kgf · cm	600.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY45124500	12	4500	≤400	3300	≤3600	800	26.4	3200	≤12.5
ZY45126000	12	6000	≤700	4500	≤6900	1100	49.5	4400	≤25
ZY45244500	24	4500	≤280	3300	≤1800	800	26.4	3200	≤6.3
ZY45246000	24	6000	≤350	4500	≤3500	1100	49.5	4400	≤13

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见57、59页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 57、59
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

● PRODUCT SERIES 产品系列

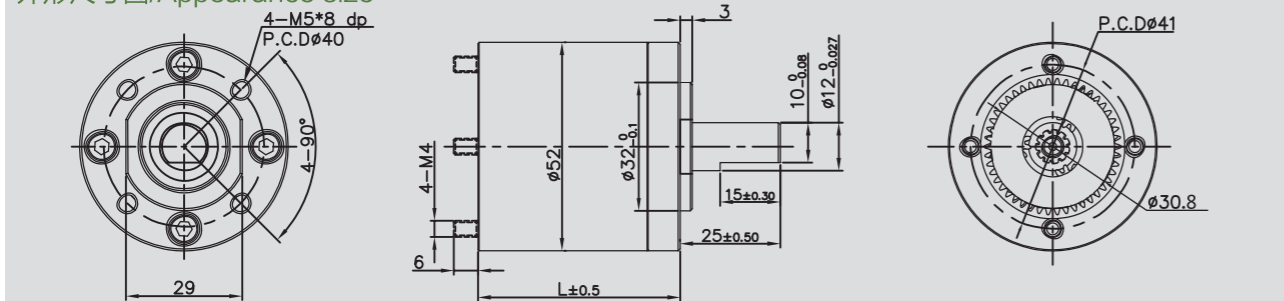
行星减速箱 Planetary Gearbox PG52



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Ball bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于ZY52马达。
 (The gear box can apply to ZY52 motors)

⚠ 马达瞬间允许扭矩450kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed , high gear ratio will cause gear motor torque more than 450kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	0.7	0.7
齿数 NO.of teeth	11	17
压力角 Pressure angle	20°	20°
孔径 Hole diameter	ϕ 4.5D型	ϕ 7.96

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Reduction ratio	精确减速比 Reduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.7, 5.2	312/17, 52/11	50.0kgf·cm	150.0kgf·cm	90%	1	27.3	=
13.7, 19.2, 26.9	133/4, 1938/187, 26103/121	100.0kgf·cm	300.0kgf·cm	81%	2	38.9	=
50.9, 71.2	504397/4913, 71524/3179	300.0kgf·cm	900.0kgf·cm	73%	3	50.5	=
99.5, 139	991044/2057, 139184/1331	300.0kgf·cm	900.0kgf·cm	73%	3	50.5	=
188, 264, 369	188.611, 263.729, 369.763	300.0kgf·cm	900.0kgf·cm	65%	4	62.1	=
516, 721	515.630, 720.989	300.0kgf·cm	900.0kgf·cm	65%	4	62.1	=
699, 997	698.969, 977.347	300.0kgf·cm	900.0kgf·cm	59%	5	73.7	=
1367, 1911	1366.593, 1910.864	300.0kgf·cm	900.0kgf·cm	59%	5	73.7	=
2672, 3736	2671.901, 3736.034	300.0kgf·cm	900.0kgf·cm	59%	5	73.7	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流行星减速电机 Planetary gear DC motor PG52ZY52

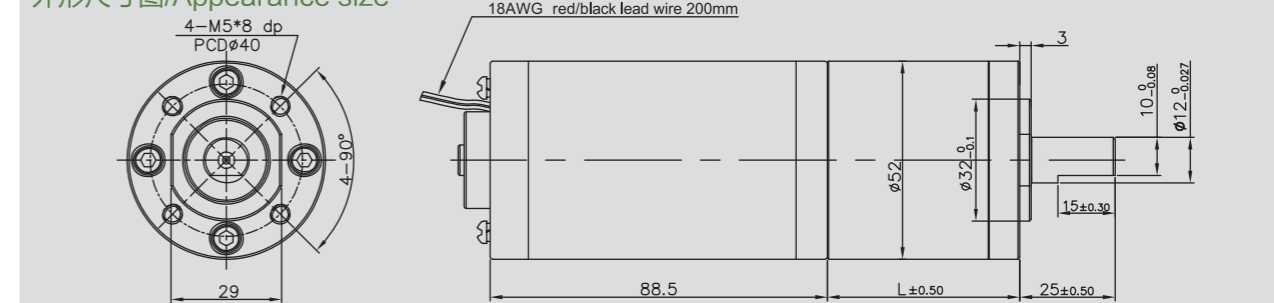


适用范围/Scope of application

自动流水线 | 硬币退币机 | 遮阳棚 | 柔巾机
 自动门 | 覆膜机 | 办公设备 | 家用电器 等等

Automatic assembly line | Money return machine | awning | towel machine | Automatic door | laminating machine | office equipment household appliances etc.

外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7,5.2	13.7,19.2,26.9	50.9,71.2,99.5,139	188,264,369,516,721	699,977,1367,1911,2672,3736
齿轮箱长度 Gearbox length "L" mm	27.3	38.9	50.5	62.1	73.7
额定扭矩 Max.Running torque	50.0kgf·cm	100.0kgf·cm	300.0kgf·cm	300.0kgf·cm	300.0kgf·cm
损坏扭矩 Gear breaking torque	150.0kgf·cm	300.0kgf·cm	900.0kgf·cm	900.0kgf·cm	900.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY52123000	12	3000	≤ 650	2550	≤ 4900	1316	35.1	6416	≤ 21.1
ZY52243000	24	3000	≤ 400	2623	≤ 2880	1634	32.1	8712	≤ 13.8

注：减速后的输出扭矩=马达扭矩X减速比X齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见60页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 60
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

● PRODUCT SERIES 产品系列

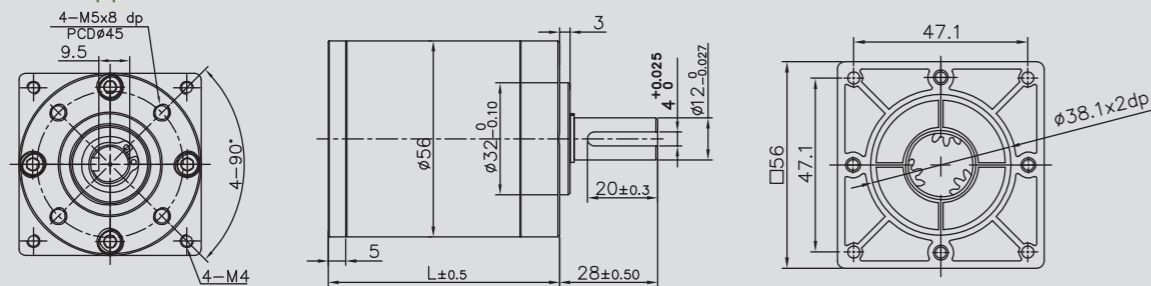
行星减速箱 Planetary Gearbox PG56



外壳材质 (Housing material): metal
 背隙,无负荷时 (Backlash,at no-load): $\leq 1.5^\circ$
 轴承型号 (Bearing at output): Ball bearings
 径向间隙 (Radial play of shaft): ≤ 0.1 mm
 轴向间隙 (Thrust play shaft): ≤ 0.2 mm
 齿轮箱适用于ZY58马达。
 (The gear box can apply to ZY58 motors)

⚠ 马达瞬间允许扭矩600kgf·cm。当使用低转速、高速比时，请选用低功率马达，请做好保护措施。
 (When the motors using at low speed, high gear ratio will cause gear motor torque more than 600kgf.cm.At this torque the gears will be broken easily. Be noted.)

外形尺寸图/Appearance size



马达齿轮参数/Pinion Specifications

模数 Module	1.0	1.0		
齿数 NO.of teeth	12	15		
压力角 Pressure angle	20°	20°		
孔径 Hole diameter	$\phi 5.97$	$\phi 5.97, \phi 7.96$		

使用温度范围/Operating temperature range: $-30^\circ\text{C} \sim +85^\circ\text{C}$
 使用相对湿度/Operating relative humidity: 20%~85%RH

标准减速比参数/Gearboxes Specifications

减速比 Reduction ratio	精确减速比 Reduction absolute	额定允许扭矩 Rated tolerance torque	极限扭矩 Max breaking torque	效率 Efficiency	级数 Number of stages	齿轮箱长度 Gearbox length "L" mm	输入输出方向 Input/output direction
3.6, 4.3	33/5, 41/4	100.0kgf·cm	300.0kgf·cm	90%	1	37.1	=
13, 19.2, 22.7	1224/25, 191/5, 222/3	200.0kgf·cm	600.0kgf·cm	81%	2	51.0	=
46.7, 69	4682/125, 693/25	400.0kgf·cm	1200.0kgf·cm	73%	3	64.9	=
102, 121	1022/5, 1208/9	400.0kgf·cm	1200.0kgf·cm	73%	3	64.9	=
198, 276	19836/125, 27657/160	400.0kgf·cm	1200.0kgf·cm	65%	4	78.8	=
326, 409, 513	32665/256, 4095/12, 5137/9	400.0kgf·cm	1200.0kgf·cm	65%	4	78.8	=
843, 995	84218/25, 994353/400	400.0kgf·cm	1200.0kgf·cm	59%	5	95.2	=
1567, 1966	156618/25, 19662/25	400.0kgf·cm	1200.0kgf·cm	59%	5	95.2	=
2321, 3439	23211/15, 343850/81	400.0kgf·cm	1200.0kgf·cm	59%	5	95.2	=

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

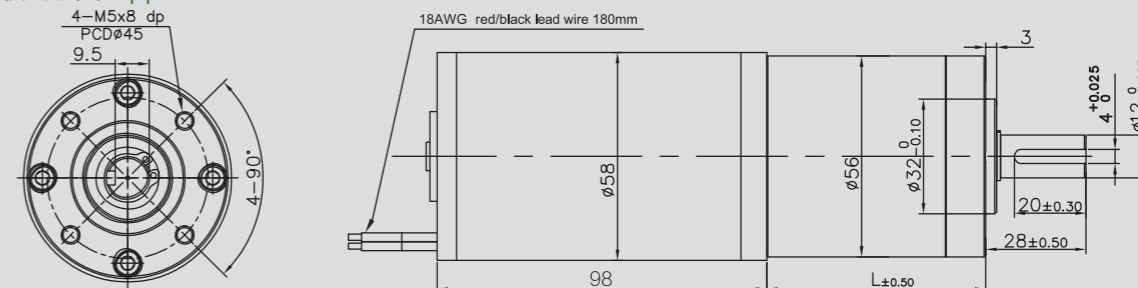
直流行星减速电机 Planetary gear DC motor PG56ZY58



适用范围/Scope of application

医疗器械 | 自动售货机 | 纺织机 | 地铁广告牌 | 点钞机
 自动门 | 覆膜机 | 碎纸机 | 办公设备 | 家用电器 等等
 Medical Equipment | Vending Machine | Textile Machine | Subway
 Billboard | Banknote Counter | Automatic door | laminating machine
 shredder | office equipment | household appliances etc.

