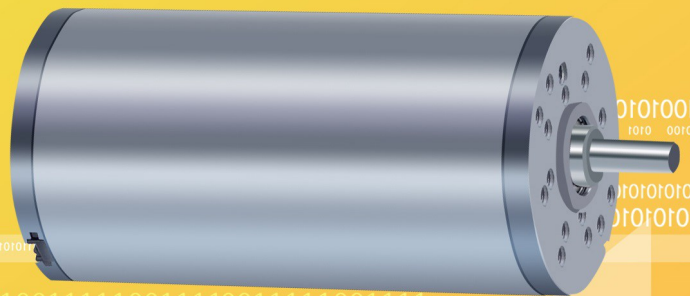
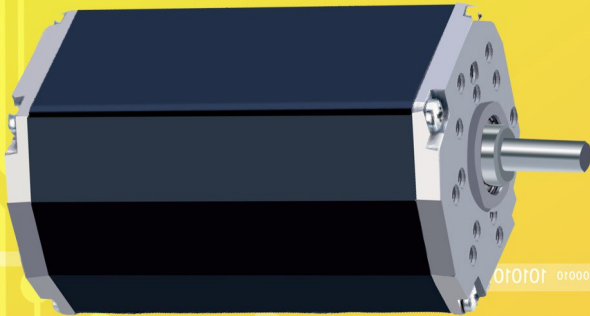
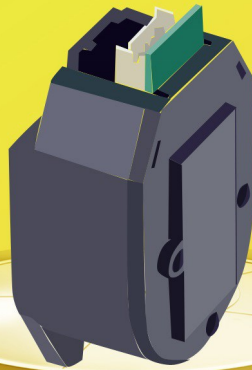
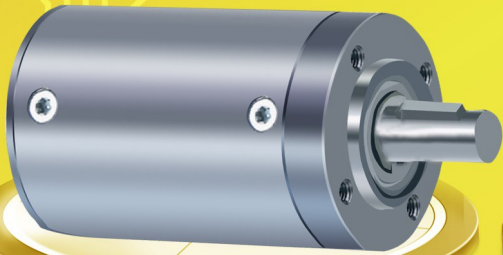


# MOTer

Selected Motion Solutions

德国品质 卓越动力



默拓 (江苏) 电气驱动技术有限公司  
MOTer (Jiangsu) Electric Drive Technology Co., Ltd

致尊敬的客户：

感谢参考和使用默拓的优选运动控制方案，我们的技术源于德国并具自主知识产权，提供世界一流的产品和解决方案，满足客户对成本和可靠性日益增长的需求。默拓团队将持续利用杰出的工程技术和工业生产能力来满足您的要求并帮助您取得胜利。

默拓是一家高新技术企业，提供具有各种类型的高度灵活性模块化产品，除标准化的部件，还提供客户化的解决方案，也可以为有潜力的项目做全新的产品开发设计和生产。

祝愿您在事业中取得巨大的成功。

默拓团队

To valued customers:

Many thanks to reference and use MOTer selected motion solutions, our technology originates from Germany with independent property rights, and provides world class quality products and motion control solutions to meet the ever increasing demands for cost effective and reliable drive solutions. MOTer Team will continue to utilize our outstanding engineering and industrial capabilities to meet the requirements helping you to succeed.

Our comprehensive and modularity product range offers the flexibility to provide customized solutions as well as standardized components. It's available to absolutely new design and manufacture for potential projects. MOTer is a high and new technology enterprise.

Wishing you great success in your business.

MOTer Team

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### 性能数据

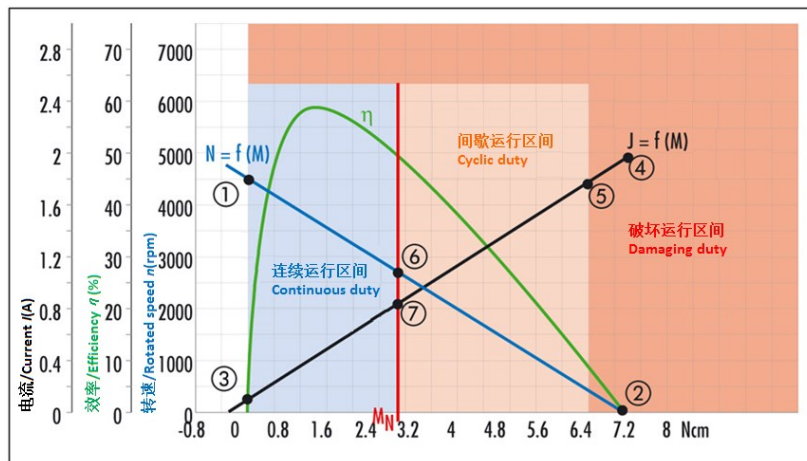
表中给出的性能数据是按照欧盟标准EN60034进行度量的，这些数据基于如下假定：电机是独立的，某些其他理论条件满足。而在实际的应用中，电机的额定转矩常常会更大一些，因为通过机械安装后，就像增加了散热片一样帮助电机散热。

在许多应用中，从电机的特性曲线图和数据表中得到数据是足够精准的，虽然没有考虑公差和温度的影响，但这些数据对于近似计算是有足够参考性的。

### Performance Data

Performance figures given in the tables are measured in accordance with EN60034. These figures are based on the assumption that the motor is freestanding and that certain other theoretical conditions are fulfilled. In a real application the rated torque of motor will higher, since by assembly conditions and circulation a higher heat dissipation is achieved.

For many applications, it is sufficiently accurate to take the most important data from the motor characteristic diagrams and data sheet. Although tolerances and temperature influences are not taken into account, the data is accurate enough for approximate calculations.



### 电机特性曲线图

#### -转速曲线 (蓝色)

这个曲线显示恒定电压下的转速特性。它的端点为空载转速  $n_0$  (1) 和理论启动转矩  $M_A$ (2)。

#### -电流曲线 (黑色)

电流曲线表明电流和转矩之间的关系。它的端点为空载电流  $I_0$ (3) 和启动电流  $I_A$ (4)。

#### -效率曲线 (绿色)

效率是输出机械功率和输入电功率之间的关系。该曲线显示的是电机在冷态下的效率；曲线会随着温度的上升而发生相应的变化。

#### -额定转矩 $M_N$ , 启动转矩 $M_{max}$

额定转矩(红色)是连续运行区间(蓝色区域)的界限。在额定转矩和最大容许转矩之间的区间(橘色区域)，必须以间歇的方式使用电机。在超过容许转矩的运行区间内(红色区域)使用电机会导致永磁体消磁。

### Motor Characteristic Diagrams

#### -Speed curve (blue)

This curve shows the speed characteristic at constant voltage. Its end point are no load speed  $n_0$  (1) and the theoretical starting torque  $M_A$ (2).

#### -Current curve (black)

The current curve shows the relationship between current and torque. Its end point are no load current  $I_0$ (3) and the starting current  $I_A$ (4).

#### -Efficiency curve (green)

The efficiency is the relationship between mechanical power output and electrical power input. It shows motor in cold condition; as motor warms up, the curve shifts accordingly.

#### -Rated torque $M_N$ , Starting torque $M_{max}$

The rated torque (red) is the limit of the continuous duty region (shaded blue). In the region between rated torque and maximum permissible torque, motor must only be used intermittently (shaded orange). Operating conditions above the maximum permissible torque result demagnetization of permanent magnets (shaded red).

## 电机特性曲线图

### -额定电压 $U_N$ (伏特)

指施加于电机的直流供电电压，说明书中所有的额定值指这个电压，但电机应用中不限于此电压。

### -额定转矩 $M_N$ (牛顿-厘米)

在20°C的环境下电机连续稳定运行所能产生的转矩。

### -额定转速 $n_N$ (每分钟转速)

在额定电压下，以额定转矩(6)运行着的电机的转速。

### -额定电流 $I_N$ (安培)

当电机以额定转矩(7)运转时，直流驱动电源输出的电流。

### -启动电流 $I_A$ (安培)

产生启动转矩所需要的电流。对于匹配设备的电机，启动电流可能大于容许的峰值电流(4)。

### -启动转矩 $M_A$ (牛顿-厘米)

电机所能产生的最大转矩(2)。

### -转子的惯量 $J_R$ (克-平方厘米)

转子的惯量是确定电机的动态特性的因素。

## Motor Characteristic Diagrams

### -Nominal voltage $U_N$ (VDC)

Applied to motor as a supply voltage, all rated data in catalogs are with reference to it. Motor applications are, however, not restricted to this voltage.

### -Nominal torque $M_N$ (Ncm)

Can be produced by motor, operating continuously, in an ambient temperature of 20 °C.

### -Nominal speed $n_N$ (rpm)

Motor is operating at rated torque (6) and nominal voltage.

### -Nominal current $I_N$ (A)

Drawn from DC source when the motor is operating at rated torque(7).

### -Starting current $I_A$ (A)

Required to produce starting torque. For motors with electronics, starting current may be higher than permissible peak current(4).

### -Starting torque $M_A$ (Ncm)

Maximum torque motor can produce(2).

### -Rotor inertia $J_R$ (gcm<sup>2</sup>)

The moment of inertia of motor is the factor that determines the dynamic properties of a motor.

\*\*\*\*\*

## 工程参考--Engineering Reference

### 工程参考

在选择电机和减速箱时应考虑以下几点：

- 直流还是交流？电压是多高？
- 需要何种类型的运行(连续、间歇或者周期性运行)？
- 电机的预期工作寿命是多久？
- 所需要的转矩和转速时多少？
- 电机的放置空间有多大？
- 有无特殊的环境要求(温度、湿度、震动...)?
- 电机的散热能力可达到何种程度？
- 是否需要考虑额外的轴向和径向负载？
- 对电机的电子控制装置有何要求？
- 电机是否是通过总线系统实现在线控制？
- 是否需要制动器、编码器或防逆转装置？

在配置一台合适的电机时，确定所需转矩对于放置电机运行时出现热过载至关重要。可根据所需转速和扭矩来选择电机或者电机减速箱的组合。减速箱在间歇工作方式中，负载可以超过允许的持续运行的最大转矩。

我们乐于根据您的运行条件对电机进行精确调配。

### Engineering Reference

The following points should be taken into account when selecting motors and gearboxes:

- DC or AC? How high is the available voltage?
- Which type of operation is required (continuous, intermittent or periodic operation)?
- What is the working life expected of motor?
- What torque and speeds are required?
- How much space is available for motor?
- Are there special environment conditions (temperature, humidity, vibration...)?
- To what degree can heat from motor be disposed of?
- Are there exceptional axial and radial shaft loads to consider?
- What demands are made of motor control electronics?
- Is motor to be controlled online via a bus system?
- Do you need brake, encoder or non-reversing device?

By dimensioning a suitable motor, determining the required torque plays a decisive role avoiding thermal overload of the motor in service. Depending on speed of rotation required, motor or motor-gearbox combination may be selected. For intermittent duty, loading above the maximum continuous torque is possible for gearbox.

We will be pleased to carry out a precise adaptation of solution to your service conditions.

## 轨道交通--Railway

### 内门

BL65或BD63 系列电机

WG31 系列减速箱

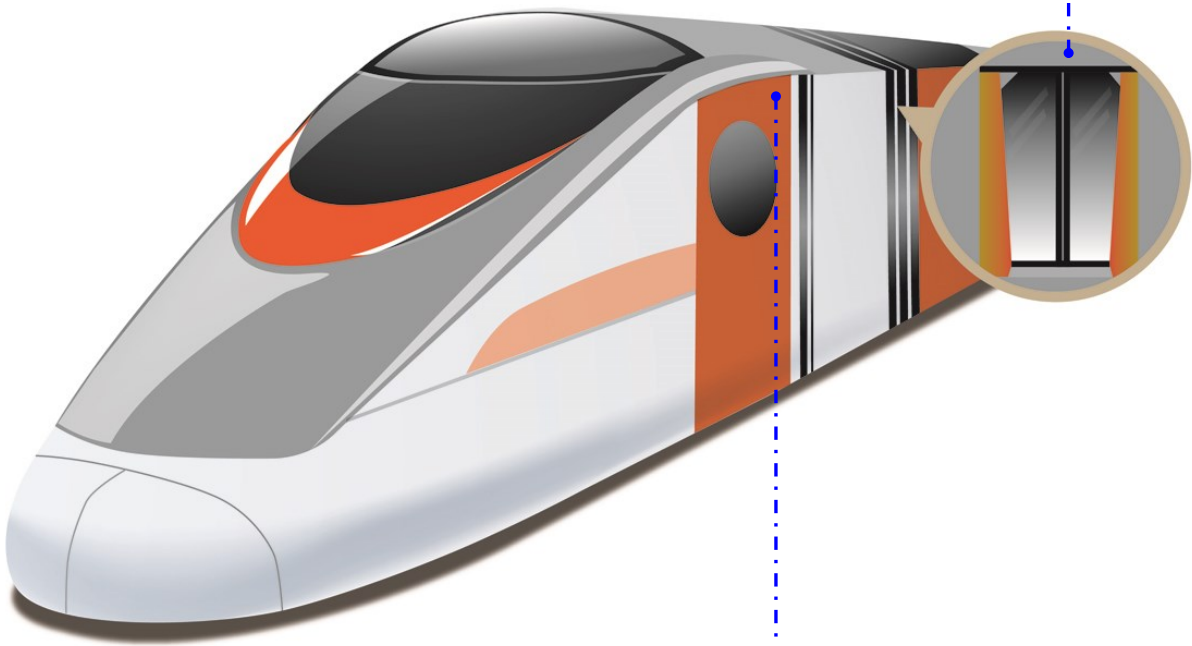
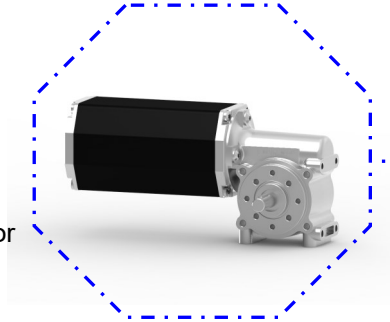
可选装编码器

#### Internal door

BL65 or BD63 series motor

WG31 series gearbox

Encoder in optional



### 外门

BL65系列电机

PG60H 或 WG31 系列减速箱

可选装制动器

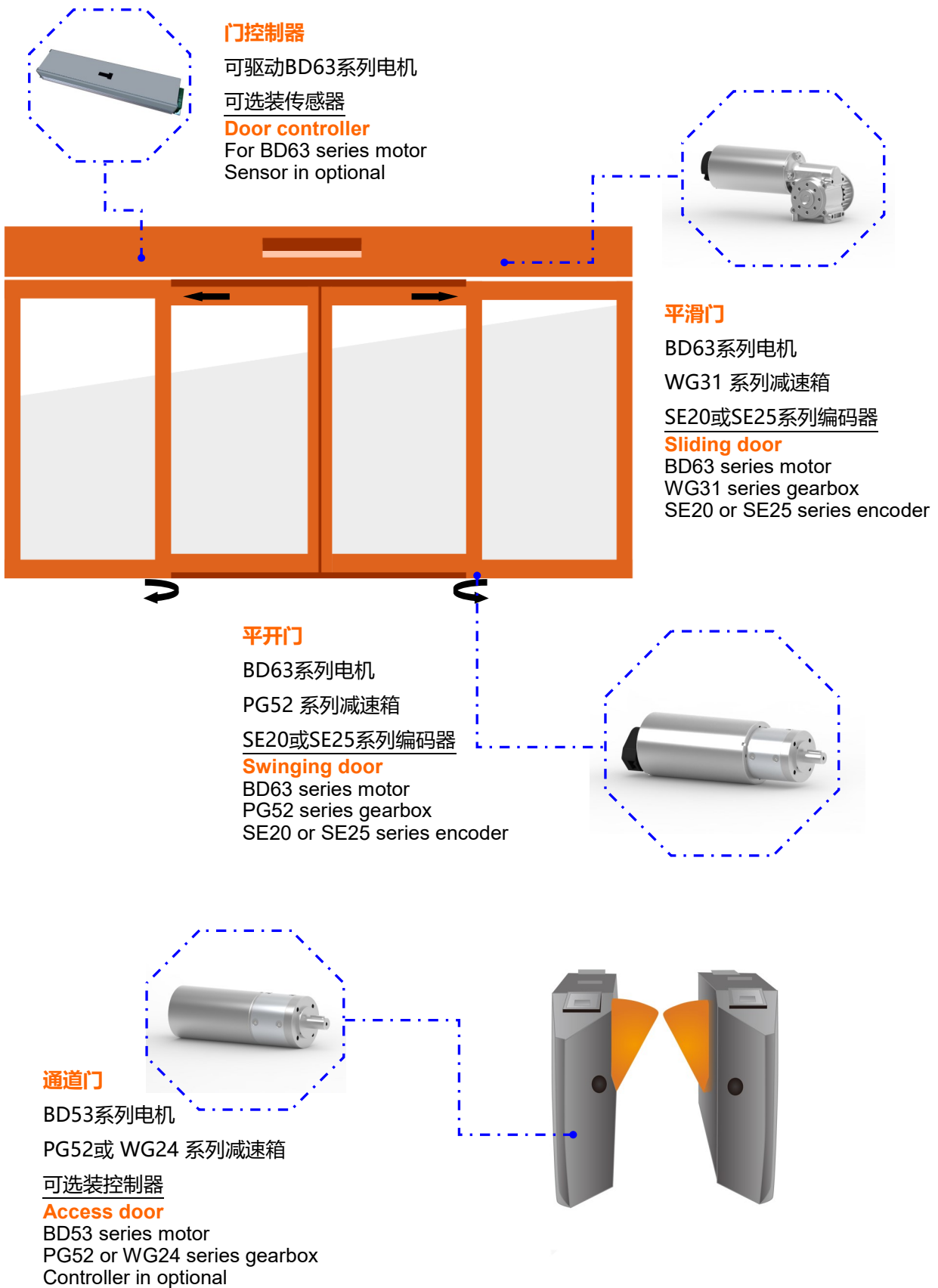
#### External door

BL65 series motor

PG60H or WG31 series gearbox

Brake in optional

## 门禁--Entrance



## 医疗影像—Medical Imaging

### 水平方向

BD63系列电机

PG52H或WG31系列减速箱

SE25系列编码器

### Horizontal direction

BD63 series motor

PG52H or WG31 series gearbox

SE25 series encoder

### 垂直方向

BL75系列电机

SE25系列编码器

### Vertical direction

BL75 series motor

SE25 series encoder

### 驱动器

MC系列

可选择CAN-open通信

### Controller

MC series

CAN-open in optional

### X光设备

BD53系列电机

PG52或WG24系列减速箱

SE25系列编码器

### X ray device

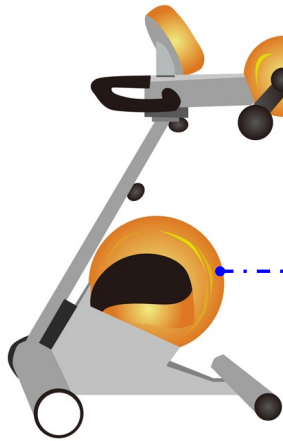
BD53 series motor

PG52 or WG24 series gearbox

SE25 series encoder



## 医疗器械--Medical Instrument

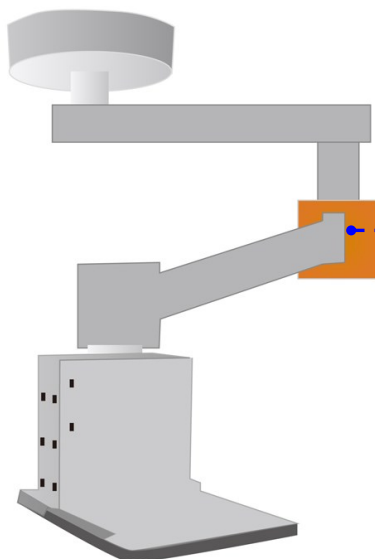
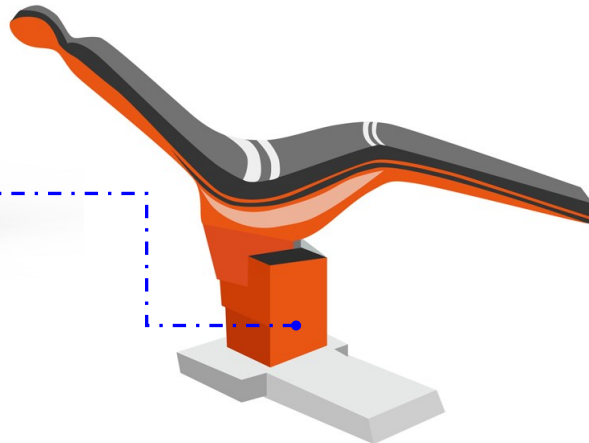
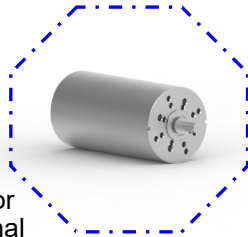


### 康复器械

BD63系列电机  
WG31系列减速箱  
SE25系列编码器  
**Therapeutic instrument**  
BD63 series motor  
WG31 series gearbox  
SE25 series encoder

### 手术床

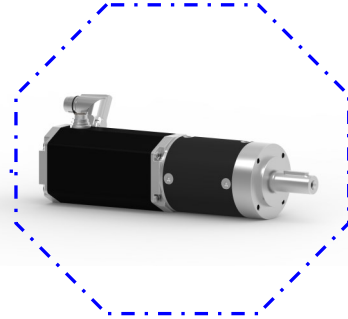
BD63 系列电机  
可选装减速箱  
**Operating table**  
BD63 series motor  
Gearbox in optional



### 吊塔

BD63系列电机  
PG52或PG63系列减速箱  
**Ceiling pendent**  
BD series motor  
PG52 or PG63 series gearbox

## 自动化—Automation



### 自动搬运车

BL65或BL75系列电机

PG63M或PG75M系列减速箱

可选装控制器

### AGV

BL65 or BL75 series motor

PG63M or PG75M series gearbox

Controller in optional



### 太阳能跟踪装置

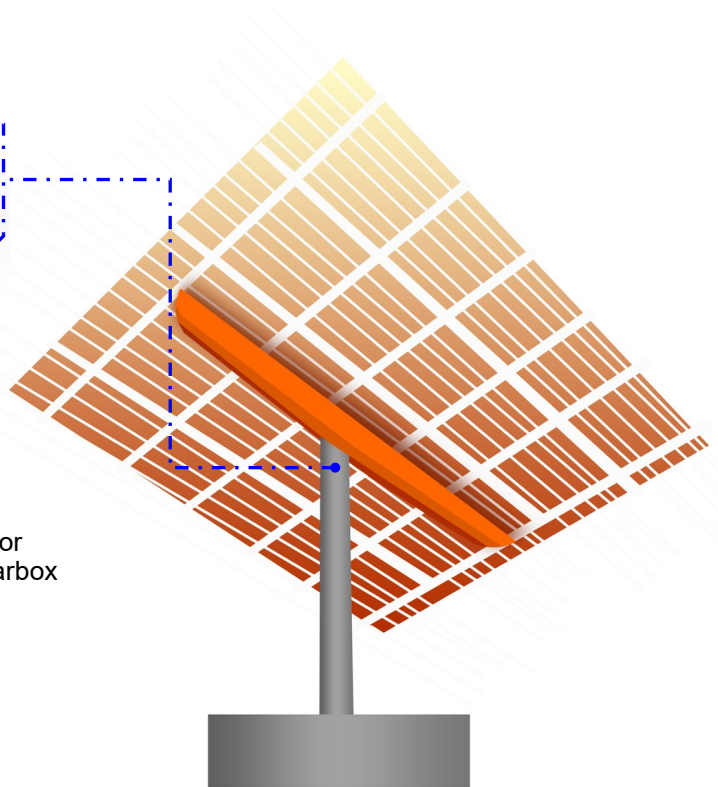
BD42或BL55系列电机

PG52或PG63系列减速箱

### Solar tracker

BD42 or BL55 series motor

PG52 or PG63 series gearbox



## 客户化定制--Customization

**标准产品**

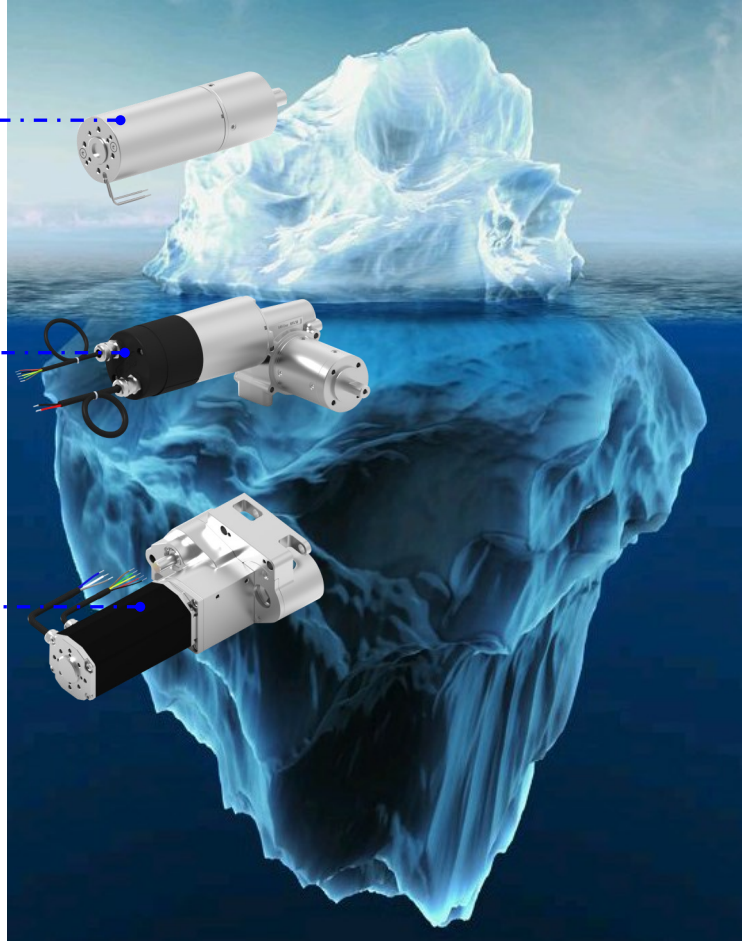
模组或整机  
**Standard products**  
Module or assembly

