

**SEMRKE<sup>®</sup>**

森 玛 克

MOTORS



## 苏州市森玛克工业设备有限公司

地址: 苏州市太仓市城厢镇通海路8-21号

电话: 0512-53583637 传真: 0512-53583796

Suzhou Shisenmake Industrial Equipment Co. Ltd..

ADD: Tonghai Road 8-21, Chengxiang Town, Taicang City, Suzhou City

TEL: 0512-53583637 FAX: 0512-53583796

E-mail: semirke@163.com www.semirke.com



**MOTORS**  
ASYNCHRONOUS / MAGNET SERVO

—— 动力篇 ——



通用电机 / 伺服电机

THREE-PHASE ASYNCHRONOUS MOTORS  
PERMANENT MAGNET SERVO MOTORS

动力传动专业制造商

PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

设计理念: 遵循规律, 总是超越

DESIGN PHILOSOPHY: To follow the law, but always beyond.

经营理念: 为客户需求而设计, 为客户满意而执着

BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction



动力传动专业制造商  
Professional manufacturer of power transmission

## 公司简介 COMPANY PROFILE

苏州市森玛克工业设备有限公司是一家集科研、生产、销售为一体的动力传动装置专业制造商，位于美丽的东南沿海城市——江苏苏州。公司拥有一支具有行业领先水平的资深研发团队，拥有自主研发的核心技术和知识产权，产品工艺先进，精良的加工设备和齐全的检测仪器，能自主设计开发各种类型的减速机、电机。

**产品有：YS系列铝壳三相异步电动机，YE2、YE3系列高效、超高效电机、交流伺服电机、混合式步进电机，驱动器、NMRV系列铝合金蜗轮蜗杆减速机，UD系列无级变速器，BKM系列斜齿轮—准双曲面齿轮减速机。**

产品广泛用于橡塑机械、包装机械、啤酒饮料、医疗、烟草机械、环保设备、立体仓储、立体停车库、机器人、自动化控制设备等领域中。我们利用技术上的优势，产品多年来远销德国、意大利、美国等欧美国家，在国内、东南亚地区更有广泛的客户群和固定的销售渠道。

我们坚持生产的每一个产品都是良品、优品。产品的性能指标严格按国家标准和行业标准制造，并建立了一整套严格科学的质量保证体系。严格按照ISO9001：2008国际质量管理体系标准运作，产品通过中国CCC强制性认证，欧共体CE认证。产品按国际IEC标准生产，所有产品均达到国际同类产品的先进水平。

公司谨奉“敬业乐群，发展自己，服务社会”的企业宗旨。为员工创造福祉，追求员工和企业一起成长；为客户创造利润，公司和客户携手共赢；为社会创造价值，坚持科技创新，绿色制造，走可持续发展之路！

Suzhoushisenmake Industrial Equipment Co. Ltd.. is a power transmission system specialized manufacturing company with its own completely system of research, development, production and marketing Manufacturer. located in the beautiful southeast coast city -Jiangsu Suzhou,. The company has experienced R & D team of industry-leading level, with self-developed core technology and intellectual property, products, advanced technology, sophisticated processing equipment and complete testing equipment, can independently design and develop various types of reduction gearbox, motor .

We products YS Series three-phase asynchronous motors, IE2, IE3 series of highly efficient, ultra-efficient motors, AC servo motors, hybrid stepper motors, drives, NMRV series aluminum alloy worm reducer, UDL Promise series gearbox, BKM series hypoid bevel gear reducer.

Our products are widely used in the field of rubber and plastic machinery, packaging machinery, beer and beverage, health care, tobacco machinery, environmental protection equipment, three-dimensional storage, parking, robotics, automation and control equipment and the like. We use technical advantages; the products are exported to Germany for many years, Italy, the United States and other European countries, in China, Southeast Asia and more extensive customer base and fixed sales channels.

We insist on the production of each product is of good quality and excellent products. Zou Yi performance electromechanical products in strict accordance with national standards and industry standards for manufacturing, and to establish a set of strict and scientific quality assurance system. Strict accordance with the ISO9001: 2008 international quality management system standard operation, product by China Compulsory Certification CCC, CE certification. All products according to international IEC standards, all products have reached the international advanced level of similar products.

The company would like Bong "dedication of friends, develop their own social services" business purposes. For employees to create the well-being of employees and the pursuit of business growth together; create profits for clients, companies and customers and win-win; create value for society, adhere to scientific and technological innovation, green manufacturing, and take the road of sustainable development!





动力传动专业制造商  
Professional manufacturer of power transmission



传动不止 创新无限

**THERE IS MORE THAN**  
ENDLESS INNOVATION DRIVE

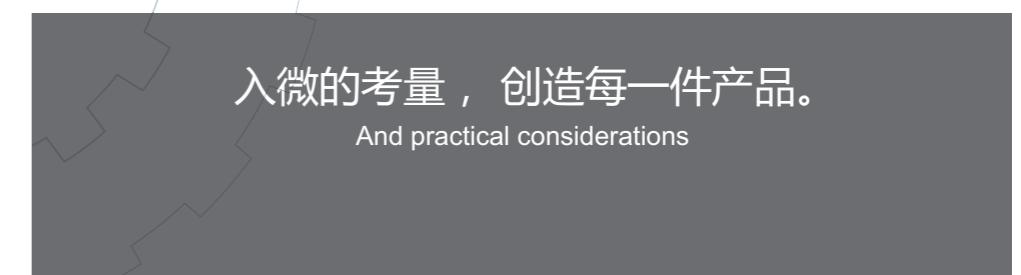
自动化设备代替人工，科技促进生产升级。

Automation equipment to replace artificial,  
science and technology for upgrading the production.





动力传动专业制造商  
Professional manufacturer of power transmission





动力传动专业制造商  
Professional manufacturer of power transmission





动力传动专业制造商  
Professional manufacturer of power transmission

## 全新的“4S”一站式服务系统

### NEW "4 S" ONE-STOP SERVICE SYSTEM

#### SERVICE (微笑服务)

Service代表我们的服务态度，更代表了我们将这种态度贯穿整个服务过程，  
一切以客户需求为核心，力争提供更灵活、更有价值的服务。

#### Speed(快速反应)

Speed代表我们响应客户需求的速度，  
我们整合协调全国各销售网点的专业销售工程师，  
专职售后服务人员第一时间为需求客户提供全方位的服务。

#### Specialty(专业)

Specialty代表我们团队技能水平，  
第一时间为用户提供专业的解决方案，为用户量身定制专享的服务。

#### Satisfaction(满意)

Satisfaction代表了我们客服人最终的目标，  
以客户满意为宗旨，提供值得信赖、一切让客户满意的服务。



**Warm and professional customer service**  
热情耐心专业的客户服务

# 目录

## CONTENT

### > 前言

主要产品、型号说明 The main products, code description	01
高效电机的概述 Overview of High Efficiency Motor	02
效率值标准 The efficiency value of standard	03
设计特征 Mechanical design	04-05
电机工作原理 Electrical work principle	06-10

### > 通用电机

#### GENERAL MOTORS

YS (MS) 系列电机技术参数 YS (MS) series motor technology parameters	11-12
YS (MS) 系列电机安装尺寸 Installation dimension of YS (MS) series motor	13-15
YE2系列电机技术参数 (IE2 , 3级能效 ) YE2 series motor technology parameters (IE2, LEVEL 3)	16-17
YE3系列电机技术参数 (IE3 , 2级能效 ) YE3 series motor technology parameters (IE3, LEVEL 2)	18-19
YE2 YE3系列电机安装尺寸 YE2 YE3 Series Motor Mounting Dimensions	20-23

### > 制动电机

#### BRAKE MOTOR

YEJ制动电机设计特征 YEJ brake motor design features	24-25
YEJ制动电机系列技术参数 YEJ series of technical parameters of the brake motor	26-27
YEJ制动电机系列安装尺寸 YEJ series brake motor mounting dimensions	28-31

### > 变频电机

#### FREQUENCY CONVERSION MOTOR

##### 变频电机调速概述

Frequency control of motor speed overview 32-33

##### YVP变频电机系列技术参数

YVP frequency conversion motor series technical parameter 34-35

##### YVP变频电机系列安装尺寸

YVP inverter motor mounting dimensions 36-39

### > 伺服电机

#### SERVO MOTOR

##### 伺服电机型号说明及使用条件

Servo motor model description and Servie Conditions 40

##### 60系列技术参数

60Series Technical Parameter 41

##### 80系列技术参数

80Series Technical Parameter 42

##### 90系列技术参数

90Series Technical Parameter 43

##### 110系列技术参数

110Series Technical Parameter 44

##### 130系列技术参数

130Series Technical Parameter 45

##### 150系列技术参数

150Series Technical Parameter 46

##### 180系列技术参数

180Series Technical Parameter 47-48

##### 60、80、90系列伺服电机安装尺寸

60、80、90Series Servo Motor appearance and installation dimensions 49

##### 110、130、150、180系列伺服电机外型安装尺寸

110、130、150、180Series Servo Motor appearance and installation dimensions 50-51

##### 伺服电机简单故障分析与排除

Servo motor simple fault analysis and ruled out 52-53

##### 售后服务

After-sale service 54

所有低压三相异步电动机均执行统一标准。各项性能均满足国际IEC60034-30标准。真正做到动力无限。

All of the low-voltage three-phase asynchronous motors implement unified standard. The performance standards are met international IEC60034-30.Truly unlimited power.

电机外表采用喷塑工艺处理，永久不退色。

The motor surface using spray process, never fade.

全部电动机外形采用方形设计，打破了传统的圆形结构设计，满足了人们的审美感，并获得了国家专利，专利号：201030141947.7

All motors shape with a square design, which breaking the traditional circular structure designed to meet the aesthetic sense of the people, and obtained a national patent.Patent No : 201030141947.7

前、后端盖安装紧固螺钉均采用隐形设计，整台电机结构紧凑。

The fastening screws for front and rear cover use stealth design. The entire motor structure is compact

电动机底脚为活动结构，可变换安装方位。

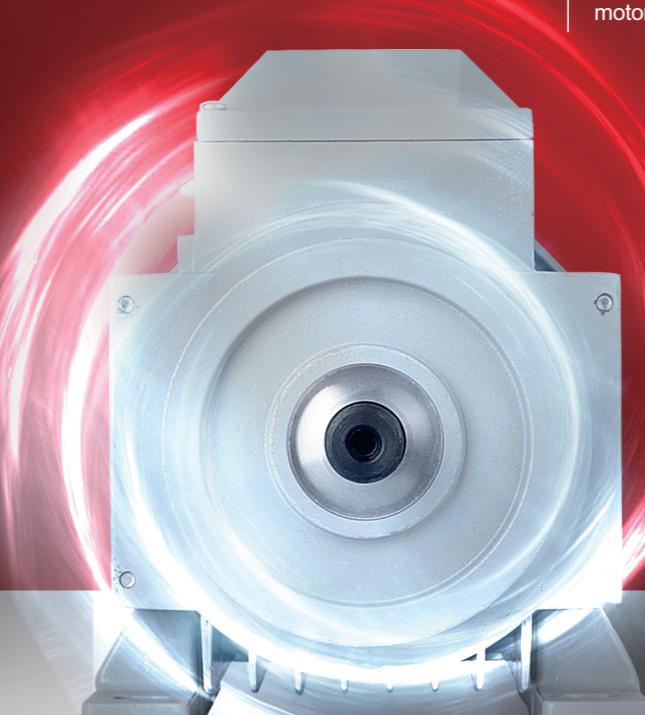
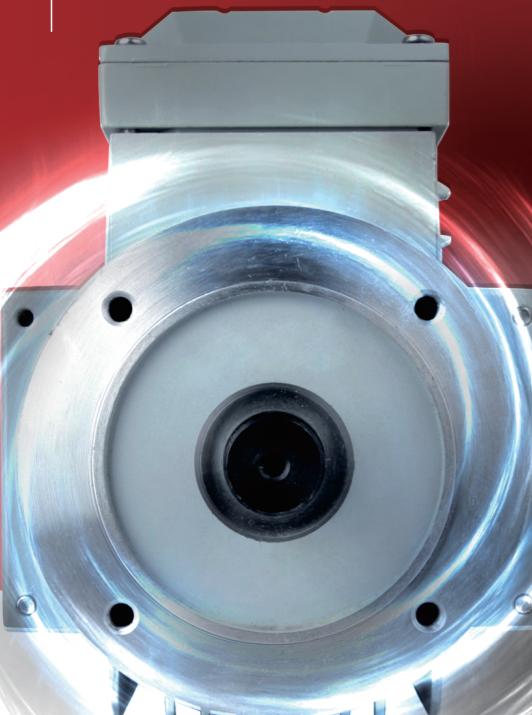
Motor foot structure for activities,it can transform the installation position.

电机采用静音轴承真正达到了传动无声。

Silent bearing is used in motor which drive to really silent.

可根据用户要求设计制造各种非标单、三相异步电动机。

User requirements can be noted in the design and manufacture of non-standard single, three-phase asynchronous motors.



通用电机

THREE-PHASE  
ASYNCHRONOUS MOTORS



## 一、主要产品 / The main products

- YS (MS)、YE2、YE3 系列三相交流异步电动机  
YS (MS), YE2, YE3 series three-phase AC asynchronous motor
- YEJ 系列三相直流制动异步电动机  
YEJ series three-phase DC brake motor
- YVP 系列三相交流变频电动机  
YVP series three-phase AC variable frequency motor

## 二、代号说明 / Code description

### 电机代号说明 / Machine code description

YE 3-90 S-4 - B5

- 电机安装方式 / Motor mounting modality
- 极数 / Number of poles
- 铁芯代号 / Core length number
- 电机中心高 / Motor center height
- 3-IE3 (2级能效) 2-IE2 (3级能效)
- 系列代码 / Series code

### 防护等级 / Protection grade

IP-5-5

- 防喷淋 / Fire sprinkler
- 防尘 / Dust
- 国际防护表征字母 International Protection of characterization of letters

### 冷却方式 / Cooling mode

IC - 411

- 全封闭自扇冷式 / Totally enclosed fan cooled
- 国际冷却法 / The cooling method

## 高效电机的概述 / Overview of high efficient motors

我公司开发的IE2(中国的3级能效)、IE3(中国的2级能效)超高效三相异步电动机是根据IEC60034-30及中国的GB18613-2012标准的能效等级自主设计、生产的节能产品。

IE2标准高效是老版本欧洲分级方案中的EFF1，与美国的EPAct相同(60Hz)。

IE3超高效(与美国的NEMA Premium相同60Hz)

我公司现生产的IE2、IE3高效和超高效三相50Hz、60Hz、2极、4极、6极异步电动机额定输出功率范围0.75Kw-22Kw。工作制为S1,可直接起动。广泛应用于各类传动机械行业。

The company developed the IE2 (Chinese L3 (Level3) energy-efficient ), IE3 (Chinese L2 (Level2) energy-efficient ) over Efficient three-phase asynchronous motors are noted in the IEC60034 - 30 and Chinese GB18613 - 2012

Standard energy efficiency rating of independent design and production of energy-saving products.

IE2 is an old version of the European standard efficiency classification scheme EFF1, the same as the United States EPAct (60Hz).

IE3 ultra-efficient (the same as the United States NEMAP remium 60H z)

The production of IE2, IE3 efficient and ultra-efficient three-phase 50H z, 60 H z, 2Pole, 4-pole, 6-pole induction motor rated output power range 0 .7 5 K w - 2 2 K w. The work System for the S 1, can directly start. Widely used in various types of transmission machinery industries.

IE2、IE3不包括下列电机:

I E2, I E3 does not include the following motor;

1、YS系列三相电动机。

1.YS series three-phase motors.

2、用变频器操作的三相电动机。

2.Three-phase motor with inverter operation.



## 效率值标准 / The efficiency value of standard

IEC60034-30:2008标准中确定的最低效率值

The lowest efficiency determination in IEC60034-30:2008 standard value

输出功率 Kw	IE2.(GB3级能效)			IE3.(GB2级能效)		
	高效率(%)			超高效率(%)		
	2级	4级	6级	2级	4级	6级
0.75	77.4	79.5	75.9	80.7	82.5	78.9
1.1	79.6	81.4	78.1	82.7	84.1	81
1.5	81.3	82.8	79.8	84.2	85.3	82.5
2.2	83.2	84.3	81.8	85.9	86.7	84.3
3	84.6	85.5	83.3	87.1	87.7	85.6
4	85.8	86.6	84.6	88.1	88.6	86.8
5.5	87	87.7	86	89.2	89.6	88
7.5	88.1	88.7	87.2	90.1	90.4	89.1
11	89.4	89.8	88.7	91.2	91.4	90.3
15	90.8	90.6	89.7	91.9	92.1	91.2
18.5	90.9	91.2	90.4	92.4	92.6	91.7
22	91.3	91.6	90.9	92.7	93	92.2

## 铭牌信息 / Brand information

THREE-PHASE AC INDUCTION MOTORS IE2  

TYPE YE2- LNSULATION CLASS F CL. IP55 VOLTAGE V  
 WORK S1 CURRENT A EFFICIENCY % POWER kW   
 FREQUENCY Hz SPEED r/min POWER FACTOR  Y  
 STANDARD GB18613-2012能效3级 WEIGHT kg DATE / / /  
 TAI ZHOU ZHOU YI.ELECTRIC CO.,LTD.