外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.6,4.3	13,15.3,19.2	46.7,69,102,121	198,276,326,409,513	843,995,1567,1966,2321,3439
齿轮箱长度 Gearbox length "L" mm	32.1	46.0	59.9	73.8	90.2
额定扭矩 Max.Running torque	100.0kgf·cm	200.0kgf·cm	400.0kgf·cm	400.0kgf·cm	400.0kgf·cm
损坏扭矩 Gear breaking torque	300.0kgf·cm	600.0kgf·cm	1200.0kgf·cm	1200.0kgf·cm	1200.0kgf·cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY58123000	12	3000	≤ 444	2600	≤ 3290	1508	38.1	7594	≤ 21.1
ZY58243000	24	3000	≤ 252	2605	≤ 6252	1562	39.5	8392	≤ 12.4

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见61页
 本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
 Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 61
 Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
 The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG28BL28

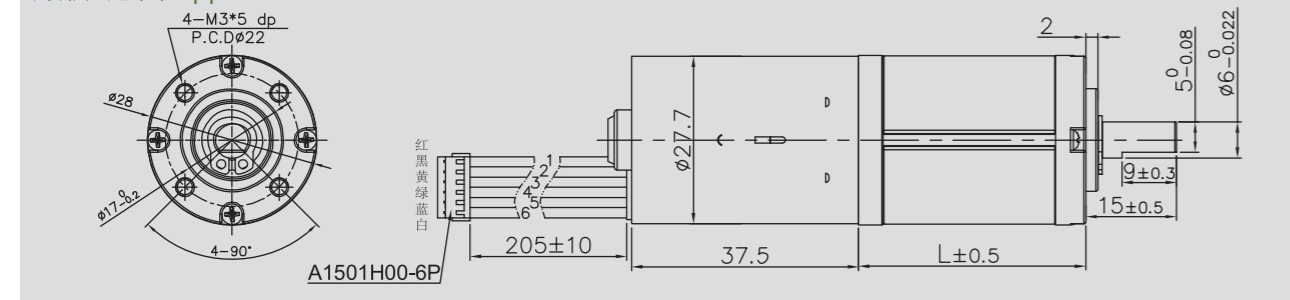
适用范围/Scope of application

蠕动泵 | 微型数控设备 | 自动取款机 | 出卡机 | 遥控窗帘 | 太阳能油印机 | 家用电器 | 办公设备 | 自动执行器 等等。

Peristaltic pump | Miniature CNC equipment | Automated teller machine | Card dispenser | Remote control curtain | Solar energy | Mimeograph | Household appliances | Office equipment | Automatic actuators, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	20.2	25.9	31.7	37.5	43.3
额定扭矩 Max. Running torque	10.0kgf · cm	20.0kgf · cm	50.0kgf · cm	50.0kgf · cm	50.0kgf · cm
损坏扭矩 Gear breaking torque	20.0kgf · cm	600.0kgf · cm	150.0kgf · cm	150.0kgf · cm	150.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL28126000	12	6000	≤120	5100	≤553	84	4.73	500	≤2.7
BL28246000	24	6000	≤65	5170	≤266	77	4.08	559	≤1.5

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见62页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 62
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG32BL32

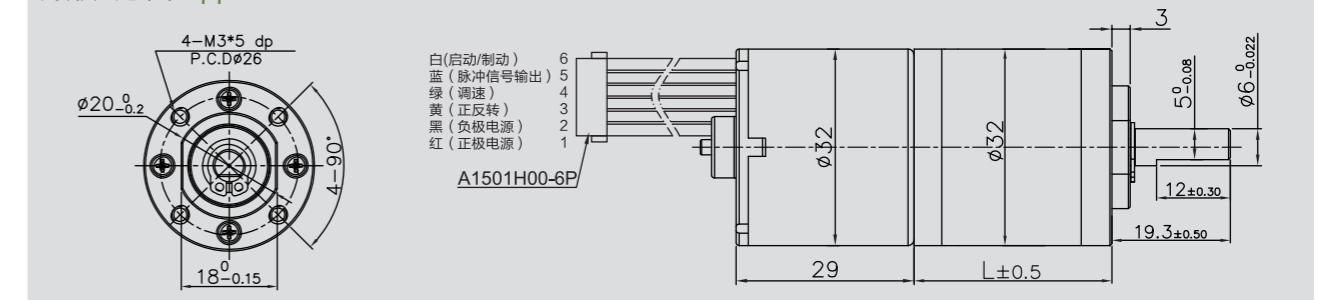
适用范围/Scope of application

机器人 | 微型数控设备 | 自动取款机 | 柔巾机 | 遥控窗帘 | 舞台灯光
电动广告 | 家用电器 | 电视支架 | 自动执行器 | 可调价望远镜 等等

Robot | Micro CNC Equipment | Automated Teller Machine | Soft Tissue Machine | Remote Control Curtains | Stage Lighting | Electric Advertising | Home Appliances | TV Stand | Auto Actuator | Adjustable Price Telescope, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.3,4.6	11.2,15.5,21.5	37.7,52.1,72,100	126,174,241,334,462	423,585,810,1120,1549,2142
齿轮箱长度 Gearbox length "L" mm	20.7	26.4	32.2	38	43.8
额定扭矩 Max. Running torque	10.0kgf · cm	20.0kgf · cm	50.0kgf · cm	50.0kgf · cm	50.0kgf · cm
损坏扭矩 Gear breaking torque	20.0kgf · cm	60.0kgf · cm	150.0kgf · cm	150.0kgf · cm	150.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL32126000	12	6000	≤120	4850	≤440	72	3.61	424	≤2.23
BL32246000	24	6000	≤55	4963	≤241	70	3.56	440	≤1.16

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见63页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 63
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG36BL36

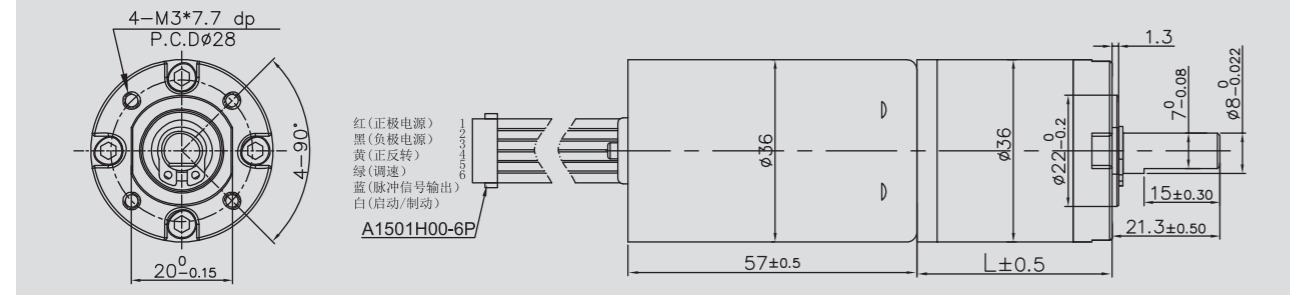
适用范围/Scope of application

遥控窗帘 | 监控云台 | 自动售货机 | 验钞机 | 硬币退币机 | 点钞机
柔巾机 | 自动门 | 覆膜机 | 自动电视架 | 办公设备 | 家用电器 等等

Remote Control Curtains | Monitor PTZ | Vending Machine | Money
Detector | Coin Refund | Order money | Soft Tissue Machine |
Automatic door | Laminating machine | Automatic TV stand | Office
equipment | Household appliances etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7,5.2	13.7,19.2,26.9	50.9,71.2,99.5,139	188,264,369,516,721	699,977,1367,1911,2672,3736
齿轮箱长度 Gearbox length "L" mm	25.1	32.3	38.5	44.7	50.9
额定扭矩 Max. Running torque	20.0kgf · cm	50.0kgf · cm	100.0kgf · cm	100.0kgf · cm	100.0kgf · cm
损坏扭矩 Gear breaking torque	60.0kgf · cm	150.0kgf · cm	200.0kgf · cm	200.0kgf · cm	200.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL36126000	12	6000	≤460	5160	≤1580	257	13.6	1775	≤1.8
BL36245000	24	5000	≤220	4100	≤1086	395	16.4	2317	≤5.34
BL36246000	24	6000	≤220	5100	≤1204	385	20.1	2737	≤7.1
BL36249000	24	9000	≤380	7900	≤2200	440	35.9	3396	≤14.1

注: 减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率; 输出转速=马达转速/减速比; 马达曲线图详见64页
本公司可定做各种非标产品, 如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 64
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考, 具体以实物为准。
The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG45BL42

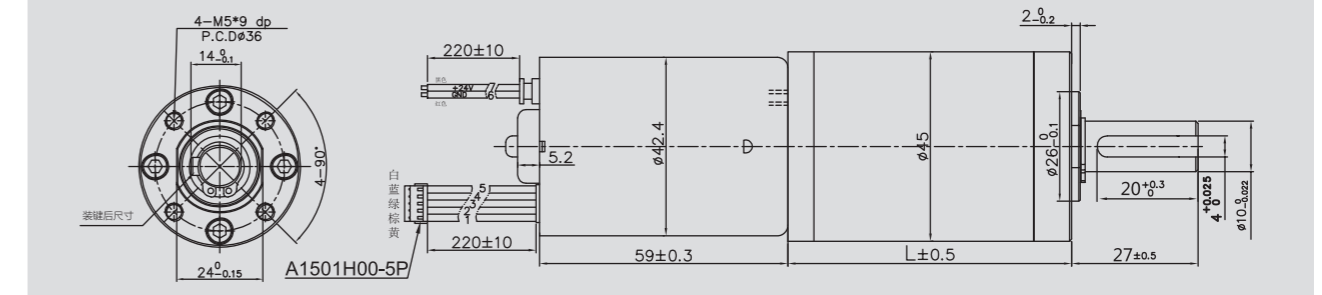
适用范围/Scope of application

监控云台 | 烘烤架 | 烤炉 | 清洗机 | 广告牌 | 捆钞机 | 稳压器
自动开门器 | 游戏机 | 灌流泵 | 办公设备 | 家用电器 等等

Monitoring PTZ | Baking rack | Oven | Washing machine | Billboard
| Binding machine | Regulator | Automatic door opener | Game
machine | Irrigation pump | Office equipment | Home appliances, etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.7	10.2,13.7,19.2	32.5,50.9,71.2,99.5	139,188,264,369,516	699,977,1367,1911,2672
齿轮箱长度 Gearbox length "L" mm	33.6	44.9	56.2	67.5	78.8
额定扭矩 Max. Running torque	50.0kgf · cm	100.0kgf · cm	200.0kgf · cm	200.0kgf · cm	200.0kgf · cm
损坏扭矩 Gear breaking torque	150.0kgf · cm	300.0kgf · cm	300.0kgf · cm	600.0kgf · cm	600.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL42126000	12	6000	≤620	5133	≤2785	469	24.7	3396	≤17.1
BL42246000	24	6000	≤340	5319	≤1968	669	36.5	5496	≤14.1

注: 减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率; 输出转速=马达转速/减速比; 马达曲线图详见65页
本公司可定做各种非标产品, 如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 65
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考, 具体以实物为准。
The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG56BL57

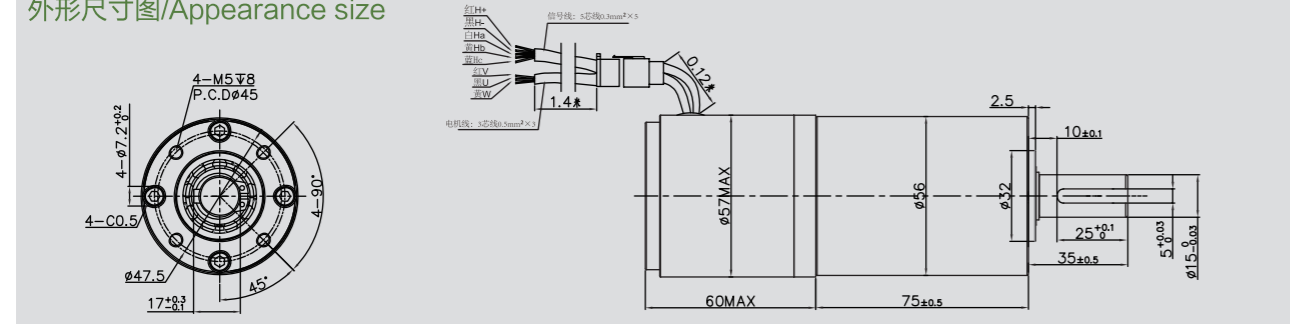
适用范围/Scope of application

遥控窗帘 | 监控云台 | 自动售货机 | 纺织机 | 地铁广告牌 | 柔巾机 | 自动门 | 覆膜机 | 自动电视架 | 办公设备 | 家用电器 等等

Remote control curtains | Monitoring heads | Vending machines | Textile machines | Subway billboards | Soft Tissue Machine | Automatic door | Laminating machine | Automatic TV stand | Office equipment | Household appliances etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4	5
减速比 Reduction ratio	3.6,4.3	13,15.3,19.2	46.7,69,102,121	198,276,326,409,513	846,995,1567,1966,2321,3439
齿轮箱长度 Gearbox length "L" mm	32.1	46.0	59.9	72.8	90.2
额定扭矩 Max. Running torque	100.0kgf · cm	200.0kgf · cm	400.0kgf · cm	400.0kgf · cm	400.0kgf · cm
损坏扭矩 Gear breaking torque	300.0kgf · cm	600.0kgf · cm	1200.0kgf · cm	1200.0kgf · cm	1200.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%	59%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (A)	额定转速 Rated speed (rpm)	额定电流 Rated current (A)	额定扭矩 Rated torque (Kgf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (Kgf.cm)	堵转电流 Stall current (A)
BL57361800	36	1800	≤0.35	1440	≤1.25	2	30	10	≤5.2

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见66页
本公司可定做各种非标产品，如有需要请来电咨询。

Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 66
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

直流无刷行星减速电机 Planetary gear BLDC motor PG80BL80

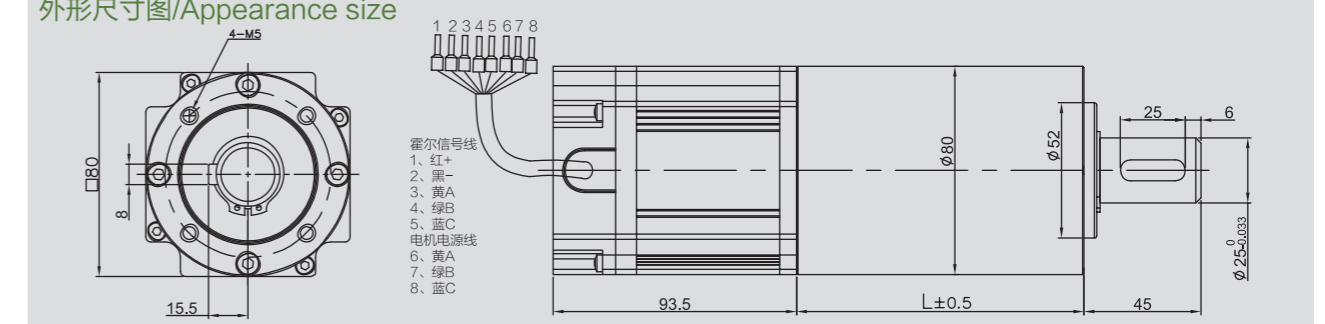
适用范围/Scope of application

遥控卷帘门 | 监控云台 | 自动售货机 | 纺织机 | 地铁广告牌 | 自动门 | 覆膜机 | 办公设备 等等

Remote control curtains | Monitoring heads | Vending machines | Textile machines | Subway billboards | Soft Tissue Machine | Automatic door | Office equipment etc.