**普通定制**

特殊的轴、法兰或者模组  
**General customization**  
Special shaft, flange or module

**完全定制**

全新的产品开发  
**Completely customization**  
Totally new products development



### 部分使用定制方案的客户

Part clients with customized solutions



## 有刷电机--BD32-25, 6W

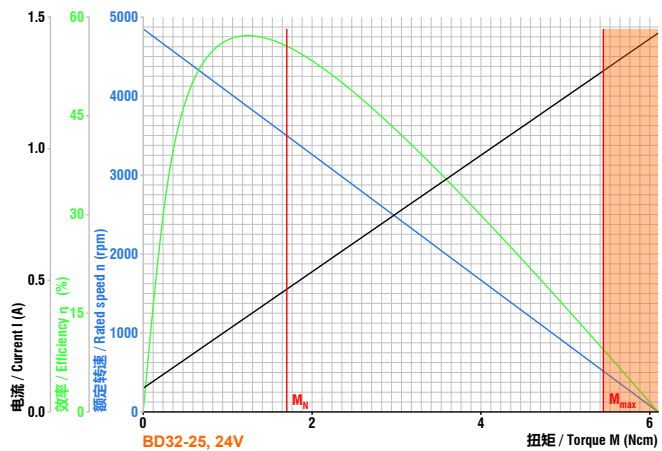


- 适配行星减速箱--Planetary gearbox available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

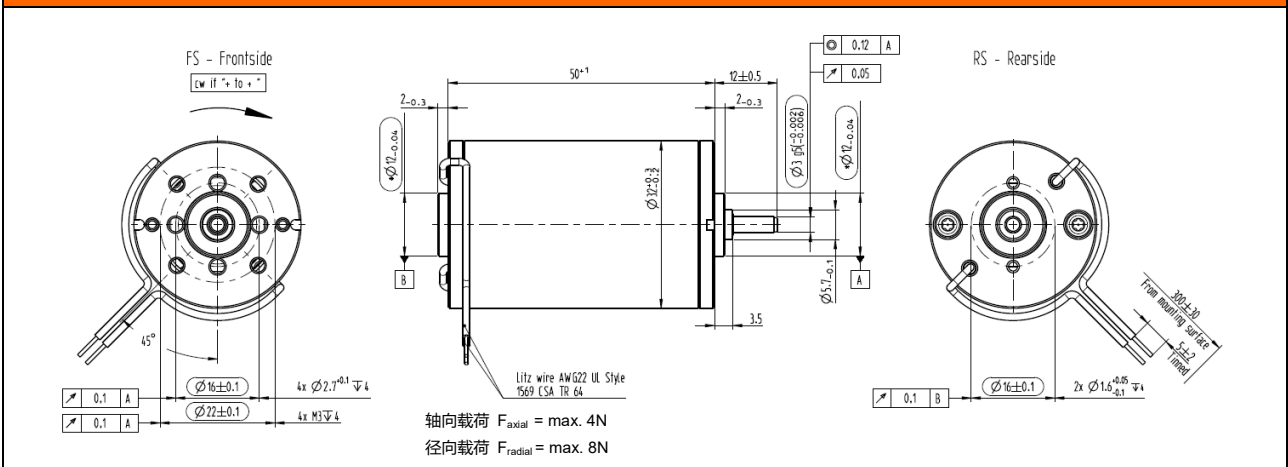
- ▶ 额定功率6瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 使用滑动轴承，可根据要求使用滚珠轴承
- ▶ 防护等级为IP50，可根据需求提供更高的等级
- ▶ 长寿命，免维护，绝缘等级E
- ▶ Brush type DC motor in nominal power 6W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ With sliding bearing, ball bearing available
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 4.52 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 0.45 A   | 终端电阻<br>Terminal resistance | 17.1 Ω                   |
| 额定转矩<br>Nominal torque  | 1.7 Ncm  | 终端电感<br>Terminal inductance | 15.4 mH                  |
| 额定转速<br>Nominal speed   | 3400 rpm | 空载电流<br>No load current     | 0.09 A                   |
| 堵转转矩<br>Stall torque    | 6.1 Ncm  | 转子惯量<br>Rotor inertial      | 18.5 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 4800 rpm | 电机重量<br>Weight of motor     | 0.11 kg                  |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD32-50, 10W

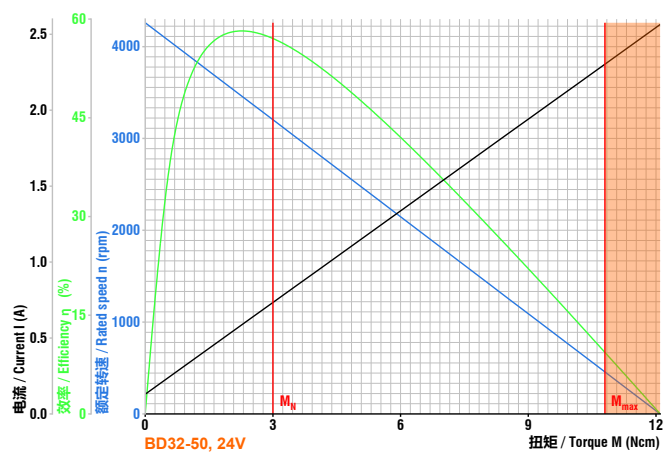


- 适配行星减速箱--Planetary gearbox available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

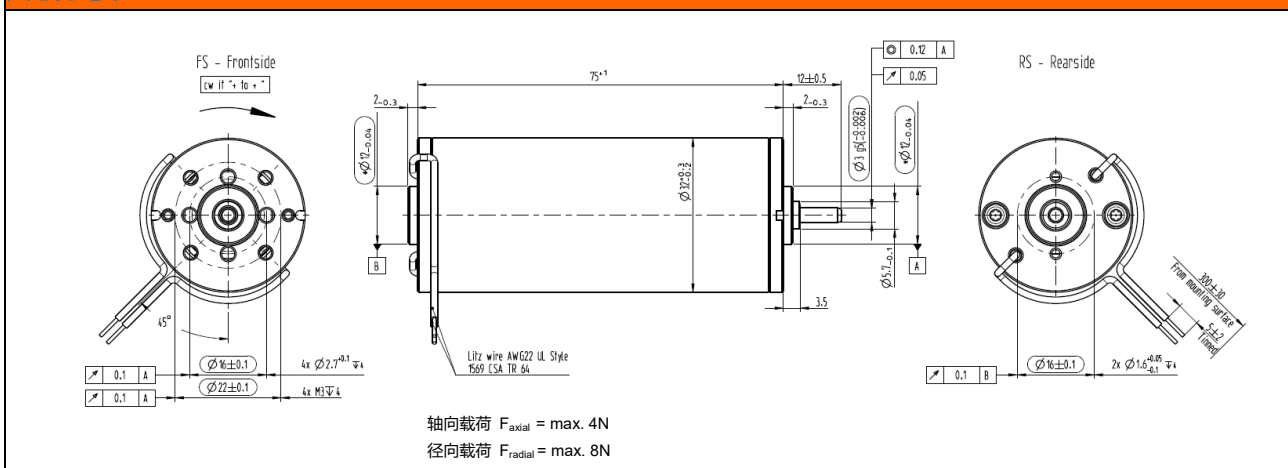
- ▶ 额定功率10瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 使用滑动轴承，可根据要求使用滚珠轴承
- ▶ 防护等级为IP50，可根据需求提供更高的等级
- ▶ 长寿命，免维护，绝缘等级E
- ▶ Brush type DC motor in nominal power 10W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ With sliding bearing, ball bearing available
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

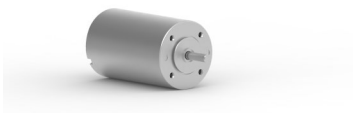
|                         |          |                             |                       |
|-------------------------|----------|-----------------------------|-----------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 5 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 0.7 A    | 终端电阻<br>Terminal resistance | 9.4 Ω                 |
| 额定转矩<br>Nominal torque  | 3 Ncm    | 终端电感<br>Terminal inductance | 8.5 mH                |
| 额定转速<br>Nominal speed   | 3000 rpm | 空载电流<br>No load current     | 0.13 A                |
| 堵转转矩<br>Stall torque    | 12 Ncm   | 转子惯量<br>Rotor inertial      | 42.2 gcm <sup>2</sup> |
| 空载转速<br>No load speed   | 4250 rpm | 电机重量<br>Weight of motor     | 0.25 kg               |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD42-25, 15W

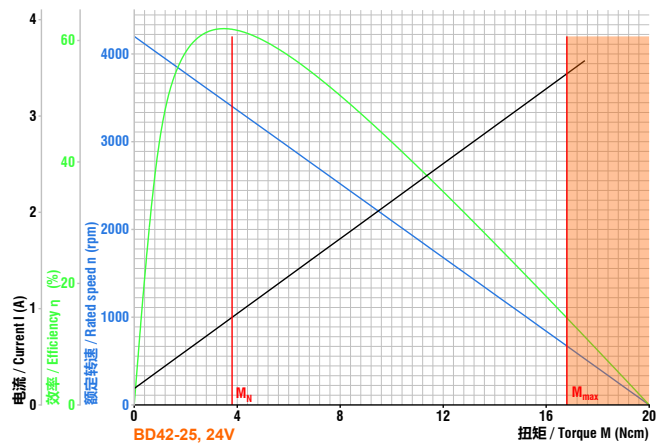


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

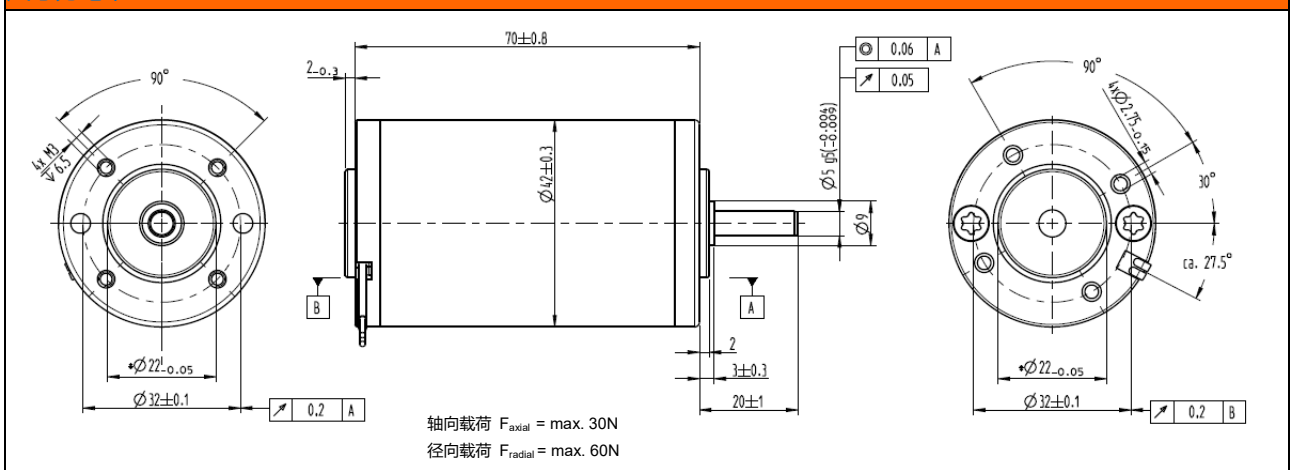
- ▶ 额定功率15瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 15W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 5.14 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 0.9 A    | 终端电阻<br>Terminal resistance | 6 Ω                      |
| 额定转矩<br>Nominal torque  | 3.8 Ncm  | 终端电感<br>Terminal inductance | 8.9 mH                   |
| 额定转速<br>Nominal speed   | 3600 rpm | 空载电流<br>No load current     | 0.17 A                   |
| 堵转扭矩<br>Stall torque    | 20 Ncm   | 转子惯量<br>Rotor inertial      | 71 gcm <sup>2</sup>      |
| 空载转速<br>No load speed   | 4200 rpm | 电机重量<br>Weight of motor     | 0.39 kg                  |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD42-40, 20W

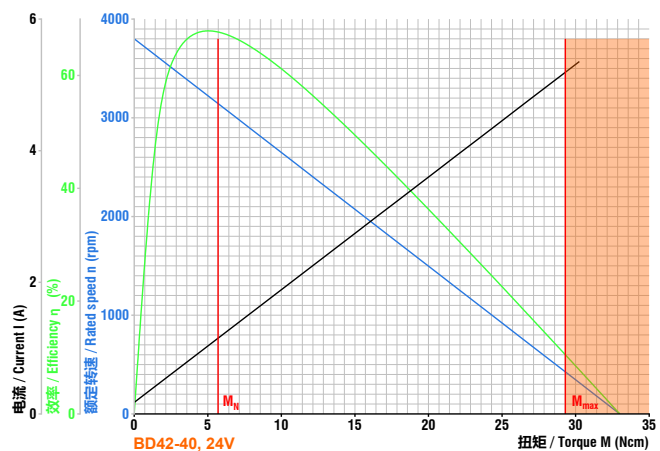


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

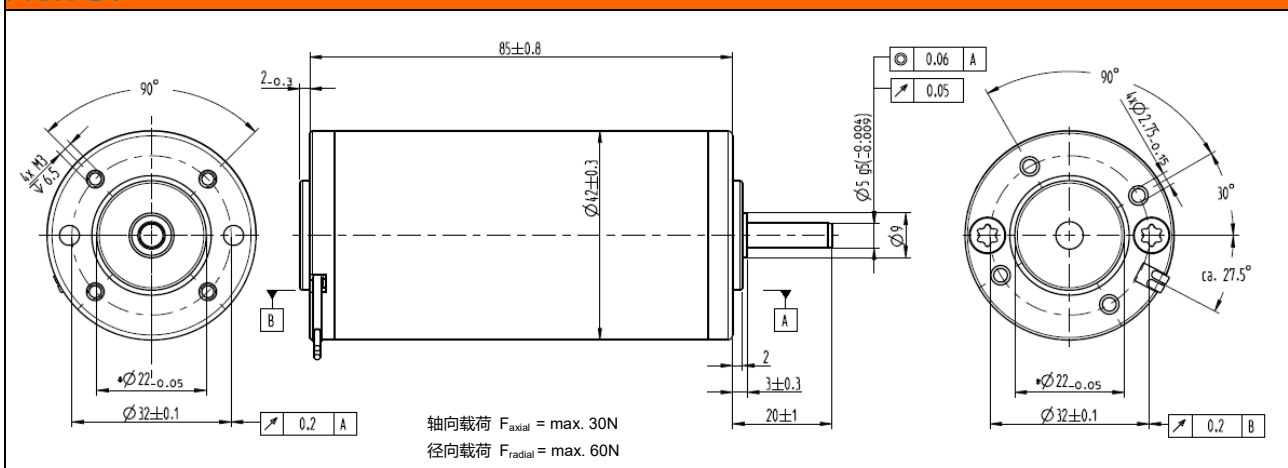
- ▶ 额定功率20瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 20W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

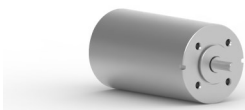
|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 5.84 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 1.2 A    | 终端电阻<br>Terminal resistance | 4.2 Ω                    |
| 额定转矩<br>Nominal torque  | 5.7 Ncm  | 终端电感<br>Terminal inductance | 5.1 mH                   |
| 额定转速<br>Nominal speed   | 3100 rpm | 空载电流<br>No load current     | 0.18 A                   |
| 堵转扭矩<br>Stall torque    | 33 Ncm   | 转子惯量<br>Rotor inertial      | 110 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 3800 rpm | 电机重量<br>Weight of motor     | 0.49 kg                  |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD53-30, 40W

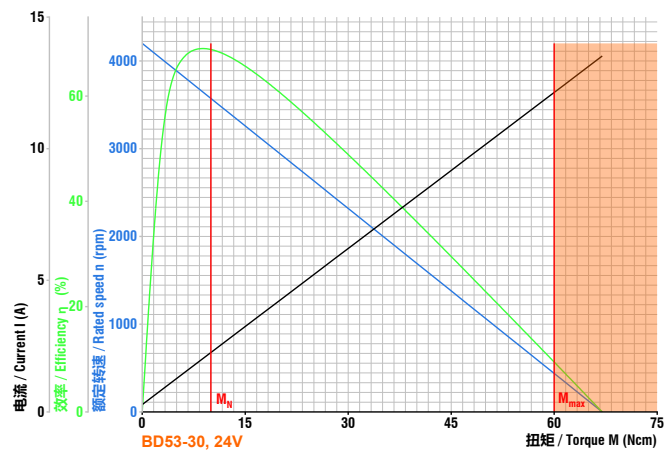


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

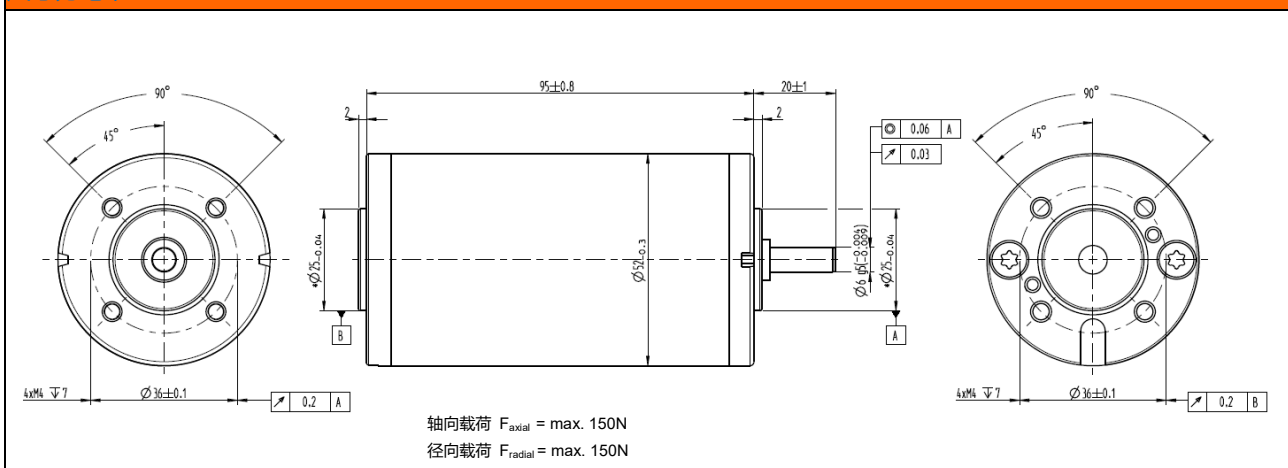
- ▶ 额定功率40瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 40W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 5.06 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 2.3 A    | 终端电阻<br>Terminal resistance | 1.77 Ω                   |
| 额定转矩<br>Nominal torque  | 10 Ncm   | 终端电感<br>Terminal inductance | 3.6 mH                   |
| 额定转速<br>Nominal speed   | 3600 rpm | 空载电流<br>No load current     | 0.28 A                   |
| 堵转转矩<br>Stall torque    | 67 Ncm   | 转子惯量<br>Rotor inertial      | 230 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 4200 rpm | 电机重量<br>Weight of motor     | 0.85 kg                  |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD53-60, 60W

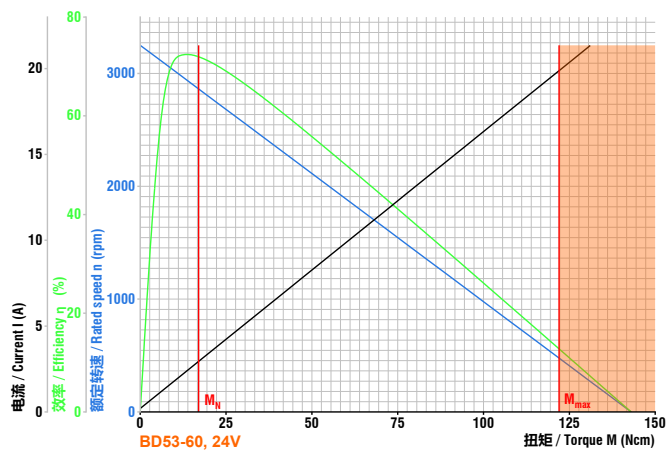


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

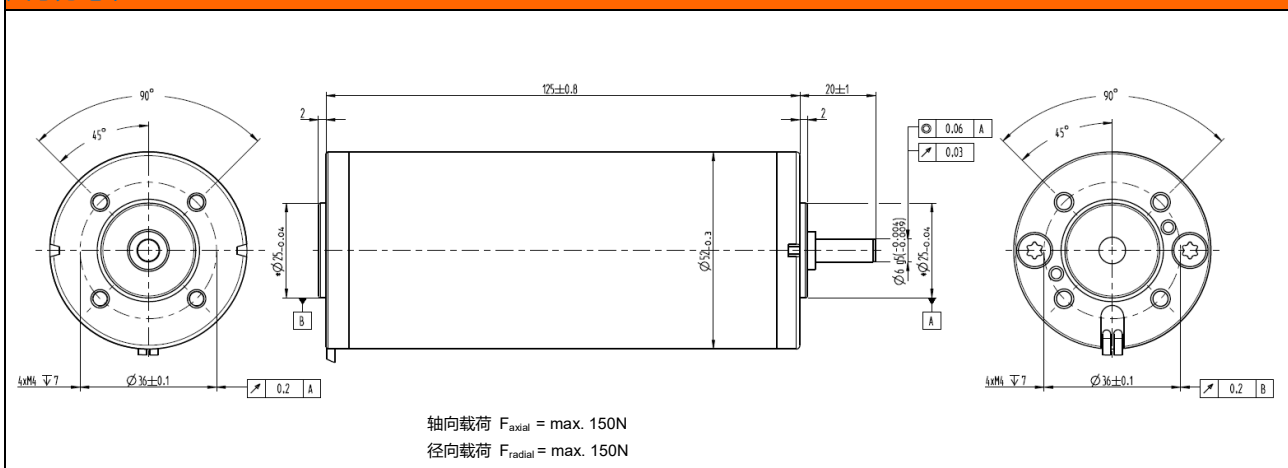
- ▶ 额定功率60瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 60W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                         |
|-------------------------|----------|-----------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 6.2 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 2.9 A    | 终端电阻<br>Terminal resistance | 1.05 Ω                  |
| 额定转矩<br>Nominal torque  | 17 Ncm   | 终端电感<br>Terminal inductance | 4.7 mH                  |
| 额定转速<br>Nominal speed   | 3000 rpm | 空载电流<br>No load current     | 0.2 A                   |
| 堵转转矩<br>Stall torque    | 143 Ncm  | 转子惯量<br>Rotor inertial      | 460 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 3250 rpm | 电机重量<br>Weight of motor     | 1.16 kg                 |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD63-25, 50W