THREE-PHASE AC INDUCTION MOTORS IE3   IEC60034

TYPE YE3- FREQUENCY Hz POWER kW  
 CL. IP55 SPEED r/min CURRENT A  
 VOLTAGE V EFFICIENCY %  
 WIRING METHODS Y POWER FACTOR  
 LNSULATION CLASS F WORK S1 WEIGHT kg  
 STANDARD GB18613-2012能效2级 DATE / / /  
 TAI ZHOU ZHOU YI.ELECTRIC CO.,LTD.

THREE-PHASE AC INDUCTION MOTORS  

TYPE MS- LNSULATION CLASS F CL. IP55  
 POWER FACTOR  EFFICIENCY %  
 WORK S1 WEIGHT kg NO  

V	H <sub>2</sub>	r/min	kW	A
380-420Y	50			
220-240△	50			
440-480Y	60			

  
 STANDARD JB/T1009-2007 DATE / / /  
 TAI ZHOU ZHOU YI.ELECTRIC CO.,LTD.

THREE-PHASE AC INDUCTION MOTORS   IEC60034

TYPE YS- FREQUENCY Hz POWER kW  
 CL. IP55 SPEED r/min CURRENT A  
 VOLTAGE V EFFICIENCY %  
 WIRING METHODS Y POWER FACTOR  
 LNSULATION CLASS F WORK S1 WEIGHT kg  
 STANDARD JB/T1009-2007 DATE / / /  
 TAI ZHOU ZHOU YI.ELECTRIC CO.,LTD.

## 设计特征 / Mechanical design

### 一、结构特点 / The structural characteristics

从0.06Kw-22Kw的功率等级有12种机座规格。

0.06Kw-7.5Kw接线盒与机座整体铝合金压铸结构，密封性好，完全符合IP56外壳防护等级标准，接线盒每侧均配备有两个出线孔。根据用户的需要出线方向可在现场临时定。

机座配有可拆卸的底脚，电机可旋转90°安装，整机结构紧凑，外观为方形，改变了市场上传统的圆形外壳。前端端盖固定螺栓采用隐形设计。

采用低噪声静音轴承，使电机运行起来更平稳，噪音更低。

From 0.06Kw power level to 22Kw power level ,we have 12 kinds of frame size .

0.06Kw-7.5Kw junction box and the base structure of the overall aluminum die-casting, sealing, and in full compliance with IP56 enclosure rating standards, junction boxes on each side are equipped with two outlet holes. As noted in the direction needed to qualify the user in the field temporarily fixed.

Base with a removable bottom foot ,motor can be rotated 90 ° to install, compact structure, the appearance of the square, Front cover bolts using stealth design.

Low noise silent bearings, the motor running more smoothly, lower noise.

### 二、使用的主要原材料 / The main raw material

0.06Kw-7.5Kw电机外壳为压铸铝合金，11Kw-22Kw外壳为高强度铸铁。

轴料为 40Cr钢调质处理。

电磁线采用QZ-2/155、QZY-2/180。

定转子铁芯采用DW470、DW600。

0.06Kw-7.5Kw motor housing is die-cast aluminum, 11Kw-22Kw for high-strength cast iron housings.

40Cr steel shaft material for quenching.

Magnet wire using QZ-2/155, QZY-2/180.

Stator and rotor core using DW470, Dw600.

### 三、表面防护 / Surface protection

电机外表面均采用喷塑处理。

外露螺栓均采用不锈钢材料制造。

The outer surface of the motor using spray treatment.

Exposed bolts are made of stainless steel.



## 设计特征 / Mechanical design

### 四、绝缘 / Insulation

宙义电机均采用F级绝缘系统，B级温升，最高允许环境温度为40°，最低环境温度为-15°，超过此值范围用户应提出要求。

温升考核限值为电阻法80K。

Zou Yi motors are Class F insulation system, B-level rise, the maximum permissible ambient temperature of 40 °, the minimum ambient temperature of -15 °, apart from this value range ,user should request extra service.

Temperature rise test limit is resistance assessment method 80K.

### 五、双频电机的说明 / The dual frequency dual pressure motor explain

本公司生产的双频双压电机，频率为50/60HZ，电压为(380V~420V)/(440V~480V)。当频率是50HZ，电机接线方式为“Y”型接法时，则输入电压在380V至420V都可使用。而电机接线方式为“△”型接法时，则输入电压在220V至240V都可使用。当频率是60HZ，电机接线只能为“Y”型接法，则输入电压在440V至480V都可使用。

The company production of the dual frequency dual pressure motor ; frequency is 50/60Hz,voltage(380 ~ 420V)/(440 ~ 480V). when the frequency is 50Hz,the motor wiring for the "Y" type connection, the input voltage connection, the input voltage can be used in 380V to 420V, and the motor wiring for the "△" connection the input voltage can be used in 220V to 240V when the frequency is 60Hz the motor wiring is connected to "Y", then input voltage can be used in 440V to 480V.

### 六、统一标准 / standards

所有通用电机执行统一的制作标准。

结构及安装型式GB/T997-2008，对应标准IEC60034-7。

输出功率及安装尺寸公差GB/T4772.1-1999，对应标准IEC60072-1。

电气规范GB/T755-1987对应标准IEC60034-1。

外壳防护等级GB/T4942.1-2008对应标准IEC60034-5。

噪音GB/T10069.1-2006对应标准IEC60034-9。

振动GB/T10068-2008对应标准IEC60034-14。

All general motors implementation of a unified production standards.

Structure and mounting is GB / T997-2008, which corresponds to the standard IEC60034-7.

Output power and install dimensional tolerances is GB / T4772.1-1999, which corresponds to the standard IEC60072-1.

Electrical Code is GB / T755-1987 which corresponds to the standard IEC60034-1.

Enclosure rating is GB / T4942.1-2008 which corresponds to the standard IEC60034-5.

Noise is GB / T10069.1-2006 which corresponds to the standard IEC60034-9.

Vibration is GB / T10068-2008 which corresponds to the standard IEC60034-14.

## 电机工作原理 / Motor operation

### 一、工作原理 / Operating Principle

电动机是一种旋转式电动器具，它将电能转变为机械能。利用定子绕组和转子组成一个磁场回路，当定子绕组通过交流电时，转子鼠笼中有电流通过而产生一个旋转磁场使转子以固定的转速转动。这个转速为电机的同步转速n，它的取值与电源的频率(f)及电机绕组的极数(P)有关,即 $n_0 = 60 \times f / P$ (转/分)。当旋转磁场使电机转子产生感应电流时，转子磁场受到电磁力的牵引而转动，因此定子磁场与转子磁场产生了一个转速差异，并且差异越大，转子上产生的电磁转矩也就越大，因此电机的输出转速与同步转速也就存在差异，这个差异以转差率(S)表示 $S = n_0 - n / n_0 \times 100\%$ 。

一般电机在额定点时转差率S为0.06左右。

The motor is a rotary electric appliance, it is converted to electrical energy to mechanical energy. Use of the stator winding ,The group consisting of a magnetic circuit and the rotor, stator winding through when AC, the rotor cage has Current generating a rotating magnetic field of the rotor is rotated by a fixed speed. The speed of electricity Machine synchronous speed n, its value and power of the frequency (f) and Poles (P) on the motor windings, That  $n_0 = 60 \times f / P$  (r / min). When the rotating magnetic field induced current of the motor rotor, the rotor magnetic

Field by the electromagnetic force and rotates, so the stator and the rotor magnetic field produces a speed Difference, and the greater the difference, the electromagnetic torque on the rotor produced greater, the output of the motor Speed and synchronous speed will differ, this difference in slip (S) said  $S = n_0 - n / n_0 \times 100\%$ .

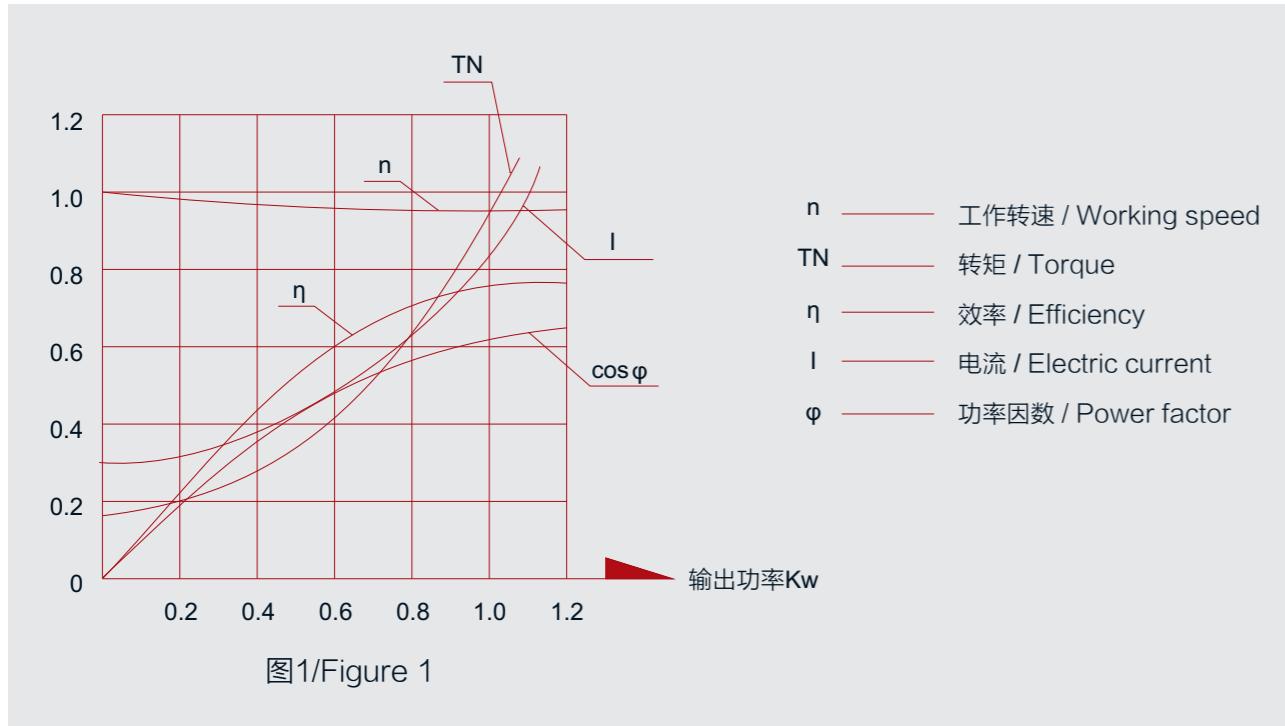
General Motor slip at the rated point S is about 0.06.

### 二、电动机的运行特性 / the operating characteristics of the motor

电动机在带负载运行时，其实际输出功率(P)大小的恒功率等于实际负载的需求功率。负载的增加或减少，电机的输出功率随之增加或减少。电机在不同工作点时，转速n、转矩TN、输出功率P、功率因数COSφ、效率η、电流I等将随着负载的变化而变化(如图1)，这种变化是电机的运行特性决定的。

When the motor is running with load, the actual output power (P) is equal to the actual power load demand. Increasing or decreasing the load, the output power of the motor affect accordingly. When Motor work in different working points, the speed n, the torque TN, the output power P, the power factor COSφ, efficiency η, electric current I, will change as the load changes (Figure 1), this change is to run the motor characteristics decision.

## 电机工作原理 / Motor operation



从图1中可看出，从空载到加载，随着电机输出功率的增大，电机转速(n)稍有下降。转矩(M)随着输出功率增大而相对增大。效率(η)、功率因素(COS φ)当输出功率增大到50%额定值以上时保持基本稳定。

As we can be seen from Figure 1, from empty-load to load, the output power increasesing, the motor rotation Speed (n) decreased slightly. Torque (M) increases as the output power is relatively increased. Efficiency (η), the power factors (COSφ) remain stable when the output power is increased to more than 50% of rated value.

### 三、二个转矩特性 / the two torque characteristics

#### 1、额定转矩TN / The rated torque TN

电机在额定电压下以额定转速( $n_0$ )运行，输出额定功率( $P$ )时，电机转轴上输出的

$$\text{转矩: } TN = \frac{P}{2 \times \pi \times n_0} \text{ 牛顿 · 米}$$

Motor rated speed ( $n_0$ ) is running at rated voltage, Rated output power ( $P$ ), the output of the motor shaft

$$TN = P/2 \times \pi \times n_0 / 60 (\text{orque: Nm})$$

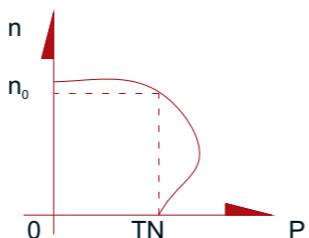


图2 / Figure 2

## 电机工作原理 / Motor operation

#### 2、最大转矩Tmax / the maximum torque T<sub>max</sub>

电动机带动负载的能力。

如果  $TL > T_{max}$  电机将会因带不动负载而停转。TL为负载转矩。  $T_{max} = KV_1^2 \frac{1}{2 \times 20}$

Motor driven load.

IF  $TL > T_{max}$  motor will not move due to the load with

The stall. TL is the load torque.

$$T_{max} = KV_1 2/1/2 \times 20$$

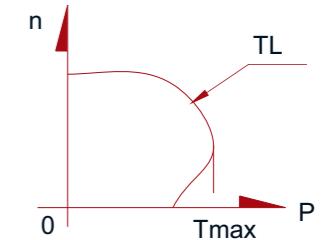


图3 / Figure 3

对于三相电动机，同时按相同倍数提高或降低电动机的额定电压和频率是允许的。需要说明的是:当电动机工作电压偏离额定值时，电动机的起动转矩TN、最小转矩Tn、最大转矩Tmax等将受到影响。力矩大小与电压的平方成正比。

For three-phase motors, while increasing multiples of the same Or reduce the motor's rated voltage and frequency are allowed. It should be noted that: When the motor work

For three-phase motors, while increasing multiples of the same Or reduce the motor's rated voltage and frequency are allowed. It should be noted that: When the motor work

Voltage excursions, the motor starting torque TN, minimum torque Tn, maximum torque Tmax Etc. will be affected.

The size of the torque proportional to the square of the voltage.

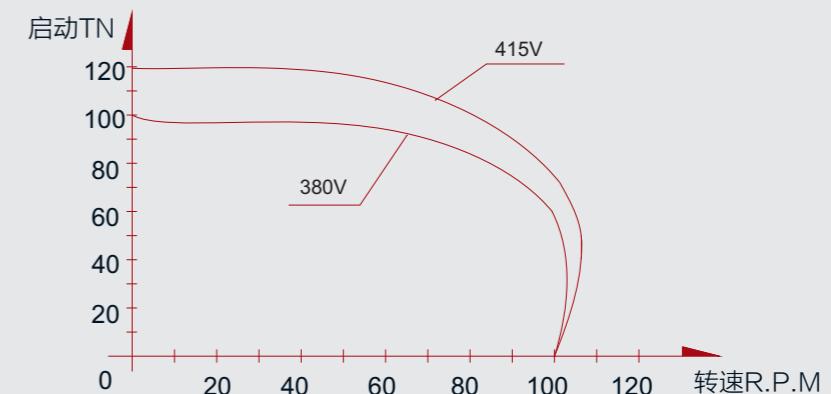


图4 / Figure 3



## 电机工作原理 / Motor operation

### 四、运行环境 / The Operating Environment

一般用途的电动机，其定额应为最大连续定额，并能按S1工作制运行。

S1-连续工作制:电动机在恒定负载下运行,运行时间足以达到热稳定。

S2-短时工作制:电动机在恒定的负载下,按给定的时间运行,该时间不足以达到热稳定,随之断电,然后停止转动有足够时间,使电动冷却到环境温度。

在额定电压, 额定频率下, 使用的环境空气温度不超过  $-15 \leq Q \leq 40^{\circ}\text{C}$

海拔高度不超过1000米。绝缘等级F级, 定子绕组温升考核80K。外壳防护:IP54、IP55、IP56。冷却方式:IC411。

本公司生产的电动机均为S1工作制。外壳防护如无特殊要求均按IP54生产。

过载系数:  $\lambda = \frac{T_{max}}{T_N}$

General-purpose motor, the maximum continuous rating should be fixed, and can run in S1 duty.