外形尺寸图/Appearance size



减速箱清单/Gearbox data

级数 Number of stages	1	2	3	4
减速比 Reduction ratio	7.5	28,39,57	104,145,203,212,298,434	385,539,753,787,1053,1539,2249
齿轮箱长度 Gearbox length "L" mm	52.2	70.9	91.6	110.3
额定扭矩 Max. Running torque	150.0kgf · cm	400.0kgf · cm	800.0kgf · cm	800.0kgf · cm
损坏扭矩 Gear breaking torque	450.0kgf · cm	1200.0kgf · cm	2400.0kgf · cm	2400.0kgf · cm
效率 Gearing efficiency	90%	81%	73%	65%

马达清单/Motor data

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (A)	额定转速 Rated speed (rpm)	额定电流 Rated current (A)	额定扭矩 Rated torque (Kgf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (Kgf.cm)	堵转电流 Stall current (A)
BL80482400	48	2400	≤0.41	2238	≤4.2	7.5	203	80.76	≤45

注：减速后的输出扭矩=马达扭矩×减速比×齿轮箱效率；输出转速=马达转速/减速比；马达曲线图详见67页
本公司可定做各种非标产品，如有需要请来电咨询。

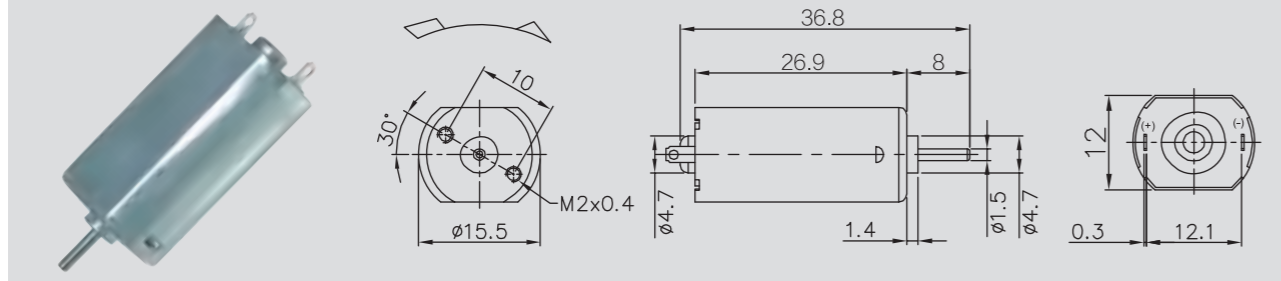
Note: Output torque after deceleration = motor torque X reduction ratio X gearing efficiency;
Output speed = motor speed / reduction ratio; Motor performance curve is shown on Page 67
Our company can customize a variety of non-standard products, please contact us.

○ 以上参数仅供参考，具体以实物为准。
The above parameters are for reference only.

● PRODUCT SERIES 产品系列

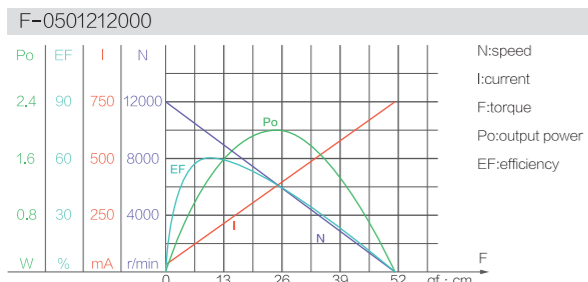
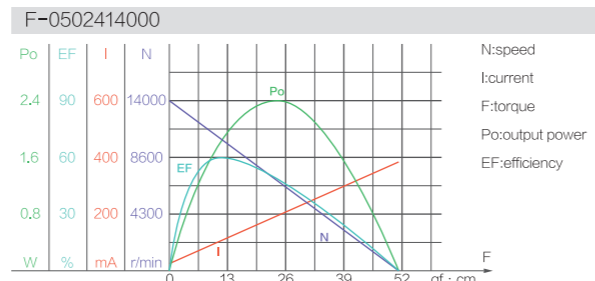
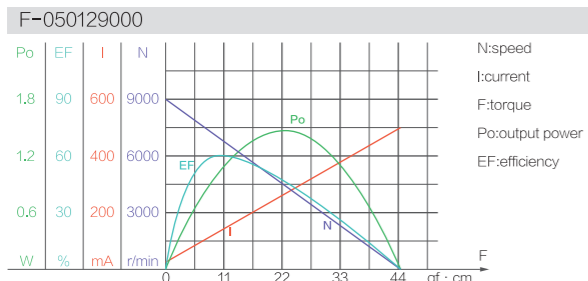
马达DC Brush Motor 050

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
F-050129000	12	9000	≤45	7000	≤140	8	0.5	45	≤500
F-0501212000	12	12000	≤55	9600	≤180	10	0.96	50	≤750
F-0502413000	24	14000	≤45	10000	≤110	12	1.2	49	≤400

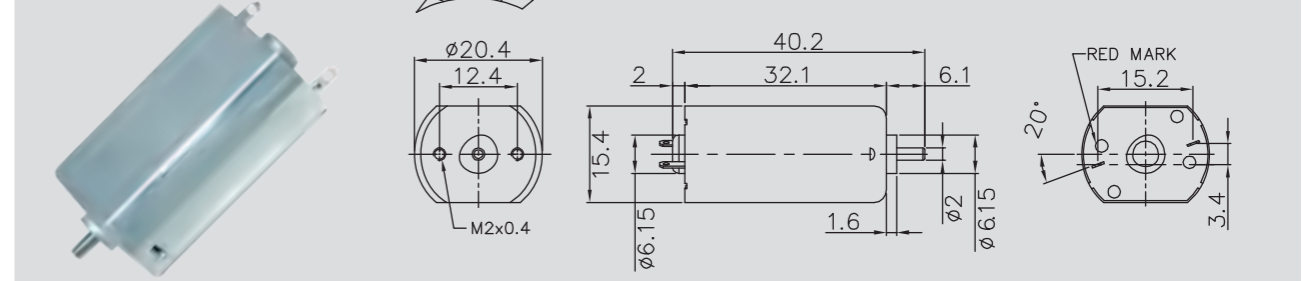


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

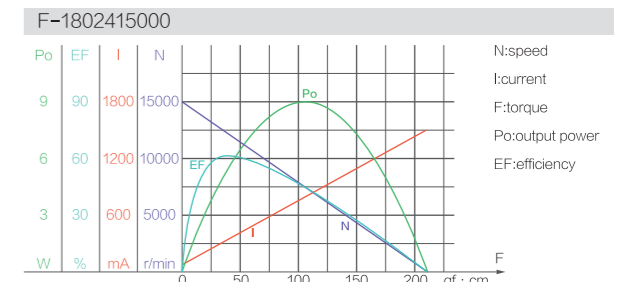
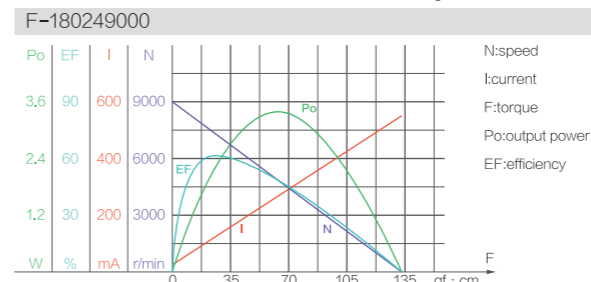
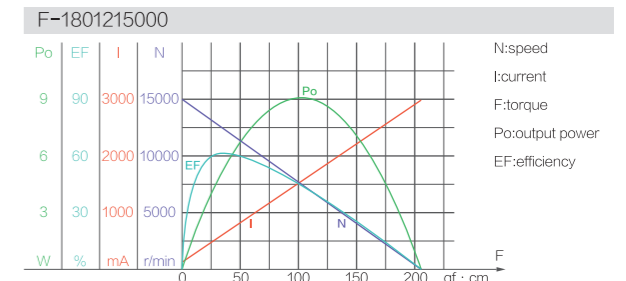
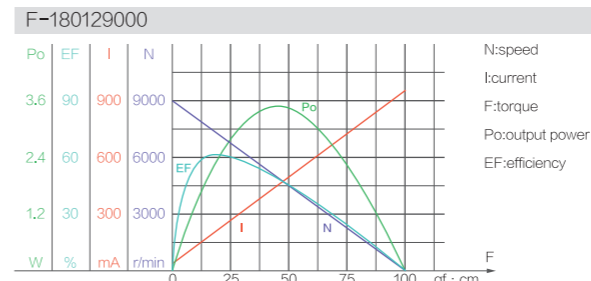
马达DC Brush Motor 180

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
F-180129000	12	9000	≤58	7200	≤300	25.00	1.81	100	≤950
F-1801215000	12	15000	≤120	12494	≤600	35.28	4.49	210	≤3000
F-180249000	24	9000	≤25	7416	≤110	23.01	1.74	130	≤550
F-1802415000	24	15000	≤55	12660	≤290	34.54	4.45	220	≤1600

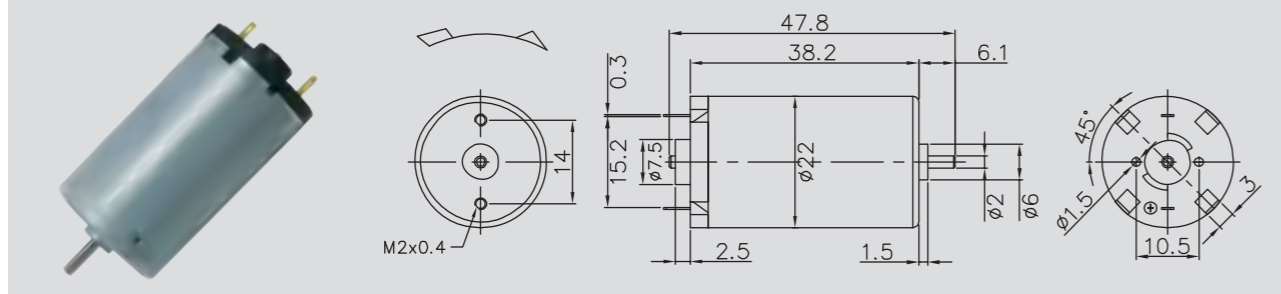


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor 2238

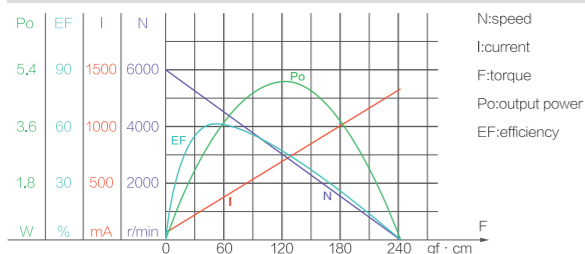
外形尺寸图/Appearance size



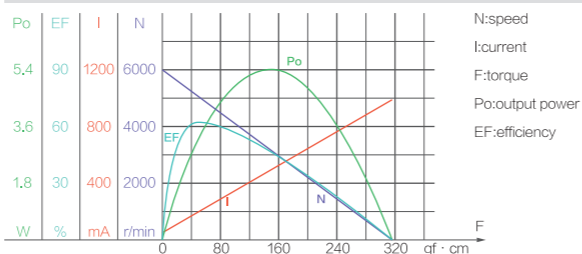
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
2238126000	12	6000	≤120	4800	≤350	49.2	2.42	248	≤1360
2238246400	24	6400	≤62	5388	≤186	49.6	2.74	317	≤950