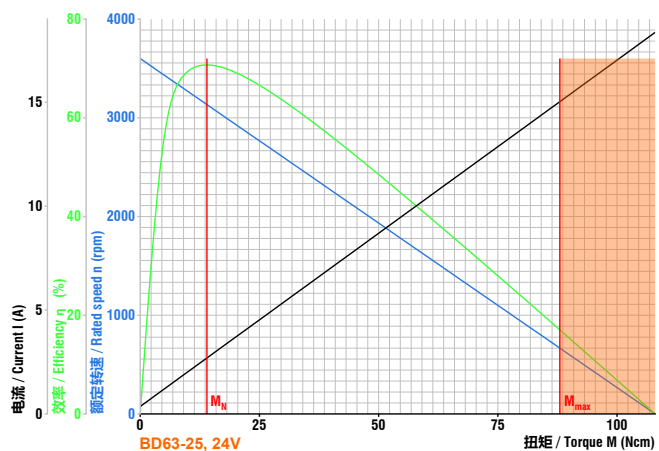


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

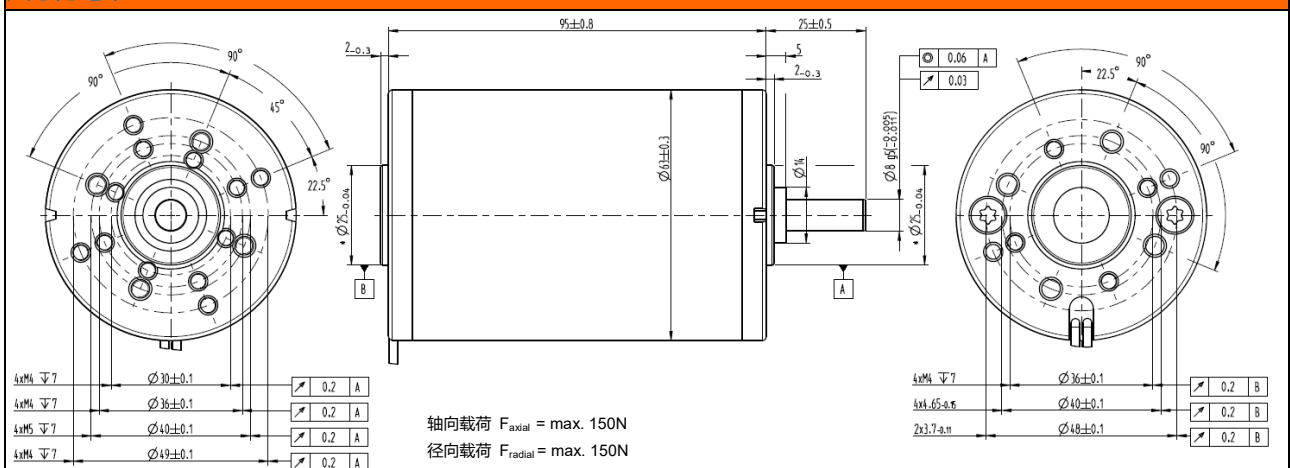
- ▶ 额定功率50瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 50W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                       |
|-------------------------|----------|-----------------------------|-----------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 6 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 2.7 A    | 终端电阻<br>Terminal resistance | 1.33 Ω                |
| 额定转矩<br>Nominal torque  | 14 Ncm   | 终端电感<br>Terminal inductance | 2.9 mH                |
| 额定转速<br>Nominal speed   | 3300 rpm | 空载电流<br>No load current     | 0.36 A                |
| 堵转转矩<br>Stall torque    | 108 Ncm  | 转子惯量<br>Rotor inertial      | 400 gcm <sup>2</sup>  |
| 空载转速<br>No load speed   | 3600 rpm | 电机重量<br>Weight of motor     | 1.2 kg                |



### 尺寸为毫米--Dimensions in mm



## 有刷电机--BD63-55(S), 100W(130W)

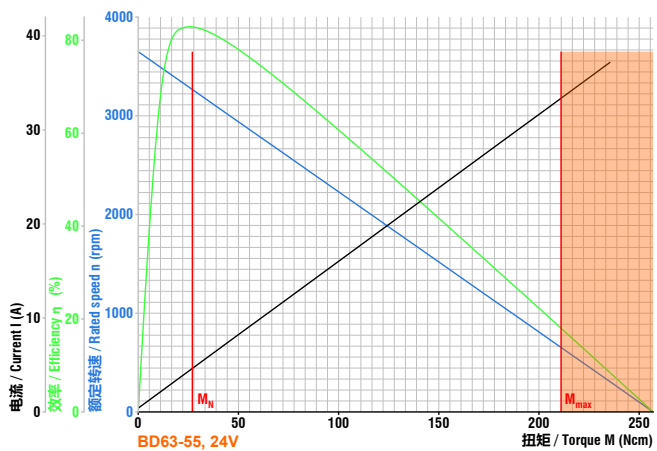


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

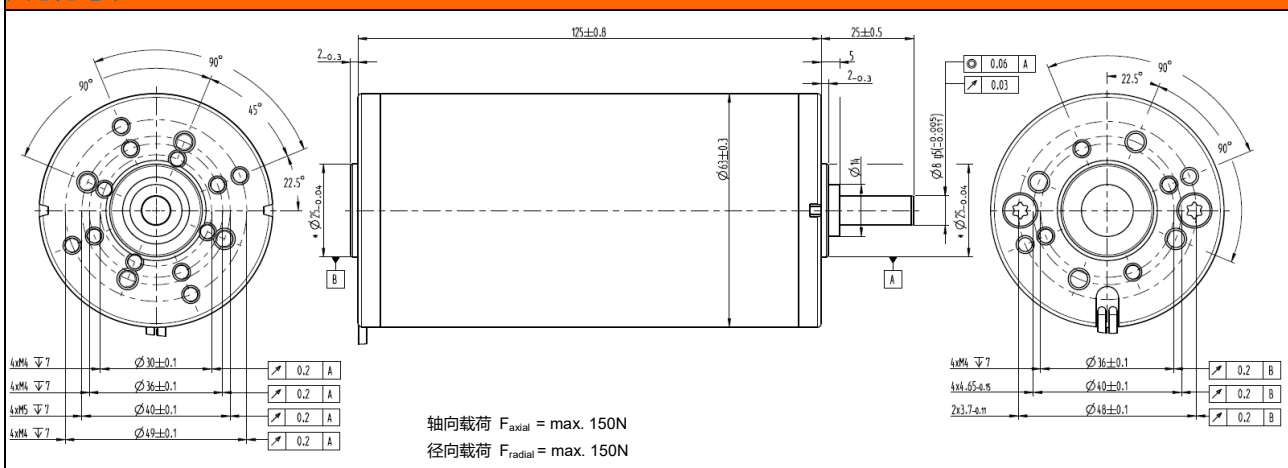
- ▶ 额定功率100瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 可提供输出功率130瓦的S版本
- ▶ Brush type DC motor in nominal power 100W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E
- ▶ Version S output power 130W

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                         |
|-------------------------|----------|-----------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 6.4 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 4.9 A    | 终端电阻<br>Terminal resistance | 0.6 Ω                   |
| 额定转矩<br>Nominal torque  | 27 Ncm   | 终端电感<br>Terminal inductance | 1.5 mH                  |
| 额定转速<br>Nominal speed   | 3350 rpm | 空载电流<br>No load current     | 0.4 A                   |
| 堵转转矩<br>Stall torque    | 211 Ncm  | 转子惯量<br>Rotor inertial      | 750 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 3650 rpm | 电机重量<br>Weight of motor     | 1.7 kg                  |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD80-40, 120W

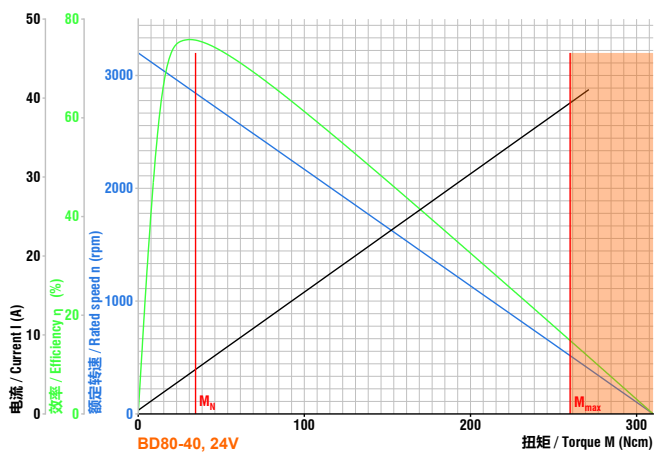


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

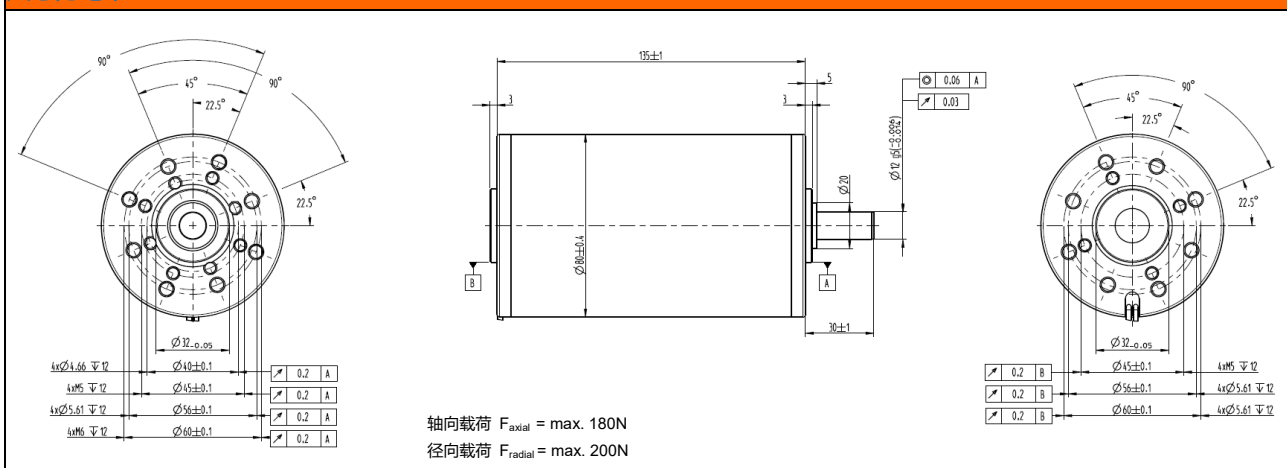
- ▶ 额定功率120瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 120W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant     | 6.68 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 5.8 A    | 终端电阻<br>Terminal resistance | 0.52 Ω                   |
| 额定转矩<br>Nominal torque  | 35 Ncm   | 终端电感<br>Terminal inductance | 2.6 mH                   |
| 额定转速<br>Nominal speed   | 2900 rpm | 空载电流<br>No load current     | 0.46 A                   |
| 堵转转矩<br>Stall torque    | 310 Ncm  | 转子惯量<br>Rotor inertial      | 1800 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 3200 rpm | 电机重量<br>Weight of motor     | 2.8 kg                   |



### 尺寸为毫米-Dimensions in mm



## 有刷电机--BD80-80, 240W

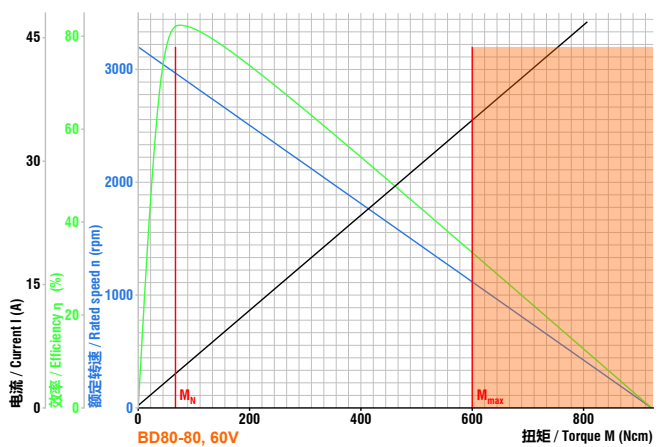


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

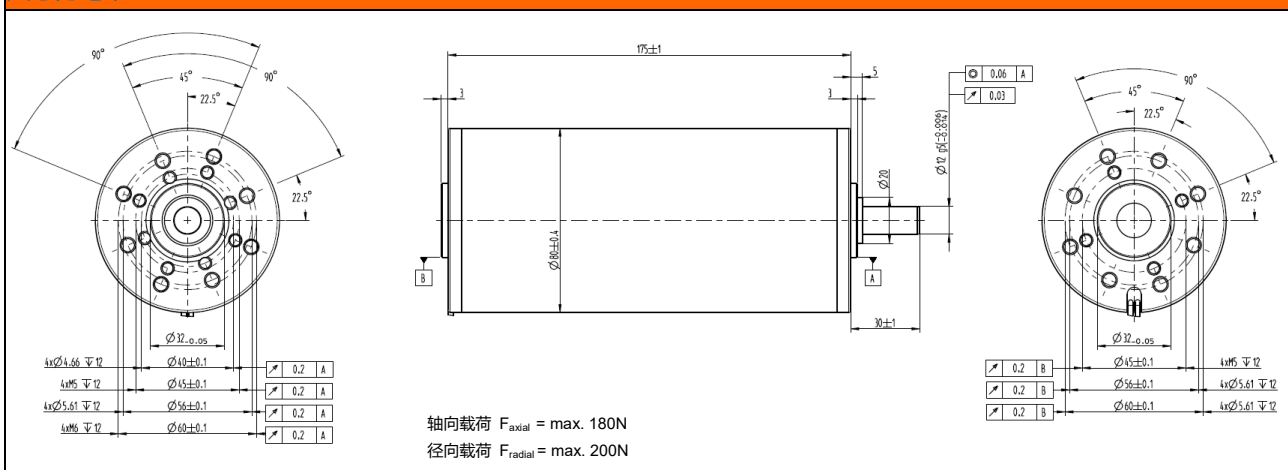
- ▶ 额定功率240瓦有刷直流电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 电机轴使用滚珠轴承
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ Brush type DC motor in nominal power 240W
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ Motor shaft with ball bearing
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 60V数据和曲线--Data and curve of 60V

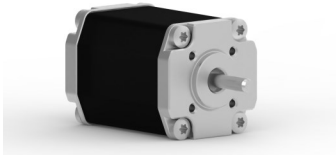
|                         |          |                             |                          |
|-------------------------|----------|-----------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 60 VDC   | 转矩常数<br>Torque constant     | 17.3 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 4.2 A    | 终端电阻<br>Terminal resistance | 1 Ω                      |
| 额定转矩<br>Nominal torque  | 63 Ncm   | 终端电感<br>Terminal inductance | 6.9 mH                   |
| 额定转速<br>Nominal speed   | 3000 rpm | 空载电流<br>No load current     | 0.27 A                   |
| 堵转转矩<br>Stall torque    | 623 Ncm  | 转子惯量<br>Rotor inertial      | 3600 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 3100 rpm | 电机重量<br>Weight of motor     | 4 kg                     |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL25-10, 10W

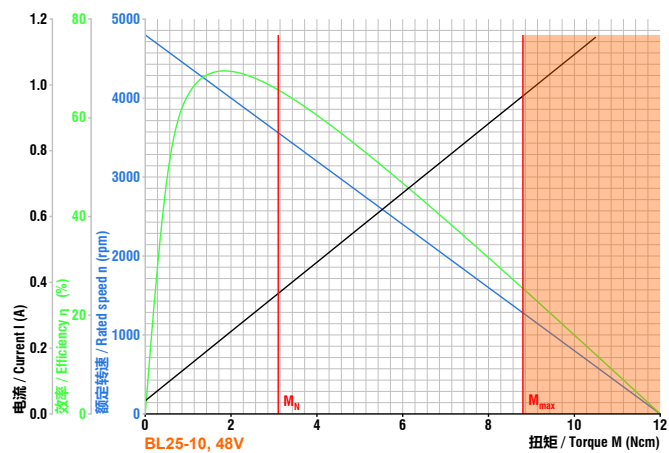


- 适配行星减速箱--Planetary gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

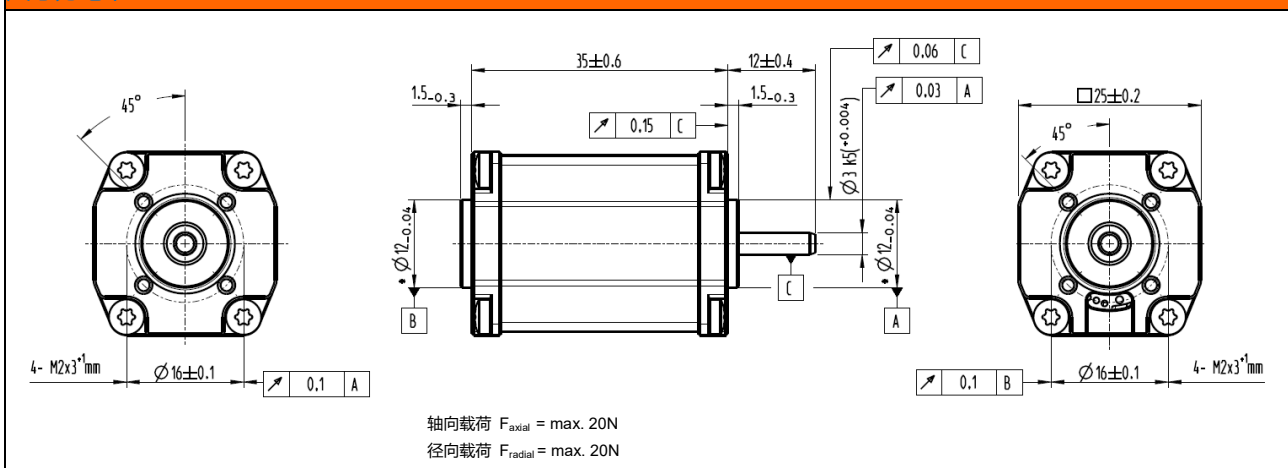
- ▶ 10瓦, 6极高动态响应三相无刷直流电机
- ▶ 需要额外的驱动器来运行电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 较高的功率密度和紧凑结构设计
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 10W high dynamic 3-phase brushless DC motor 6-poles
- ▶ Additional electronics is needed to run this motor
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ High power density and compact design.
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 48V数据和曲线--Data and curve of 48V

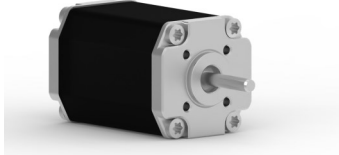
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 48 VDC   | 转矩常数<br>Torque constant      | 9.5 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 0.35 A   | 终端电阻<br>Terminal resistance  | 33.4 Ω                  |
| 额定转矩<br>Nominal torque  | 3.1 Ncm  | 终端电感<br>Terminal inductance  | 10 mH                   |
| 额定转速<br>Nominal speed   | 3600 rpm | 峰值电流<br>Peak current(2 sec.) | 1.1 A                   |
| 堵转转矩<br>Stall torque    | 12 Ncm   | 转子惯量<br>Rotor inertial       | 0.8 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 4800 rpm | 电机重量<br>Weight of motor      | 0.07 kg                 |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL35-10, 10W

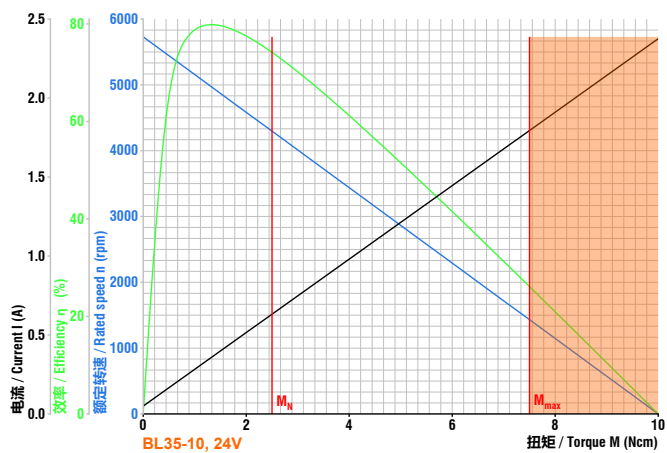


- 适配行星减速箱--Planetary gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

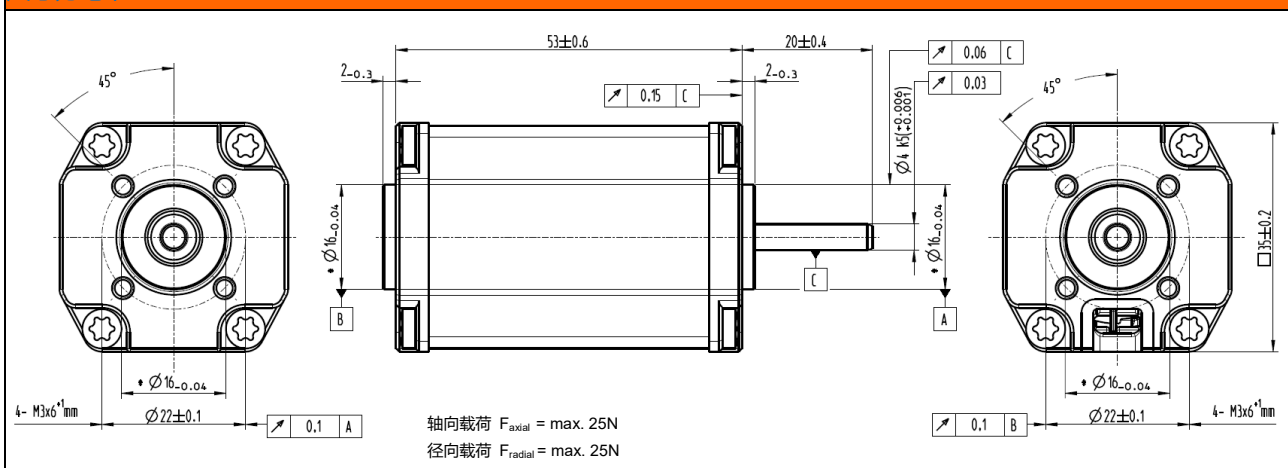
- ▶ 10瓦, 8极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 10W high dynamic 3-phase brushless DC motor 8-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage windings available on request
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

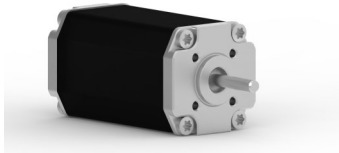
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 4.3 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 0.8 A    | 终端电阻<br>Terminal resistance  | 7 Ω                     |
| 额定转矩<br>Nominal torque  | 2.5 Ncm  | 终端电感<br>Terminal inductance  | 3.1 mH                  |
| 额定转速<br>Nominal speed   | 3870 rpm | 峰值电流<br>Peak current(2 sec.) | 4 A                     |
| 堵转扭矩<br>Stall torque    | 10 Ncm   | 转子惯量<br>Rotor inertial       | 5.9 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 5730 rpm | 电机重量<br>Weight of motor      | 0.15 kg                 |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL35-20, 20W

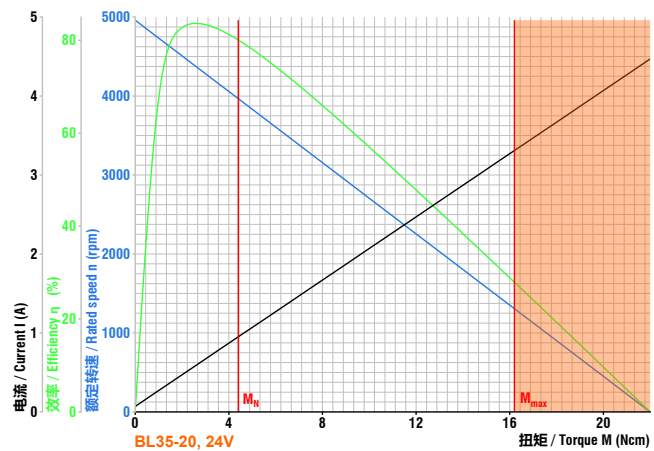


- 适配行星减速箱--Planetary gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

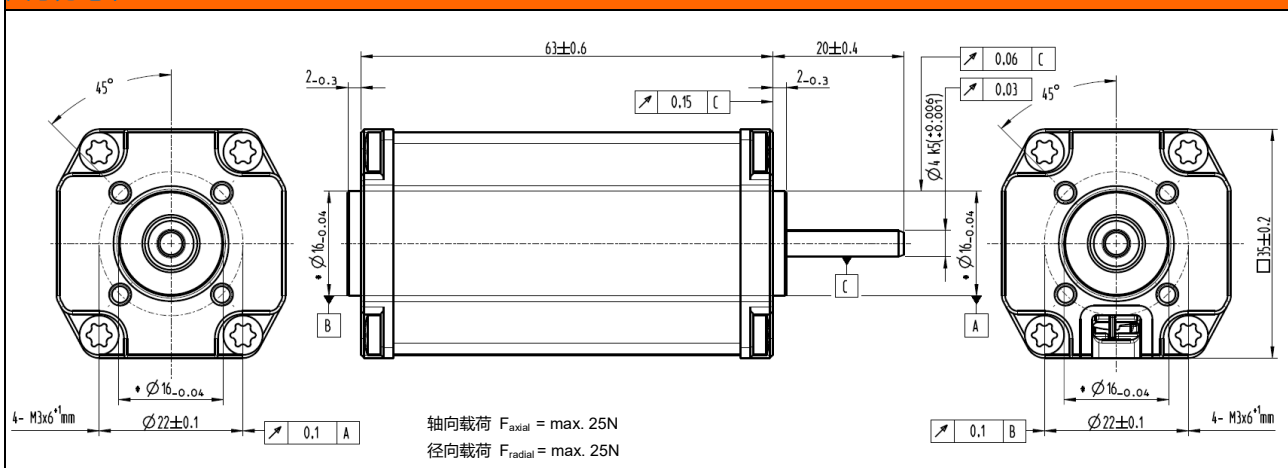
- ▶ 20瓦, 8极高动态响应三相无刷直流电机
- ▶ 需要额外的驱动器来运行电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 较高的功率密度和紧凑结构设计
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 20W high dynamic 3-phase brushless DC motor 8-poles
- ▶ Additional electronics is needed to run this motor
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ High power density and compact design.
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

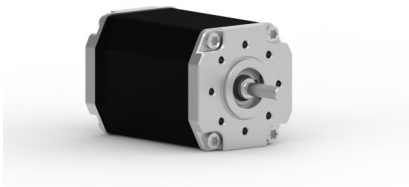
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 4.1 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 1.13 A   | 终端电阻<br>Terminal resistance  | 3.82 Ω                  |
| 额定转矩<br>Nominal torque  | 4.4 Ncm  | 终端电感<br>Terminal inductance  | 1.8 mH                  |
| 额定转速<br>Nominal speed   | 3600 rpm | 峰值电流<br>Peak current(2 sec.) | 7.5 A                   |
| 堵转转矩<br>Stall torque    | 22 Ncm   | 转子惯量<br>Rotor inertial       | 10.2 gcm <sup>2</sup>   |
| 空载转速<br>No load speed   | 4960 rpm | 电机重量<br>Weight of motor      | 0.2 kg                  |