S1-continuous duty: the motor running at constant load, running time sufficient to achieve thermal stability.

S2-short-time work: the motor at a constant load, running at a given time, the time

Sufficient to achieve thermal stability, along with power, and there is sufficient time to stop the rotation, to the ring of the electric cooling Ambient temperature.

At rated voltage, rated frequency, ambient air temperatures do not exceed  $-15 \leq Q \leq 40^{\circ}\text{C}$  Not more than 1000 meters above sea level. Insulation class F, the stator winding temperature rise assessment 80K. Anti shell

Proof: IP54, IP55, IP56. Cooling method: Ic411.

The company produces both S1 motor duty. Enclosure protection according to IP54 if no special requirements Produce.

Overload factor: $\lambda = T_{max} / T_N$

### 注意 / Note

1、三相电动机的 $T_{max}$ 和电压的平方成正比, 所以对电压的波动很敏感, 使用时要注意电压的变化。

Three-phase motor is proportional to the square of the voltage and  $T_{max}$ , it is sensitive to voltage fluctuations, Note the use of the voltage variation.

2、工作时一定使负载的转矩 $TL < T_{max}$ , 否则电机将会停转或过热而烧毁。

Must make the work load torque  $TL < T_{max}$ , otherwise the motor will stall or overheat.

## 电机工作原理 / Motor operation

### 五、电机应用规范 / The motor application specification

#### 一、额定电压和频率 / The rated voltage and frequency

每种型号的电机都规定了额定工作电压及频率。铭牌上有标示。电机在使用时要检查电源电压和频率与电机规定值相符, 如果不符将不能保证电机的性能指标有效的发挥, 严重时将会造成一定的人身伤害。

Each model provides motors are rated working voltage and frequency. There are marked on the nameplate. Motor When used to check the value of the supply voltage and frequency match the motor provides power if the match can not be guaranteed Performance machine to function effectively, will cause some serious bodily injury.

所有电动机的电源电压, 不得超过或降低 $\pm 5\%$ , 频率不得偏离额定的 $\pm 1\%$ 。

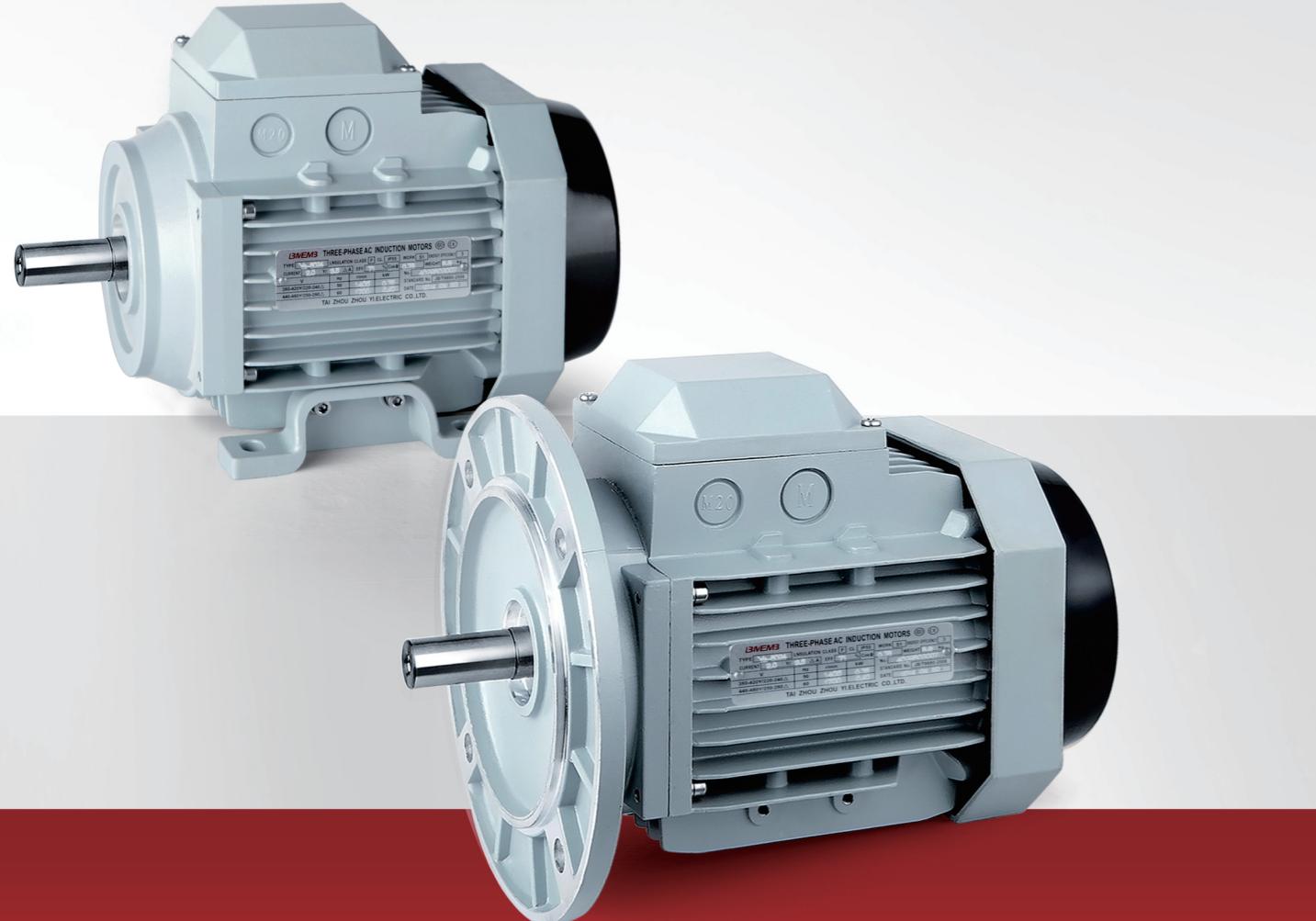
All motor supply voltage must not exceed or reduce  $\pm 5\%$ , shall not deviate from the nominal frequency  $\pm 1\%$ .

三相异步电动机在额定频率下可按Δ形接线和Y形接线。电动机在这两种接法的额定值下运行将保持完全相同的运行特性。按照国家电源标准, 三相异步电动机3Kw及以下按Y形接线380/50Hz。Δ形接线220/50Hz提供。4Kw及以上按Δ形接线, 380/50Hz提供。如果用户有其它特殊要求, 订货时可提出。

Three-phase asynchronous motors at rated frequency can be Δ Y-shaped wiring and wiring. Motors which in this ratings run two configurations will remain the same operating characteristics. According to the national power standards, Three-phase asynchronous motor 4Kw and below by a Y-shaped junction 380/50Hz. Δ-shaped wiring 220/50Hz mention Supply. 4Kw and over by Δ-shaped wiring, 380/50Hz available. If you have other special requirements, please let us know when making the order.



YS (MS) 系列技术参数 / YS (MS) series motor technology parameters



## 通用电机 GENERAL MOTORS

**动力传动专业制造商**  
PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

**设计理念:** 遵循规律，总是超越  
DESIGN PHILOSOPHY: To follow the law, but always beyond.

**经营理念:** 为客户需求而设计，为客户满意而执着  
BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction

型号 TYPE	3000r/min 380V 50Hz												
	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY		功率 POWER FOCTOR		额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	Kw	HP	rpm	n %	COS ϕ	A	Nm	Ts/Tn	Tmax/Tn	Is/In			
YS-5612	0.09	1/8	2800	62.0	0.68	0.32	0.307	2.3	2.3	6.0			
YS-5622	0.12	1/6	2800	67.0	0.71	0.38	0.410	2.3	2.3	6.0			
YS-6312	0.18	1/4	2800	69.0	0.75	0.53	0.614	2.3	2.3	6.0			
YS-6322	0.25	1/3	2800	72.0	0.78	0.68	0.853	2.3	2.3	6.0			
YS-7112	0.37	1/2	2800	73.5	0.80	0.96	1.26	2.3	2.3	6.0			
YS-7122	0.55	3/4	2800	75.5	0.82	1.35	1.88	2.3	2.3	6.0			
YS-8012	0.75	1	2800	76.5	0.85	1.75	2.56	2.2	2.3	6.0			
YS-8022	1.1	1.5	2800	77.0	0.85	2.55	3.75	2.2	2.3	7.0			
YS-90S-2	1.5	2	2840	78.5	0.85	3.42	5.04	2.2	2.3	7.0			
YS-90L-2	2.2	3	2840	81.0	0.86	4.80	7.40	2.2	2.3	7.0			

型号 TYPE	1500r/min 380V 50Hz												
	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY		功率 POWER FOCTOR		额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	Kw	HP	rpm	n %	COS ϕ	A	Nm	Ts/Tn	Tmax/Tn	Is/In			
YS-5614	0.06	1/12	1400	56.0	0.58	0.28	0.410	2.4	2.4	6.0			
YS-5624	0.09	1/8	1400	58.0	0.61	0.39	0.614	2.4	2.4	6.0			
YS-6314	0.12	1/6	1400	60.0	0.63	0.48	0.819	2.4	2.4	6.0			
YS-6324	0.18	1/4	1400	64.0	0.66	0.65	1.23	2.4	2.4	6.0			
YS-7114	0.25	1/3	1400	67.0	0.68	0.83	1.71	2.4	2.4	6.0			
YS-7124	0.37	1/2	1400	69.5	0.72	1.12	2.52	2.4	2.4	6.0			
YS-8014	0.55	3/4	1400	73.5	0.73	1.56	3.75	2.4	2.4	6.0			
YS-8024	0.75	1	1400	75.5	0.75	2.01	5.12	2.3	2.4	6.5			
YS-90S-4	1.1	1.5	1420	78.0	0.78	2.75	7.40	2.3	2.4	6.5			
YS-90L-4	1.5	2	1420	79.0	0.79	3.65	10.1	2.3	2.4	6.5			

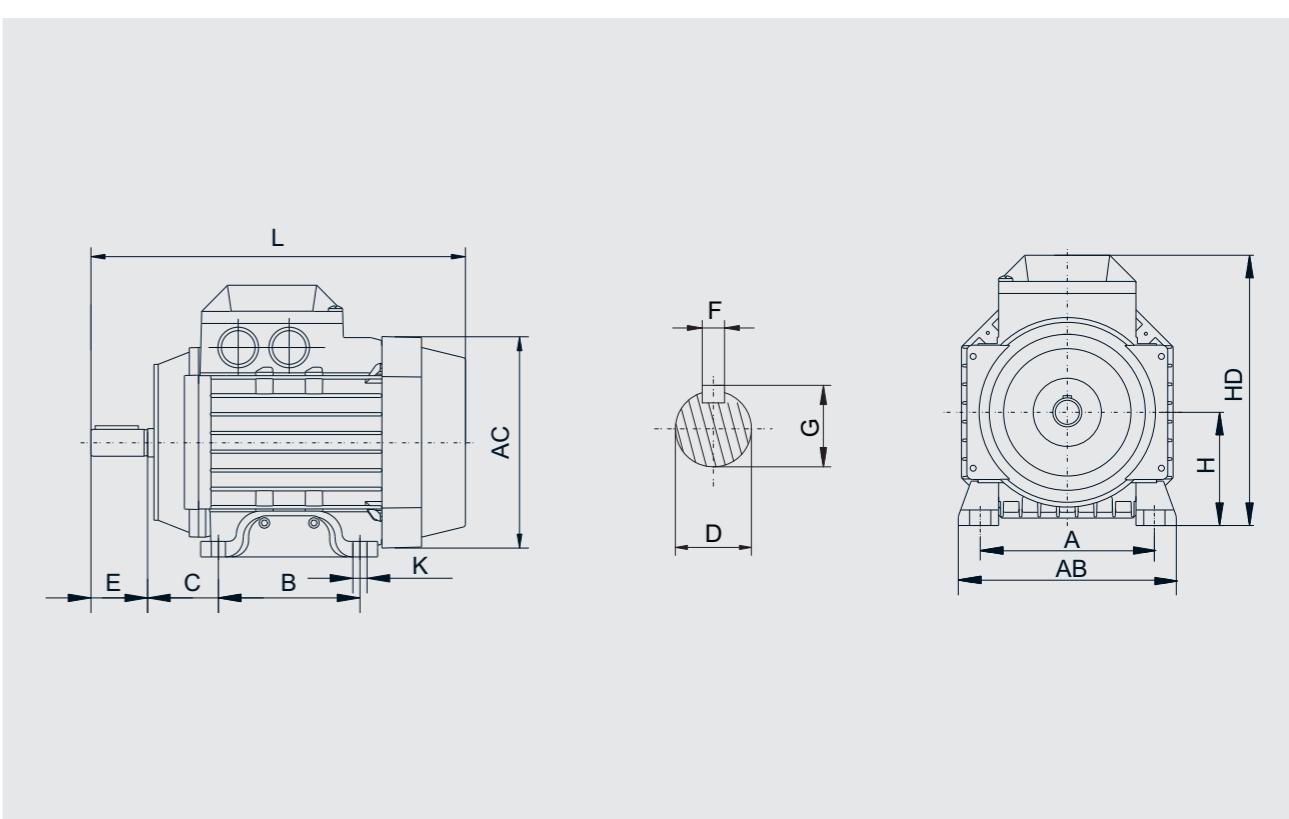


## YS (MS) 系列技术参数 / YS (MS) series motor technology parameters

1000r/min 380V 50Hz										
型号 TYPE	额定功率 RATED OUTPUT	额定转速 RATED SPEED	效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT	
	Kw	HP	rpm	n %	COS φ	A	Nm	Ts/Tn	Tmax/Tn	I <sub>s</sub> /I <sub>n</sub>
YS-7116	0.18	1/4	910	59.0	0.61	0.76	1.89	2.0	2.0	5.5
YS-7126	0.25	1/3	910	63.0	0.62	0.97	2.62	2.0	2.0	5.5
YS-8016	0.37	1/2	910	68.0	0.62	1.33	3.88	2.0	2.0	5.5
YS-8026	0.55	3/4	910	71.0	0.64	1.84	5.77	2.0	2.0	5.5
YS-90S-6	0.75	1	920	73.0	0.68	2.30	7.79	2.0	2.1	5.5
YS-90L-6	1.1	1.5	920	74.0	0.70	3.23	11.4	2.0	2.1	6.0

## YS (MS) 系列安装尺寸 / Installation dimension of YS (MS) series motor

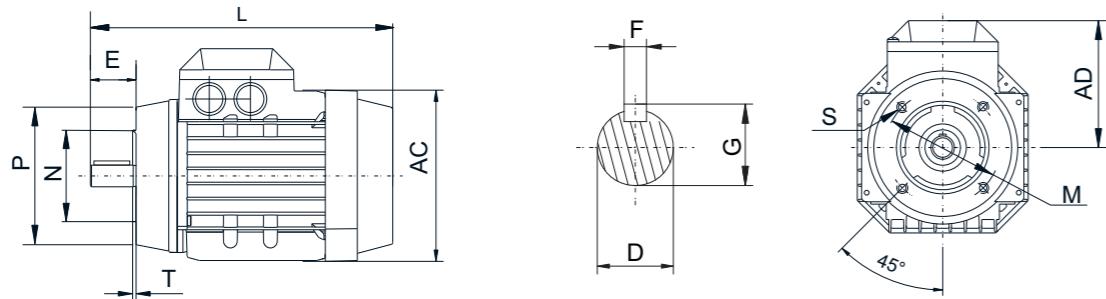
IMB3 H56-90



机座号 Frame size	外型及安装尺寸 Installation Dimensions												
	A	B	C	D	E	F	G	H	K	AB	AC	HD	L
56	90	71	36	ø 9	20	3	10.5	56	ø 5.8	107	102×102	145	190
63	100	80	40	ø 11	23	4	12.5	63	ø 7	122	120×120	167	220
71	112	90	45	ø 14	30	5	16	71	ø 7	136	130×130	180	245
80	125	100	50	ø 19	40	6	21.5	80	ø 10	154	145×145	190	265
90S	140	100	56	ø 24	50	8	27	90	ø 10	180	160×160	205	316
90L	140	125	56	ø 24	50	8	27	90	ø 10	180	160×160	205	326