2238126000



2238246400

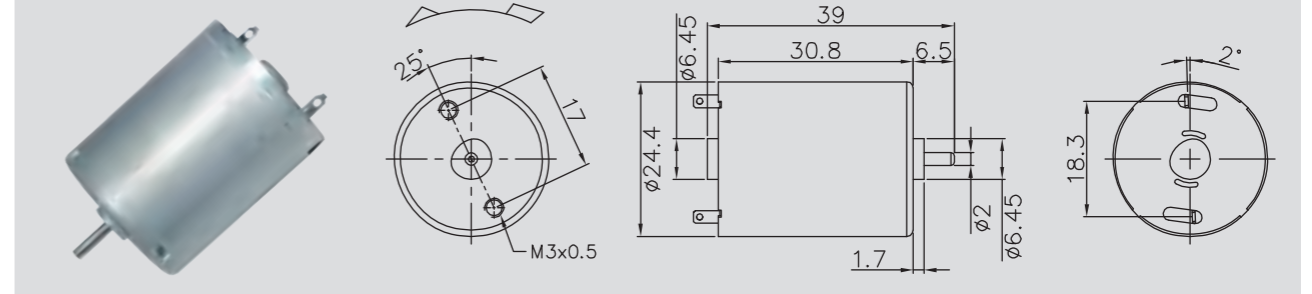


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor 370

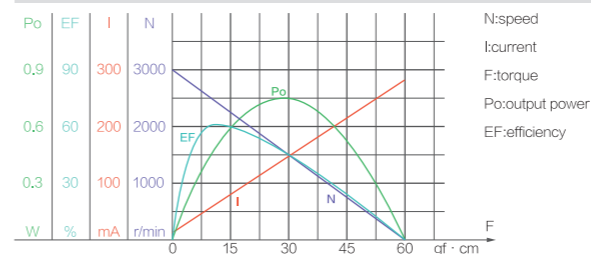
外形尺寸图/Appearance size



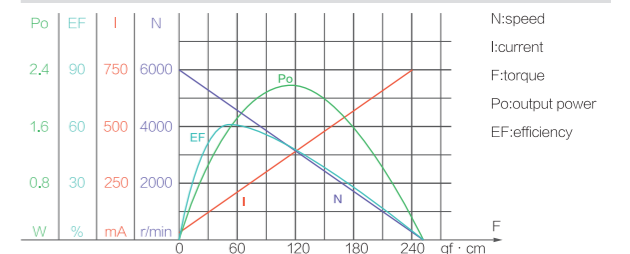
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (mA)
RF-370123000	12	3000	≤15	2200	≤55	15	0.33	60	≤280
RF-370126000	12	6000	≤35	5264	≤180	30	1.57	240	≤1260
RF-370246000	24	6000	≤25	5295	≤110	30	1.68	265	≤750

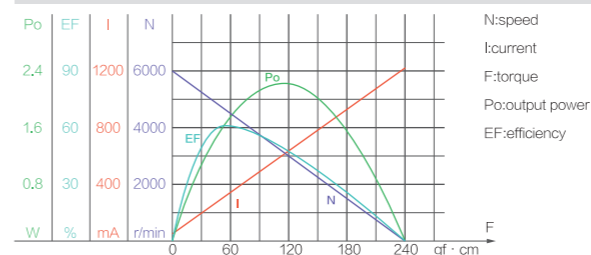
RF-370123000



RF-370246000



RF-370126000

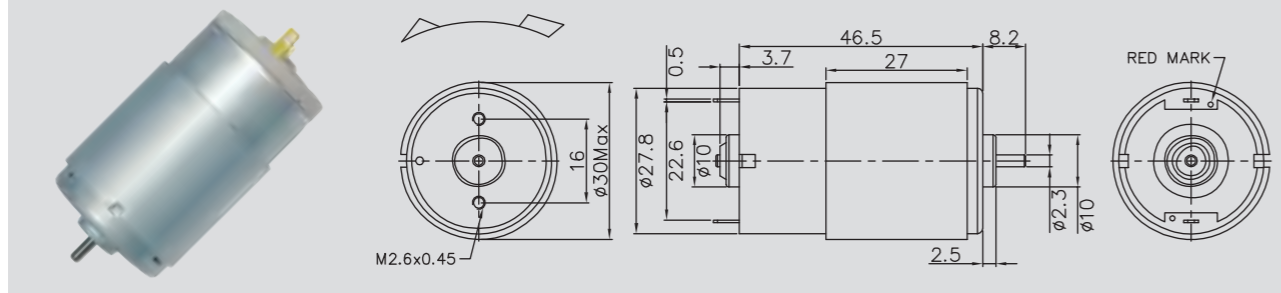


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

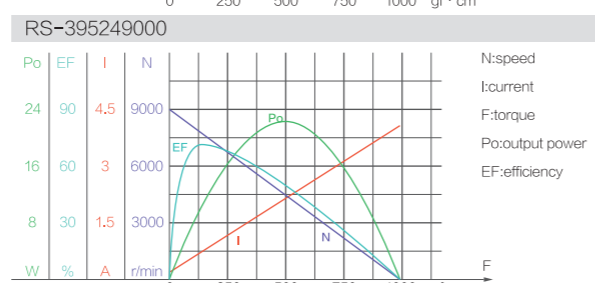
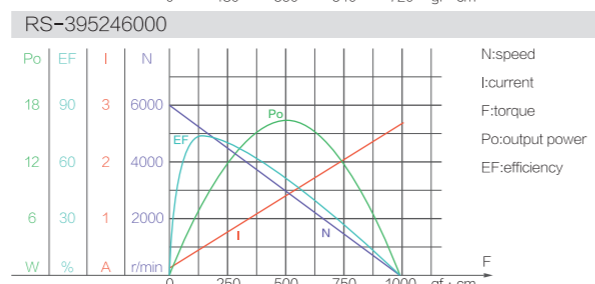
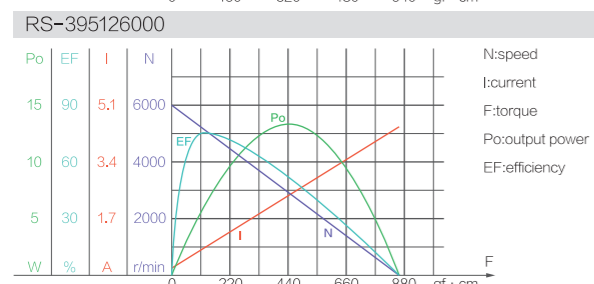
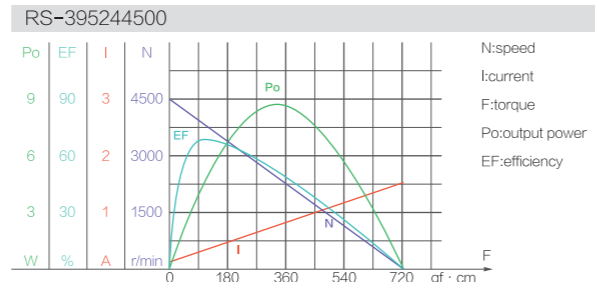
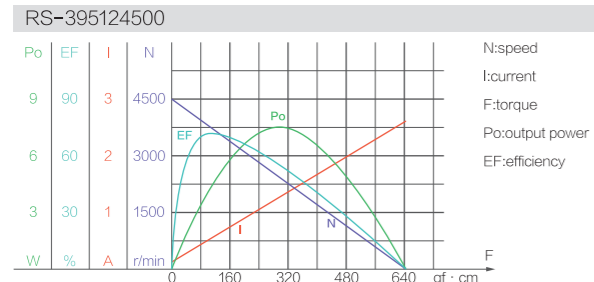
马达DC Brush Motor 395

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-395124500	12	4500	≤110	3800	≤470	95	3.79	643	≤2.6
RS-395126000	12	6000	≤180	5370	≤770	110	6.54	847	≤4.6
RS-395129000	12	9000	≤300	7800	≤1100	112	8.93	850	≤6.9
RS-395244500	24	4500	≤65	4000	≤260	104	4.27	722	≤1.52
RS-395246000	24	6000	≤110	5200	≤490	140	7.73	973	≤2.72
RS-395249000	24	9000	≤180	7800	≤600	127	10.2	972	≤3.93

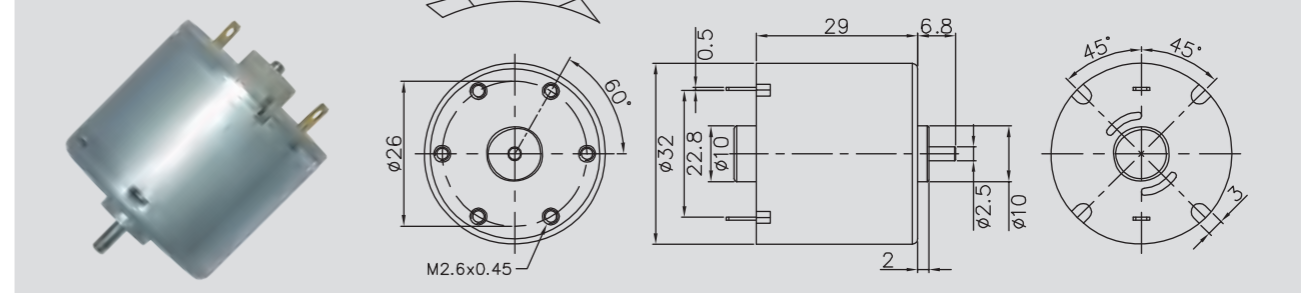


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

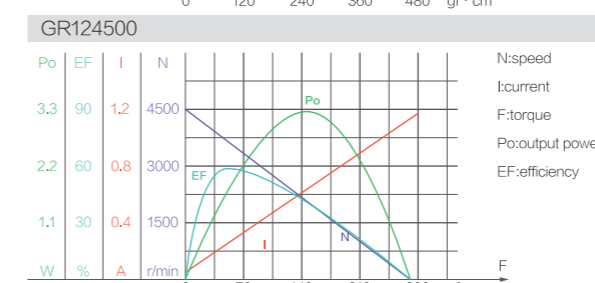
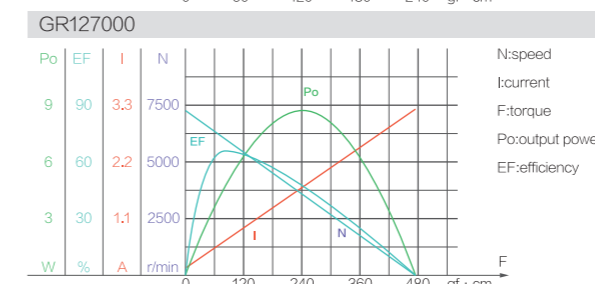
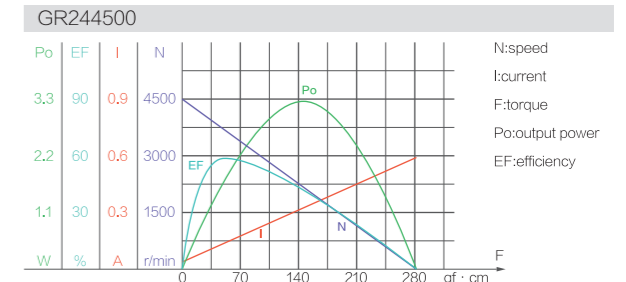
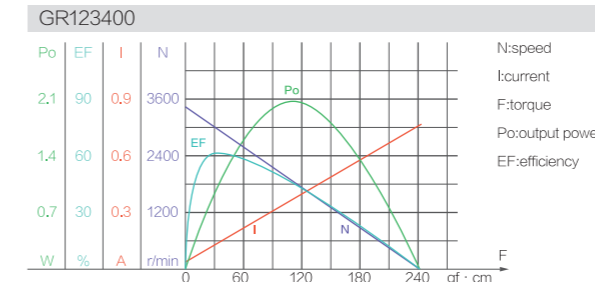
马达DC Brush Motor GR

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
GR123400	12	3400	≤70	2950	≤140	30	0.9	242	≤0.76
GR127000	12	7000	≤140	5650	≤614	79.7	4.6	472	≤3.03
GR124500	12	4500	≤100	3600	≤260	48.9	1.8	261	≤1.1
GR244500	24	4500	≤60	3670	≤131	47.6	1.8	281	≤0.59
GR247000	24	7000	≤85	6000	≤280	70.6	4.4	455	≤1.54