### 尺寸为毫米--Dimensions in mm



## 无刷电机--BL45-15, 40W

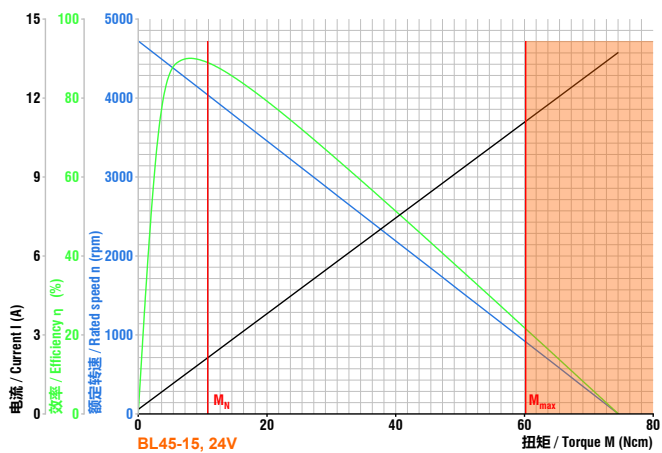


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

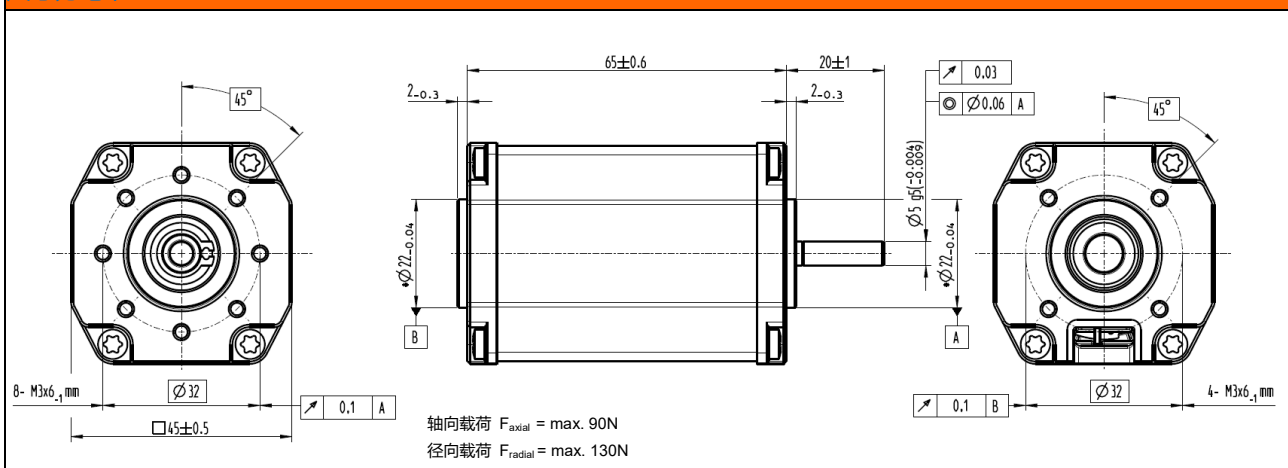
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>▶ 40瓦, 8极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 40W high dynamic 3-phase brushless DC motor 8-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|--|---|

### 24V数据和曲线--Data and curve of 24V

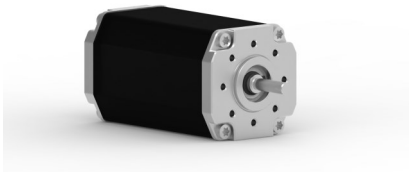
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 5.5 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 2.24 A   | 终端电阻<br>Terminal resistance  | 1.07 Ω                  |
| 额定转矩<br>Nominal torque  | 10.8 Ncm | 终端电感<br>Terminal inductance  | 0.75 mH                 |
| 额定转速<br>Nominal speed   | 3630 rpm | 峰值电流<br>Peak current(2 sec.) | 15 A                    |
| 堵转扭矩<br>Stall torque    | 74 Ncm   | 转子惯量<br>Rotor inertial       | 24 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 4723 rpm | 电机重量<br>Weight of motor      | 0.36 kg                 |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL45-30, 60W

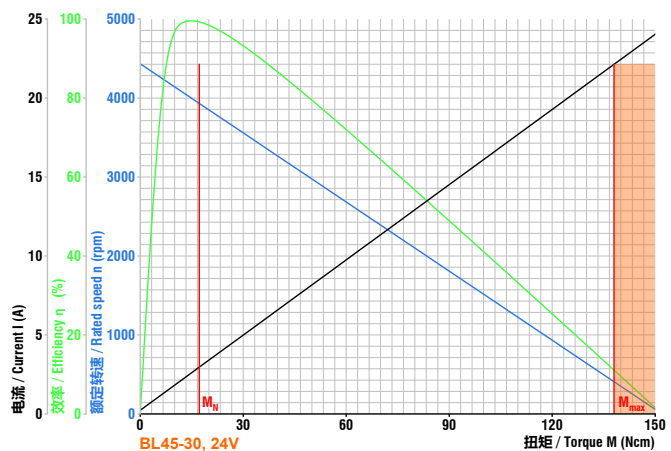


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

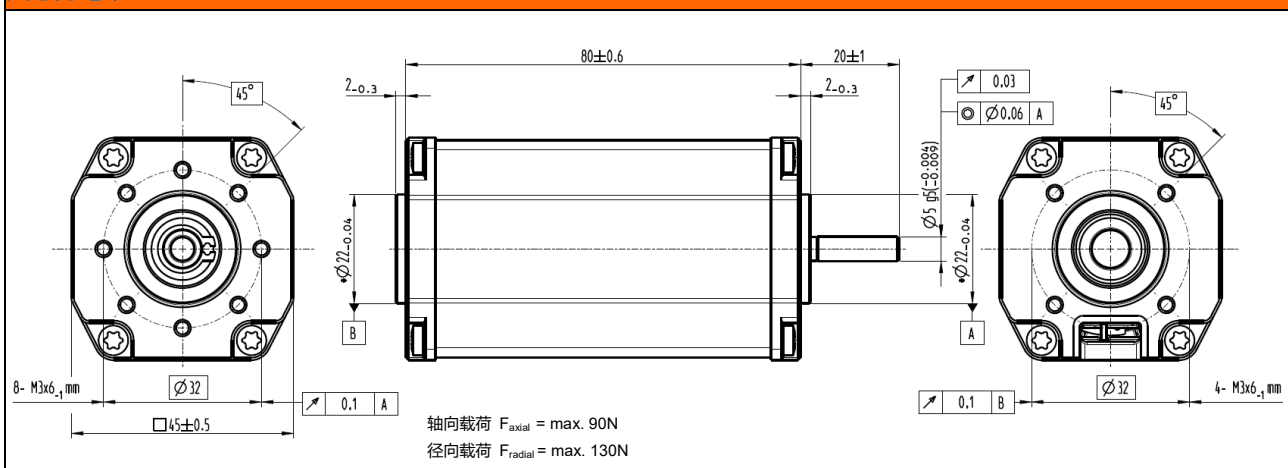
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>▶ 60瓦, 8极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 60W high dynamic 3-phase brushless DC motor 8-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|--|---|

### 24V数据和曲线--Data and curve of 24V

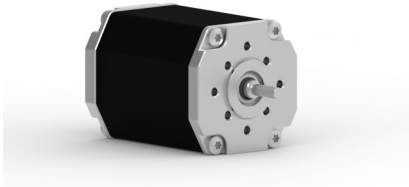
|   |   |   |   |
|---|---|---|---|
| <p>额定电压<br/>Nominal voltage</p> <p>额定电流<br/>Nominal current</p> <p>额定转矩<br/>Nominal torque</p> <p>额定转速<br/>Nominal speed</p> <p>堵转扭矩<br/>Stall torque</p> <p>空载转速<br/>No load speed</p> | <p>24 VDC</p> <p>3.3 A</p> <p>17.2 Ncm</p> <p>3580 rpm</p> <p>152 Ncm</p> <p>4434 rpm</p> | <p>转矩常数<br/>Torque constant</p> <p>终端电阻<br/>Terminal resistance</p> <p>终端电感<br/>Terminal inductance</p> <p>峰值电流<br/>Peak current(2 sec.)</p> <p>转子惯量<br/>Rotor inertial</p> <p>电机重量<br/>Weight of motor</p> | <p>6.3 Ncm A<sup>-1</sup></p> <p>0.53 Ω</p> <p>0.43 mH</p> <p>26 A</p> <p>44 gcm<sup>2</sup></p> <p>0.47 kg</p> |
|---|---|---|---|



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL55-20, 50W

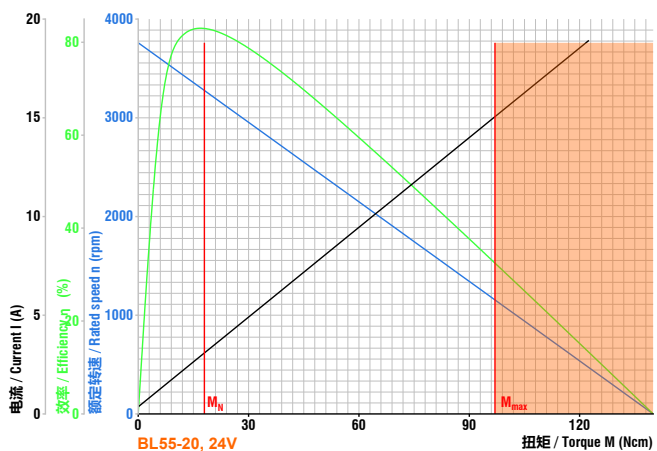


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

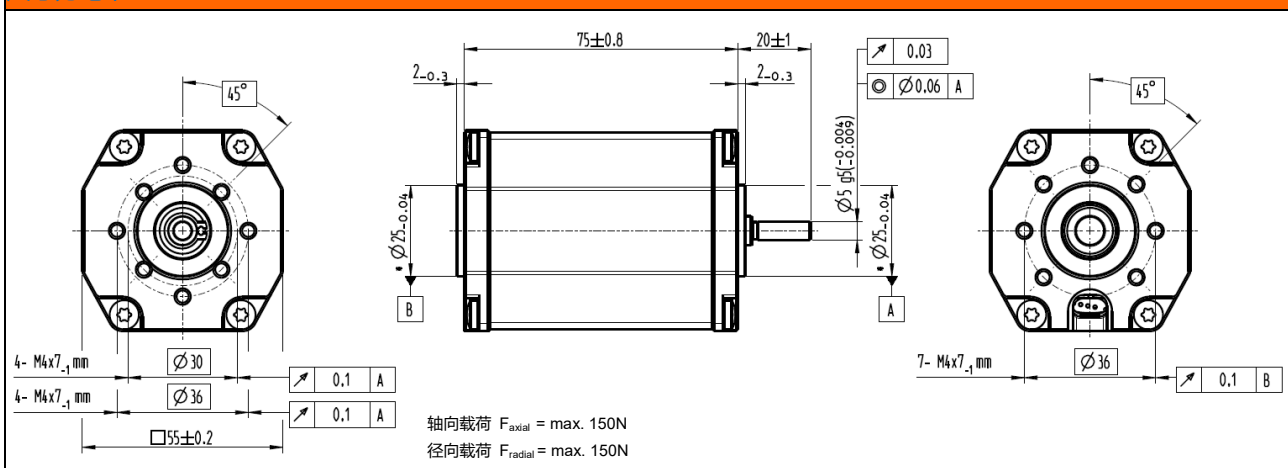
- ▶ 50瓦, 8极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 50W high dynamic 3-phase brushless DC motor 8-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage windings available on request
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

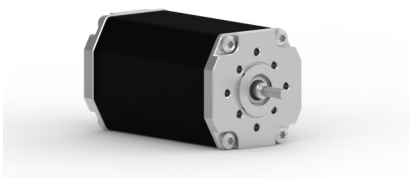
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 6.6 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 3.5 A    | 终端电阻<br>Terminal resistance  | 1.1 Ω                   |
| 额定转矩<br>Nominal torque  | 18 Ncm   | 终端电感<br>Terminal inductance  | 0.39 mH                 |
| 额定转速<br>Nominal speed   | 3250 rpm | 峰值电流<br>Peak current(2 sec.) | 15 A                    |
| 堵转扭矩<br>Stall torque    | 97 Ncm   | 转子惯量<br>Rotor inertial       | 65 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 3760 rpm | 电机重量<br>Weight of motor      | 0.7 kg                  |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL55-40, 90W

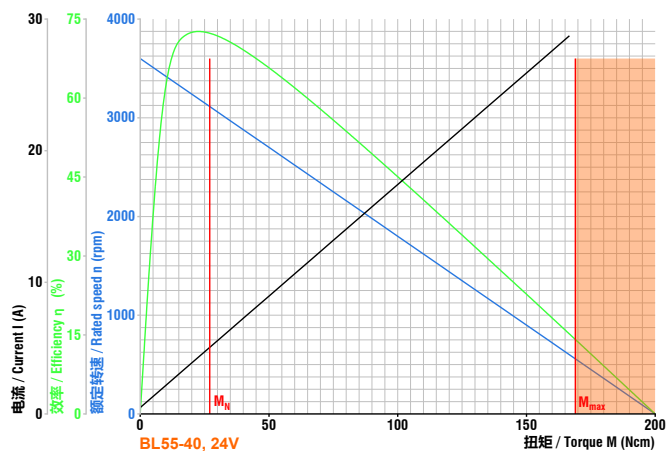


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

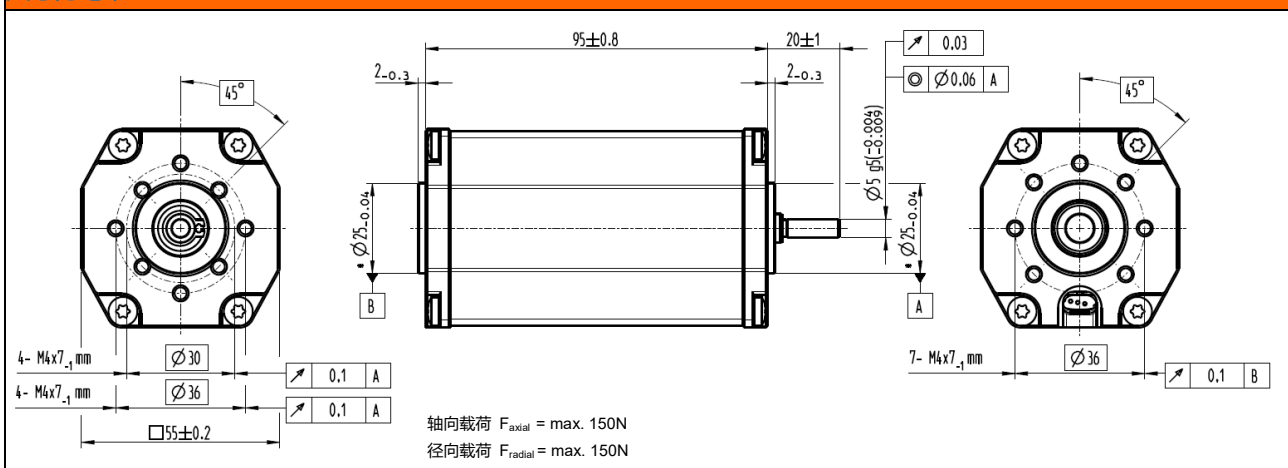
- ▶ 90瓦, 8极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 90W high dynamic 3-phase brushless DC motor 8-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage windings available on request
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

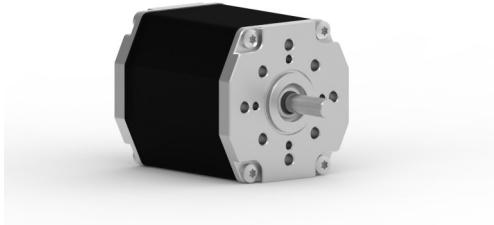
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 5.9 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 4.5 A    | 终端电阻<br>Terminal resistance  | 0.285 Ω                 |
| 额定转矩<br>Nominal torque  | 27 Ncm   | 终端电感<br>Terminal inductance  | 0.55 mH                 |
| 额定转速<br>Nominal speed   | 3050 rpm | 峰值电流<br>Peak current(2 sec.) | 29 A                    |
| 堵转转矩<br>Stall torque    | 200 Ncm  | 转子惯量<br>Rotor inertial       | 94 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 3600 rpm | 电机重量<br>Weight of motor      | 0.9 kg                  |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL65-25, 50W

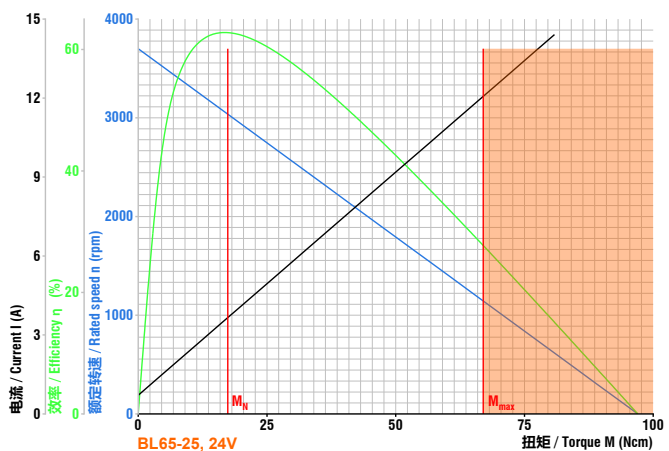


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

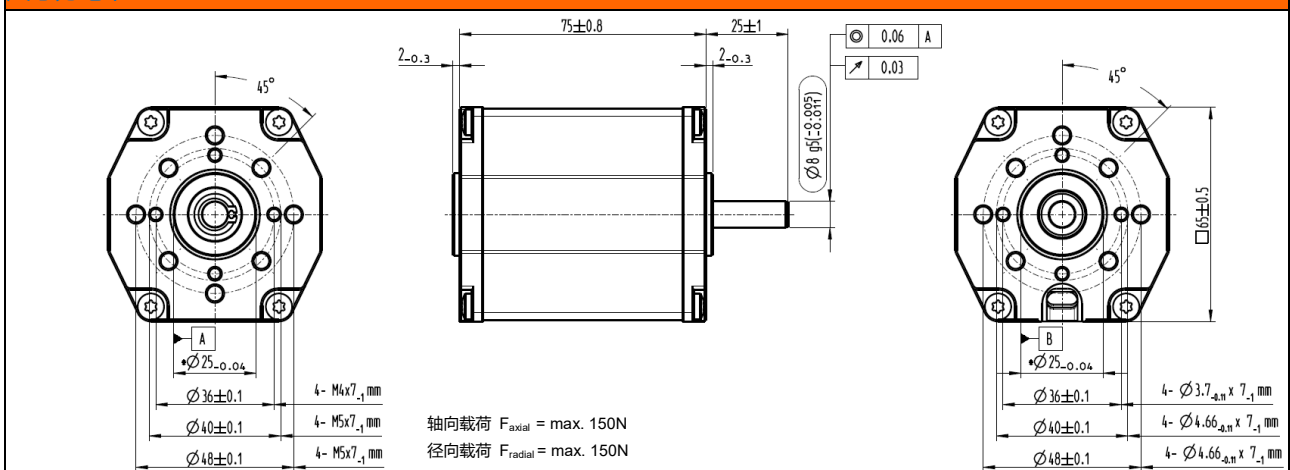
- ▶ 50瓦, 10极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 50W high dynamic 3-phase brushless DC motor 10-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage windings available on request
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

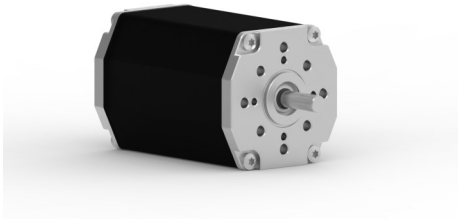
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 2.9 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 4 A      | 终端电阻<br>Terminal resistance  | 0.29 Ω                  |
| 额定转矩<br>Nominal torque  | 17.4 Ncm | 终端电感<br>Terminal inductance  | 2 mH                    |
| 额定转速<br>Nominal speed   | 3080 rpm | 峰值电流<br>Peak current(2 sec.) | 26.5 A                  |
| 堵转转矩<br>Stall torque    | 97 Ncm   | 转子惯量<br>Rotor inertial       | 72 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 5830 rpm | 电机重量<br>Weight of motor      | 0.9 kg                  |



### 尺寸为毫米--Dimensions in mm



## 无刷电机--BL65-50, 100W

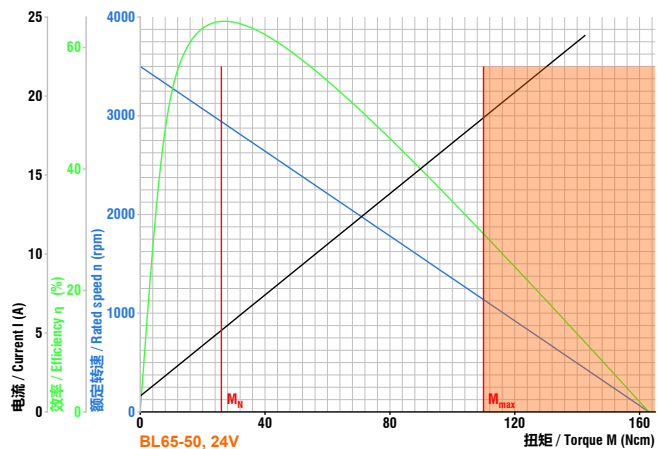


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

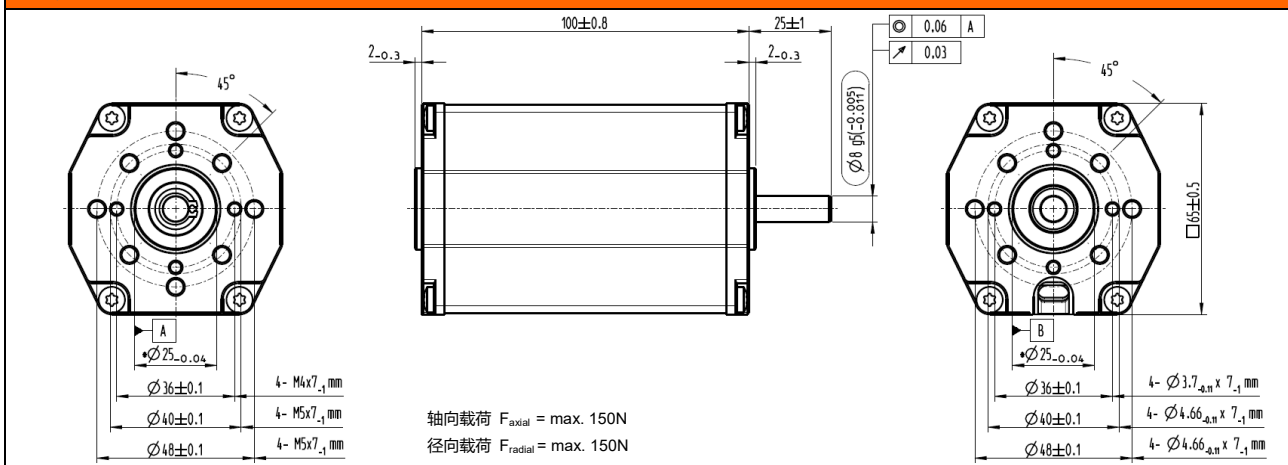
- ▶ 100瓦, 10极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 100W high dynamic 3-phase brushless DC motor 10-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage windings available on request
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 24V数据和曲线--Data and curve of 24V

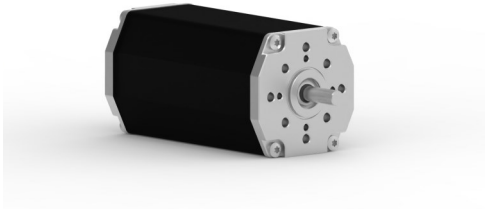
|                         |          |                              |                         |
|-------------------------|----------|------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant      | 6.2 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 5.6 A    | 终端电阻<br>Terminal resistance  | 0.18 Ω                  |
| 额定转矩<br>Nominal torque  | 26 Ncm   | 终端电感<br>Terminal inductance  | 1.43 mH                 |
| 额定转速<br>Nominal speed   | 3090 rpm | 峰值电流<br>Peak current(2 sec.) | 48 A                    |
| 堵转扭矩<br>Stall torque    | 163 Ncm  | 转子惯量<br>Rotor inertial       | 128 gcm <sup>2</sup>    |
| 空载转速<br>No load speed   | 5700 rpm | 电机重量<br>Weight of motor      | 1.3 kg                  |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL65-75, 150W