### YS (MS) 系列安装尺寸 / Installation dimension of YS (MS) series motor

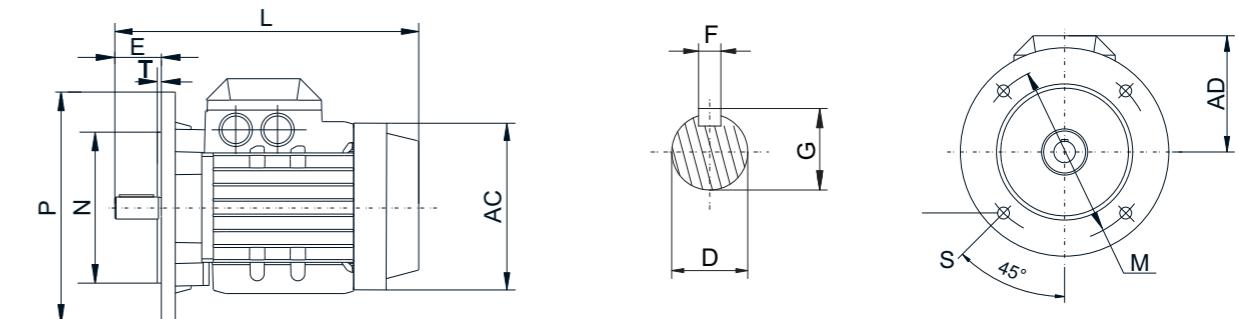
**IM B14 H56-90**



机座号 Frame size	外型及安装尺寸 Installation Dimensions											
	D	E	F	G	M	N	P	S	T	AC	AD	L
56	ø 9	20	3	10.5	65	50	80	M5	2.5	102×102	91	190
63	ø 11	23	4	12.5	75	60	90	M5	2.5	120×120	104	220
71	ø 14	30	5	16	85	70	105	M6	2.5	130×130	107	245
80	ø 19	40	6	21.5	100	80	110	M6	3.0	145×145	115	265
90S	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	316
90L	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	326

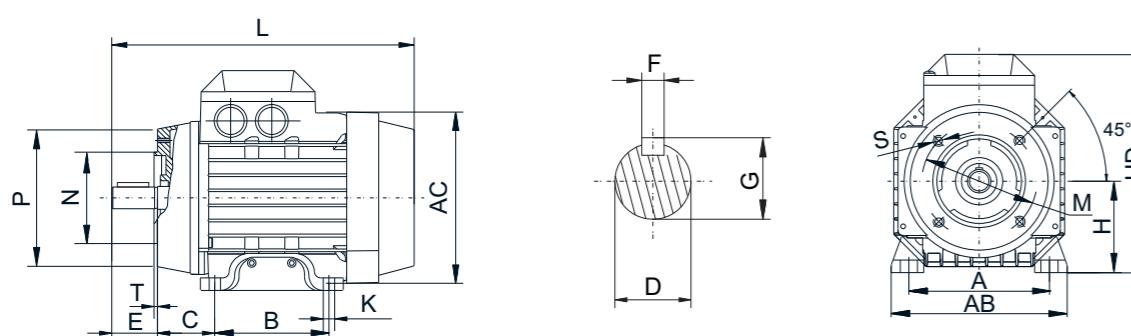
### YS (MS) 系列安装尺寸 / Installation dimension of YS (MS) series motor

**IM B5 H63-90**



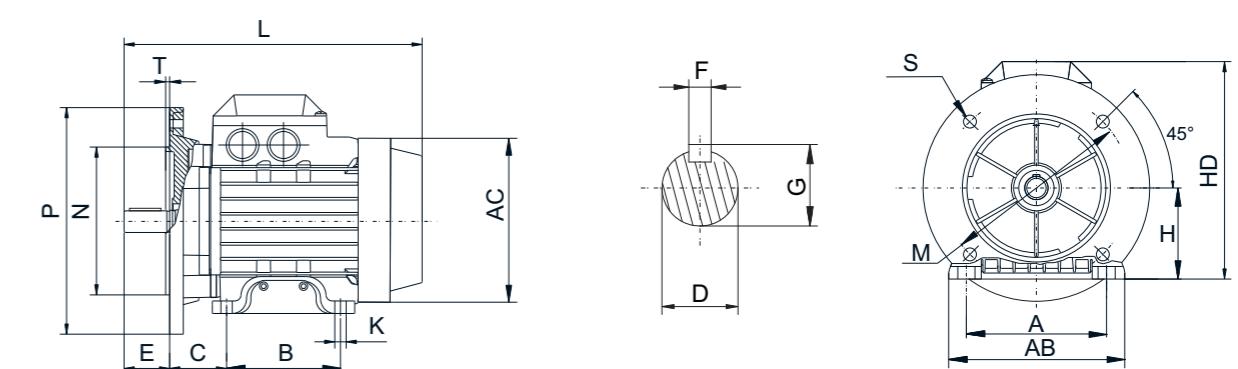
机座号 Frame size	外型及安装尺寸 Installation Dimensions											
	D	E	F	G	M	N	P	S	T	AC	AD	L
63	ø 11	23	4	12.5	115	95	140	10	3.0	120×120	104	220
71	ø 14	30	5	16	130	110	160	10	3.5	130×130	107	245
80	ø 19	40	6	21.5	165	130	200	12	3.5	145×145	115	265
90S	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	316
90L	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	326

**IM B14 H56-90**



机座号 Frame size	外型及安装尺寸 Installation Dimensions																	
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
56	90	71	36	ø 9	20	3	10.5	56	ø 5.8	65	50	80	M5	2.5	107	102×102	145	190
63	100	80	40	ø 11	23	4	12.5	63	ø 7	75	60	90	M5	2.5	122	120×120	167	220
71	112	90	45	ø 14	30	5	16	71	ø 7	85	70	105	M6	2.5	136	130×130	180	245
80	125	100	50	ø 19	40	6	21.5	80	ø 10	100	80	110	M6	3.0	154	145×145	190	265
90S	140	100	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	180	160×160	205	316
90L	140	125	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	180	160×160	205	326

**IM B35 H63-90**



机座号 Frame size	外型及安装尺寸 Installation Dimensions																	
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
63	100	80	40	ø 11	23	4	12.5	63	ø 7	115	95	140	10	2.5	115	120×120	167	220
71	112	90	45	ø 14	30	5	16	71	ø 7	130	110	160	10	3.5	136	130×130	180	245
80	125	100	50	ø 19	40	6	21.5	80	ø 10	136	105	165	12	3.5	154	145×145	190	265
90S	140	100	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	316
90L	140	125	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	326



YE2系列技术参数(IE2, 3级能效) / YE2 series motor technology parameters (IE2, LEVEL 3)

3000r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE2)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE2-801-2	0.75	1	2875	77.4	0.83	1.77	2.49	2.3	2.3	7.0	
YE2-802-2	1.1	1.5	2875	79.6	0.84	2.50	3.65	2.2	2.3	7.3	
YE2-90S-2	1.5	2	2890	81.3	0.84	3.32	4.96	2.2	2.3	7.6	
YE2-90L-2	2.2	3	2890	83.2	0.85	4.72	7.27	2.2	2.3	7.6	
YE2-100L-2	3	4	2890	84.6	0.87	6.17	9.91	2.2	2.3	7.8	
YE2-112M-2	4	5.5	2910	85.8	0.88	8.04	13.1	2.2	2.3	8.3	
YE2-132S1-2	5.5	7.5	2930	87.0	0.86	11.2	17.9	2.0	2.3	8.3	
YE2-132S2-2	7.5	10	2840	88.1	0.88	14.6	25.2	2.0	2.3	7.9	
YE2-160M1-2	11	15	2930	89.4	0.89	21.0	35.9	2.0	2.3	8.1	
YE2-160M2-2	15	20	2930	90.3	0.89	28.4	48.9	2.0	2.3	8.1	
YE2-160L-2	18.5	25	2935	90.9	0.89	34.7	60.2	2.0	2.3	8.2	
YE2-180M-2	22	30	2940	91.3	0.88	41.6	71.5	2.0	2.3	8.2	

YE2系列技术参数(IE2, 3级能效) / YE2 series motor technology parameters (IE2, LEVEL 3)

1000r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE2)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE2-90S-6	0.75	1	930	75.9	0.72	2.09	7.7	2.0	2.1	6.0	
YE2-90L-6	1.1	1.5	940	78.1	0.72	2.97	11.2	2.0	2.1	6.0	
YE2-100L-6	1.5	2	940	79.8	0.75	3.80	15.2	2.0	2.1	6.5	
YE2-112M-6	2.2	3	960	81.8	0.76	5.38	21.9	2.0	2.1	6.6	
YE2-132S-6	3	4	960	83.3	0.76	7.20	29.8	2.0	2.1	6.8	
YE2-132M1-6	4	5.5	960	84.6	0.76	9.45	39.8	2.0	2.1	6.8	
YE2-132M2-6	5.5	7.5	960	86.0	0.77	12.6	54.7	2.0	2.1	7.0	
YE2-160M-6	7.5	10	970	87.2	0.78	16.8	73.8	2.0	2.1	7.0	
YE2-160L-6	11	15	970	88.7	0.78	24.2	108.3	2.0	2.1	7.2	
YE2-180L-6	15	20	970	89.7	0.81	31.4	147.7	2.0	2.1	7.3	

1500r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE2)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE2-802-4	0.75	1	1400	79.6	0.76	1.88	5.12	2.3	2.3	6.6	
YE2-90S-4	1.1	1.5	1440	81.4	0.77	2.67	7.30	2.3	2.3	6.8	
YE2-90L-4	1.5	2	1440	82.8	0.77	3.57	9.95	2.3	2.3	7.0	
YE2-100L1-4	2.2	3	1440	84.3	0.81	4.90	14.6	2.3	2.3	7.6	
YE2-100L2-4	3	4	1440	85.5	0.82	6.50	19.9	2.3	2.3	7.6	
YE2-112M-4	4	5.5	1440	86.6	0.82	8.56	26.5	2.2	2.3	7.8	
YE2-132S-4	5.5	7.5	1450	87.7	0.83	11.5	36.2	2.0	2.3	7.9	
YE2-132M-4	7.5	10	1450	88.7	0.84	15.3	49.4	2.0	2.3	7.5	
YE2-160M-4	11	15	1460	89.8	0.84	22.2	72.0	2.2	2.3	7.7	
YE2-160L-4	15	20	1460	90.6	0.85	29.6	98.1	2.2	2.3	7.8	
YE2-180M-4	18.5	25	1470	91.2	0.86	35.8	120.2	2.0	2.3	7.8	
YE2-180L-4	22	30	1470	91.6	0.86	42.4	142.9	2.0	2.3	7.8	



YE3系列技术参数(IE3, 2级能效) / YE3 series motor technology parameters (IE3, LEVEL 2)

3000r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE3)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE3-801-2	0.75	1	2880	80.7	0.82	1.72	2.49	2.3	2.3	7.0	
YE3-802-2	1.1	1.5	2880	82.7	0.83	2.43	3.65	2.2	2.3	7.3	
YE3-90S-2	1.5	2	2895	84.2	0.84	3.22	4.95	2.2	2.3	7.6	
YE3-90L-2	2.2	3	2895	85.9	0.85	4.58	7.26	2.2	2.3	7.6	
YE3-100L-2	3	4	2895	87.1	0.87	6.02	9.90	2.2	2.3	7.8	
YE3-112M-2	4	5.5	2905	88.1	0.88	7.84	13.1	2.2	2.3	8.3	
YE3-132S1-2	5.5	7.5	2930	89.2	0.88	10.6	17.9	2.0	2.3	8.3	
YE3-132S2-2	7.5	10	2830	90.1	0.88	14.4	24.4	2.0	2.3	7.9	
YE3-160M1-2	11	15	2945	91.2	0.89	20.6	35.7	2.0	2.3	8.1	
YE3-160M2-2	15	20	2945	91.9	0.89	27.9	48.6	2.0	2.3	8.1	
YE3-160L-2	18.5	25	2940	92.4	0.89	34.2	60.1	2.0	2.3	8.2	
YE3-180M-2	22	30	2955	92.7	0.89	40.5	71.1	2.0	2.3	8.2	

YE3系列技术参数(IE3, 2级能效) / YE3 series motor technology parameters (IE3, LEVEL 2)

1000r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE3)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE3-90S-6	0.75	1	935	78.9	0.71	2.03	7.66	2.0	2.1	6.0	
YE3-90L-6	1.1	1.5	945	81.0	0.73	2.83	11.1	2.0	2.1	6.0	
YE3-100L-6	1.5	2	949	82.5	0.73	3.78	15.1	2.0	2.1	6.5	
YE3-112M-6	2.2	3	955	84.3	0.74	5.36	22.0	2.0	2.1	6.6	
YE3-132S-6	3	4	968	85.6	0.74	7.20	29.6	2.0	2.1	6.8	
YE3-132M1-6	4	5.5	968	86.8	0.74	9.46	39.5	2.0	2.1	6.8	
YE3-132M2-6	5.5	7.5	968	88.0	0.75	12.7	54.3	2.0	2.1	7.0	
YE3-160M-6	7.5	10	970	89.1	0.79	16.2	73.8	2.0	2.1	7.0	
YE3-160L-6	11	15	970	90.3	0.80	23.1	108.3	2.0	2.1	6.2	
YE3-180L-6	15	20	975	91.2	0.81	30.9	146.9	2.0	2.1	7.3	

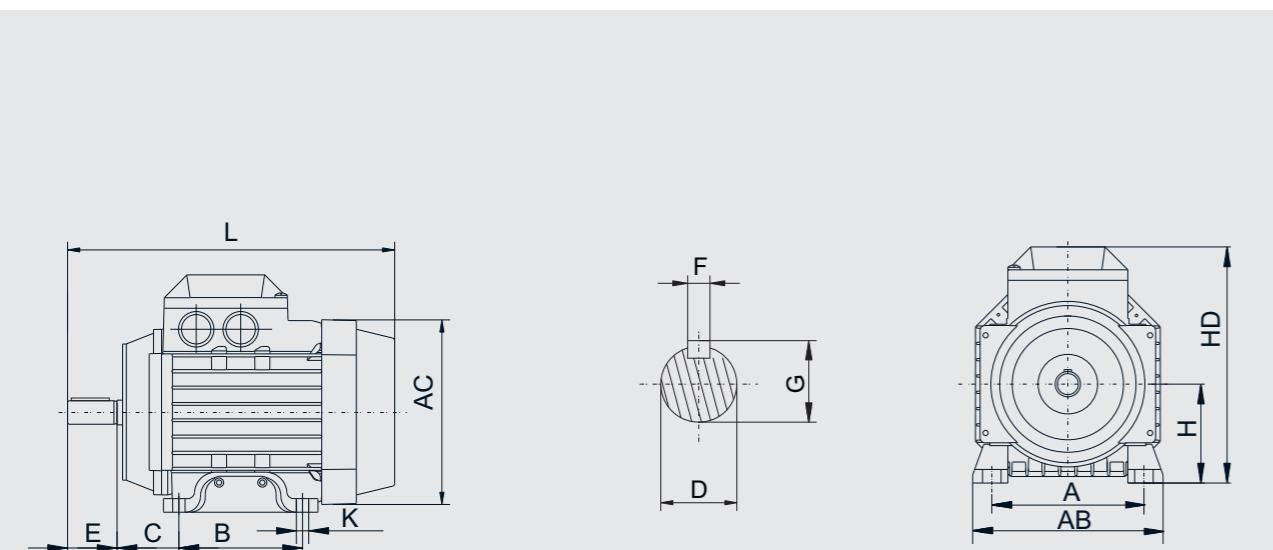
1500r/min 380V 50Hz

型号 TYPE	额定功率 RATED OUTPUT		额定转速 RATED SPEED		效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	堵转电流 LOCKED ROTOR CURRENT
	额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	额定电流 RATED CURRENT								
	Kw	HP	rpm	n % (IE3)	COS φ	A	Nm	Ts/Tn	Tmax/Tn	Is/In	
YE3-802-4	0.75	1	1420	82.5	0.75	1.84	5.04	2.3	2.3	6.6	
YE3-90S-4	1.1	1.5	1445	84.1	0.76	2.61	7.27	2.3	2.3	6.8	
YE3-90L-4	1.5	2	1445	85.3	0.77	3.47	9.91	2.3	2.3	7.0	
YE3-100L1-4	2.2	3	1435	86.7	0.81	4.76	14.6	2.3	2.3	7.6	
YE3-100L2-4	3	4	1435	87.7	0.82	6.34	20.0	2.3	2.3	7.6	
YE3-112M-4	4	5.5	1440	88.6	0.82	8.37	26.5	2.2	2.3	7.8	
YE3-132S-4	5.5	7.5	1460	89.6	0.83	11.2	36.0	2.0	2.3	7.9	
YE3-132M-4	7.5	10	1460	90.4	0.84	15.0	49.1	2.0	2.3	7.5	
YE3-160M-4	11	15	1465	91.4	0.85	21.5	71.7	2.2	2.3	7.7	
YE3-160L-4	15	20	1465	92.1	0.86	28.8	97.8	2.2	2.3	7.8	
YE3-180M-4	18.5	25	1470	92.6	0.86	35.3	120.2	2.0	2.3	7.8	
YE3-180L-4	22	30	1470	93.0	0.86	41.8	142.9	2.0	2.3	7.8	