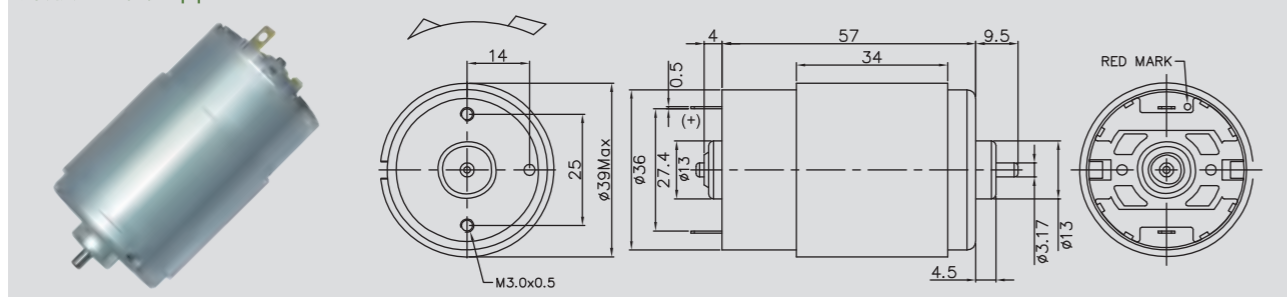


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

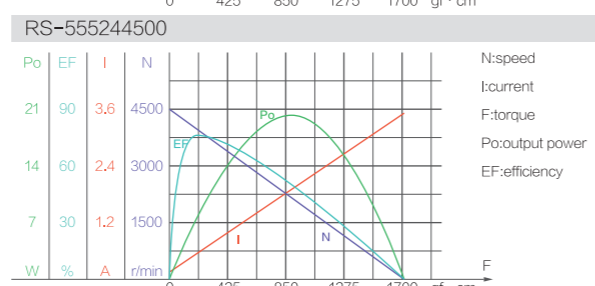
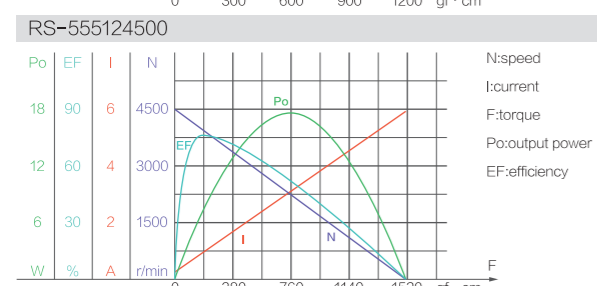
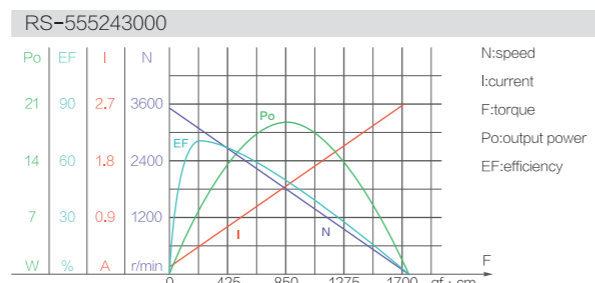
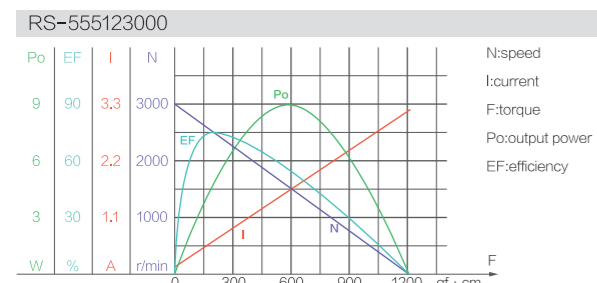
马达DC Brush Motor 555

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-555123000	12	3000	≤140	2500	≤540	179	4.51	1210	≤3.1
RS-555124500	12	4500	≤200	3950	≤850	183	7.42	1508	≤5.9
RS-555126000	12	6000	≤320	5240	≤1340	215	11.5	1722	≤9.3
RS-555243500	24	3500	≤115	2920	≤450	246	7.5	1762	≤2.7
RS-555244500	24	4500	≤140	3980	≤440	189	7.8	1713	≤3.4
RS-555246000	24	6000	≤140	5300	≤850	284	15.7	2360	≤6.2

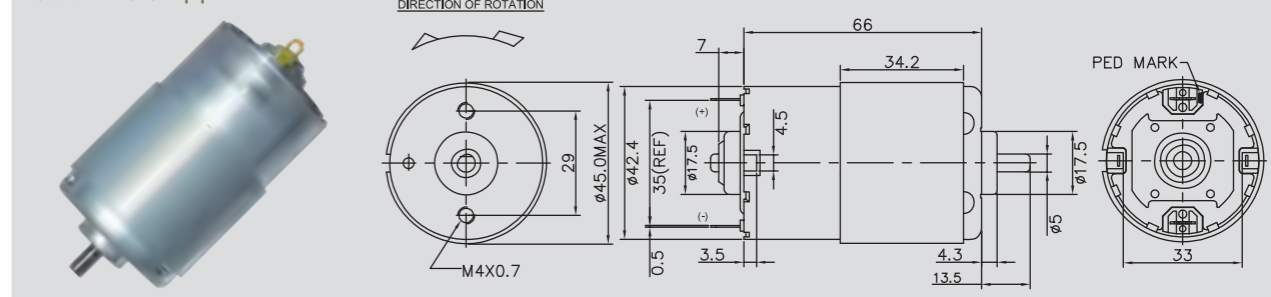


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

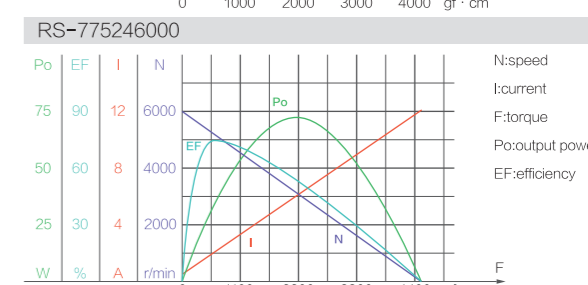
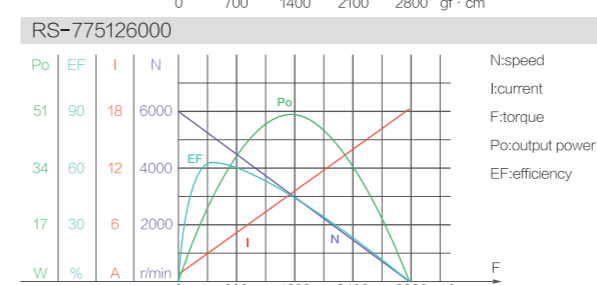
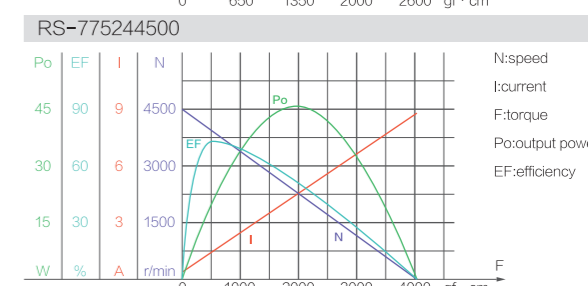
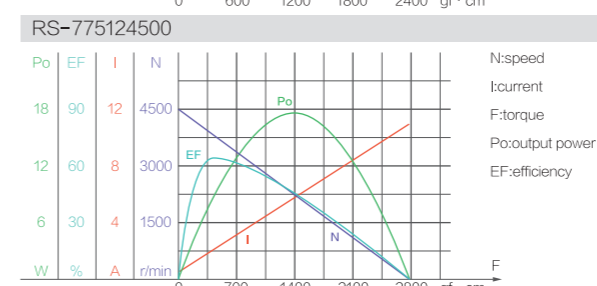
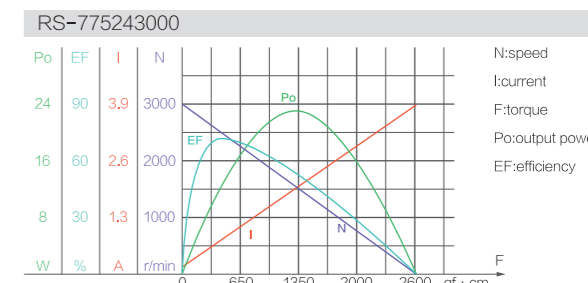
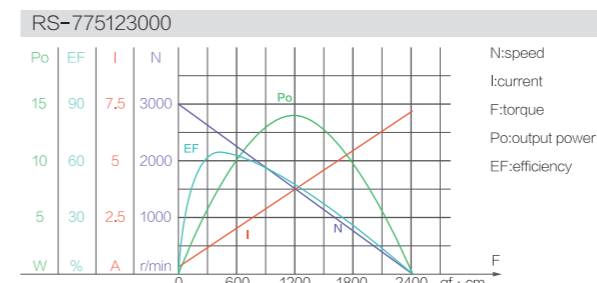
马达DC Brush Motor 775

外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
RS-775123000	12	3000	≤420	2430	≤1300	408	10.4	2484	≤6.7
RS-775124500	12	4500	≤750	3710	≤2100	476	17.6	2714	≤10.4
RS-775126000	12	6000	≤1400	5000	≤3500	478	25.5	3129	≤18.5
RS-775243000	24	3000	≤230	2590	≤700	405	11.5	2686	≤3.9
RS-775244500	24	4500	≤250	3850	≤1250	538	21.1	4134	≤8.3
RS-775246000	24	6000	≤600	5100	≤1800	574	30.8	4565	≤12.1

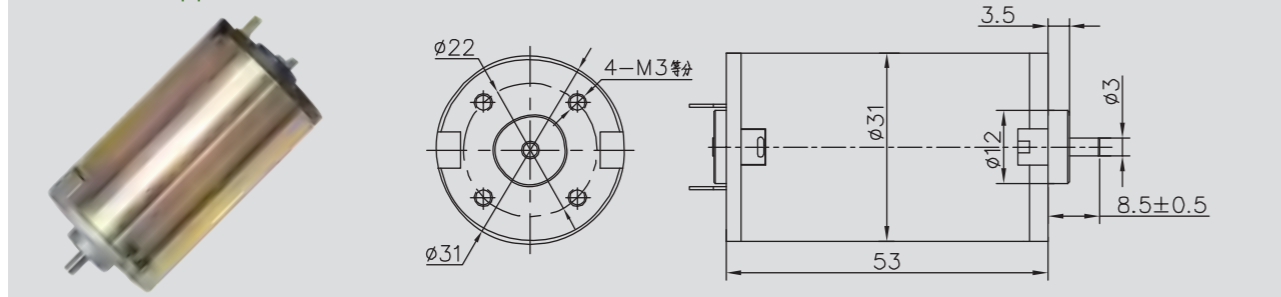


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor ZY31

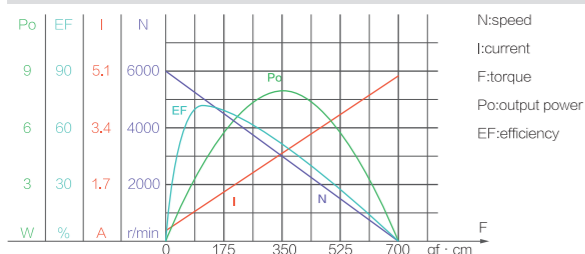
外形尺寸图/Appearance size



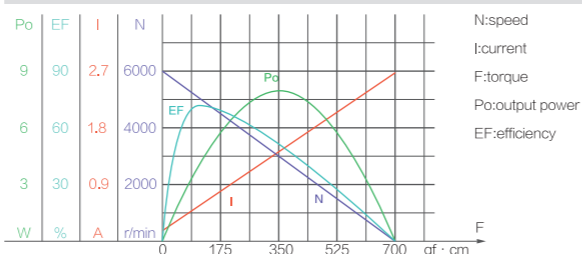
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY31126000	12	6000	≤220	4500	≤1200	110	8.0	700	≤5
ZY31246000	24	6000	≤130	4500	≤650	200	8.0	700	≤2.6