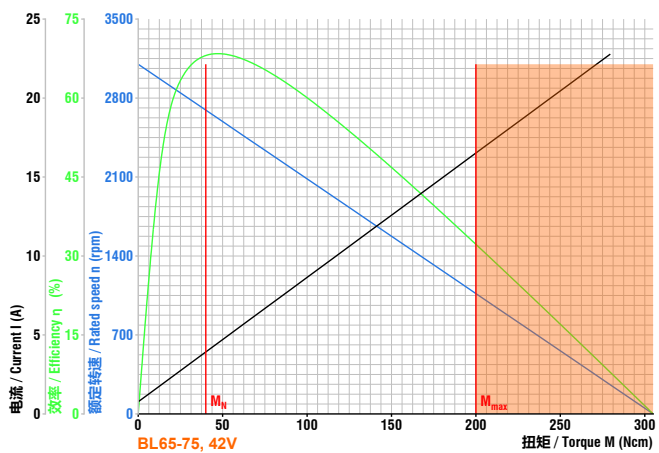


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

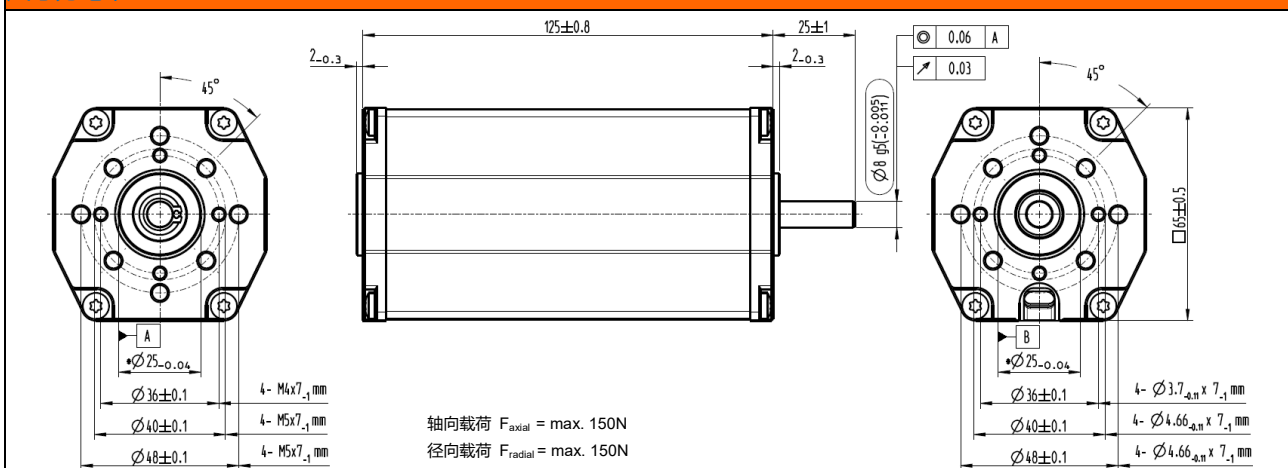
- ▶ 150瓦, 10极高动态响应三相无刷直流电机
  - ▶ 需要额外的驱动器来运行电机
  - ▶ 可根据需求定制不同电压和更大功率的绕组
  - ▶ 可根据需求提供不同尺寸的前轴和尾轴
  - ▶ 较高的功率密度和紧凑结构设计
  - ▶ 防护等级为IP50, 可根据需求提供更高的等级
  - ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 150W high dynamic 3-phase brushless DC motor 10-poles
  - ▶ Additional electronics is needed to run this motor
  - ▶ Special voltage and higher power windings available
  - ▶ Different shaft size available for both sides on request
  - ▶ High power density and compact design.
  - ▶ Protection class IP50, higher class available on request
  - ▶ Longer lifetime, maintenance-free, insulation class E

### 42V数据和曲线--Data and curve of 42V

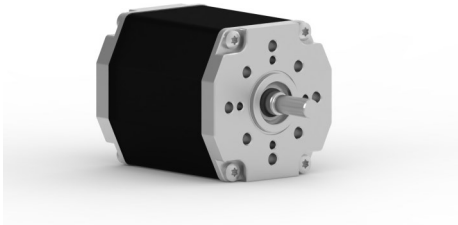
|                         |          |                              |                        |
|-------------------------|----------|------------------------------|------------------------|
| 额定电压<br>Nominal voltage | 42 VDC   | 转矩常数<br>Torque constant      | 12 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 4.5 A    | 终端电阻<br>Terminal resistance  | 0.31 Ω                 |
| 额定转矩<br>Nominal torque  | 40 Ncm   | 终端电感<br>Terminal inductance  | 3.8 mH                 |
| 额定转速<br>Nominal speed   | 2860 rpm | 峰值电流<br>Peak current(2 sec.) | 38.5 A                 |
| 堵转转矩<br>Stall torque    | 330 Ncm  | 转子惯量<br>Rotor inertial       | 172 gcm <sup>2</sup>   |
| 空载转速<br>No load speed   | 5560 rpm | 电机重量<br>Weight of motor      | 1.8 kg                 |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL65-100, 100W

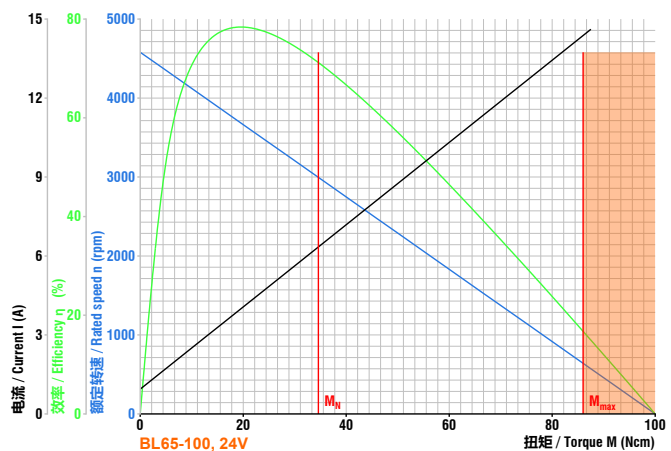


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

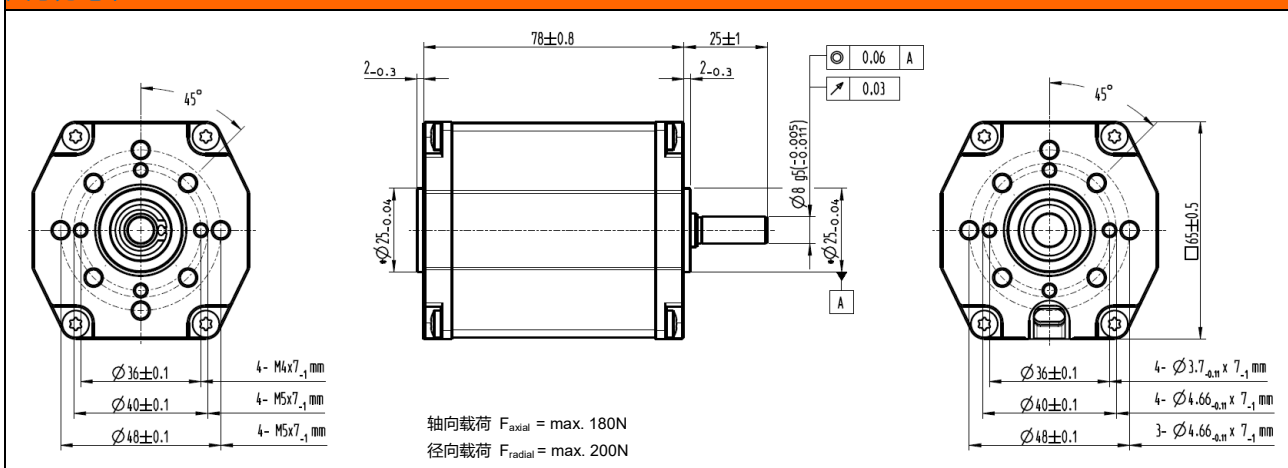
- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>▶ 100瓦, 10极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 100W high dynamic 3-phase brushless DC motor 10-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|--|---|

### 24V数据和曲线--Data and curve of 24V

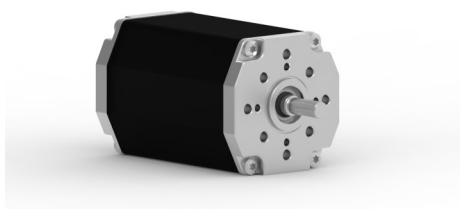
|                         |          |                                      |                         |
|-------------------------|----------|--------------------------------------|-------------------------|
| 额定电压<br>Nominal voltage | 24 VDC   | 转矩常数<br>Torque constant              | 6.4 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 6.02 A   | 终端电阻<br>Terminal resistance          | 0.192 Ω                 |
| 额定转矩<br>Nominal torque  | 34.6 Ncm | 终端电感<br>Terminal inductance          | 0.84 mH                 |
| 额定转速<br>Nominal speed   | 2980 rpm | 峰值电流(2 sec.)<br>Peak current(2 sec.) | 19 A                    |
| 堵转扭矩<br>Stall torque    | 100 Ncm  | 转子惯量<br>Rotor inertial               | 70 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 4580 rpm | 电机重量<br>Weight of motor              | 0.9 kg                  |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL65-200, 200W

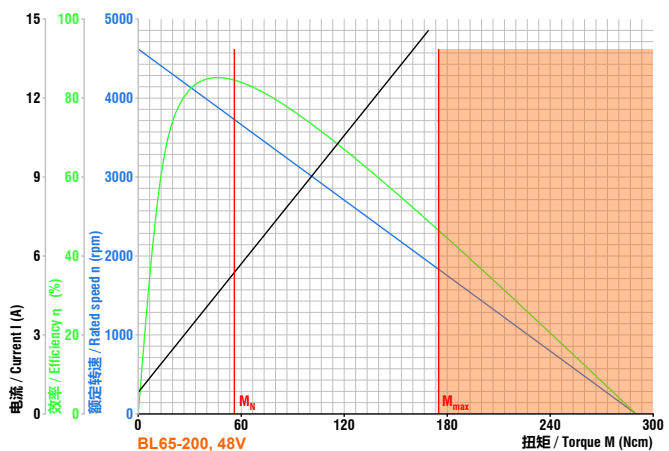


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

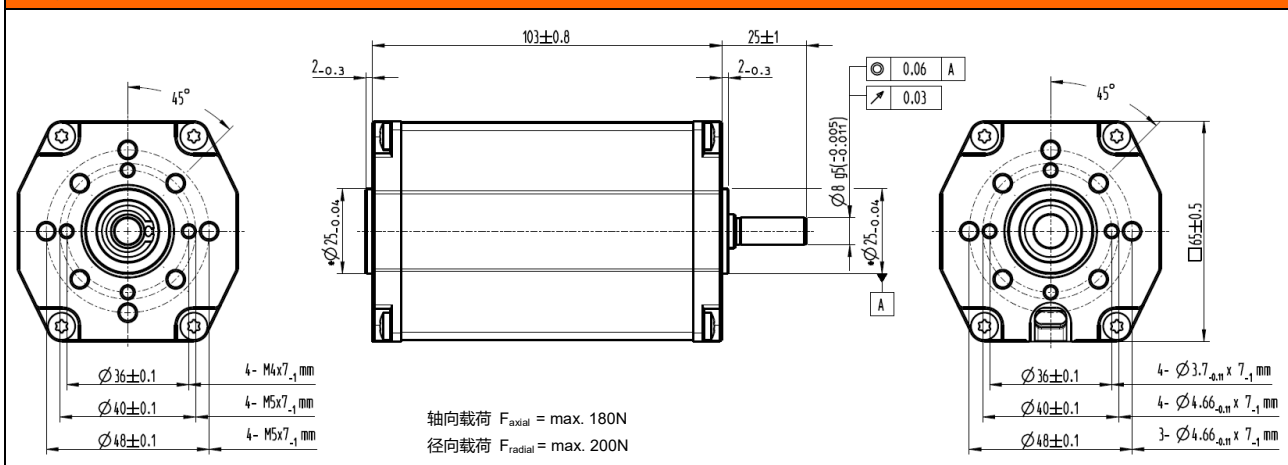
- ▼ 200瓦, 10极高动态响应三相无刷直流电机
- ▼ 需要额外的驱动器来运行电机
- ▼ 可根据需求定制不同电压的绕组
- ▼ 可根据需求提供不同尺寸的前轴和尾轴
- ▼ 较高的功率密度和紧凑结构设计
- ▼ 防护等级为IP50, 可根据需求提供更高的等级
- ▼ 长寿命, 免维护, 绝缘等级E
- ▼ 200W high dynamic 3-phase brushless DC motor 10-poles
- ▼ Additional electronics is needed to run this motor
- ▼ Special voltage windings available on request
- ▼ Different shaft size available for both sides on request
- ▼ High power density and compact design.
- ▼ Protection class IP50, higher class available on request
- ▼ Longer lifetime, maintenance-free, insulation class E

### 48V数据和曲线--Data and curve of 48V

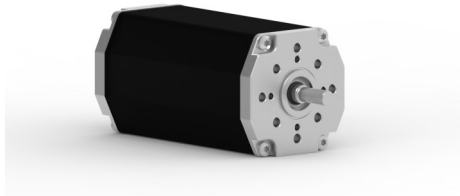
|                         |          |                              |                          |
|-------------------------|----------|------------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 48 VDC   | 转矩常数<br>Torque constant      | 12.3 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 5.2 A    | 终端电阻<br>Terminal resistance  | 0.38 Ω                   |
| 额定转矩<br>Nominal torque  | 56 Ncm   | 终端电感<br>Terminal inductance  | 1.65 mH                  |
| 额定转速<br>Nominal speed   | 3520 rpm | 峰值电流<br>Peak current(2 sec.) | 24A                      |
| 堵转扭矩<br>Stall torque    | 290 Ncm  | 转子惯量<br>Rotor inertial       | 129 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 4620 rpm | 电机重量<br>Weight of motor      | 1.6 kg                   |



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL65-400, 400W

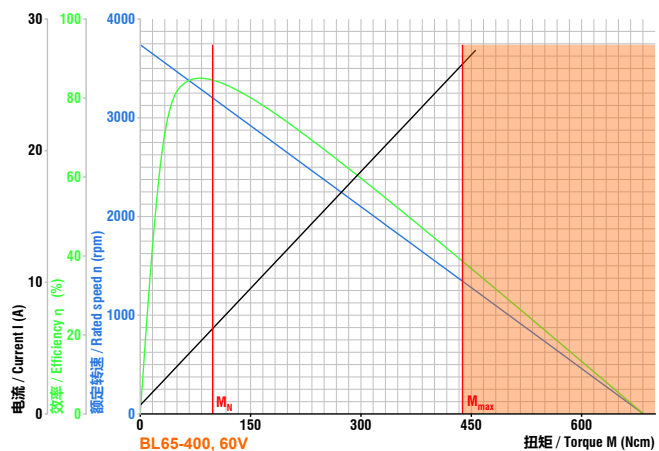


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

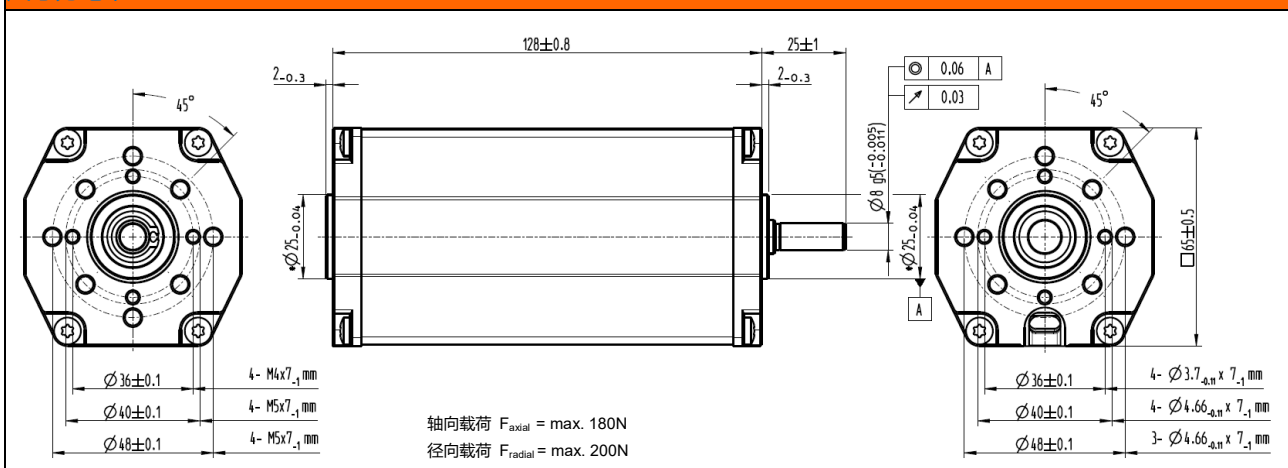
- ▶ 400瓦, 10极高动态响应三相无刷直流电机
- ▶ 需要额外的驱动器来运行电机
- ▶ 可根据需求定制不同电压的绕组
- ▶ 可根据需求提供不同尺寸的前轴和尾轴
- ▶ 较高的功率密度和紧凑结构设计
- ▶ 防护等级为IP50, 可根据需求提供更高的等级
- ▶ 长寿命, 免维护, 绝缘等级E
- ▶ 400W high dynamic 3-phase brushless DC motor 10-poles
- ▶ Additional electronics is needed to run this motor
- ▶ Special voltage windings available on request
- ▶ Different shaft size available for both sides on request
- ▶ High power density and compact design.
- ▶ Protection class IP50, higher class available on request
- ▶ Longer lifetime, maintenance-free, insulation class E

### 60V数据和曲线--Data and curve of 60V

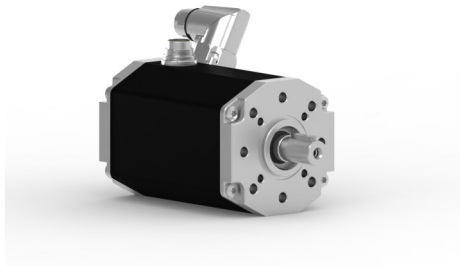
|                         |          |                              |                          |
|-------------------------|----------|------------------------------|--------------------------|
| 额定电压<br>Nominal voltage | 60 VDC   | 转矩常数<br>Torque constant      | 16.9 Ncm A <sup>-1</sup> |
| 额定电流<br>Nominal current | 6.78 A   | 终端电阻<br>Terminal resistance  | 0.409 Ω                  |
| 额定转矩<br>Nominal torque  | 98.5 Ncm | 终端电感<br>Terminal inductance  | 0.611 mH                 |
| 额定转速<br>Nominal speed   | 3410 rpm | 峰值电流<br>Peak current(2 sec.) | 41 A                     |
| 堵转扭矩<br>Stall torque    | 684 Ncm  | 转子惯量<br>Rotor inertial       | 188 gcm <sup>2</sup>     |
| 空载转速<br>No load speed   | 3740 rpm | 电机重量<br>Weight of motor      | 1.9 kg                   |



### 尺寸为毫米--Dimensions in mm



## 无刷电机--BL75-25, 220W

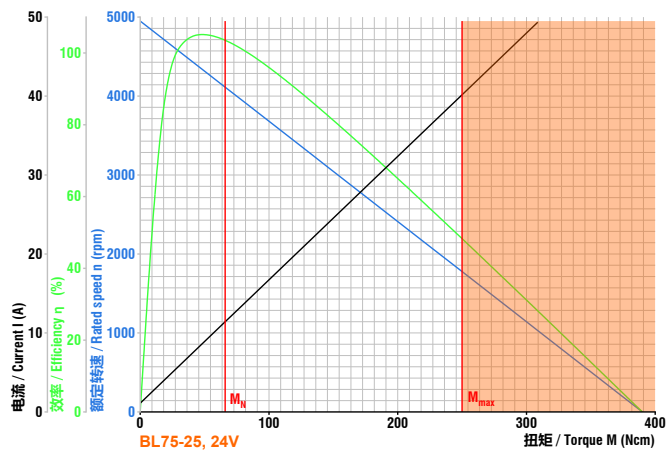


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

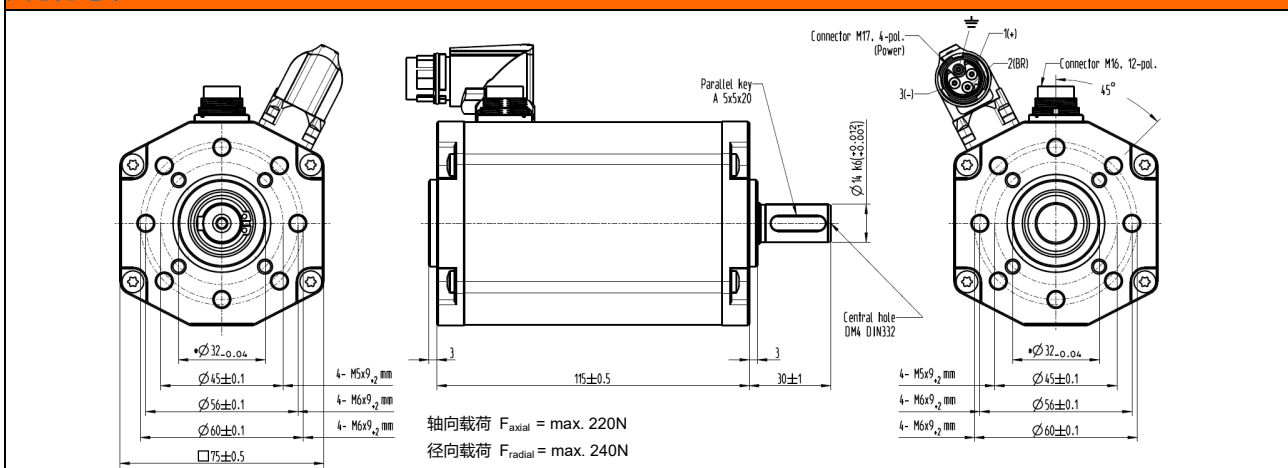
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▶ 220瓦, 8极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 220W high dynamic 3-phase brushless DC motor 8-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|---|--|

### 24V数据和曲线--Data and curve of 24V

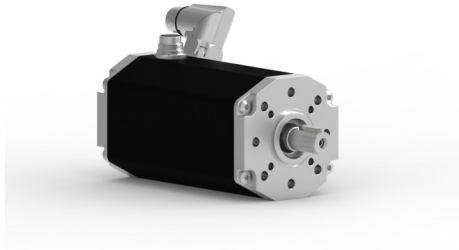
|  |   |
|--|---|
| <p>额定电压 24 VDC<br/>Nominal voltage</p> <p>额定电流 13.1 A<br/>Nominal current</p> <p>额定转矩 66 Ncm<br/>Nominal torque</p> <p>额定转速 3620 rpm<br/>Nominal speed</p> <p>堵转扭矩 390 Ncm<br/>Stall torque</p> <p>空载转速 4950 rpm<br/>No load speed</p> | <p>转矩常数 6.4 Ncm A<sup>-1</sup><br/>Torque constant</p> <p>终端电阻 0.074 Ω<br/>Terminal resistance</p> <p>终端电感 0.4 mH<br/>Terminal inductance</p> <p>峰值电流(2 sec.) 65 A<br/>Peak current(2 sec.)</p> <p>转子惯量 240 gcm<sup>2</sup><br/>Rotor inertial</p> <p>电机重量 1.6 kg<br/>Weight of motor</p> |
|--|---|



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL75-50, 400W

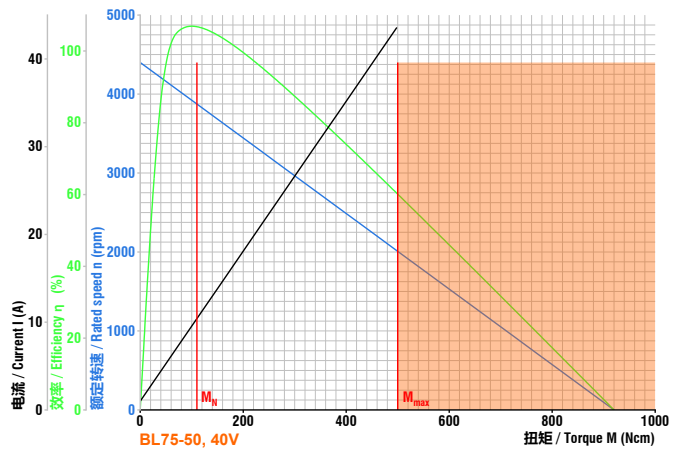


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

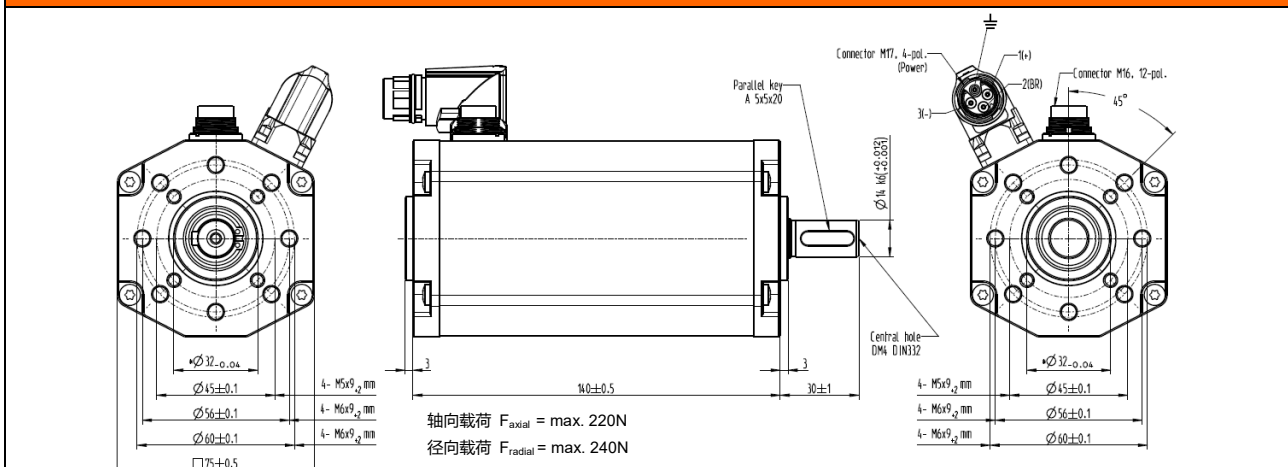
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▶ 400瓦, 8极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 400W high dynamic 3-phase brushless DC motor 8-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|---|--|