## YE2 YE3系列安装尺寸 / YE2 YE3 series installation size

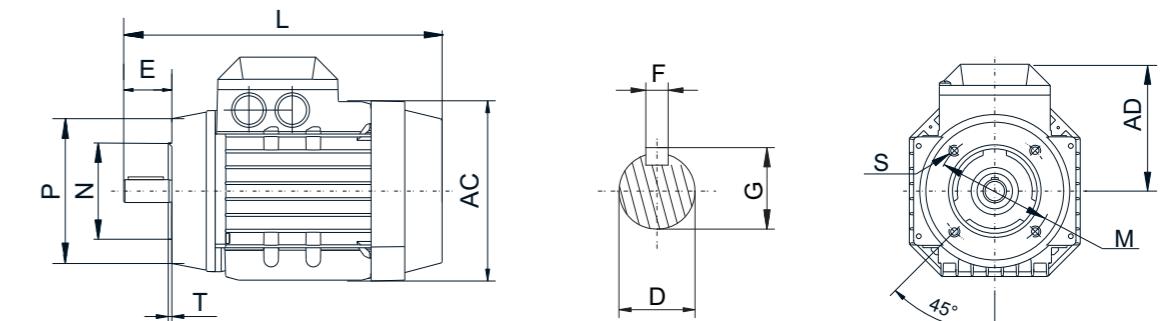
IM B3 H80-132(YE2、YE3)



机座号 Frame size	外型及安装尺寸 Installation Dimensions													
	A	B	C	D	E	F	G	H	K	AB	AC	HD	L IE2	L(参考值) IE3
80M	125	100	50	ø 19	40	6	21.5	80	ø 10	154	145×145	190	265	305
90S	140	100	56	ø 24	50	8	27	90	ø 10	180	160×160	205	316	340
90L	140	125	56	ø 24	50	8	27	90	ø 10	180	160×160	205	316	365
100L	160	140	63	ø 28	60	8	31	100	ø 12	205	185×185	240	335	405
112M	190	140	70	ø 28	60	8	31	112	ø 12	235	200×200	270	400	455
132S	216	140	89	ø 38	80	10	41	132	ø 12	261	245×245	310	470	470
132M	216	178	89	ø 38	80	10	41	132	ø 12	261	245×245	310	470	510
160M	254	210	108	ø 42	110	12	45	160	ø 14.5	320	320×320	450	730	730
160L	254	254	108	ø 42	110	12	45	160	ø 14.5	320	320×320	450	770	770
180M	279	241	121	ø 48	110	14	51.5	180	ø 14.5	355	360×360	500	790	790
180L	279	279	121	ø 48	110	14	51.5	180	ø 14.5	355	360×360	500	930	930

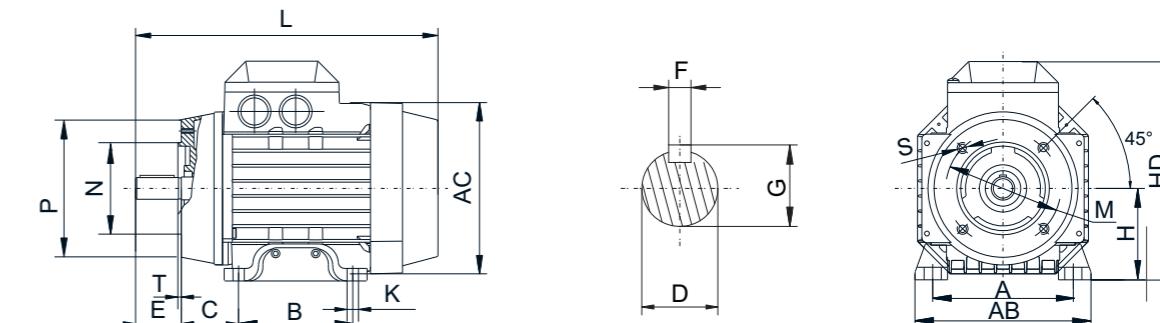
## YE2 YE3系列安装尺寸 / YE2 YE3 series installation size

IM B14 H80-112(YE2、YE3)



机座号 Frame size	外型及安装尺寸 Installation Dimensions												
	D	E	F	G	M	N	P	S	T	AC	AD	L IE2	L(参考值) IE3
80M	ø 19	40	6	21.5	100	80	110	M6	3.0	145×145	115	265	305
90S	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	316	340
90L	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	326	365
100L	ø 28	60	8	31	130	110	155	M8	3.5	185×185	137	365	405
112M	ø 28	60	8	31	130	110	160	M8	3.5	200×200	155	400	455

IM B34 H80-132(YE2、YE3)

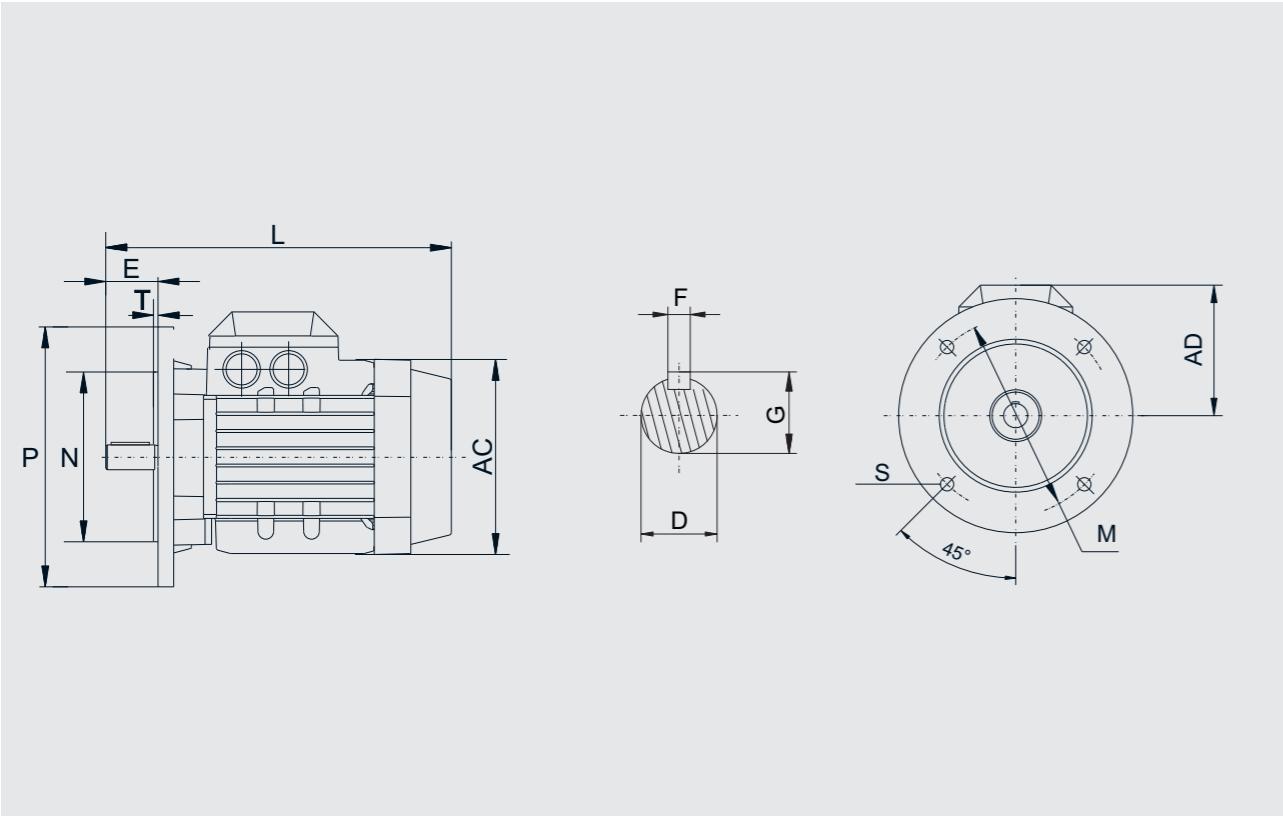


机座号 Frame size	外型及安装尺寸 Installation Dimensions													L IE2	L(参考值) IE3					
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	IE2	IE3	
80M	125	100	50	ø 19	40	6	21.5	80	ø 10	100	80	110	M6	3.0	154	145×145	190	265	305	
90S	140	100	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	180	160×160	205	316	340	
90L	140	125	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	180	160×160	205	326	365	
100L	160	140	63	ø 28	60	8	31	100	ø 12	130	100	110	155	M8	3.5	205	185×185	240	335	405
112M	190	140	70	ø 28	60	8	31	112	ø 12	130	110	160	M8	3.5	235	200×200	270	400	455	



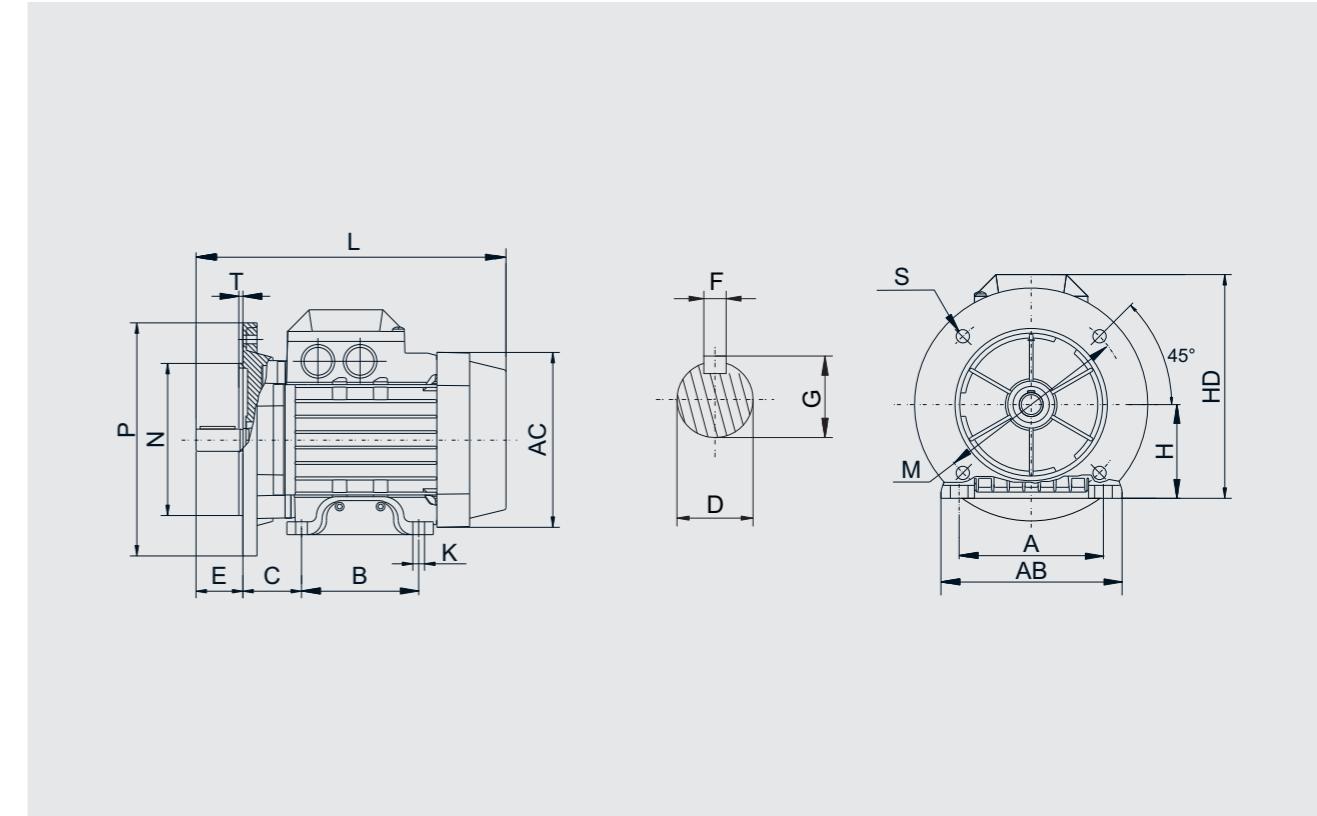
## YE2 YE3系列安装尺寸 / YE2 YE3 series installation size

IM B5 H80-180 (YE2、YE3)



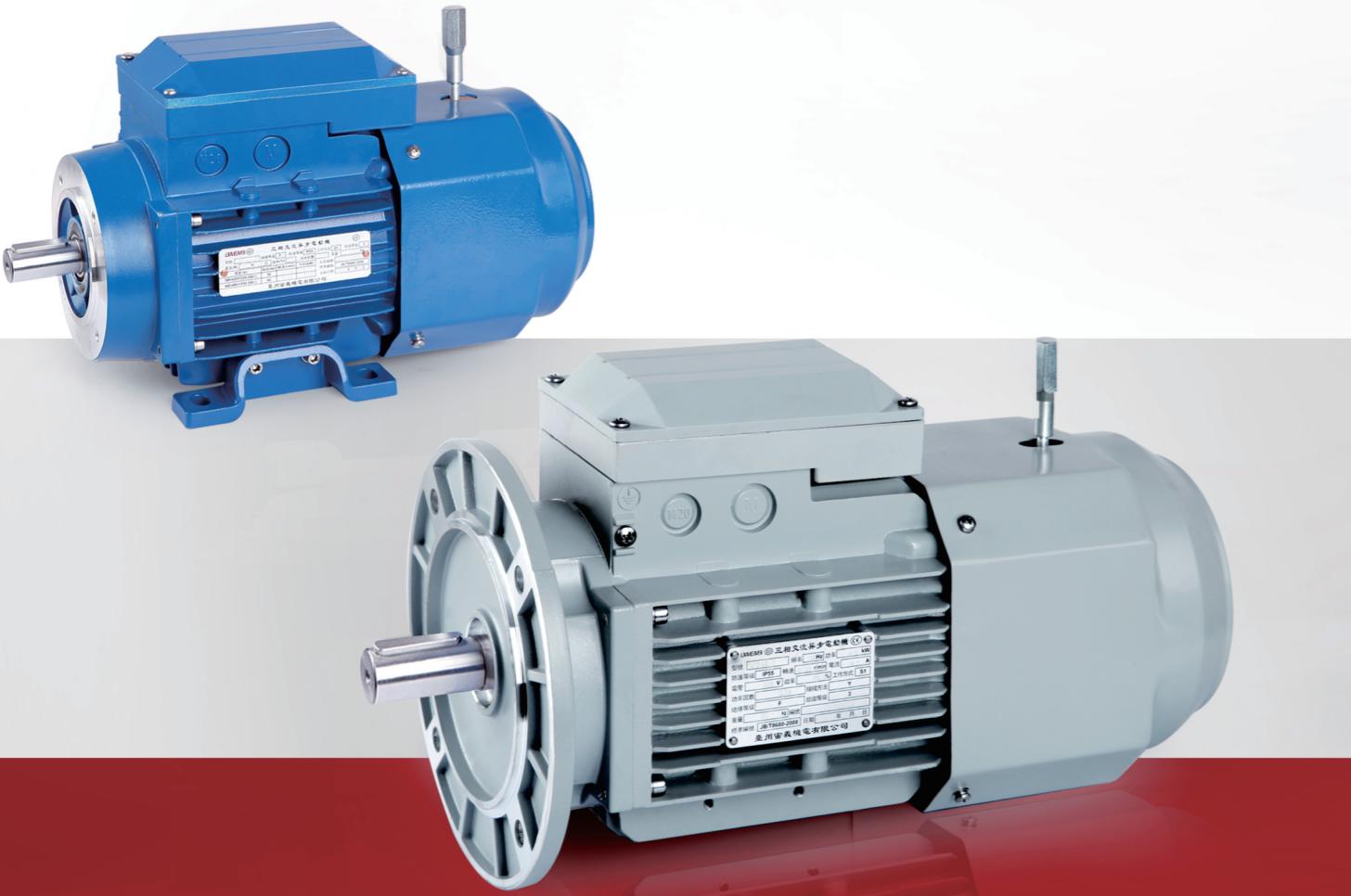
## YE2 YE3系列安装尺寸 / YE2 YE3 series installation size

IM B35 H80-180 (YE2、YE3)