ZY31126000



ZY31246000

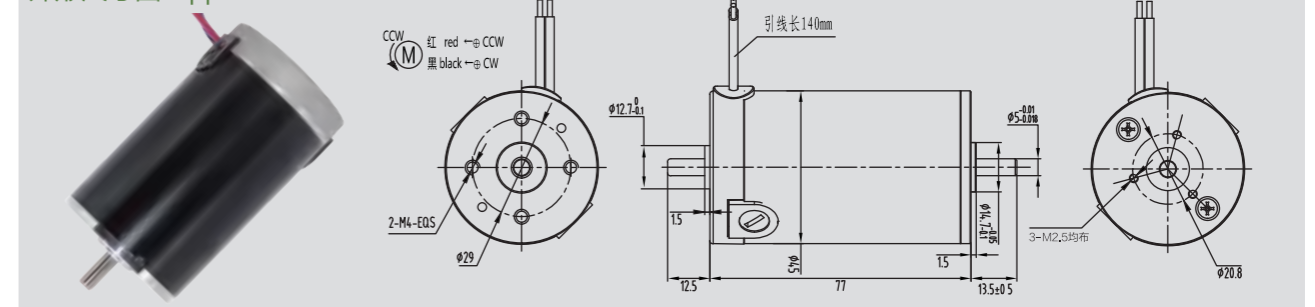


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor ZY45

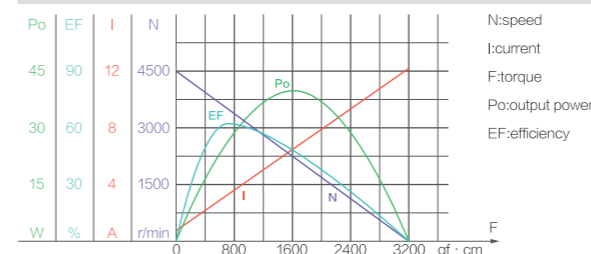
外形尺寸图/Appearance size



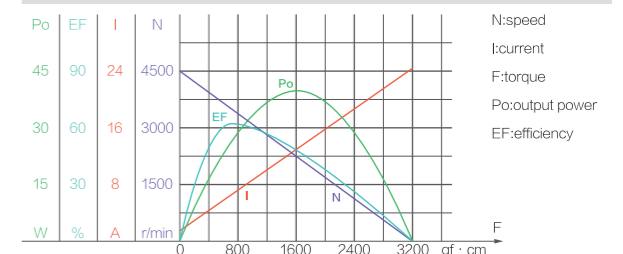
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转速 No load speed (rpm)	空载电流 No load current (mA)	额定转速 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY45124500	12	4500	≤400	3300	≤3600	800	26.4	3200	≤12.5
ZY45126000	12	6000	≤700	4500	≤6900	1100	49.5	4400	≤25
ZY45244500	24	4500	≤280	3300	≤1800	800	26.4	3200	≤6.3
ZY45246000	24	6000	≤350	4500	≤3500	1100	49.5	4400	≤13

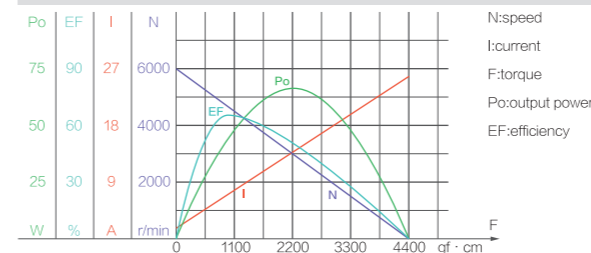
ZY45124500



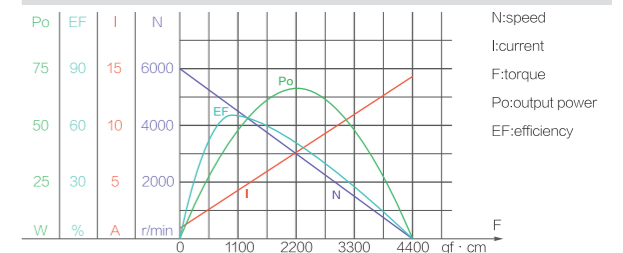
ZY45244500



ZY45126000



ZY45246000

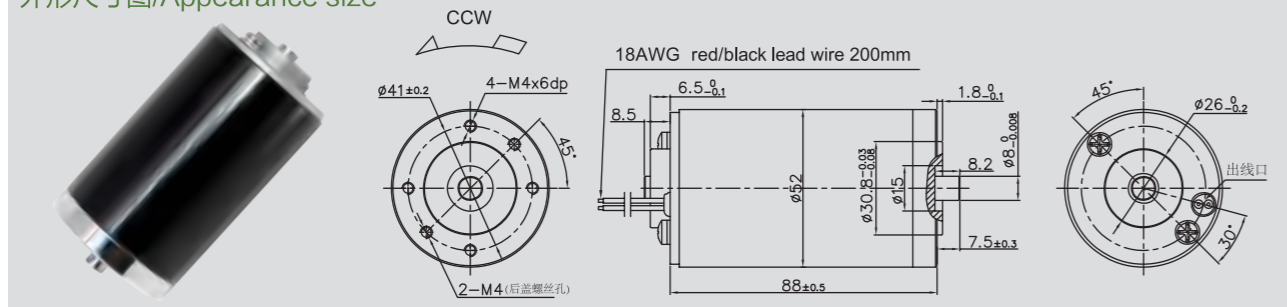


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor ZY52

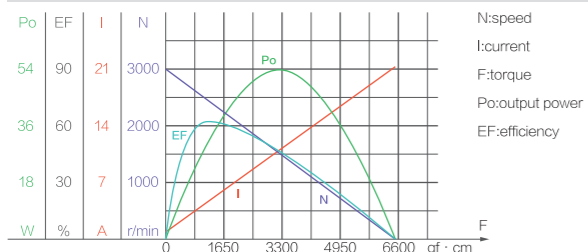
外形尺寸图/Appearance size



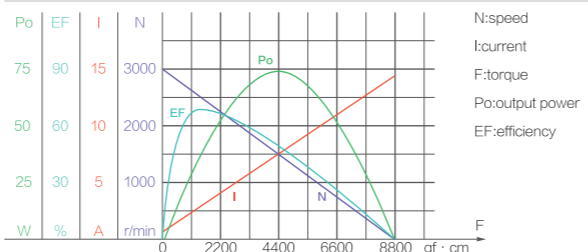
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY52123000	12	3000	≤650	2550	≤4900	1316	35.1	6416	≤21.1
ZY52243000	24	3000	≤320	2623	≤2880	1634	44.8	8712	≤13.8

ZY52123000



ZY52243000

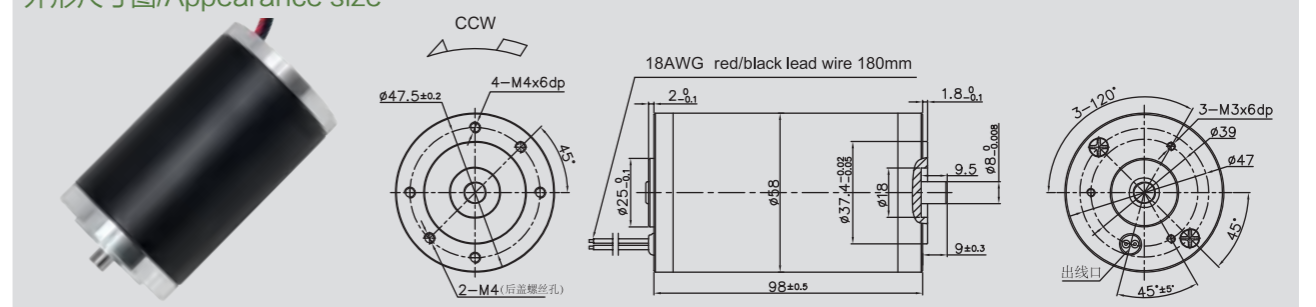


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brush Motor ZY58

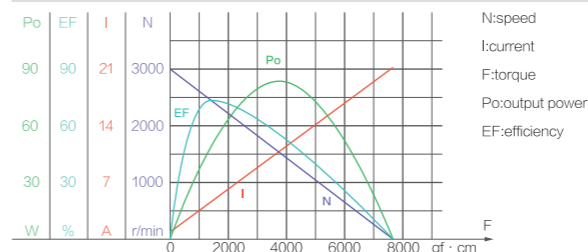
外形尺寸图/Appearance size



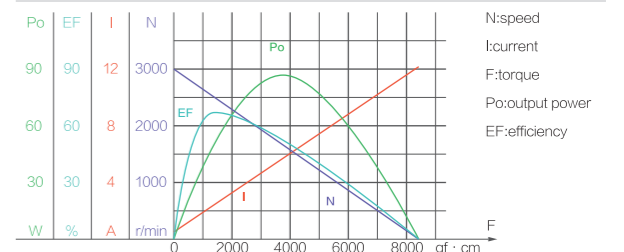
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
ZY58123000	12	3000	≤444	2600	≤3290	1508	38.1	7594	≤21.1
ZY58243000	24	3000	≤252	2605	≤6252	1562	39.5	8392	≤12.4

ZY58123000



ZY58243000

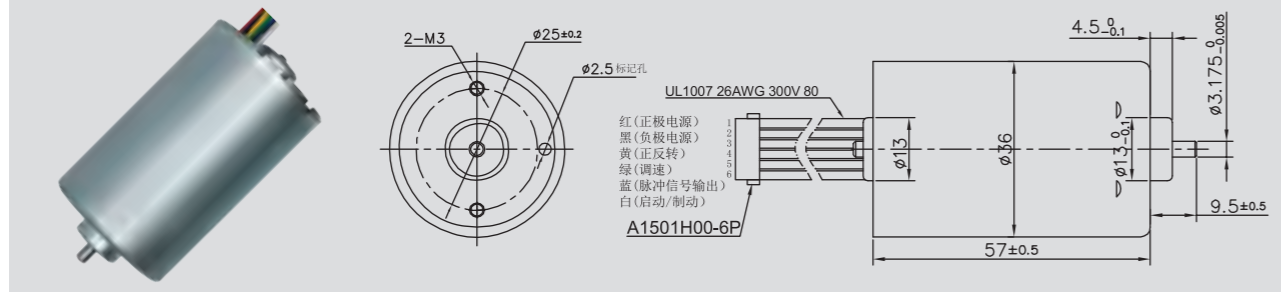


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brushless Motor BL36

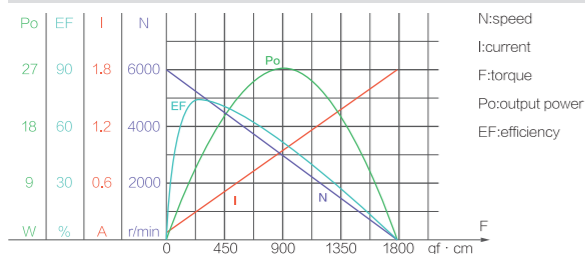
外形尺寸图/Appearance size



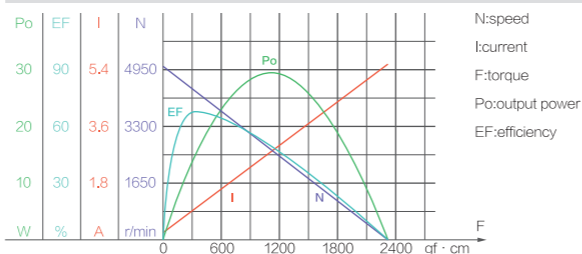
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL36126000	12	6000	≤460	5160	≤1580	257	13.6	1775	≤1.8
BL36245000	24	5000	≤220	4100	≤1086	395	16.4	2317	≤5.34
BL36246000	24	6000	≤220	7200	≤1204	385	20.1	2737	≤7.1

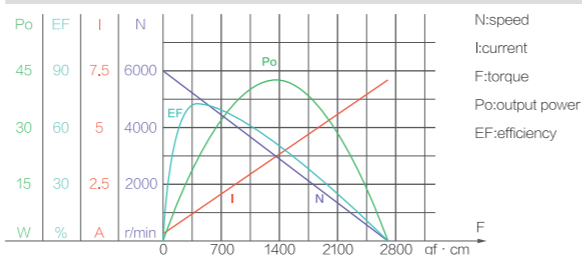
BL36126000



BL36245000



BL36246000

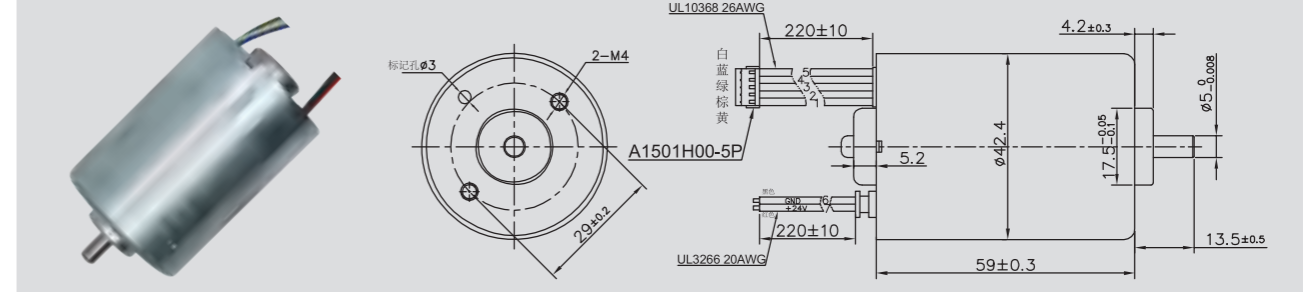


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brushless Motor BL42

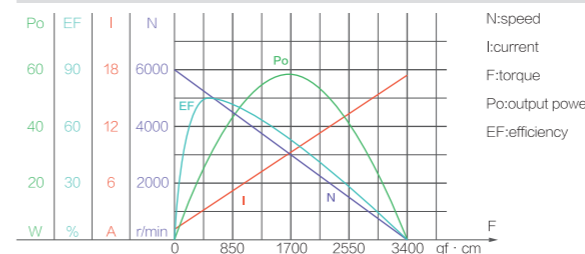
外形尺寸图/Appearance size



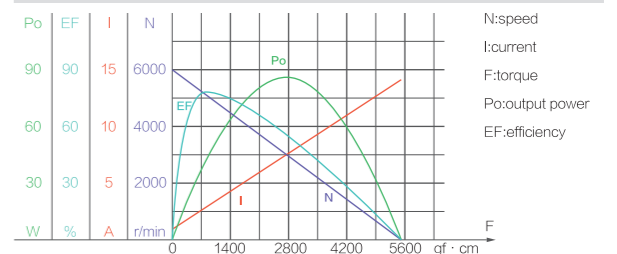
马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (mA)	额定转数 Rated speed (rpm)	额定电流 Rated current (mA)	额定扭矩 Rated torque (gf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (gf.cm)	堵转电流 Stall current (A)
BL42126000	12	6000	≤620	5133	≤2785	469	24.7	3396	≤17.1
BL42246000	24	6000	≤340	5319	≤1968	669	36.5	5496	≤14.1