### 40V数据和曲线--Data and curve of 40V

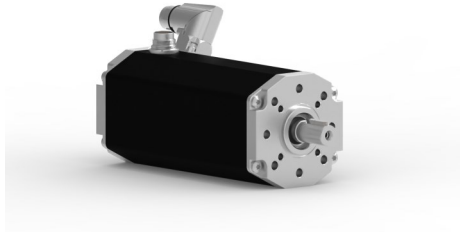
|   |   |
|---|---|
| <p>额定电压 40 VDC<br/>Nominal voltage</p> <p>额定电流 12 A<br/>Nominal current</p> <p>额定转矩 110 Ncm<br/>Nominal torque</p> <p>额定转速 3500 rpm<br/>Nominal speed</p> <p>堵转扭矩 920 Ncm<br/>Stall torque</p> <p>空载转速 4400 rpm<br/>No load speed</p> | <p>转矩常数 11.7 Ncm A<sup>-1</sup><br/>Torque constant</p> <p>终端电阻 0.1 Ω<br/>Terminal resistance</p> <p>终端电感 0.63 mH<br/>Terminal inductance</p> <p>峰值电流 55 A<br/>Peak current(2 sec.)</p> <p>转子惯量 440 gcm<sup>2</sup><br/>Rotor inertial</p> <p>电机重量 2.2 kg<br/>Weight of motor</p> |
|---|---|



### 尺寸为毫米-Dimensions in mm



## 无刷电机--BL75-75, 530W

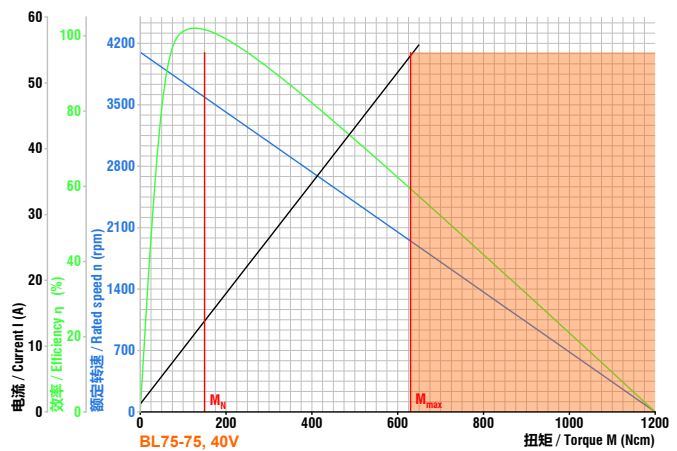


- 适配行星减速箱--Planetary gearbox available
- 适配蜗轮蜗杆减速箱--Worm gearbox available
- 适配制动器--Brake available
- 适配控制器--Controller available
- 适配编码器--Encoder available
- 更多客户要求--More request from customer

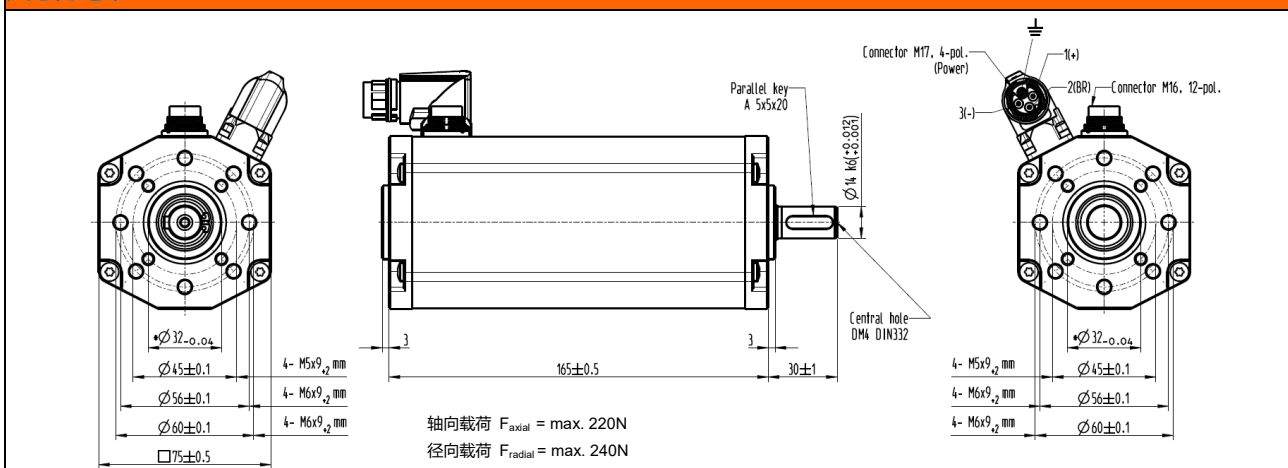
- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▶ 530瓦, 8极高动态响应三相无刷直流电机</li> <li>▶ 需要额外的驱动器来运行电机</li> <li>▶ 可根据需求定制不同电压的绕组</li> <li>▶ 可根据需求提供不同尺寸的前轴和尾轴</li> <li>▶ 较高的功率密度和紧凑结构设计</li> <li>▶ 防护等级为IP50, 可根据需求提供更高的等级</li> <li>▶ 长寿命, 免维护, 绝缘等级E</li> </ul> | <ul style="list-style-type: none"> <li>▶ 530W high dynamic 3-phase brushless DC motor 8-poles</li> <li>▶ Additional electronics is needed to run this motor</li> <li>▶ Special voltage windings available on request</li> <li>▶ Different shaft size available for both sides on request</li> <li>▶ High power density and compact design.</li> <li>▶ Protection class IP50, higher class available on request</li> <li>▶ Longer lifetime, maintenance-free, insulation class E</li> </ul> |
|---|--|

### 40V数据和曲线--Data and curve of 40V

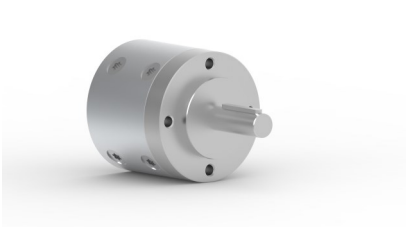
|  |  |
|--|--|
| <p>额定电压 40 VDC<br/>Nominal voltage</p> <p>额定电流 15.6 A<br/>Nominal current</p> <p>额定转矩 150 Ncm<br/>Nominal torque</p> <p>额定转速 3370 rpm<br/>Nominal speed</p> <p>堵转扭矩 1200 Ncm<br/>Stall torque</p> <p>空载转速 4100 rpm<br/>No load speed</p> | <p>转矩常数 11.9 Ncm A<sup>-1</sup><br/>Torque constant</p> <p>终端电阻 0.07 Ω<br/>Terminal resistance</p> <p>终端电感 0.45 mH<br/>Terminal inductance</p> <p>峰值电流(2 sec.) 64 A<br/>Peak current(2 sec.)</p> <p>转子惯量 650 gcm<sup>2</sup><br/>Rotor inertial</p> <p>电机重量 2.8 kg<br/>Weight of motor</p> |
|--|--|



### 尺寸为毫米-Dimensions in mm

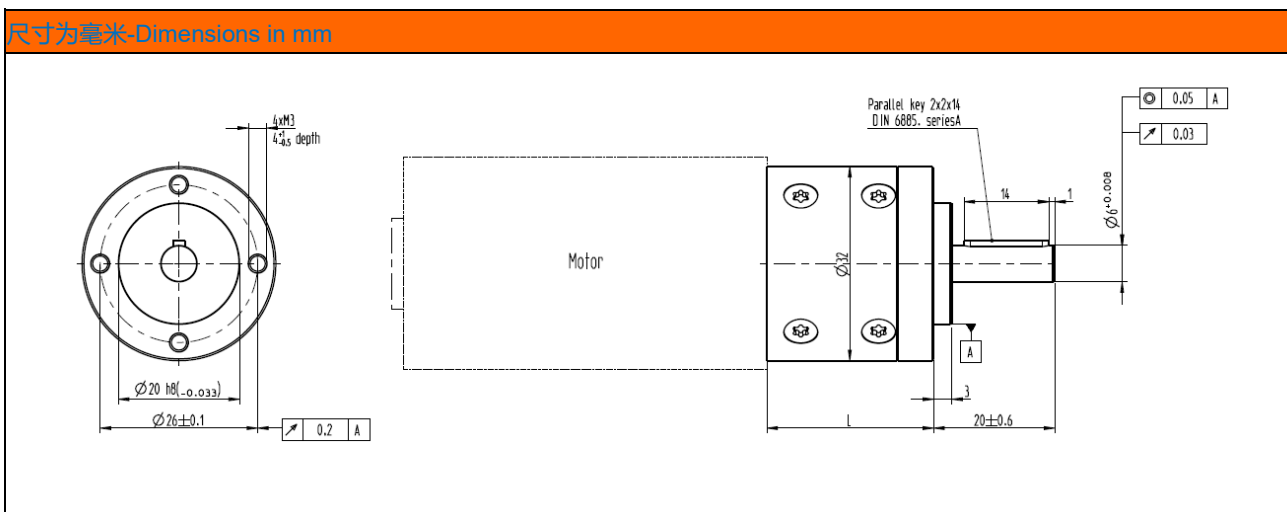


## 行星齿轮减速箱--PG32/PG32H



- ▶ 紧凑的工业级别行星减速箱
  - ▶ 高效率, 长寿命, 免维护
  - ▶ 钢制的内齿圈、行星齿轮架和太阳轮
  - ▶ 第一级行星轮使用塑料材质
  - ▶ 双滚珠轴承结构的输出轴
  - ▶ 减速箱每级行星齿轮都是直齿
  - ▶ 可根据要求, 提供低噪声PG32H的版本
- ▶ Compact, industry compatible planetary gearbox
  - ▶ Higher efficiency, longer lifetime, maintenance-free
  - ▶ Ring gear, planetary carriers and sun wheels are steel
  - ▶ Planetary gears are POM in first stage
  - ▶ Output shaft with dual ball bearings
  - ▶ All stages have straight tooth
  - ▶ Low noise version PG32H available on request

| 数据--Data                            |     |          |      |   |             |       |       |    |    |    |              |       |       |     |     |     |     |     |            |
|-------------------------------------|-----|----------|------|---|-------------|-------|-------|----|----|----|--------------|-------|-------|-----|-----|-----|-----|-----|------------|
| 减速比<br>Reduction ratio              |     | 4.5      | 6.25 | 8 | 11.5<br>(H) | 20.25 | 28.12 | 36 | 50 | 64 | 71.87<br>(H) | 91.12 | 126.5 | 162 | 225 | 288 | 400 | 512 | 575<br>(H) |
| 效率<br>Efficiency                    |     | 0.9      |      |   | 0.81        |       |       |    |    |    | 0.73         |       |       |     |     |     |     |     |            |
| 级数<br>Number of stages              |     | 1        |      |   | 2           |       |       |    |    |    | 3            |       |       |     |     |     |     |     |            |
| 连续转矩<br>Continuous torque           | Ncm | 40       |      |   | 150         |       |       |    |    |    | 400          |       |       |     |     |     |     |     |            |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.14     |      |   | 0.18        |       |       |    |    |    | 0.23         |       |       |     |     |     |     |     |            |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 30/100   |      |   | 30/100      |       |       |    |    |    | 30/100       |       |       |     |     |     |     |     |            |
| 长度 (L)<br>Length(L)                 | mm  | 28/35(H) |      |   | 38/45(H)    |       |       |    |    |    | 48/55(H)     |       |       |     |     |     |     |     |            |

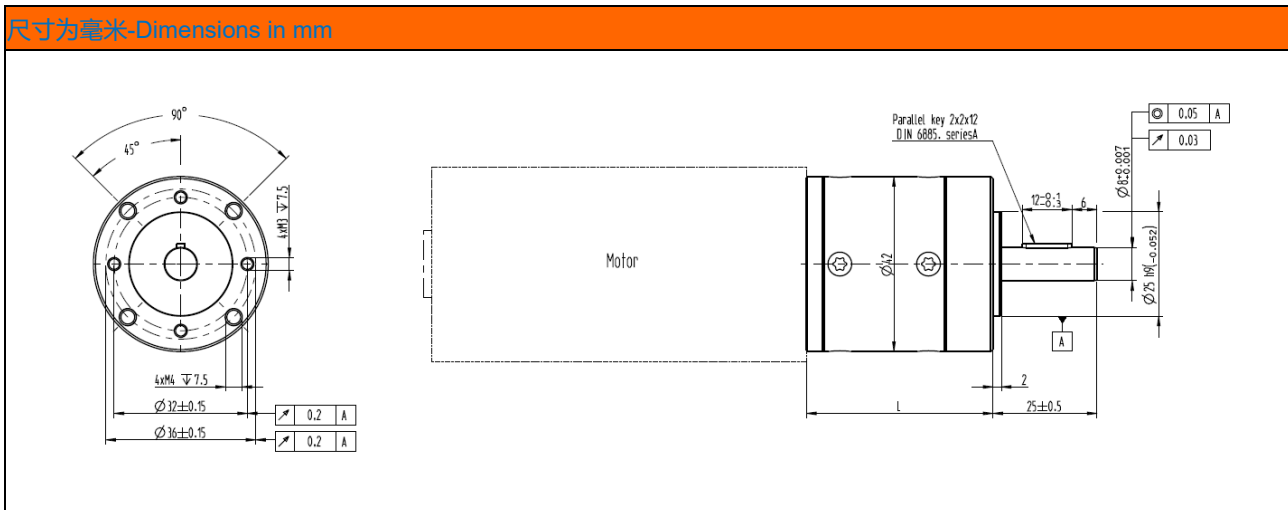


## 行星齿轮减速箱--PG42/PG42H

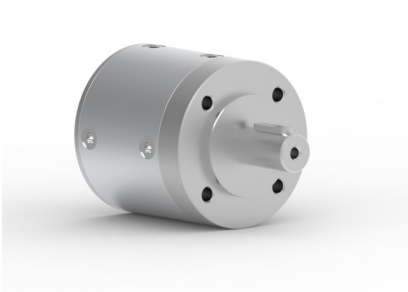


- ▶ 紧凑的工业级别行星减速箱
  - ▶ 高效率，长寿命，免维护
  - ▶ 钢制的内齿圈、行星齿轮架和太阳轮
  - ▶ 第一级行星轮使用塑料材质
  - ▶ 双滚珠轴承结构的输出轴
  - ▶ 减速箱每级行星齿轮都是直齿
  - ▶ 可根据要求，提供低噪声PG42H的版本
- ▶ Compact, industry compatible planetary gearbox
  - ▶ Higher efficiency, longer lifetime, maintenance-free
  - ▶ Ring gear, planetary carriers and sun wheels are steel
  - ▶ Planetary gears are POM in first stage
  - ▶ Output shaft with dual ball bearings
  - ▶ All stages have straight tooth
  - ▶ Low noise version PG42H available on request

| 数据--Data                            |     |         |            |      |   |         |           |    |    |         |    |     |     |     |     |     |     |     |     |  |  |
|-------------------------------------|-----|---------|------------|------|---|---------|-----------|----|----|---------|----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 减速比<br>Reduction ratio              |     | 4       | 4.5<br>(H) | 6.25 | 8 | 16      | 18<br>(H) | 25 | 32 | 50      | 64 | 100 | 128 | 156 | 200 | 256 | 313 | 400 | 512 |  |  |
| 效率<br>Efficiency                    |     | 0.9     |            |      |   | 0.81    |           |    |    | 0.73    |    |     |     |     |     |     |     |     |     |  |  |
| 级数<br>Number of stages              |     | 1       |            |      |   | 2       |           |    |    | 3       |    |     |     |     |     |     |     |     |     |  |  |
| 连续转矩<br>Continuous torque           | Ncm | 70/350  |            |      |   | 600     |           |    |    | 1400    |    |     |     |     |     |     |     |     |     |  |  |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.27    |            |      |   | 0.37    |           |    |    | 0.47    |    |     |     |     |     |     |     |     |     |  |  |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 150/250 |            |      |   | 150/250 |           |    |    | 150/250 |    |     |     |     |     |     |     |     |     |  |  |
| 长度 (L)<br>Length(L)                 | mm  | 47      |            |      |   | 57      |           |    |    | 70      |    |     |     |     |     |     |     |     |     |  |  |

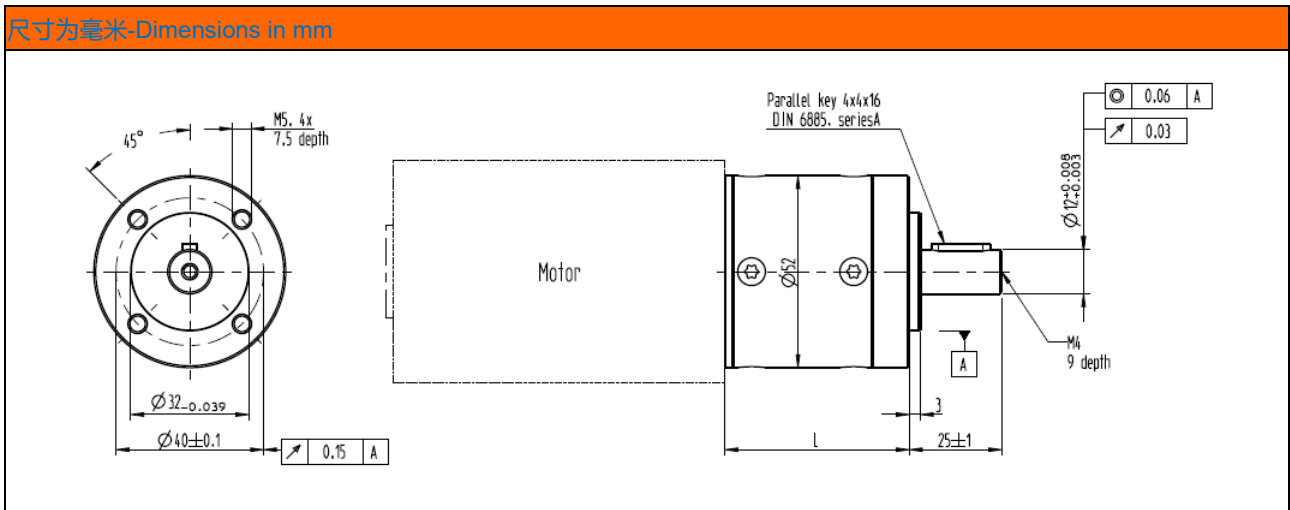


## 行星齿轮减速箱--PG52/PG52H

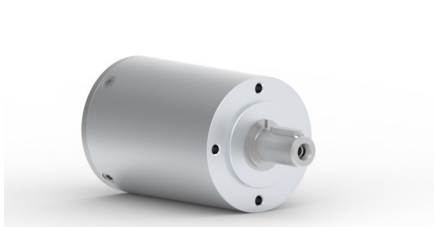


- ▶ 紧凑的工业级别行星减速箱
  - ▶ 高效率，长寿命，免维护
  - ▶ 钢制的内齿圈、行星齿轮架和太阳轮
  - ▶ 双滚珠轴承结构的输出轴
  - ▶ PG52减速箱每级行星齿轮都是直齿
  - ▶ 可根据要求，提供低噪声PG52H的版本
- ▶ Compact, industry compatible planetary gearbox
  - ▶ Higher efficiency, longer lifetime, maintenance-free
  - ▶ Ring gear, planetary carriers and sun wheels are steel
  - ▶ Output shaft with dual ball bearings
  - ▶ All stages have straight tooth of PG52
  - ▶ Low noise version PG52H available on request

| 数据--Data                            |     |         |      |   |         |       |       |    |    |    |         |       |     |     |     |     |     |
|-------------------------------------|-----|---------|------|---|---------|-------|-------|----|----|----|---------|-------|-----|-----|-----|-----|-----|
| 减速比<br>Reduction ratio              |     | 4.5     | 6.25 | 8 | 15      | 20.25 | 28.12 | 36 | 50 | 64 | 91.12   | 126.5 | 162 | 225 | 288 | 400 | 512 |
| 效率<br>Efficiency                    |     | 0.9     |      |   | 0.81    |       |       |    |    |    | 0.73    |       |     |     |     |     |     |
| 级数<br>Number of stages              |     | 1       |      |   | 2       |       |       |    |    |    | 3       |       |     |     |     |     |     |
| 连续转矩<br>Continuous torque           | Ncm | 120     |      |   | 800     |       |       |    |    |    | 2400    |       |     |     |     |     |     |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.56    |      |   | 0.72    |       |       |    |    |    | 0.88    |       |     |     |     |     |     |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 500/350 |      |   | 500/350 |       |       |    |    |    | 500/350 |       |     |     |     |     |     |
| 长度 (L)<br>Length(L)                 | mm  | 50      |      |   | 65.6    |       |       |    |    |    | 80.5    |       |     |     |     |     |     |

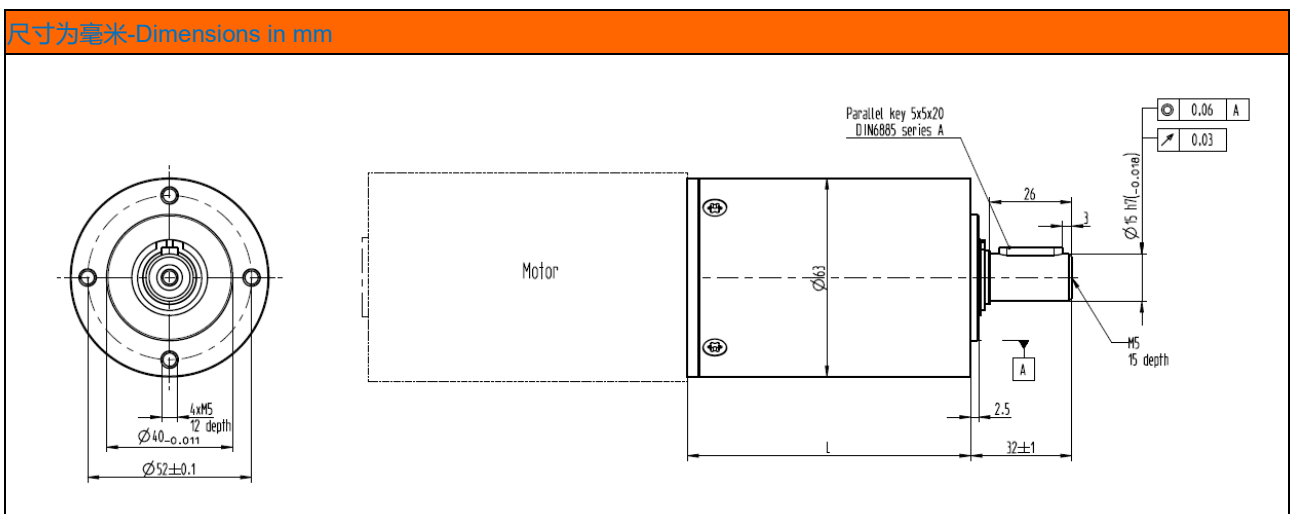


## 行星齿轮减速箱--PG63H



- ▶ 低噪声医疗级别行星减速箱
- ▶ Low noise, medical compatible planetary gearbox
- ▶ 高效率, 长寿命, 免维护
- ▶ Higher efficiency, longer lifetime, maintenance-free
- ▶ 金属内齿圈、行星齿轮架和太阳轮
- ▶ Ring gear, planetary carriers and sun wheels are metal
- ▶ 双滚珠轴承结构的输出轴
- ▶ Output shaft with dual ball bearings
- ▶ 减速箱每级行星齿轮都是斜齿
- ▶ All stages have helical tooth
- ▶ 根据要求, 可提供高强度PG63HM的版本
- ▶ High-strength version PG63HM available on request

| 数据--Data                            |     |         |   |   |    |         |    |    |    |    |    |    |
|-------------------------------------|-----|---------|---|---|----|---------|----|----|----|----|----|----|
| 减速比<br>Reduction ratio              |     | 3       | 4 | 7 | 10 | 12      | 16 | 21 | 30 | 40 | 49 | 70 |
| 效率<br>Efficiency                    |     | 0.9     |   |   |    | 0.81    |    |    |    |    |    |    |
| 级数<br>Number of stages              |     | 1       |   |   |    | 2       |    |    |    |    |    |    |
| 连续转矩<br>Continuous torque           | Ncm | 500     |   |   |    | 2500    |    |    |    |    |    |    |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.55    |   |   |    | 0.78    |    |    |    |    |    |    |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 500/350 |   |   |    | 500/350 |    |    |    |    |    |    |
| 长度 (L)<br>Length(L)                 | mm  | 62.5    |   |   |    | 90      |    |    |    |    |    |    |