机座号 Frame size	外型及安装尺寸 Installation Dimensions													
	D	E	F	G	M	N	P	S	T	AC	AD	L IE2	L(参考值) IE3	
80M	ø 19	40	6	21.5	165	130	200	12	3.5	145×145	115	265	305	
90S	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	316	340	
90L	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	326	365	
100L	ø 28	60	8	31	215	180	250	14.5	4	185×185	137	365	405	
112M	ø 28	60	8	31	215	180	250	14.5	4	200×200	155	400	455	
132S	ø 38	80	10	41	265	230	300	14.5	4	245×245	180	470	470	
132M	ø 38	80	10	41	265	230	300	14.5	4	245×245	180	470	510	
160M	ø 42	110	12	45	300	250	350	18.5	5	320×320	290	730	730	
160L	ø 42	110	12	45	300	250	350	18.5	5	320×320	290	770	770	
180M	ø 48	110	14	51.5	300	250	350	18.5	5	360×360	320	790	790	
180L	ø 48	110	14	51.5	300	250	350	18.5	5	360×360	320	930	930	

机座号 Frame size	外型及安装尺寸 Installation Dimensions																		
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L IE2	L(参考值) IE3
80M	125	100	50	ø 19	40	6	21.5	80	ø 10	165	130	200	12	3.5	154	145×145	190	265	305
90S	140	100	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	316	340
90L	140	125	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	326	365
100L	160	140	63	ø 28	60	8	31	100	ø 12	215	180	250	14.5	4	205	185×185	240	335	405
112M	190	140	70	ø 28	60	8	31	112	ø 12	215	180	250	14.5	4	235	200×200	270	400	455
132S	216	140	89	ø 38	80	10	41	132	ø 12	265	230	300	14.5	4	261	245×245	310	470	470
132M	216	178	89	ø 38	80	10	41	132	ø 12	265	230	300	14.5	4	261	245×245	310	470	510
160M	254	210	108	ø 42	110	12	45	160	ø 14.5	300	250	350	18.5	5	320	320×320	450	730	730
160L	254	254	108	ø 42	110	12	45	160	ø 14.5	300	250	350	18.5	5	320	320×320	450	770	770
180M	279	241	121	ø 48	110	14	51.5	180	ø 14.5	300	250	350	18.5	5	355	360×360	500	790	790
180L	279	279	121	ø 48	110	14	51.5	180	ø 14.4	300	250	350	18.5	5	355	360×360	500	930	930



## 制动电机 BRAKE MOTOR

**动力传动专业制造商**  
PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

**设计理念:** 遵循规律，总是超越  
DESIGN PHILOSOPHY: To follow the law, but always beyond.

**经营理念:** 为客户需求而设计，为客户满意而执着  
BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction

### YEJ制动电机 / YEJ brake motor

制动电机是由三相异步电动机和制动器两部份组成，是三相异步电动机的派生系列。制动器分为手动释放和螺栓释放两种形式。制动器是制动电机的主要部件。其工作电源分为两类；一类是交流制动，另一类是直流制动。目前我公司生产的制动电机均为直流制动电机，其优点是制动力矩大、安装调试方便、制动响应速度快、可靠性高、通用性强等优点。

Brake motor is made of two parts consisting of three-phase asynchronous motors and brakes, its belongs to three-phase asynchronous motor derived series. Manual brake release and bolt release are two forms of brakes. Brakes are the main components of the brake motor. Its working power divided into two categories; One is AC brake, the other is DC braking, my company produces brake motors are DC brake motors, the advantage of the braking torque is below, Easy installation, braking response speed, high reliability, versatility and other advantages.

#### 一、YEJ制动电机工作原理 / Operating principle

在电机的后端盖装有一个石棉耐磨材料的摩擦盘和励磁线圈。当电机失电后摩擦盘被制动器弹簧通过一块压紧板，紧紧地压在电机后端盖已加工的平面上，从而使制动盘产生强大的摩擦力矩，达到制动的目的。当励磁线圈通电后产生电磁吸力，将弹簧压紧板吸合，压紧板离开摩擦盘。使摩擦盘释放，电动机灵活转动，根据电动机功率不同，线圈电阻在几十至几百欧之间。

After the motor is equipped with a cover asbestos friction disc wear-resistant materials and excitation coil. When the motor is energized by a spring brake friction disc is a pressing plate, pressing firmly on the plane after the motor cover has been processed, so that the brake disc friction torque generated strong achieve braking purposes. When the excitation coil is energized to produce electromagnetic suction, pull the spring-loadedplate, pressed board leave the friction plate. The friction disc is released, the motor flexible rotation, depending on the motor power between tens to hundreds of European coil resistance.

#### 二、 直流制动器不能直接接在交流电源上，在制动吸盘上装有绕组线圈，绕组的额定电压为低压直流电压。工作时必须由单相交流电源经整流后供给吸盘绕组,因此制动电机接线盒内同时装有整流器,接线方法在第25页图5。

The DC brake can not be directly connected to the AC power to the brake coil is provided with suction cups for low-voltage winding rated DC voltage. A single-phase AC power is rectified then supply to a sucker winding to make it work, so the brake motor terminal box fitted with a rectifier, wiring diagram below.

#### 三、制动时间 / the braking time

制动电机的制动时间(t)是从电机和制动器停止供电瞬间开始到轴完全停止时所有用的时间，一般情况下，63~80机座号的电机其制动时间为0.5秒钟，90~132机座号的电机其制动时间为1秒钟，160~180机座号的电机其制动时间为2秒钟。

Brake motor braking time (t) is the time from the motor and brake stopping the power to the shaft completely stopped, under normal circumstances, For 63 to 80 frame size motor, the braking time is 0.5 seconds, For 90 ~ 132 frame size motor ,the braking time is 1 second, For 160 to 180 frame size motor ,the braking time is 2 seconds.



## YEJ制动电机 / YEJ brake motor

### 四、制动电机的调整与维修 / Adjustment and maintenance

在制动电机使用过程中随着制动次数的增加，摩擦盘会有磨损情况存在，因此摩擦盘与电机后盖的间隙也随之增大。对长期运转的电机，间隙的改变直接影响电机的制动力矩。

间隙在调整时不能过小，间隙过小，摩擦盘与电机后盖摩擦平面不能完全分离而烧毁电机，间隙过大，压紧板不能吸合或吸合过程中产生强烈的噪声。制动压紧板与电磁吸盘的间隙按制动器而定，一般63~112机座号的电机其制动器间隙在0.25mm~0.30mm，132~180机座号的电机制动器间隙在0.50mm~0.80mm。

In the course of braking the motor increases the number of brake friction disc wear condition will exist, so a gap of the motor cover plate of the friction increases. Changes to the long-term operation of the motor, the motor directly affects the gap between the braking torque. When adjusting the gap is not too small, the gap is too small, the friction disc friction with the motor cover can not be completely separated from the plane and burned the motor, the gap is too large, pressed board can not pull or pull a strong noise process. Brake pressing plate at the gap magnechuck brakes, generally for 63 to 112 frame size motor, the brake gap between 0.25mm to 0.30mm, for 132 ~ 180 frame size motor, the brake gap between 0.50mm to 0.80mm .

### 五、制动电机的变频运行 / the inverter runs the motor brake

随着社会生产率的不断发展和科学技术的不断提升。制动加变频方式在执行机构中得到了广泛的应用。我公司生产的所有异步电动机都能配置变频器运行。此时，制动器必须单独提供稳定的工作电源，不能与电动机上的电源接线端子并接共用。否则制动器无法正常工作。需要提出的是：制动器电机配变频操作时，要附加一个轴流风扇，此风扇也只能独立控制和供电。

值得注意的是，我公司生产的所有异步电动机最高频率范围在60Hz，如用户有特殊要求可向公司提出。

With the continuous improvement and continuous development of the social productivity of science and technology. Brake plus inverter system has been widely applied in the implementation of the organization. I produced all asynchronous motors can configure the drive to run. At this point the brake must be provided separately stable power supply, and then can not be shared with the power terminals on the motor. Otherwise the brakes do not work properly. Need to make is brake motors with variable frequency operation, an axial flow fan to attach this fan only independent control and power.

Notably, the company produces all kinds of asynchronous motor in the highest frequency range 60Hz, as you may have special requirements please let us know.

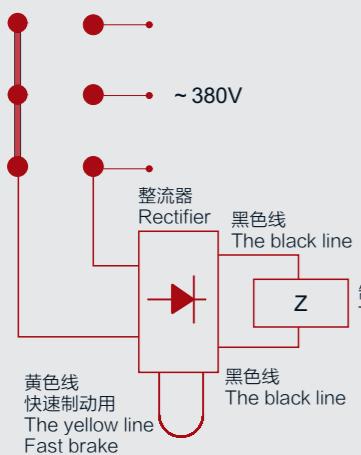
## YEJ系列技术参数 / YEJ series of technical parameters

3000r/min 380V 50Hz

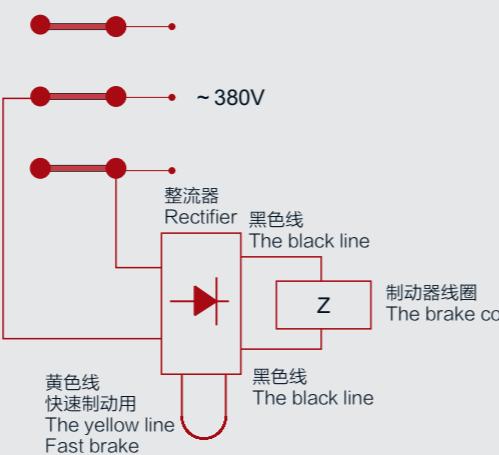
型号 Type	额定功率 RATED OUTPUT	额定转速 RATED SPEED	效率 EFFICIENCY	功率因数 POWER FACTOR	额定电流 RATED CURRENT	额定转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	静制动 STATIC BRAKE TORQUE NM	空载制动 TIME BRAKE TORQUE DURING IDLE
							额定转矩 RATED TORQUE			
							KW	rpm	η %	COS ϕ
YEJ-631-2	0.18	2800	65.0	0.80	0.53	0.61	2.2	2.2	3.5	0.10
YEJ-632-2	0.25	2800	68.0	0.81	0.69	0.85	2.2	2.2	3.5	0.10
YEJ-711-2	0.37	2830	70.0	0.81	0.99	1.25	2.2	2.2	4.0	0.10
YEJ-712-2	0.55	2830	73.0	0.82	1.40	1.86	2.2	2.3	4.0	0.10
YEJ-801-2	0.75	2840	75.0	0.83	1.83	2.52	2.2	2.3	7.5	0.10
YEJ-802-2	1.1	2840	77.0	0.84	2.55	3.70	2.2	2.3	7.5	0.10
YEJ-90S-2	1.5	2840	79.0	0.84	3.39	5.04	2.2	2.3	15	0.15
YEJ-90L-2	2.2	2840	81.0	0.85	4.80	7.40	2.2	2.3	15	0.15
YEJ-100L-2	3	2860	83.0	0.87	6.31	10.0	2.2	2.3	30	0.15
YEJ-112M-2	4	2880	85.0	0.88	8.22	13.3	2.2	2.3	40	0.15
YEJ-132S1-2	5.5	2910	86.0	0.88	11.2	18.0	2.2	2.3	80	0.15
YEJ-132S2-2	7.5	2910	87.0	0.88	15.1	24.6	2.2	2.3	80	0.15
YEJ-160M1-2	11	2930	88.0	0.89	21.3	35.9	2.2	2.3	150	0.30
YEJ-160M2-2	15	2930	89.0	0.89	28.8	48.9	2.2	2.3	150	0.30
YEJ-160L-2	18.5	2935	90.0	0.90	34.7	60.2	2.2	2.3	150	0.30
YEJ-180M-2	22	2935	90.0	0.90	41.3	71.6	2.0	2.3	200	0.30

### YEJ制动电机接线方法 / YEJ wiring brake motor method

3Kw以下电机为(Y接)  
3Kw motor (Y connection)



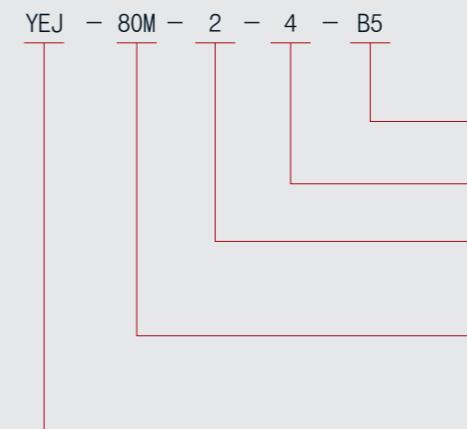
4Kw以上电机为(△接)  
Above 4Kw motors for (△connection)



客户如有其他要求，可按订单制作

图5 / Figure5

### YEJ制动电机代号说明 / YEJ brake motor code description



电机安装方式 / Motor mounting modality

极数 / Number of poles

铁芯代号 / Core length number

机座号 / Frame size

系列代码 / Series code



## YEJ系列技术参数 / YEJ series of technical parameters

1500r/min 380V 50Hz

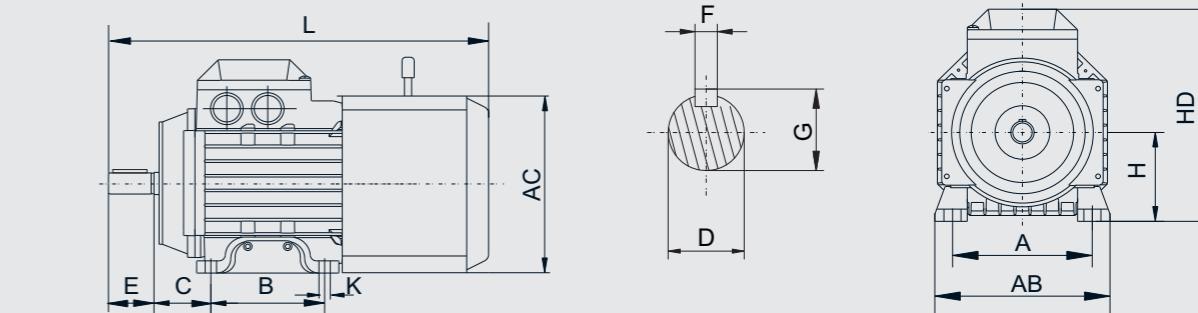
型号 Type	额定 功率 RATED OUTPUT	额定 转速 RATED SPEED	效率 EFFICIENCY	功率 因数 POWER FOCTOR	额定 电流 RATED CURRENT	额定 转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	静制动力矩 STATIC BRAKE TORQUE NM 直 流 DC	空载制动 时间 BRAKE TORQUE DUR ING IDLE s
	KW	rpm	%	COS φ	A	Nm	Ts/Tn	Tmax/Tn		
YEJ-631-4	0.12	1360	57.0	0.72	0.44	0.84	2.2	2.0	3.5	0.10
YEJ-632-4	0.18	1360	60.0	0.73	0.62	1.26	2.2	2.0	3.5	0.10
YEJ-711-4	0.25	1375	65.0	0.74	0.79	1.74	2.2	2.0	4.0	0.10
YEJ-712-4	0.37	1375	67.0	0.75	1.12	2.57	2.2	2.0	4.0	0.10
YEJ-801-4	0.55	1405	71.0	0.75	1.57	3.74	2.2	2.4	7.5	0.10
YEJ-802-4	0.75	1405	73.0	0.76	2.02	5.10	2.2	2.4	7.5	0.10
YEJ-90S-4	1.1	1445	75.0	0.77	2.82	7.27	2.2	2.3	15	0.15
YEJ-90L-4	1.5	1445	78.0	0.79	3.70	9.91	2.2	2.3	15	0.15
YEJ-100L1-4	2.2	1440	80.0	0.81	5.16	14.6	2.2	2.3	30	0.15
YEJ-100L2-4	3	1440	82.0	0.82	6.78	19.9	2.2	2.3	30	0.15
YEJ-112M-4	4	1440	84.0	0.82	8.82	26.5	2.2	2.3	40	0.15
YEJ-132S1-4	5.5	1440	85.0	0.83	11.7	36.5	2.2	2.3	80	0.15
YEJ-132S2-4	7.5	1440	87.0	0.84	15.6	49.7	2.2	2.3	80	0.15
YEJ-160M1-4	11	1450	88.0	0.85	21.3	72.4	2.2	2.2	150	0.30
YEJ-160M2-4	15	1450	89.0	0.85	30.1	98.8	2.2	2.2	150	0.30
YEJ-180M-4	18.5	1455	90.5	0.86	36.5	121.4	2.2	2.2	150	0.30
YEJ-180L-4	22	1455	91.0	0.86	43.1	144.4	2.0	2.2	200	0.30