BL42126000



BL42246000

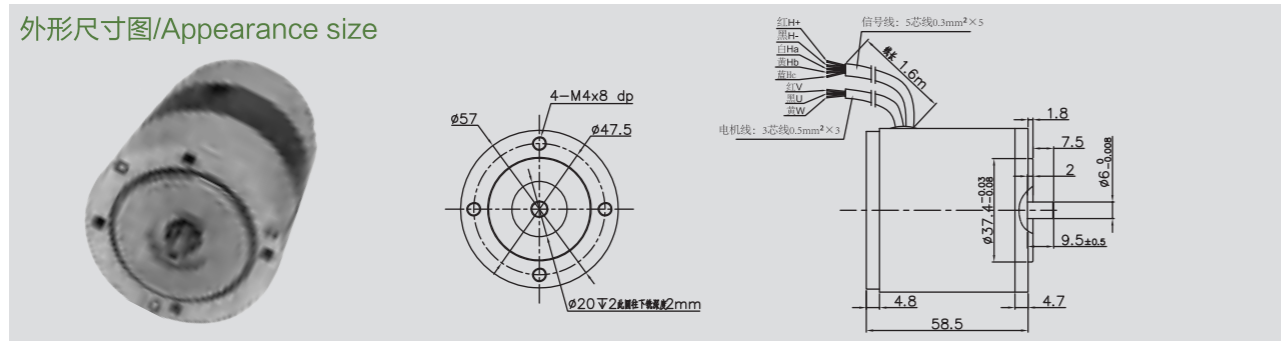


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brushless Motor BL57

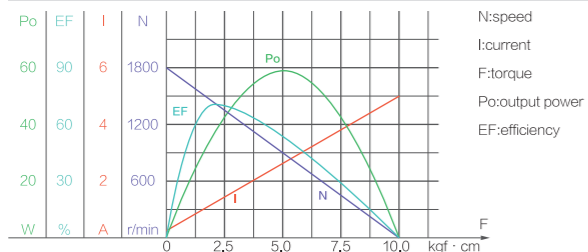
外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (A)	额定转数 Rated speed (rpm)	额定电流 Rated current (A)	额定扭矩 Rated torque (Kgf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (Kgf.cm)	堵转电流 Stall current (A)
BL57361800	36	1800	≤0.35	1440	≤1.25	2	30	10	≤5.2

BL57361800

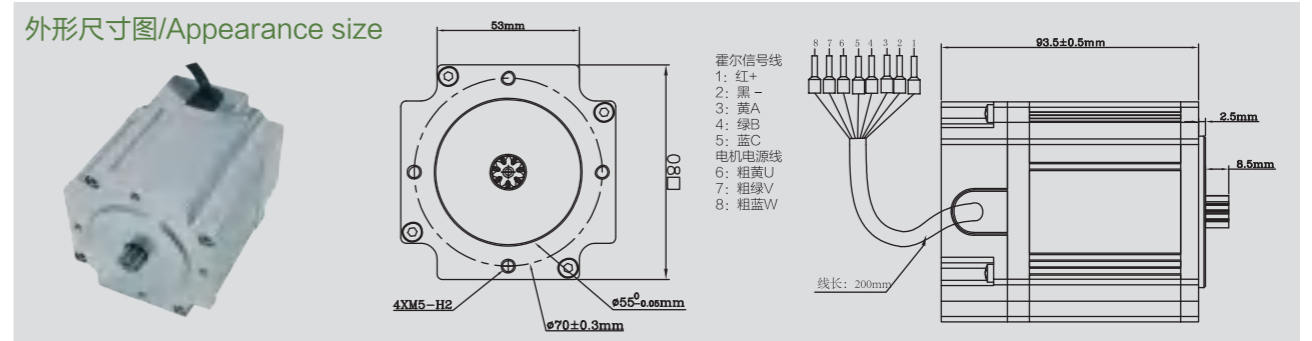


○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

马达DC Brushless Motor BL80

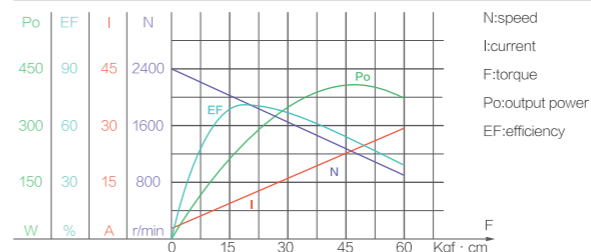
外形尺寸图/Appearance size



马达参数/Motor Torque

马达型号 Motor type	额定电压 Rated volt (V)	空载转数 No load speed (rpm)	空载电流 No load current (A)	额定转数 Rated speed (rpm)	额定电流 Rated current (A)	额定扭矩 Rated torque (Kgf.cm)	额定功率 Rated output (W)	堵转扭矩 Stall torque (Kgf.cm)	堵转电流 Stall current (A)
BL80482400	48	2400	≤0.41	2238	≤4.2	7.5	203	80.76	≤45

BL80482400



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

(Encoders) ME-3237D

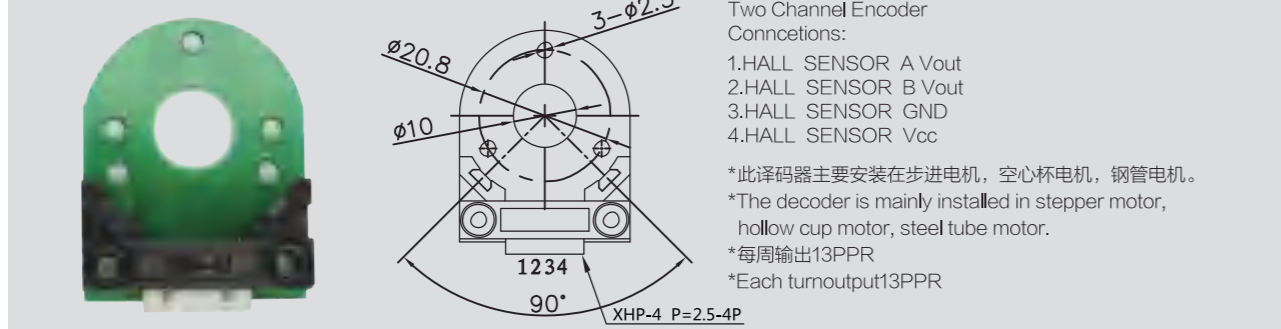
双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40℃~+85℃
Operating temperature range



外形尺寸图/Appearance size

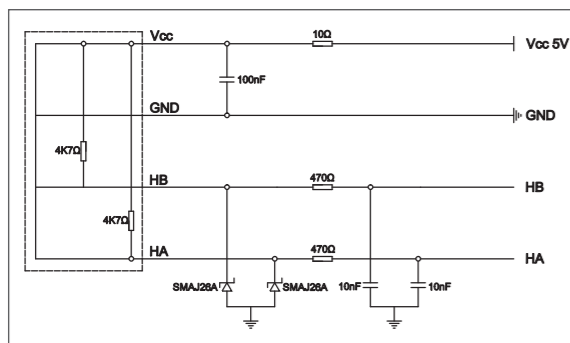


规格特性 Charac teristics	代号 Symbol	测试条件 Test conditions	极小 Min	基本 Ref	最大 Max	单位 Units
输入电压 Supply Voltage	Vcc	-----	4.5	--	24	V
输入电流 Supply Current	Icc	-----	--	14	20	mA
输出电流 Output Current	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
输出漏电流 Output Leakage Current	Icex	Output open; 25°C [77°F]	--	--	10	μ A
输出上升时间 Output Rise Time	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μ S
输出下降时间 Output Fall Time	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μ S

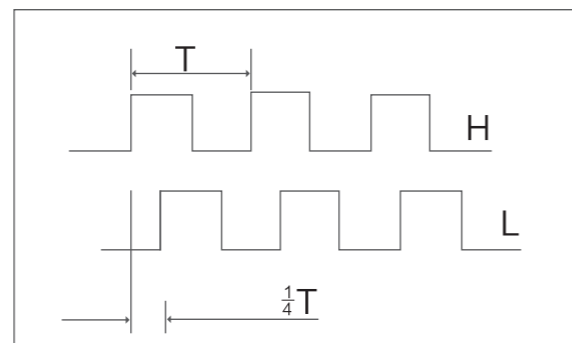
ELECTRICAL CHARACTERISTICS

At V=4.5V to 24V with 20mA load with Ta=-40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

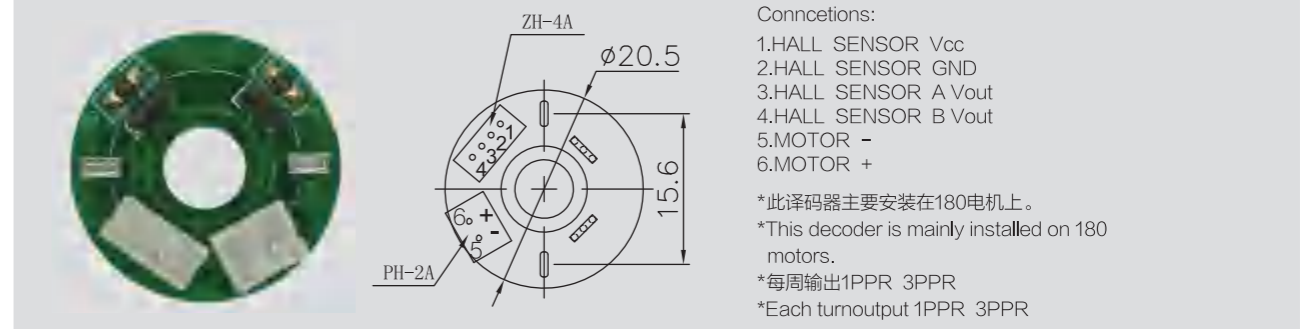
(Encoders) ME-180

双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40℃~+85℃
Operating temperature range

外形尺寸图/Appearance size

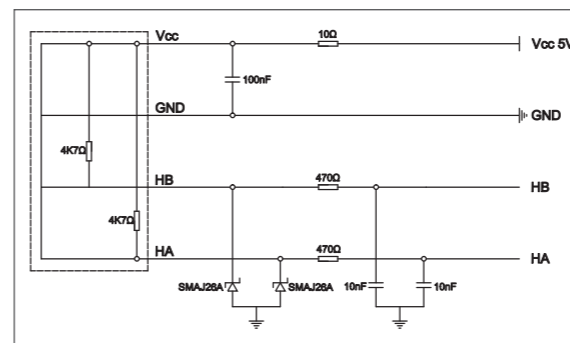


规格特性 Charac teristics	代号 Symbol	测试条件 Test conditions	极小 Min	基本 Ref	最大 Max	单位 Units
输入电压 Supply Voltage	Vcc	-----	4.5	--	24	V
输入电流 Supply Current	Icc	-----	--	14	20	mA
输出电流 Output Current	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
输出漏电流 Output Leakage Current	Icex	Output open; 25°C [77°F]	--	--	10	μ A
输出上升时间 Output Rise Time	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μ S
输出下降时间 Output Fall Time	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μ S

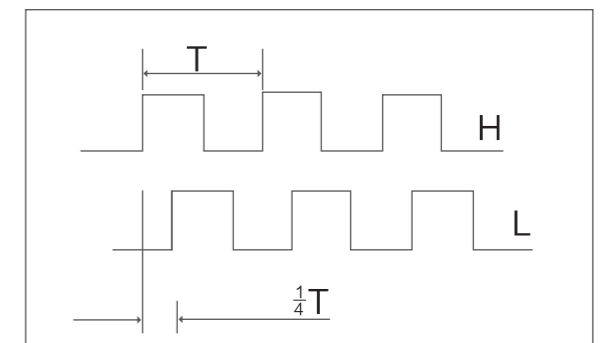
ELECTRICAL CHARACTERISTICS

At V=4.5V to 24V with 20mA load with Ta=-40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