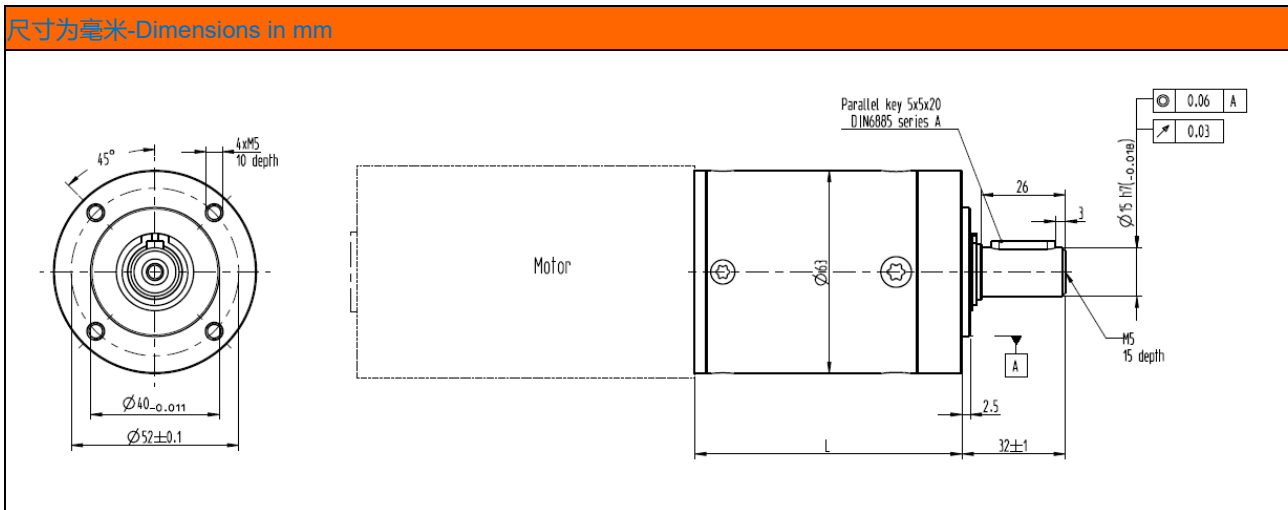
## 行星齿轮减速箱--PG63



- ▶ 紧凑的工业级别行星减速箱
- ▶ 高效率，长寿命，免维护
- ▶ 钢制的内齿圈、行星齿轮架和太阳轮
- ▶ 双滚珠轴承结构的输出轴
- ▶ 可为项目定制特殊速比的产品
- ▶ 根据要求，可提供高强度PG63M的版本

- ▶ Compact, industry compatible planetary gearbox
- ▶ Higher efficiency, longer lifetime, maintenance-free
- ▶ Ring gear, planetary carriers and sun wheels are steel
- ▶ Output shaft with dual ball bearings
- ▶ Special ratio available for projects
- ▶ High-strength version PG63M available on request

| 数据--Data                            |     | 3       | 4 | 7 | 10      | 16.8 | 20 | 29.4 | 35 | 50 | 70      | 84 | 100 | 147 | 175 | 210 | 250 | 350 | 490 |  |
|-------------------------------------|-----|---------|---|---|---------|------|----|------|----|----|---------|----|-----|-----|-----|-----|-----|-----|-----|--|
| 减速比<br>Reduction ratio              |     |         |   |   |         |      |    |      |    |    |         |    |     |     |     |     |     |     |     |  |
| 效率<br>Efficiency                    |     | 0.9     |   |   | 0.81    |      |    |      |    |    | 0.73    |    |     |     |     |     |     |     |     |  |
| 级数<br>Number of stages              |     | 1       |   |   | 2       |      |    |      |    |    | 3       |    |     |     |     |     |     |     |     |  |
| 连续转矩<br>Continuous torque           | Ncm | 1500    |   |   | 7000    |      |    |      |    |    | 10000   |    |     |     |     |     |     |     |     |  |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.7     |   |   | 1.2     |      |    |      |    |    | 1.8     |    |     |     |     |     |     |     |     |  |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 800/800 |   |   | 800/800 |      |    |      |    |    | 800/800 |    |     |     |     |     |     |     |     |  |
| 长度 (L)<br>Length(L)                 | mm  | 62.5    |   |   | 83      |      |    |      |    |    | 105     |    |     |     |     |     |     |     |     |  |

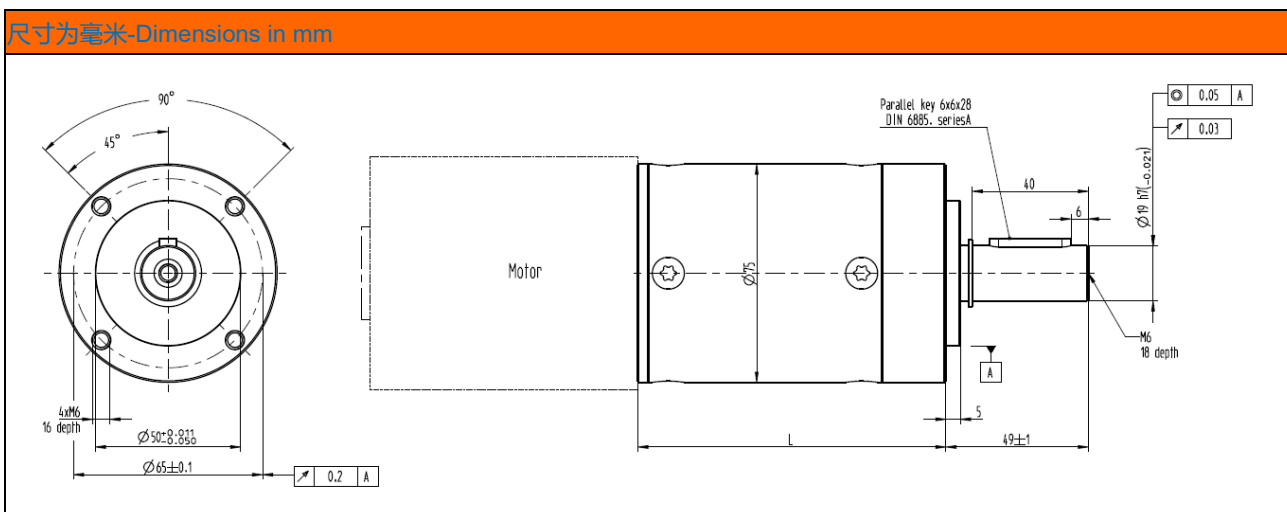


## 行星齿轮减速箱--PG75



- ▶ 紧凑的工业级别行星减速箱
- ▶ Compact, industry compatible planetary gearbox
- ▶ 高效率, 长寿命, 免维护
- ▶ Higher efficiency, longer lifetime, maintenance-free
- ▶ 钢制的内齿圈、行星齿轮架和太阳轮
- ▶ Ring gear, planetary carriers and sun wheels are steel
- ▶ 双滚珠轴承结构的输出轴
- ▶ Output shaft with dual ball bearings
- ▶ 可为项目定制特殊速比的产品
- ▶ Special ratio available for projects

| 数据--Data                       |     |           |     |   |           |      |      |      |    |    |           |    |    |     |     |     |     |     |     |     |
|--------------------------------|-----|-----------|-----|---|-----------|------|------|------|----|----|-----------|----|----|-----|-----|-----|-----|-----|-----|-----|
| 减速比<br>Reduction ratio         |     | 4         | 5.5 | 7 | 10        | 16.8 | 23.1 | 27.5 | 35 | 42 | 50        | 70 | 84 | 100 | 147 | 175 | 210 | 250 | 350 | 490 |
| 效率<br>Efficiency               |     | 0.9       |     |   | 0.81      |      |      |      |    |    | 0.73      |    |    |     |     |     |     |     |     |     |
| 级数<br>Number of stages         |     | 1         |     |   | 2         |      |      |      |    |    | 3         |    |    |     |     |     |     |     |     |     |
| 连续转矩<br>Continuous torque      | Ncm | 2500      |     |   | 12000     |      |      |      |    |    | 16000     |    |    |     |     |     |     |     |     |     |
| 减速箱重量<br>Weight of gearbox     | kg  | 1.5       |     |   | 2.6       |      |      |      |    |    | 3.7       |    |    |     |     |     |     |     |     |     |
| 轴向载荷/径向载荷<br>Axial load/radial | N   | 1000/1000 |     |   | 1000/1000 |      |      |      |    |    | 1000/1000 |    |    |     |     |     |     |     |     |     |
| 长度 (L)<br>Length(L)            | mm  | 80        |     |   | 106       |      |      |      |    |    | 133       |    |    |     |     |     |     |     |     |     |

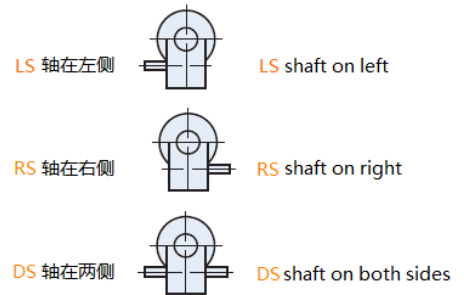


## 蜗轮蜗杆减速箱--WG17

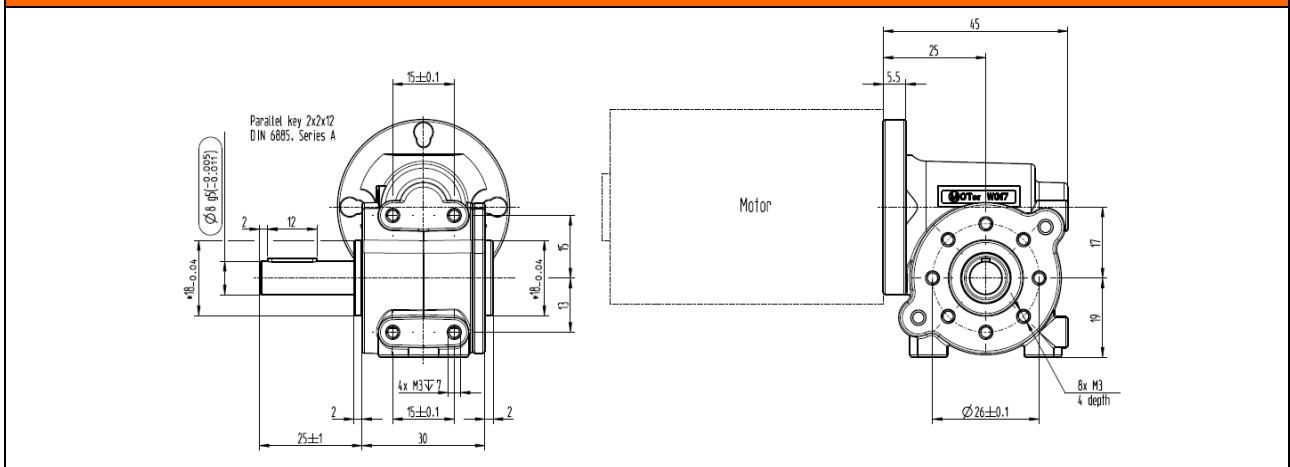


- ▼ 低噪声蜗轮蜗杆减速箱
  - ▼ 长寿命，免维护
  - ▼ 高强度压铸的外壳
  - ▼ 蜗轮采用黄铜制造
  - ▼ 根据要求，轴可在左侧、右侧或双轴输出
- ▼ Low noise worm gearbox
  - ▼ Longer lifetime, maintenance-free
  - ▼ Housing made of high tensile die-cast
  - ▼ Worm wheel made of brass
  - ▼ Shaft output to left, right or double sides on request

| 数据-Data                             |     |         |      |     |      |      |     |      |      |
|-------------------------------------|-----|---------|------|-----|------|------|-----|------|------|
| 减速比<br>Reduction ratio              |     | 5       | 10   | 15  | 25   | 30   | 40  | 50   | 75   |
| 效率<br>Efficiency                    |     | 0.79    | 0.69 | 0.6 | 0.48 | 0.43 | 0.3 | 0.38 | 0.23 |
| 连续转矩<br>Continuous torque           | Ncm | 75      |      |     |      |      |     |      |      |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.2     |      |     |      |      |     |      |      |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 100/200 |      |     |      |      |     |      |      |



### 尺寸为毫米-Dimensions in mm



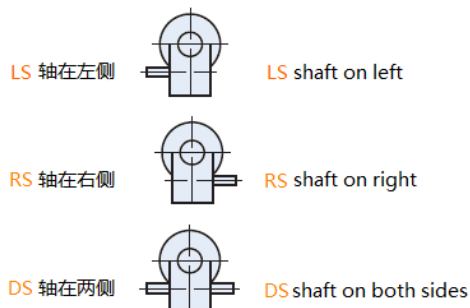
## 蜗轮蜗杆减速箱--WG24



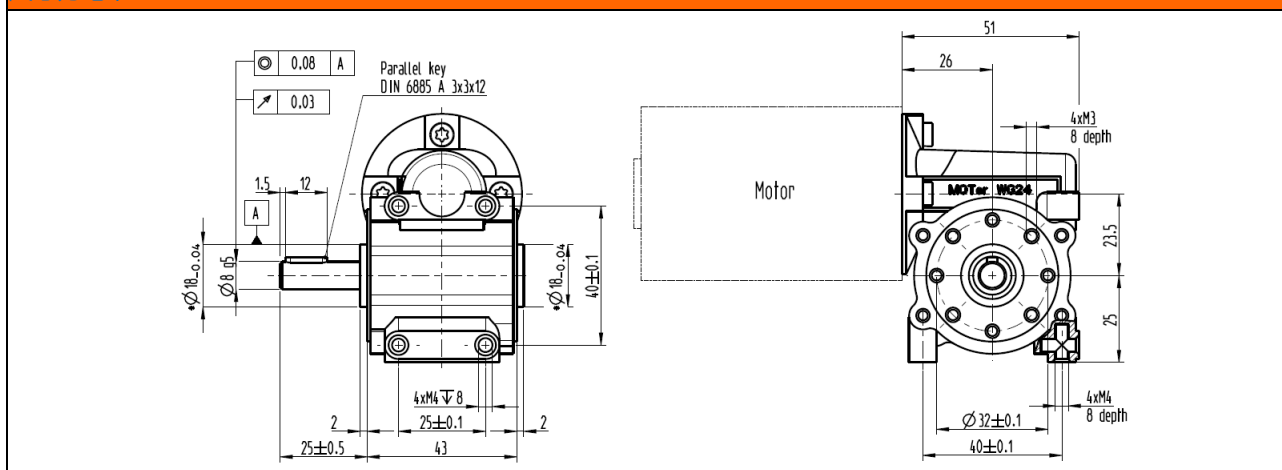
- ▶ 低噪声蜗轮蜗杆减速箱
  - ▶ 长寿命, 免维护
  - ▶ 高强度压铸的外壳
  - ▶ 蜗轮采用黄铜制造
  - ▶ 根据要求, 轴可在左侧、右侧或双轴输出
- ▶ Low noise worm gearbox
  - ▶ Longer lifetime, maintenance-free
  - ▶ Housing made of high tensile die-cast
  - ▶ Worm wheel made of brass
  - ▶ Shaft output to left, right or double sides on request

### 数据-Data

|                                     |     |         |      |     |      |     |     |
|-------------------------------------|-----|---------|------|-----|------|-----|-----|
| 减速比<br>Reduction ratio              |     | 8       | 15   | 23  | 35   | 46  | 72  |
| 效率<br>Efficiency                    |     | 0.6     | 0.55 | 0.5 | 0.45 | 0.4 | 0.3 |
| 连续转矩<br>Continuous torque           | Ncm | 150     |      |     |      |     |     |
| 减速箱重量<br>Weight of gearbox          | kg  | 0.3     |      |     |      |     |     |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 150/200 |      |     |      |     |     |

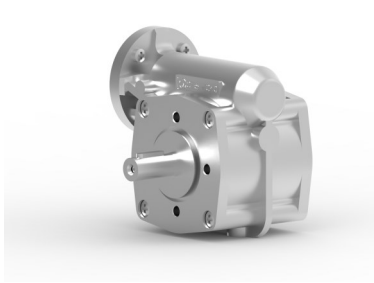


### 尺寸为毫米-Dimensions in mm



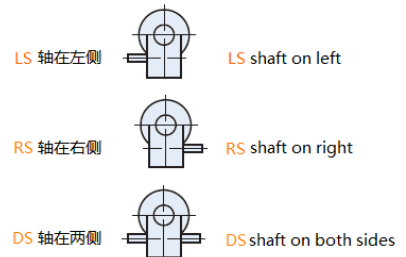


# 蜗轮蜗杆减速箱--WG40

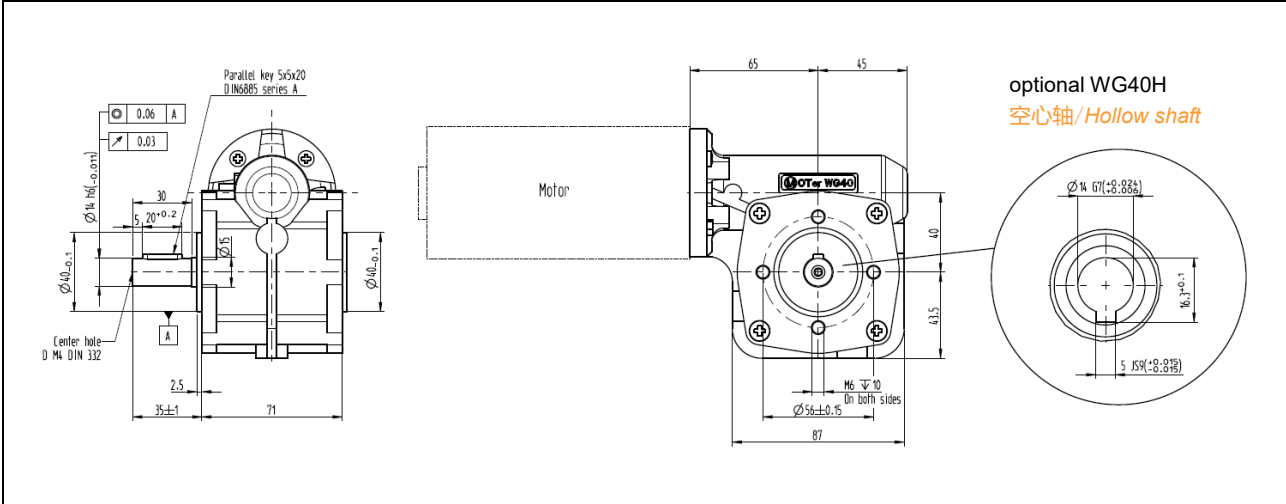


- ▶ 低噪声蜗轮蜗杆减速箱
  - ▶ 长寿命, 免维护
  - ▶ 高强度压铸外壳
  - ▶ 根据要求, 轴可在左侧、右侧或双轴输出
  - ▶ 根据要求, 可提供空心轴产品
- ▶ Low noise worm gearbox
  - ▶ Longer lifetime, maintenance-free
  - ▶ Housing made of high tensile die-cast
  - ▶ Shaft output to left, right or double sides on request
  - ▶ Hollow shaft available

| 数据-Data                             |     |         |     |      |      |     |     |      |     |      |      |
|-------------------------------------|-----|---------|-----|------|------|-----|-----|------|-----|------|------|
| 减速比<br>Reduction ratio              |     | 8       | 10  | 15   | 20   | 30  | 40  | 50   | 60  | 70   | 80   |
| 效率<br>Efficiency                    |     | 0.7     | 0.7 | 0.65 | 0.55 | 0.5 | 0.4 | 0.35 | 0.3 | 0.28 | 0.25 |
| 连续转矩<br>Continuous torque           | Ncm | 3000    |     |      |      |     |     |      |     |      |      |
| 减速箱重量<br>Weight of gearbox          | kg  | 2       |     |      |      |     |     |      |     |      |      |
| 轴向载荷/径向载荷<br>Axial load/radial load | N   | 300/500 |     |      |      |     |     |      |     |      |      |



## 尺寸为毫米-Dimensions in mm





**备忘--Memo**

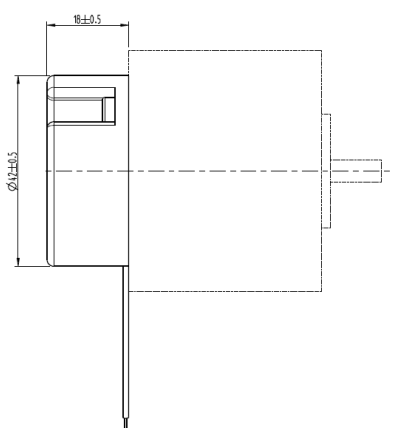
A collection of yellow and grey squares of various sizes arranged on the left side of the page. Below the '备忘--Memo' header, there are approximately 18 horizontal dashed orange lines for writing.

## 编码器--SE20

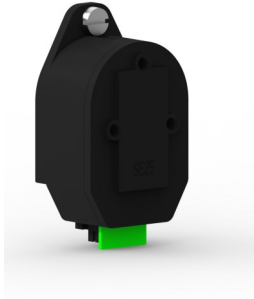


- ▶ 霍尔效应的磁编码器
- ▶ Hall sensor effect magnetic encoder
- ▶ 适用于环境较差的工作场合
- ▶ Applicable to worse environment
- ▶ 适用于低精度的速度和位置控制
- ▶ Applicable to lower precise speed and position control
- ▶ 内置式上拉电阻
- ▶ With pull-up resistor

| 数据--Data                  |                   |                            |                        |                                  |                              |                         |                          |
|---------------------------|-------------------|----------------------------|------------------------|----------------------------------|------------------------------|-------------------------|--------------------------|
| 工作电压<br>Operation voltage | 分辨率<br>Resolution | 信号上升时间<br>Signal rise time | 电流消耗<br>Supply current | 宽度/相移偏差<br>Width/shift deviation | 输出电压(低)<br>Output voltage(L) | 工作温度<br>Operation temp. | 防护等级<br>Protection class |
| 12(5...24)V               | 2, 8,12           | Max.                       | Max.                   | Max.                             | Max.                         | -40...+85               | 40                       |

| 尺寸为毫米--Dimensions in mm   |  |           |      |        |          |           |   |          |     |          |   |
|---|--|-----------|------|--------|----------|-----------|---|----------|-----|----------|---|
|  | <table border="1"> <thead> <tr style="background-color: #f4a460;"> <th>引线--Cable</th> <th>SE20</th> </tr> </thead> <tbody> <tr> <td>红--Red</td> <td>5V...24V</td> </tr> <tr> <td>黄--Yellow</td> <td>A</td> </tr> <tr> <td>黑--Black</td> <td>Gnd</td> </tr> <tr> <td>绿--Green</td> <td>B</td> </tr> </tbody> </table> | 引线--Cable | SE20 | 红--Red | 5V...24V | 黄--Yellow | A | 黑--Black | Gnd | 绿--Green | B |
| 引线--Cable   | SE20   |           |      |        |          |           |   |          |     |          |   |
| 红--Red  | 5V...24V   |           |      |        |          |           |   |          |     |          |   |
| 黄--Yellow   | A  |           |      |        |          |           |   |          |     |          |   |
| 黑--Black  | Gnd  |           |      |        |          |           |   |          |     |          |   |
| 绿--Green  | B  |           |      |        |          |           |   |          |     |          |   |

## 编码器--SE25



- ▶ 增量型光电编码器
- ▶ 体积小，可提供易于安装的版本
- ▶ 根据需求，可提供差分信号输出
- ▶ 根据要求，可提供特殊分辨率的信号输出
- ▶ Increment type photoelectric encoder
- ▶ Small size, easy mounting type available
- ▶ Differential signal output available on request
- ▶ Special resolution output available on request

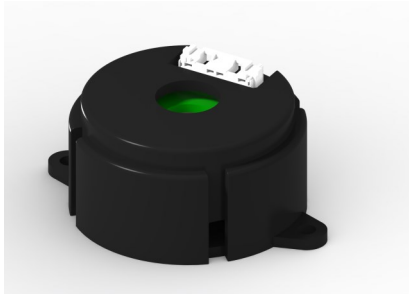
如果编码器和信号接收装置的距离超过2.5米，或者在复杂的电磁环境中，我们建议使用带有差分电路(DS)的型号。

Where cable length between encoder and signal receiving device is more than 2.5m, or operated in complicated electromagnetic environment, we recommend use of differential signal (DS) version.

| 数据--Data                  |                   |                            |                        |                              |                              |                         |                          |
|---------------------------|-------------------|----------------------------|------------------------|------------------------------|------------------------------|-------------------------|--------------------------|
| 工作电压<br>Operation voltage | 分辨率<br>Resolution | 信号上升时间<br>Signal rise time | 电流消耗<br>Supply current | 输出电压(高)<br>Output voltage(H) | 输出电压(低)<br>Output voltage(L) | 工作温度<br>Operation temp. | 防护等级<br>Protection class |
| 5V DC                     | 100, 500<br>CPR   | 180ns                      | Max.<br>85mA           | Min.<br>2.4V DC              | Max.<br>0.5V DC              | -40...+100<br>°C        | 30                       |

| 尺寸为毫米-Dimensions in mm |        |         |           |
|------------------------|--------|---------|-----------|
|                        |        |         |           |
| 针脚--Pin                | SE25-X | 针脚--Pin | SE25-X DS |
| 1                      | Gnd    | 6       | A         |
| 2                      | Index  | 7       | /B        |
| 3                      | A      | 8       | B         |
| 4                      | Vcc 5V | 9       | /Index    |
| 5                      | B      | 10      | Index     |