1000r/min 380V 50Hz

YEJ-711-6	0.18	900	56.0	0.66	0.71	19.1	1.9	2.0	4.0	0.10
YEJ-712-6	0.25	900	59.0	0.68	0.95	2.65	1.9	2.0	4.0	0.10
YEJ-801-6	0.37	910	62.0	0.70	1.30	3.88	1.9	2.0	7.5	0.10
YEJ-802-6	0.55	910	65.0	0.72	1.79	5.77	1.9	2.1	7.5	0.10
YEJ-90S-6	0.75	930	69.0	0.72	2.26	7.7	2.1	2.1	15	0.15
YEJ-90L-6	1.1	940	72.0	0.73	3.14	11.2	2.1	2.1	15	0.15
YEJ-100L-6	1.5	940	76.0	0.76	3.95	15.2	2.2	2.1	30	0.15
YEJ-112M-6	2.2	960	79.0	0.76	5.57	21.9	2.2	2.1	40	0.15
YEJ-132S-6	3	960	81.0	0.76	7.40	29.8	2.2	2.1	80	0.15
YEJ-132M1-6	4	960	82.0	0.76	9.63	39.8	2.2	2.1	80	0.15
YEJ-132M2-6	5.5	960	84.0	0.77	12.9	54.7	2.2	2.1	150	0.30
YEJ-160M-6	7.5	970	86.0	0.77	17.0	73.8	1.8	2.1	150	0.30
YEJ-160L-6	11	970	87.5	0.78	24.3	108.3	1.9	2.1	150	0.30
YEJ-180L-6	15	970	89.0	0.81	31.6	147.7	2.1	2.1	200	0.30

## YEJ系列安装尺寸 / YEJ series installation size

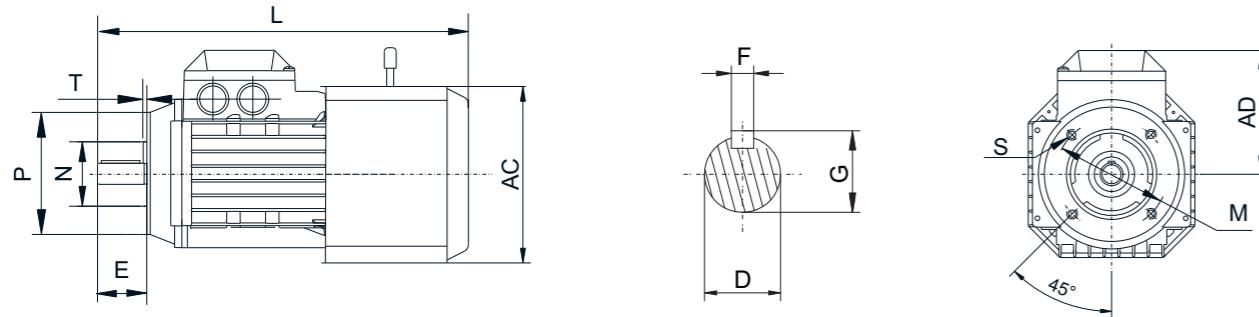
IM B3 H63-180



机座号 Frame size	外型及安装尺寸 Installation Dimensions											
	A	B	C	D	E	F	G	H	K	AB	AC	
63	100	80	40	ø 11	23	4	12.5	63	ø 7	135	120X120	167 255
71	112	90	45	ø 14	30	5	16	71	ø 7	137	130X130	178 305
80M	125	100	50	ø 19	40	6	21.5	80	ø 10	155	145X145	190 340
90S	140	100	56	ø 24	50	8	27	90	ø 10	175	160X160	205 400
90L	140	125	56	ø 24	50	8	27	90	ø 10	175	160X160	205 400
100L	160	140	63	ø 28	60	8	31	100	ø 12	200	185X185	240 440
112M	190	140	70	ø 28	60	8	31	112	ø 12	230	200X200	270 480
132S	216	140	89	ø 38	80	10	41	132	ø 12	270	245X245	315 567
132M	216	178	89	ø 38	80	10	41	132	ø 12	270	245X245	315 567
160M	254	210	108	ø 42	110	12	45	160	ø 14.5	320	335X335	450 780
160L	254	254	108	ø 42	110	12	45	160	ø 14.5	320	335X335	450 780
180M	279	241	121	ø 48	110	14	51.5	180	ø 14.5	355	370X370	500 880
180L	279	279	121	ø 48	110	14	51.5	180	ø 14.5	355	370X370	500 880

## YEJ系列安装尺寸 / YEJ series installation size

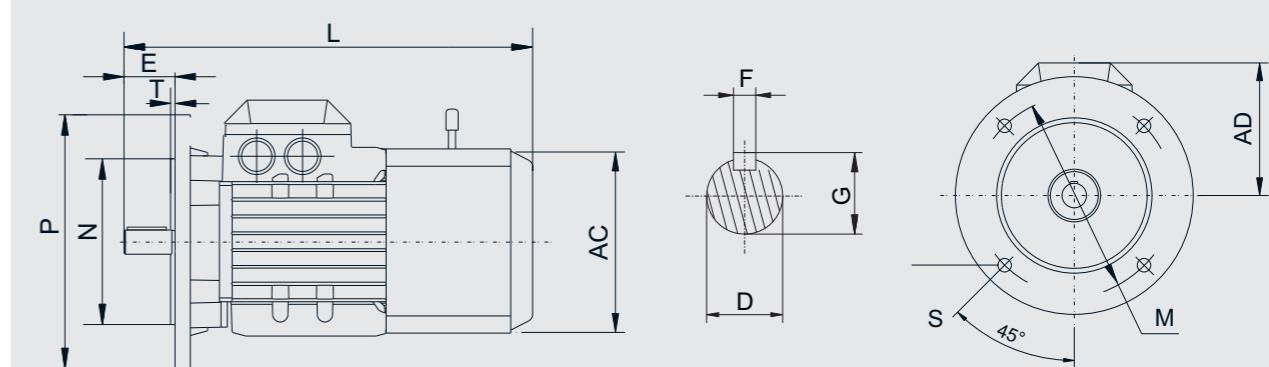
**IM B14 H63-112**



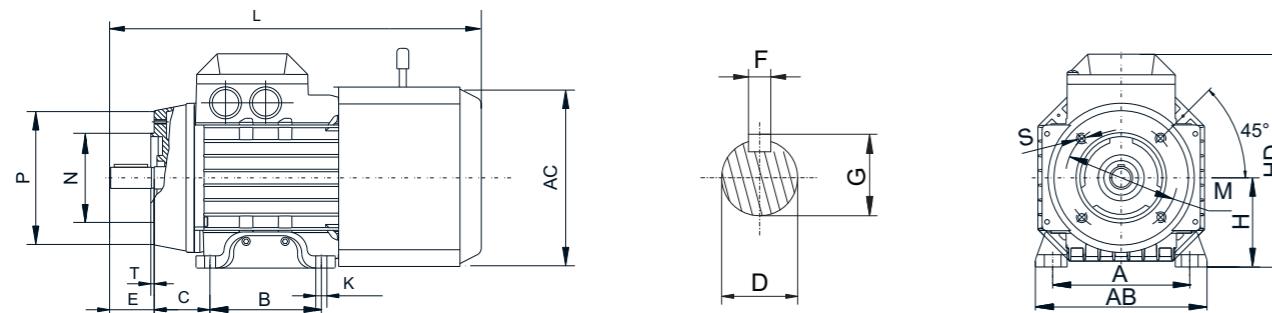
机座号 Frame size	外型及安装尺寸 Installation Dimensions											
	D	E	F	G	M	N	P	S	T	AC	AD	L
63	ø 11	23	4	12.5	75	60	90	M5	2.5	120×120	104	255
71	ø 14	30	5	16	85	70	105	M6	2.5	130×130	107	305
80	ø 19	40	6	21.5	100	80	110	M6	3.0	145×145	115	340
90S	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	400
90L	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	400
100L	ø 28	60	8	31	130	110	155	M8	3.5	185×185	137	440
112M	ø 28	60	8	31	130	110	160	M8	3.5	200×200	155	480

## YEJ系列安装尺寸 / YEJ series installation size

**IM B5 H63-180**



**IM B34 H63-112**



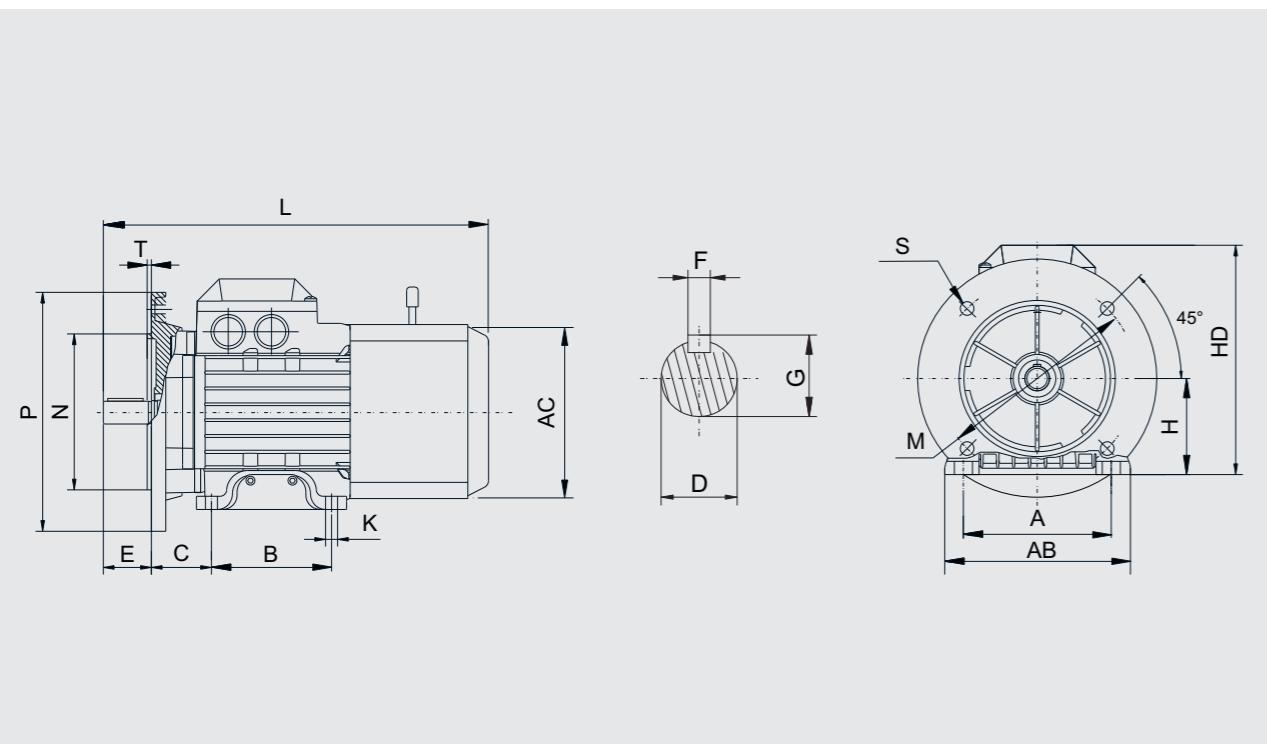
机座号 Frame size	外型及安装尺寸 Installation Dimensions																	
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
63	100	80	40	ø 11	23	4	12.5	63	ø 7	75	60	90	M5	2.5	135	120×120	167	255
71	112	90	45	ø 14	30	5	16	71	ø 7	85	70	105	M6	2.5	137	130×130	180	305
80	125	100	50	ø 19	40	6	21.5	80	ø 10	100	80	110	M6	3.0	155	145×145	190	340
90S	140	100	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	175	160×160	205	400
90L	140	125	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	175	160×160	205	400
100L	160	140	63	ø 28	60	8	31	100	ø 12	130	110	155	M8	3.5	200	185×185	240	440
112M	190	140	70	ø 28	60	8	31	112	ø 12	130	110	160	M8	3.5	230	200×200	270	480

机座号 Frame size	外型及安装尺寸 Installation Dimensions															
	D	E	F	G	M	N	P	S	T	AC	AD	L				
63	ø 11	23	4	12.5	115	95	140	10	3.0	120×120	104	255				
71	ø 14	30	5	16	130	110	160	10	3.0	130×130	107	305				
80M	ø 19	40	6	21.5	165	130	200	12	3.5	145×145	115	340				
90S	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	400				
90L	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	400				
100L	ø 28	60	8	31	215	180	250	14.5	4	185×185	137	440				
112M	ø 28	60	8	31	215	180	250	14.5	4	200×200	155	480				
132S	ø 38	80	10	41	265	230	300	14.5	4	245×245	180	567				
132M	ø 38	80	10	41	265	230	300	14.5	4	245×245	180	567				
160M	ø 42	110	12	45	300	250	350	18.5	5	320×320	290	780				
160L	ø 42	110	12	45	300	250	350	18.5	5	320×320	290	780				
180M	ø 48	110	14	51.5	300	250	350	18.5	5	360×360	340	880				
180L	ø 48	110	14	51.5	300	250	350	18.5	5	360×360	340	880				



## YEJ系列安装尺寸 / YEJ series installation size

IM B35 H63-180



机座号 Frame size	外型及安装尺寸 Installation Dimensions																	
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
63	100	80	40	Ø 11	23	4	12.5	63	Ø 7	115	95	140	10	2.5	115	120×120	167	255
71	112	90	45	Ø 14	30	5	16	71	Ø 7	130	110	160	10	3.5	136	130×130	178	305
80M	125	100	50	Ø 19	40	6	21.5	80	Ø 10	165	130	200	12	3.5	154	145×145	192	340
90S	140	100	56	Ø 24	50	8	27	90	Ø 10	165	130	200	12	3.5	180	160×160	205	400
90L	140	125	56	Ø 24	50	8	27	90	Ø 10	165	130	200	12	3.5	180	160×160	205	400
100L	160	140	63	Ø 28	60	8	31	100	Ø 12	215	180	250	14.5	4	205	185×185	240	440
112M	190	140	70	Ø 28	60	8	31	112	Ø 12	215	180	250	14.5	4	235	200×200	270	480
132S	216	140	89	Ø 38	80	10	41	132	Ø 12	265	230	300	14.5	4	261	245×245	310	567
132M	216	178	89	Ø 38	80	10	41	132	Ø 12	265	230	300	14.5	4	261	245×245	310	567
160M	254	210	108	Ø 42	110	12	45	160	Ø 14.5	300	250	350	18.5	5	320	335×335	450	780
160L	254	254	108	Ø 42	110	12	45	160	Ø 14.5	300	250	350	18.5	5	320	335×335	450	780
180M	279	241	121	Ø 48	110	14	51.5	180	Ø 14.5	300	250	350	18.5	5	355	370×370	500	880
180L	279	279	121	Ø 48	110	14	51.5	180	Ø 14.5	300	250	350	18.5	5	355	370×370	500	880



变频电机

FREQUENCY CONVERSION  
MOTOR

动力传动专业制造商

PROFESSIONAL MANUFACTURER OF POWER TRANSMISSION

设计理念: 遵循规律, 总是超越

DESIGN PHILOSOPHY: To follow the law, but always beyond.

经营理念: 为客户需求而设计, 为客户满意而执着

BUSINESS PHILOSOPHY: Design for customer demand, dedication for customer satisfaction



## 三相电机的变频调速概述 / Overview of the three-phase inverter motor

变频调速已经成为主流的调速方式，可广泛应用于各行各业无级变速传动。

VVF speed has become the popular way, can be widely used in various industries continuously variable transmission.

在变频电机调速控制系统中，采用电力电子变频器作为供电电源，它不可避免的会有高次谐波分量，谐波对电机的影响较大。主要体现在磁路中谐波磁势和电路中的谐波电流上。不同振幅和频率的电流和磁通谐波将引起电动机定子铜耗转子铝耗。这些损耗使电动机效率、功率因数降低，这些损耗绝大部分转变成热能，引起电动机附加发热，导致电动机温升增加，其温升一般要增加10~20%。由于采用变频器供电，传导和辐射的电磁干扰，定子绕组中绝缘老化，共模电压导致加速轴承的恶化和泄漏电流，轴承易坏，同时电动机发出尖叫声。由于谐波磁动势与转子谐波电流合成后产生恒定的谐波电磁转矩和振动的谐波电磁转矩。这些转矩会使电动机发出的转矩产生脉动，从而使电动机转速低时发生振动。

In the variable frequency motor speed control system, using power electronic inverter as a power supply, it is inevitable that there will be high harmonics, harmonic greater impact on the motor. Mainly reflected in the magnetic circuit and the circuit harmonic magnetic potential harmonic currents. Different amplitudes and frequencies of harmonic currents and magnetic flux will cause the motor stator copper loss rotor aluminum consumption. These losses of the motor efficiency and power factor reduction, the majority of these losses into heat, causing additional heating of the motor, causing the motor temperature increases, the increase in temperature generally 10 ~ 20%. As a result of electromagnetic interference power, conduction and radiation, the stator winding insulation aging, resulting in deterioration of the common-mode voltage and leakage current of accelerated bearing, bearing perishable, while the motor screaming. Since harmonic electromagnetic torque constant harmonic electromagnetic torque and vibration harmonic MMFs and rear rotor harmonic current synthesis. The torque of the motor torque will generate pulsating issued, so that the motor speed vibration is low.