(Encoders) ME-28

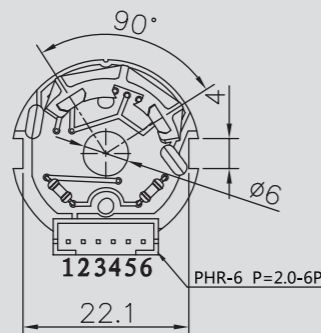
双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40℃~+85℃
Operating temperaturerange



外形尺寸图/Appearance size



Two Channel Encoder
Connctions:

- 1.MOTOR -
- 2.MOTOR +
- 3.HALL SENSOR Vcc
- 4.HALL SENSOR GND
- 5.HALL SENSOR A Vout
- 6.HALL SENSOR B Vout

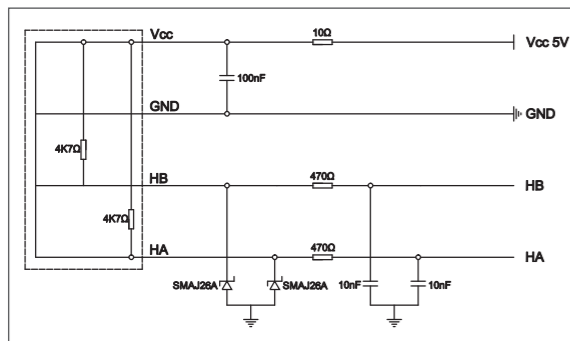
- *此译码器主要安装在RS-385,RS-395电机上。
- *This decoder is mainly installed on RS-385, RS-395 motors.
- *每周输出3PPR,7PPR
- *Each turnout 3PPR,7PPR

规格特性	代号	测试条件	极小	基本	最大	单位
Charac teristics	Symbol	Test conditions	Min	Ref	Max	Units
输入电压	Vcc	-----	4.5	--	24	V
Supply Voltage						
输入电流	Icc	-----	--	14	20	mA
Supply Current						
输出电流	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
Output Current						
输出漏电流	Icex	Output open; 25°C [77°F]	--	--	10	μA
Output Leakage Current						
输出上升时间	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μS
Output Rise Time						
输出下降时间	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μS
Output Fall Time						

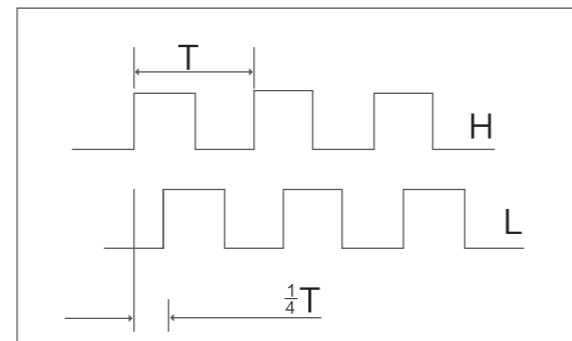
ELECTRICAL CHARACTERISTICS

At V = 4.5V to 24V with 20mA load with Ta=-40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

(Encoders) ME-37

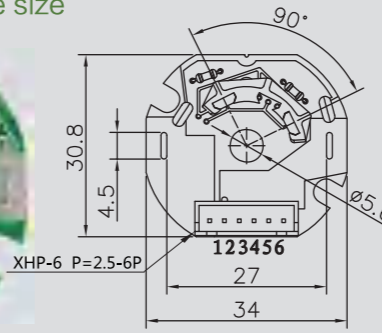
双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40℃~+85℃
Operating temperaturerange



外形尺寸图/Appearance size



Two Channel Encoder
Connctions:

- 1.MOTOR -
- 2.MOTOR +
- 3.HALL SENSOR Vcc
- 4.HALL SENSOR GND
- 5.HALL SENSOR A Vout
- 6.HALL SENSOR B Vout

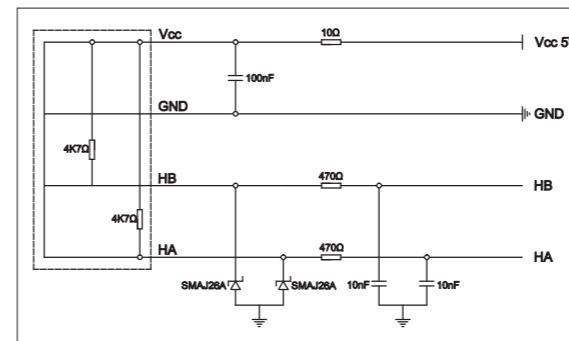
- *此译码器主要安装在RS-545,RS-555电机上。
- *This decoder is mainly installed on RS-545, RS-555, motors.
- *每周输出3PPR,7PPR
- *Each turnout 3PPR,7PPR

规格特性	代号	测试条件	极小	基本	最大	单位
Charac teristics	Symbol	Test conditions	Min	Ref	Max	Units
输入电压	Vcc	-----	4.5	--	24	V
Supply Voltage						
输入电流	Icc	-----	--	14	20	mA
Supply Current						
输出电流	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
Output Current						
输出漏电流	Icex	Output open; 25°C [77°F]	--	--	10	μA
Output Leakage Current						
输出上升时间	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μS
Output Rise Time						
输出下降时间	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μS
Output Fall Time						

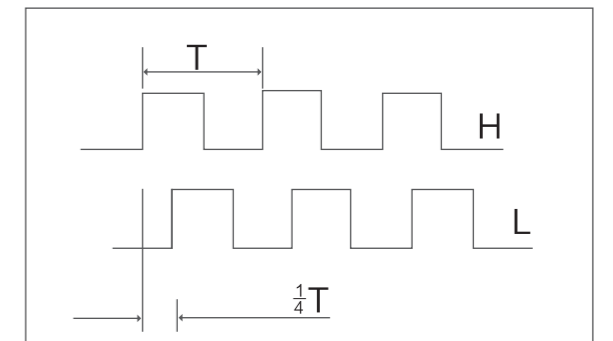
ELECTRICAL CHARACTERISTICS

At V = 4.5V to 24V with 20mA load with Ta=-40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

(Encoders) ME-GR

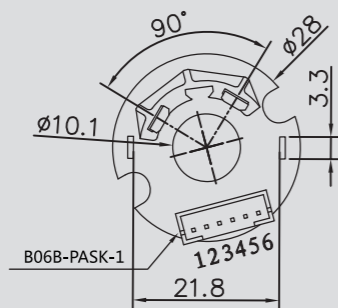
双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40°C~+85°C
Operating temperature range



外形尺寸图/Appearance size



Two Channel Encoder
Connctions:

- 1.MOTOR +
- 2.MOTOR -
- 3.HALL SENSOR Vcc
- 4.HALL SENSOR GND
- 5.HALL SENSOR A Vout
- 6.HALL SENSOR B Vout

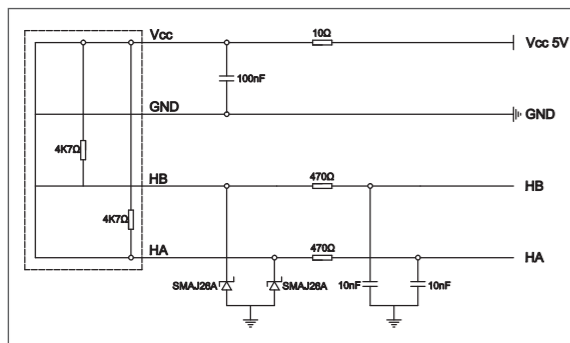
*此译码器主要安装在RS-528,RS-GR电机上。
*This decoder is mainly installed on RS-528, RS-GR motors.
*每周输出3PPR,7PPR
*Each turn output 3PPR,7PPR

规格特性	代号	测试条件	极小	基本	最大	单位
Charac teristics	Symbol	Test conditions	Min	Ref	Max	Units
输入电压	Vcc	-----	4.5	--	24	V
Supply Voltage						
输入电流	Icc	-----	--	14	20	mA
Supply Current						
输出电流	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
Output Current						
输出漏电流	Icex	Output open; 25°C [77°F]	--	--	10	μ A
Output Leakage Current						
输出上升时间	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μ S
Output Rise Time						
输出下降时间	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μ S
Output Fall Time						

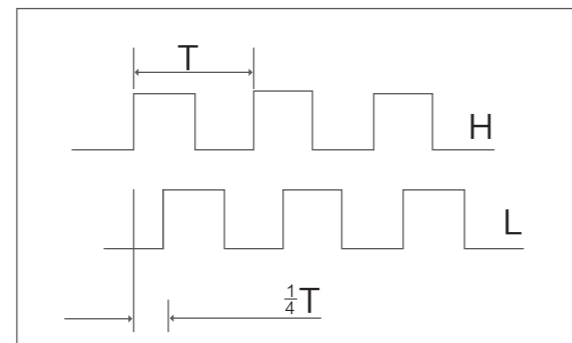
ELECTRICAL CHARACTERISTICS

At V = 4.5V to 24V with 20mA load with Ta = -40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.

● PRODUCT SERIES 产品系列

(Encoders) ME-775

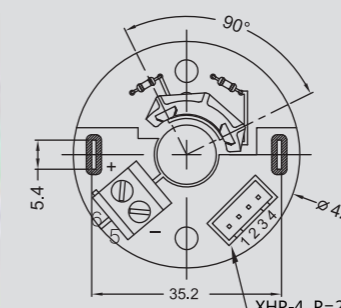
双通道磁性译码器

Two Channel Hall Effect Encoder

- ★使用相对湿度: 20%~85% RH
Operating relative humidity
- ★使用温度范围: -40°C~+85°C
Operating temperature range



外形尺寸图/Appearance size



Two Channel Encoder
Connctions:

- 1.HALL SENSOR Vcc
- 2.HALL SENSOR GND
- 3.HALL SENSOR A Vout
- 4.HALL SENSOR B Vout
- 5.MOTOR -
- 6.MOTOR +

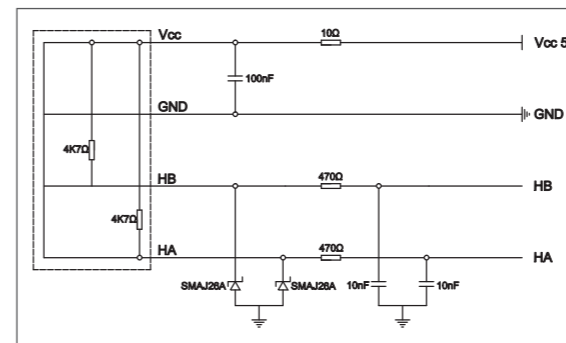
*此译码器主要安装在RS-755,RS-775电机上。
*This decoder is mainly installed on RS-755, RS-775 motors.
*每周输出3PPR,7PPR
*Each turn output 3PPR,7PPR

规格特性	代号	测试条件	极小	基本	最大	单位
Charac teristics	Symbol	Test conditions	Min	Ref	Max	Units
输入电压	Vcc	-----	4.5	--	24	V
Supply Voltage						
输入电流	Icc	-----	--	14	20	mA
Supply Current						
输出电流	Ic	Vce=12V; Gauss<-170	--	<0.1	20	mA
Output Current						
输出漏电流	Icex	Output open; 25°C [77°F]	--	--	10	μ A
Output Leakage Current						
输出上升时间	Tr	RL=820Ω; CL=20pF; 25°C	--	0.5	1.5	μ S
Output Rise Time						
输出下降时间	Tf	RL=820Ω; CL=20pF; 25°C	--	0.2	1.5	μ S
Output Fall Time						

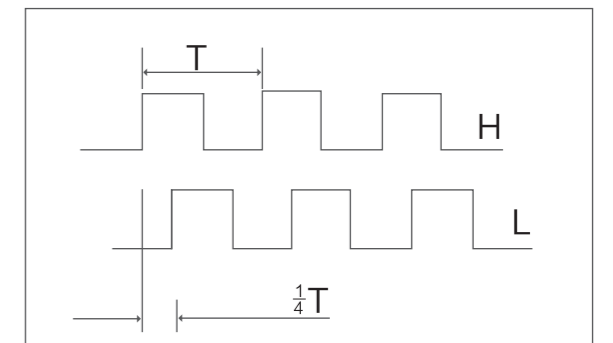
ELECTRICAL CHARACTERISTICS

At V = 4.5V to 24V with 20mA load with Ta = -40°C to 125°C [-77°F to 257°F] unless otherwise noted.

输出电路\Output Circuit



输出波形\Output Wave



○ The above parameters are for reference only.