## 编码器--SE30



- ▼ 增量型光电编码器
- ▼ Increment type photoelectric encoder
- ▼ 体积小，易安装
- ▼ Small size, easy mounting
- ▼ 根据需求，可提供差分信号输出
- ▼ Differential signal output available on request
- ▼ 根据要求，可提供特殊分辨率的信号输出
- ▼ Special resolution output available on request
- ▼ 安装分为耳朵和普通方式两种
- ▼ Mounting with ear and normal way

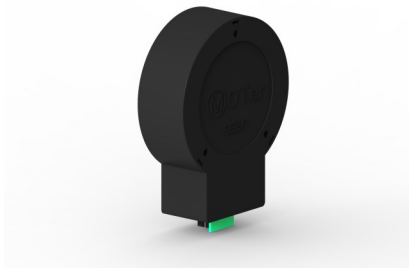
如果编码器和信号接收装置的距离超过2.5米，或在复杂的电磁环境中，我们建议使用带有差分电路(DS)的型号。

Where cable length between encoder and signal receiving device is more than 2.5m, or operated in complicated electromagnetic environment, we recommend use of differential signal (DS) version.

| 数据--Data                  |                         |                            |                        |                              |                              |                         |                          |
|---------------------------|-------------------------|----------------------------|------------------------|------------------------------|------------------------------|-------------------------|--------------------------|
| 工作电压<br>Operation voltage | 分辨率<br>Resolution       | 信号上升时间<br>Signal rise time | 电流消耗<br>Supply current | 输出电压(高)<br>Output voltage(H) | 输出电压(低)<br>Output voltage(L) | 工作温度<br>Operation temp. | 防护等级<br>Protection class |
| 5V DC                     | 1000, 2000,<br>4000 CPR | Max. 250ns<br>(DS 100ns)   | Max.<br>80mA           | Min.<br>2V DC                | Max.<br>0.5V DC              | -25...+85<br>°C         | 40                       |

| 尺寸为毫米-Dimensions in mm |           |                   |           |
|------------------------|-----------|-------------------|-----------|
|                        |           |                   |           |
| 引线--Cable              | SE30-X    | 引线--Cable         | SE30-X    |
| 红--Red                 | Vcc 5V    | 白--White          | A         |
| 黑--Black               | Gnd       | 绿--Green          | B         |
|                        | Shield    | 黄--Yellow         | Index     |
| 引线--Cable              | SE30-X DS | 引线--Cable         | SE30-X DS |
| 红--Red                 | Vcc 5V    | 绿--Green          | B         |
| 黑--Black               | Gnd       | 绿/黑--Green/black  | /B        |
|                        | Shield    | 黄--Yellow         | Index     |
| 白--White               | A         | 黄/黑--Yellow/black | /Index    |
| 白/黑--White/black       | /A        |                   |           |

## 编码器--SE50



- ▶ 增量型光电编码器
  - ▶ 体积小，可提供易于安装的版本
  - ▶ 根据需求，可提供差分信号输出
  - ▶ 根据要求，可提供特殊分辨率的信号输出
- ▶ Increment type photoelectric encoder
  - ▶ Small size, easy mounting type available
  - ▶ Differential signal output available on request
  - ▶ Special resolution output available on request

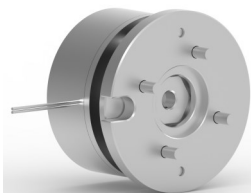
如果编码器和信号接收装置的距离超过2.5米，或者在复杂的电磁环境中，我们建议使用带有差分电路(DS)的型号。

Where cable length between encoder and signal receiving device is more than 2.5m, or operated in complicated electromagnetic environment, we recommend use of differential signal (DS) version.

| 数据--Data                  |                   |                            |                        |                              |                              |                         |                          |
|---------------------------|-------------------|----------------------------|------------------------|------------------------------|------------------------------|-------------------------|--------------------------|
| 工作电压<br>Operation voltage | 分辨率<br>Resolution | 信号上升时间<br>Signal rise time | 电流消耗<br>Supply current | 输出电压(高)<br>Output voltage(H) | 输出电压(低)<br>Output voltage(L) | 工作温度<br>Operation temp. | 防护等级<br>Protection class |
| 5V DC                     | 1000, 2000<br>CPR | 180ns                      | Max.<br>85mA           | Min.<br>2.4V DC              | Max.<br>0.5V DC              | -40...+100<br>°C        | 30                       |

| 尺寸为毫米-Dimensions in mm |        |         |           |
|------------------------|--------|---------|-----------|
|                        |        |         |           |
| 针脚--Pin                | SE50-X | 针脚--Pin | SE50-X DS |
| 1                      | Gnd    | 6       | A         |
| 2                      | Index  | 7       | /B        |
| 3                      | A      | 8       | B         |
| 4                      | Vcc 5V | 9       | /Index    |
| 5                      | B      | 10      | Index     |

## 断电制动器--RB Series

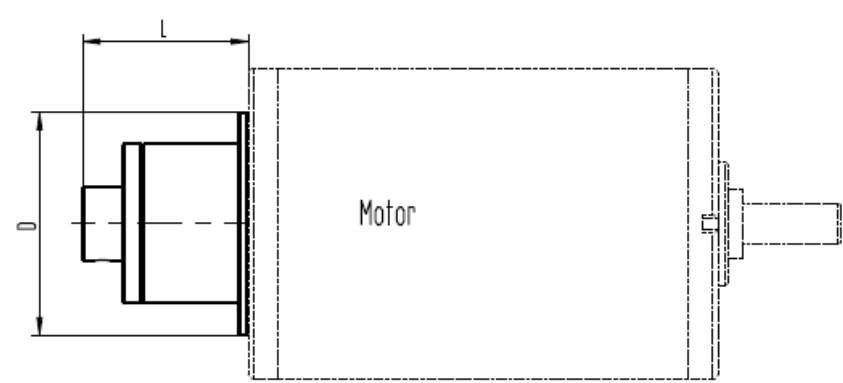


- ▶ 弹簧式断电制动器
- ▶ 可选装手动释放手柄
- ▶ 可提供高防护等级的产品
- ▶ 可提供永磁式制动器(RB300E / RB500E)
- ▶ 根据要求, 可提供特殊制动扭矩的产品
- ▶ Spring-applied power-off brake
- ▶ Manual release shank in optional
- ▶ Higher protection class in optional
- ▶ Permanent magnet brake available(RB300E / RB500E)
- ▶ Special braking torque available on request

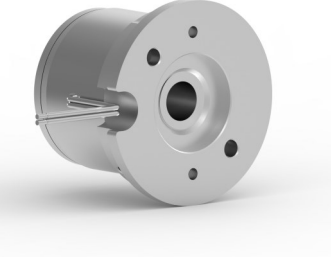
为保护您控制系统中的直流接触器免遭击穿, 我们建议使用续流二极管。

To protect the DC contacts in your system against arcing, we recommend use of a freewheeling diode.

| 数据-Data    |                           |                        |                     |                        |                                  |             |                          |                          |
|------------|---------------------------|------------------------|---------------------|------------------------|----------------------------------|-------------|--------------------------|--------------------------|
| 型号<br>Type | 工作电压<br>Operation voltage | 制动扭矩<br>Braking torque | 功率输入<br>Power input | 电流消耗<br>Supply current | 通电/断电时间<br>Pull in/Drop out time | 工作制<br>Duty | 绝缘等级<br>Insulation class | 防护等级<br>Protection class |
| RB50       | 24V DC                    | 50Ncm                  | 7W                  | 0.3A                   | <150/70ms                        | 50%         | F                        | 20                       |
| RB150      | 24V DC                    | 150Ncm                 | 11W                 | 0.48A                  | <150/70ms                        | 50%         | E                        | 20                       |
| RB200      | 24V DC                    | 200Ncm                 | 11W                 | 0.46A                  | <100/70ms                        | 50%         | E                        | 20                       |
| RB300      | 24V DC                    | 300Ncm                 | 11W                 | 0.48A                  | <150/70ms                        | 50%         | E                        | 20                       |
| RB300E     | 24V DC                    | 300Ncm                 | 10.5W               | 0.44A                  | <15/25ms                         | 50%         | E                        | 20                       |
| RB500E     | 24V DC                    | 500Ncm                 | 12W                 | 0.5A                   | <50/30ms                         | 50%         | E                        | 20                       |

| 尺寸为毫米-Dimensions in mm   |      |       |       |       |
|--|------|-------|-------|-------|
|  |      |       |       |       |
|  | RB50 | RB150 | RB200 | RB300 |
| D  | 47   | 52    | 52    | 57    |
| L  | 37   | 33    | 54    | 37    |

## 通电制动器--AB Series



- ▼ 永磁式通电/上电制动器
- ▼ 低噪声，快速响应
- ▼ 根据要求，可提供特殊制动扭矩的产品
- ▼ 可提供高防护等级的产品
- ▼ 工作转速可达10,000rpm
- ▼ Permanent magnet power-on brake
- ▼ Low noise, quick response
- ▼ Special braking torque available on request
- ▼ Higher protection class in optional
- ▼ Maximum operation speed up to 10,000rpm

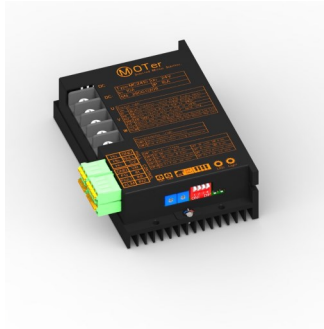
为保护您控制系统中的直流接触器免遭击穿，我们建议使用续流二极管。

To protect the DC contacts in your system against arcing, we recommend use of a freewheeling diode.

| 数据-Data    |                           |                        |                     |                        |                                  |             |                          |                          |
|------------|---------------------------|------------------------|---------------------|------------------------|----------------------------------|-------------|--------------------------|--------------------------|
| 型号<br>Type | 工作电压<br>Operation voltage | 制动扭矩<br>Braking torque | 功率输入<br>Power input | 电流消耗<br>Supply current | 通电/断电时间<br>Pull in/Drop out time | 工作制<br>Duty | 绝缘等级<br>Insulation class | 防护等级<br>Protection class |
| AB40       | 24V DC                    | 40Ncm                  | 6W                  | 0.25A                  | <100/70ms                        | 50%         | E                        | 20                       |
| AB120      | 24V DC                    | 120Ncm                 | 8W                  | 0.33A                  | <100/70ms                        | 50%         | E                        | 20                       |
| AB240      | 24V DC                    | 240Ncm                 | 10W                 | 0.42A                  | <100/70ms                        | 50%         | E                        | 20                       |

| 尺寸为毫米-Dimensions in mm |      |       |       |
|------------------------|------|-------|-------|
|                        |      |       |       |
|                        | AB40 | AB120 | AB150 |
| D                      | 32   | 40    | 50    |
| L                      | 30   | 41    | 44    |

## 控制器--MC2410

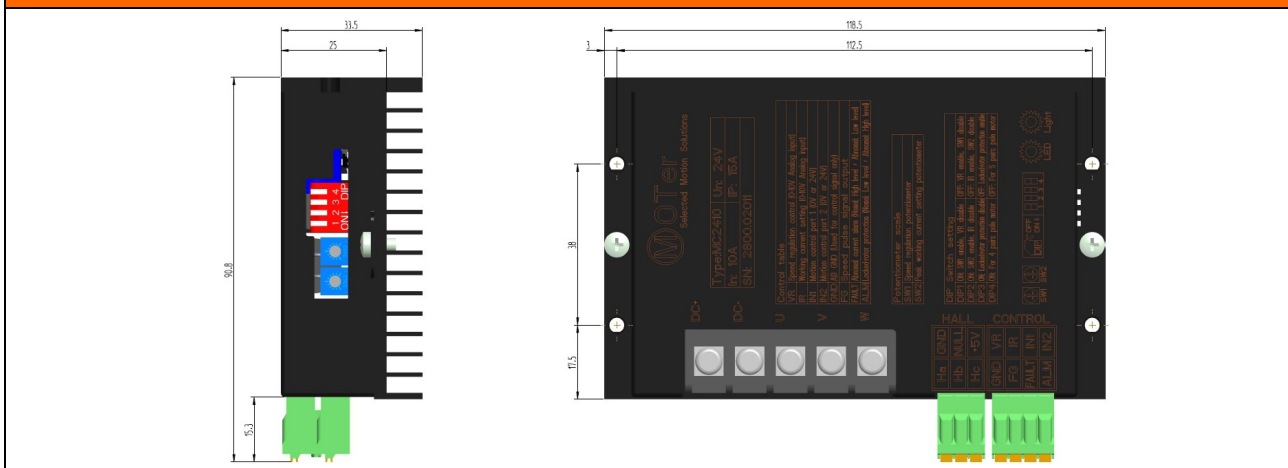


- ▶ 结构紧凑的两象限控制器，用来控制直流无刷电机
  - ▶ 模拟量输入控制
  - ▶ 内置调节模块，内置速度调节电位器和电流调节电位器
  - ▶ 功能设置拨码开关
  - ▶ 输出保护功能
- ▶ Compact 2 quadrant controller to control brushless DC motor
  - ▶ Analog input control
  - ▶ Built in adjustment module, built-in speed adjustment potentiometer and SW2: current regulating potentiometer
  - ▶ Function setting DIP switch
  - ▶ Output protection function

| 数据--Data                                      |     | MC2410  |
|---|-----|---------|
| 逻辑电路额定电压<br>Nominal voltage electronic supply | VDC | 18...28 |
| 电源额定电压<br>Nominal voltage power supply        | VDC | 18...28 |
| 电流消耗<br>Current consumption                   | mA  | 20@24V  |
| 峰值输出电流<br>Peak output current                 | A   | 15      |
| 连续输出电流<br>Continuous output current           | A   | 10      |
| 防护等级<br>Protection class                      | IP  | 20      |
| 环境温度<br>Ambient temperature                   | °C  | 0...+70 |
| 相对湿度<br>Relative humidity                     | %   | 5...85  |
| 重量<br>Weight                                  | kg  | 0.28    |

| 输入输出--I/O               |                |
|-------------------------|----------------|
| 数字量输入<br>Digital input  | 2              |
| 数字量输出<br>Digital output | 2              |
| 模拟量输入<br>Analog input   | 2(-10V...+10V) |

### 尺寸为毫米-Dimensions in mm



## 控制器--MC6005

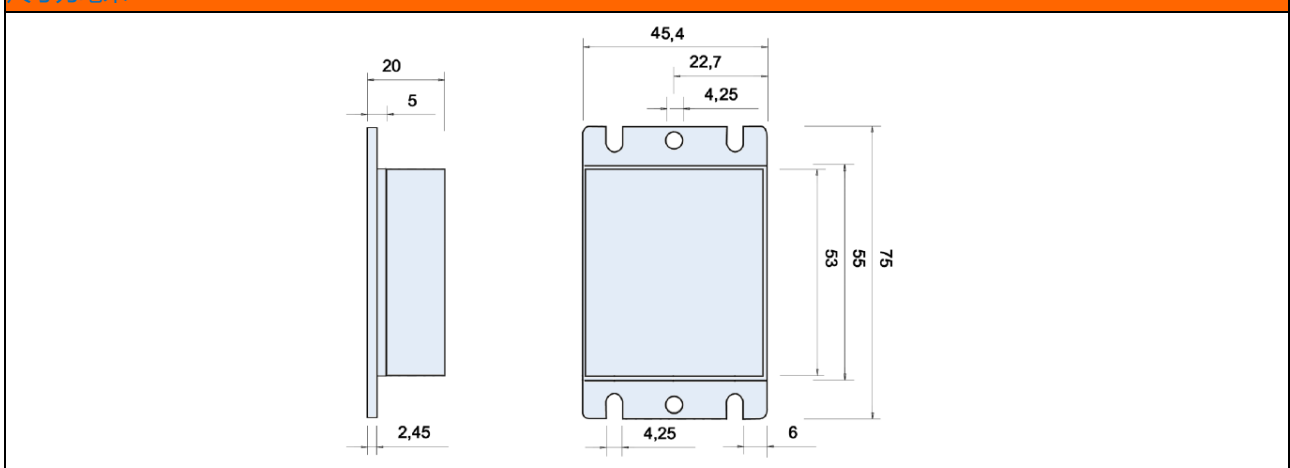


- ▶ 结构紧凑的四象限控制器，用来控制直流无刷和直流有刷电机
- ▶ CAN-open接口 (DSP402)
- ▶ 带有易于操作的PC软件 (驱动助手) 建议在电机上连接一个增量型编码器
- ▶ 带有过压、欠压和过热等保护功能
- ▶ Compact 4 quadrant controller to control brushless and brush-type DC motors
- ▶ CAN-open interface (DSP402)
- ▶ With comfortable PC software (Drive assistant) Attached incremental encoder at motor is recommended
- ▶ Protected against over-voltage, low-voltage and over-temperature cut-off

| 数据--Data                                      |     | MC6005  |
|---|-----|---------|
| 逻辑电路额定电压<br>Nominal voltage electronic supply | VDC | 9...30  |
| 电源额定电压<br>Nominal voltage power supply        | VDC | 9...60  |
| 电流消耗<br>Current consumption                   | mA  | 30@24V  |
| 峰值输出电流<br>Peak output current                 | A   | 15      |
| 连续输出电流<br>Continuous output current           | A   | 5       |
| 防护等级<br>Protection class                      | IP  | 20      |
| 环境温度<br>Ambient temperature                   | °C  | 0...+70 |
| 相对湿度<br>Relative humidity                     | %   | 5...85  |
| 重量<br>Weight                                  | kg  | 0.03    |

| 输入输出--I/O               |                |
|-------------------------|----------------|
| 数字量输入<br>Digital input  | 3              |
| 数字量输出<br>Digital output | 1              |
| 模拟量输入<br>Analog input   | 1(-10V...+10V) |

### 尺寸为毫米--Dimensions in mm



## 控制器--MC6010

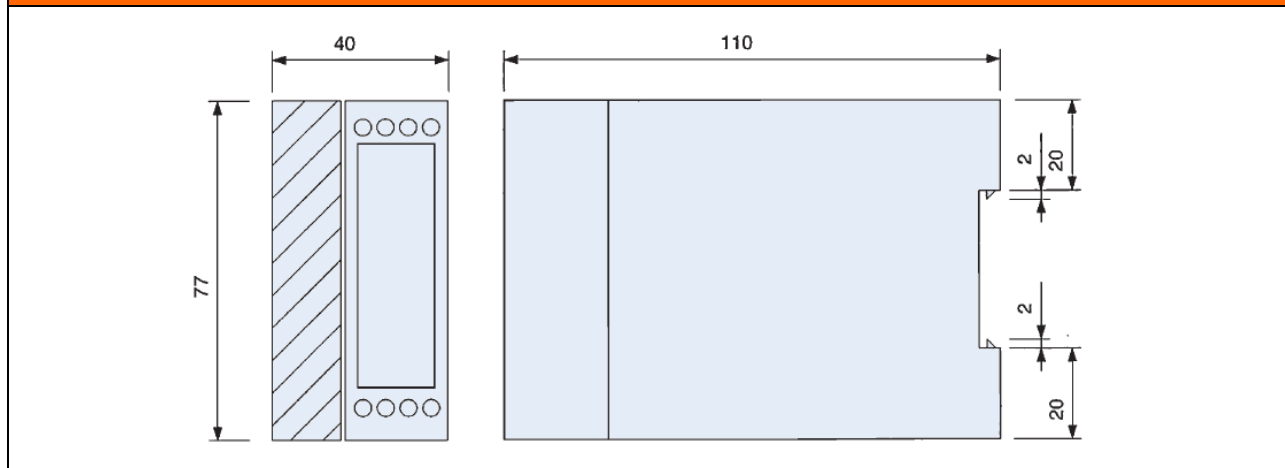


- ▼ 结构紧凑的四象限控制器，用来控制直流无刷和直流有刷电机
- ▼ CAN-open接口 (DSP402)
- ▼ 带有易于操作的PC软件 (驱动助手)  
建议在电机上连接一个增量型编码器
- ▼ 带有过压、欠压和过热等保护功能
- ▼ 可显示ready/status/error三种信息状态
- ▼ Compact 4 quadrant controller to control brushless and brush-type DC motors
- ▼ CAN-open interface (DSP402)
- ▼ With comfortable PC software (Drive assistant)  
Attached incremental encoder at motor is recommended
- ▼ Protected against over-voltage, low-voltage and over-temperature cut-off
- ▼ With display ready/status/error

| 数据--Data                                      |     | MC6010  |
|---|-----|---------|
| 逻辑电路额定电压<br>Nominal voltage electronic supply | VDC | 9...30  |
| 电源额定电压<br>Nominal voltage power supply        | VDC | 9...60  |
| 电流消耗<br>Current consumption                   | mA  | 60@24V  |
| 峰值输出电流<br>Peak output current                 | A   | 50      |
| 连续输出电流<br>Continuous output current           | A   | 10      |
| 防护等级<br>Protection class                      | IP  | 20      |
| 环境温度<br>Ambient temperature                   | °C  | 0...+70 |
| 相对湿度<br>Relative humidity                     | %   | 5...85  |
| 重量<br>Weight                                  | kg  | 0.31    |

| 输入输出--I/O               |                |
|-------------------------|----------------|
| 数字量输入<br>Digital input  | 8              |
| 数字量输出<br>Digital output | 2              |
| 模拟量输入<br>Analog input   | 2(-10V...+10V) |

### 尺寸为毫米-Dimensions in mm



## 控制器--MC6030

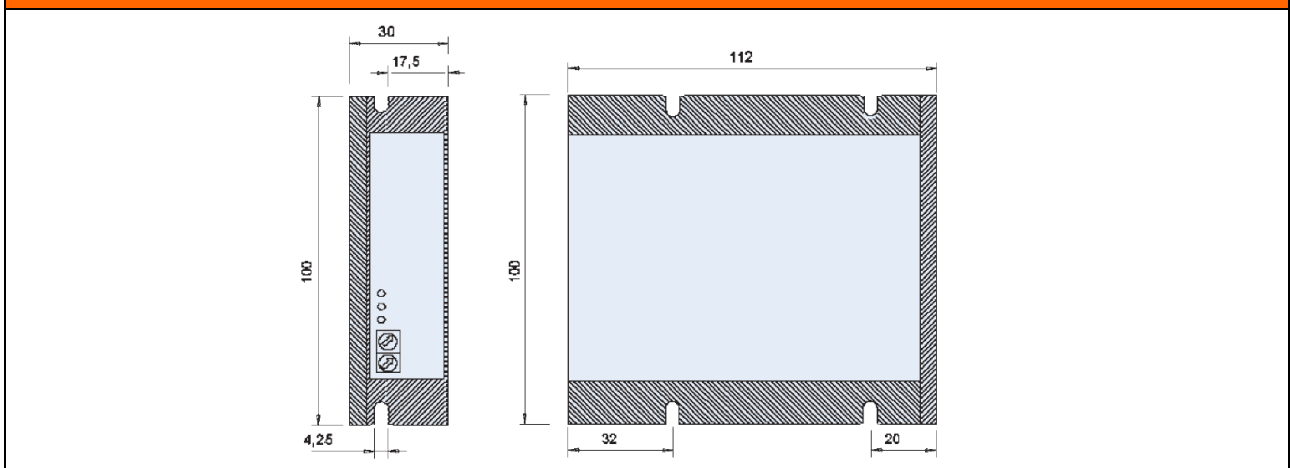


- ▼ 结构紧凑的四象限控制器，用来控制直流无刷和直流有刷电机
- ▼ CAN-open接口 (DSP402)
- ▼ 带有易于操作的PC软件 (驱动助手)  
建议在电机上连接一个增量型编码器
- ▼ 带有过压、欠压和过热等保护功能
- ▼ 可显示ready/status/error三种信息状态
- ▼ Compact 4 quadrant controller to control brushless and brush-type DC motors
- ▼ CAN-open interface (DSP402)
- ▼ With comfortable PC software (Drive assistant)  
Attached incremental encoder at motor is recommended
- ▼ Protected against over-voltage, low-voltage and over-temperature cut-off
- ▼ With display ready/status/error

| 数据-Data                                       |     | MC6030  |
|---|-----|---------|
| 逻辑电路额定电压<br>Nominal voltage electronic supply | VDC | 9...30  |
| 电源额定电压<br>Nominal voltage power supply        | VDC | 9...60  |
| 电流消耗<br>Current consumption                   | mA  | 70@24V  |
| 峰值输出电流<br>Peak output current                 | A   | 100     |
| 连续输出电流<br>Continuous output current           | A   | 30      |
| 防护等级<br>Protection class                      | IP  | 20      |
| 环境温度<br>Ambient temperature                   | °C  | 0...+70 |
| 相对湿度<br>Relative humidity                     | %   | 5...85  |
| 重量<br>Weight                                  | kg  | 0.38    |

| 输入输出-I/O                |                |
|-------------------------|----------------|
| 数字量输入<br>Digital input  | 8              |
| 数字量输出<br>Digital output | 2              |
| 模拟量输入<br>Analog input   | 2(-10V...+10V) |

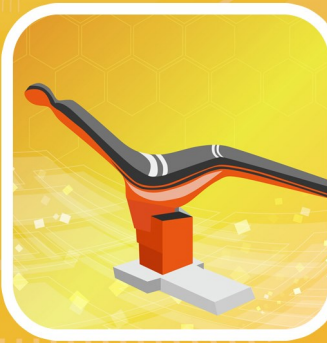
### 尺寸为毫米-Dimensions in mm





# MOTer

Selected Motion Solutions



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