本公司生产的YS、IE2、IE3系列通用三相异步电动机在设计上，我们主要考虑的是电动机的过载能力、起动性能、效率和功率因数。另外主要考虑电动机对非正弦电源的适应能力。抑制电流中的高次谐波对电动机的影响。由于电动机在低频区工作时温升的升高，绝缘等级采用F级以上，采用高分子绝缘材料及真空压力浸漆工艺，以及采用特殊的绝缘结构。为了降低电磁转矩的脉动，提高机械零部件的加工精度，提高平恒质量，采用高精度静音轴承。为了消除电机振动，对电动机整体结构进行了加强设计。

The company produces YS, IE2, IE3 Series Universal three-phase asynchronous motor design, our main consideration is the motor overload, starting performance, efficiency and power factor. Another major consideration for non-sinusoidal motor power adaptability. Suppress the influence of higher harmonic current to the motor. Since the motor is increased when the working temperature of the low-frequency region, class F insulation class above, the use of polymer insulation materials and vacuum pressure impregnation process, and the use of special insulation structure. In order to reduce the electromagnetic torque ripple, improve the precision mechanical parts to improve the quality level constant, high-precision bearing mute. In order to eliminate vibration motor, the motor structure to strengthen the overall design.

## 三相电机的变频调速概述 / Overview of the three-phase inverter motor

由于电动机在低频区工作时，因转速降低而使电动机原有设计的通风系统作用降低，电动机温度上升，因此在电动机后端装有一台单相220V或三相380V的独立轴流冷却风机，保障电动机在任何转速下得到有效的散热，可实现电动机在高速或低速下长期运行。我公司生产的YVP三相变频电动机可配制动器，也可以配编码器，实现低速无级调速控制。YVP三相变频电动机通用性好，其安装尺寸符合IEC标准，与一般标准型电动机具有互换性。

Since the motor is in a low frequency region, because the motor speed is reduced leaving the original ventilation system designed to reduce the role of the motor temperature rise, so the rear end of the motor with a single-phase 220V or 380V three-phase individual axial cooling fan, to protect effective cooling of the motor at any speed, the electric motor can run at high speed or low. I produced YVP brakes can be equipped with three-phase inverter motor can also be equipped with an encoder to achieve low stepless speed control. With the IEC standard flange Installation dimensions, YVP three-phase inverter motor keep the good universal, and it can be interchanged with general standard motor.



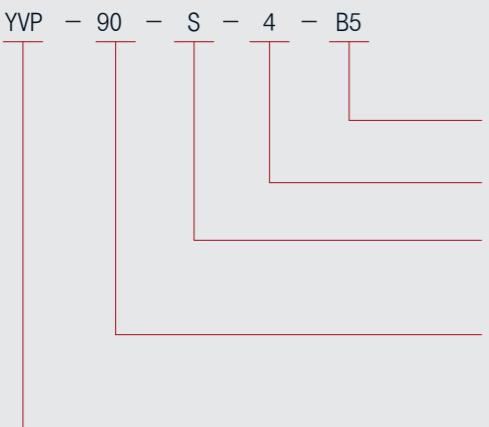
## YVP系列技术参数 / YVP series of technical parameters

3000r/min 380V 50Hz											
型号 Type	额定功率 RATED OUTPUT	额定转速 RATED SPEED	效率 EFFICIENCY	功率因数 POWER FACTOR	额定电流 RATED CURRENT	额定转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	变频风机 FREQUENCY CONVERSION BLOWER		
							额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	电压VOLTAGE V	转速SPEED rpm	
	KW	rpm	η %	COS φ	A	Nm	Ts/Tn	Tmax/Tn	三相 THREE PHASE	单相 SINGLE PHASE	
YVP-631-2	0.18	2800	65.0	0.80	0.53	0.61	2.2	2.2	380	220	2800
YVP-632-2	0.25	2800	68.0	0.81	0.69	0.85	2.2	2.2	380	220	2800
YVP-711-2	0.37	2830	70.0	0.81	0.99	1.25	2.2	2.2	380	220	2800
YVP-712-2	0.55	2830	73.0	0.82	1.40	1.86	2.2	2.3	380	220	2800
YVP-801-2	0.75	2840	75.0	0.83	1.83	2.52	2.2	2.3	380	220	2800
YVP-802-2	1.1	2840	77.0	0.85	2.55	3.70	2.2	2.3	380	220	2800
YVP-90S-2	1.5	2840	79.0	0.85	3.39	5.04	2.2	2.3	380	220	2800
YVP-90L-2	2.2	2840	81.0	0.86	4.80	7.40	2.2	2.3	380	220	2800
YVP-100L-2	3	2860	83.0	0.87	6.31	10.0	2.2	2.3	380	220	2800
YVP-112M-2	4	2880	84.0	0.88	8.22	13.3	2.2	2.3	380	220	2800
YVP-132S1-2	5.5	2910	85.0	0.88	11.2	18.0	2.2	2.3	380	220	2800
YVP-132S2-2	7.5	2910	86.0	0.88	15.1	24.6	2.2	2.3	380	220	2800
YVP-160M1-2	11	2930	88.0	0.89	21.3	35.9	2.2	2.3	380	220	2800
YVP-160M2-2	15	2930	89.0	0.89	28.8	48.9	2.2	2.3	380	220	2800
YVP-160L-2	18.5	2935	90.0	0.90	34.7	60.2	2.2	2.3	380	220	2800
YVP-180M-2	22	2935	90.0	0.90	41.3	71.6	2.0	2.3	380	220	2800

## YVP系列技术参数 / YVP series of technical parameters

1500r/min 380V 50Hz											
型号 Type	额定功率 RATED OUTPUT	额定转速 RATED SPEED	效率 EFFICIENCY	功率因数 POWER FACTOR	额定电流 RATED CURRENT	额定转矩 RATED TORQUE	堵转转矩 LOCKED ROTOR TORQUE	最大转矩 MAXIMUM TORQUE	变频风机 FREQUENCY CONVERSION BLOWER		
							额定转矩 RATED TORQUE	额定转矩 RATED TORQUE	电压VOLTAGE V	转速SPEED rpm	
	KW	rpm	η %	COS φ	A	Nm	Ts/Tn	Tmax/Tn	三相 THREE PHASE	单相 SINGLE PHASE	
YVP-631-4	0.12	1360	57.0	0.72	0.44	0.84	2.2	2.0	380	220	2800
YVP-632-4	0.18	1360	60.0	0.73	0.62	1.26	2.2	2.0	380	220	2800
YVP-711-4	0.25	1375	65.0	0.74	0.79	1.74	2.2	2.0	380	220	2800
YVP-712-4	0.37	1375	67.0	0.75	1.12	2.57	2.2	2.0	380	220	2800
YVP-801-4	0.55	1405	71.0	0.75	1.57	3.74	2.2	2.4	380	220	2800
YVP-802-4	0.75	1405	73.0	0.77	2.02	5.10	2.2	2.4	380	220	2800
YVP-90S-4	1.1	1445	75.0	0.79	2.82	7.27	2.2	2.3	380	220	2800
YVP-90L-4	1.5	1445	78.0	0.79	3.70	9.91	2.2	2.3	380	220	2800
YVP-100L1-4	2.2	1440	80.0	0.81	5.16	14.6	2.2	2.3	380	220	2800
YVP-100L2-4	3	1440	82.0	0.82	6.78	19.9	2.2	2.3	380	220	2800
YVP-112M-4	4	1440	84.0	0.82	8.82	26.5	2.2	2.3	380	220	2800
YVP-132S1-4	5.5	1440	85.0	0.84	11.7	36.5	2.2	2.3	380	220	2800
YVP-132S2-4	7.5	1440	87.0	0.84	15.6	49.7	2.2	2.3	380	220	2800
YVP-160M-4	11	1450	88.0	0.85	21.3	72.4	2.2	2.2	380	220	2800
YVP-160L-4	15	1450	89.0	0.85	30.1	98.8	2.2	2.2	380	220	2800
YVP-180M-4	18.5	1455	90.5	0.86	36.5	121.4	2.2	2.2	380	220	2800
YVP-180L-4	22	1455	91.0	0.86	43.1	144.4	2.0	2.2	380	220	2800

## YVP变频电机代号说明 / YVP frequency conversion motor code description

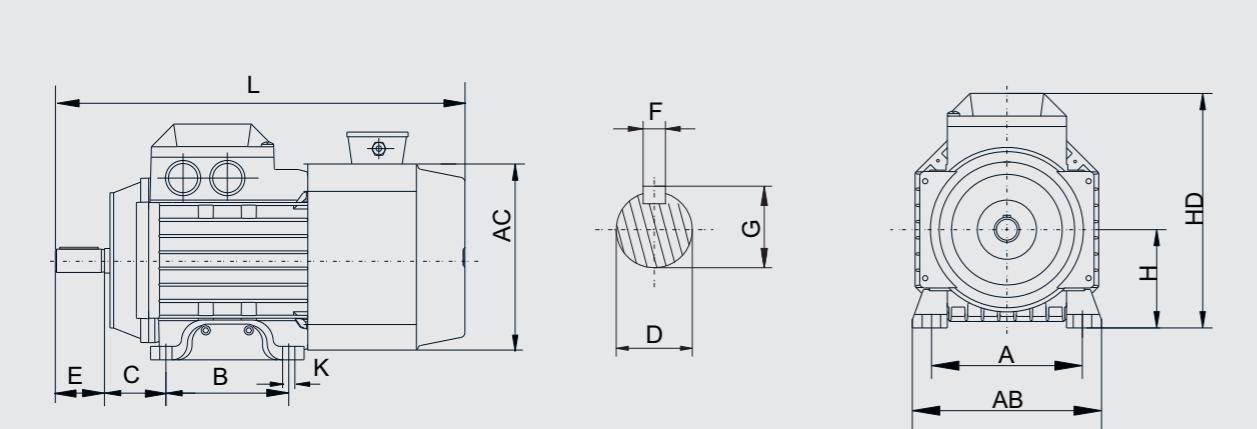


电机安装方式 / Motor mounting modality  
极数 / Number of poles  
铁芯代号 / Core length number  
机座号 / Frame size  
系列代码 / Series code

1000r/min 380V 50Hz											
YVP-711-6	0.18	900	58.0	0.66	0.71	1.91	1.9	2.0	380	220	2800
YVP-712-6	0.25	900	59.0	0.68	0.95	2.65	1.9	2.0	380	220	2800
YVP-801-6	0.37	910	62.0	0.70	1.30	3.88	1.9	2.0	380	220	2800
YVP-802-6	0.55	910	65.0	0.72	1.79	5.77	1.9	2.1	380	220	2800
YVP-90S-6	0.75	930	70.0	0.72	2.26	7.7	2.1	2.1	380	220	2800
YVP-90L-6	1.1	940	73.0	0.73	3.14	11.2	2.1	2.1	380	220	2800
YVP-100L-6	1.5	940	76.0	0.76	3.95	15.2	2.2	2.1	380	220	2800
YVP-112M-6	2.2	960	79.0	0.76	5.57	21.9	2.2	2.1	380	220	2800
YVP-132S-6	3	960	81.0	0.76	7.40	29.8	2.2	2.1	380	220	2800
YVP-132M1-6	4	960	83.0	0.76	9.63	39.8	2.2	2.1	380	220	2800
YVP-132M2-6	5.5	960	84.0	0.77	12.9	54.7</td					

## YVP系列安装尺寸 / YVP series installation size

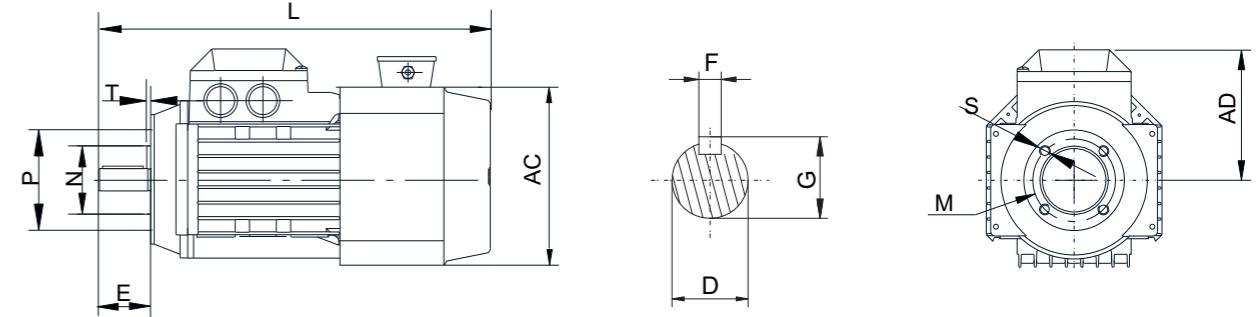
IM B3 H63-180



机座号 FRAME SIZE	外型及安装尺寸 INSTALLATION DIMENSIONS												
	A	B	C	D	E	F	G	H	K	AB	AC	HD	L
63	100	80	40	ø 11	23	4	12.5	63	ø 7	135	120×120	167	260
71	112	90	45	ø 14	30	5	16	71	ø 7	137	130×130	178	295
80	125	100	50	ø 19	40	6	21.5	80	ø 10	155	145×145	190	340
90S	140	100	56	ø 24	50	8	27	90	ø 10	175	160×160	205	390
90L	140	125	56	ø 24	50	8	27	90	ø 10	175	160×160	205	400
100L	160	140	63	ø 28	60	8	31	100	ø 12	200	185×185	240	430
112M	190	140	70	ø 28	60	8	31	112	ø 12	230	200×200	270	460
132S	216	140	89	ø 38	80	10	41	132	ø 12	270	245×245	315	525
132M	216	178	89	ø 38	80	10	41	132	ø 12	270	245×245	315	525
160M	254	210	108	ø 42	110	12	45	160	ø 14.5	320	335×335	450	850
160L	254	254	108	ø 42	110	12	45	160	ø 14.5	320	335×335	450	870
180M	279	241	121	ø 48	110	14	51.5	180	ø 14.5	355	370×370	500	880
180L	279	279	121	ø 48	110	14	51.5	180	ø 14.5	355	370×370	500	980

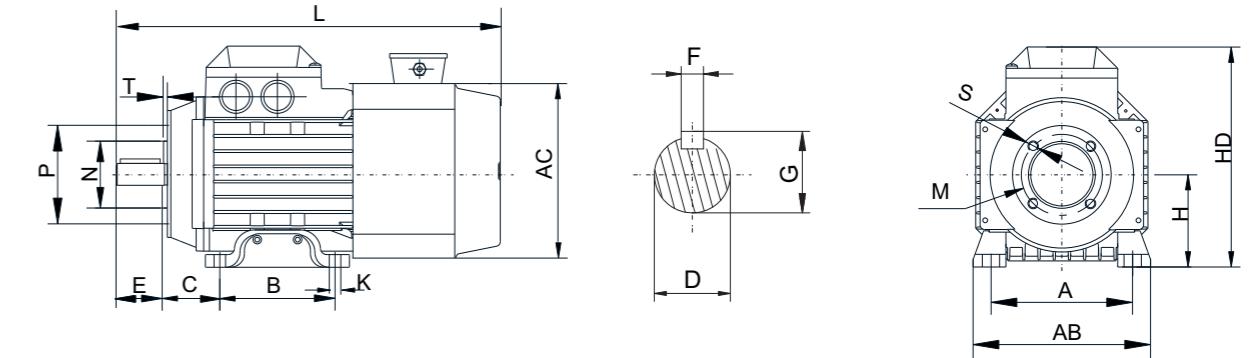
## YVP系列安装尺寸 / YVP series installation size

IM B14 H63-112



机座号 FRAME SIZE	外型及安装尺寸 INSTALLATION DIMENSIONS											
	D	E	F	G	M	N	P	S	T	AC	AD	L
63	ø 11	23	4	12.5	75	60	90	M5	2.5	120×120	104	260
71	ø 14	30	5	16	85	70	105	M6	2.5	130×130	107	295
80	ø 19	40	6	21.5	100	80	110	M6	3.0	145×145	115	340
90S	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	390
90L	ø 24	50	8	27	115	95	120	M8	3.0	160×160	122	400
100L	ø 28	60	8	31	130	110	155	M8	3.5	185×185	137	430
112M	ø 28	60	8	31	130	110	160	M8	3.5	200×200	155	460

IM B34 H63-112

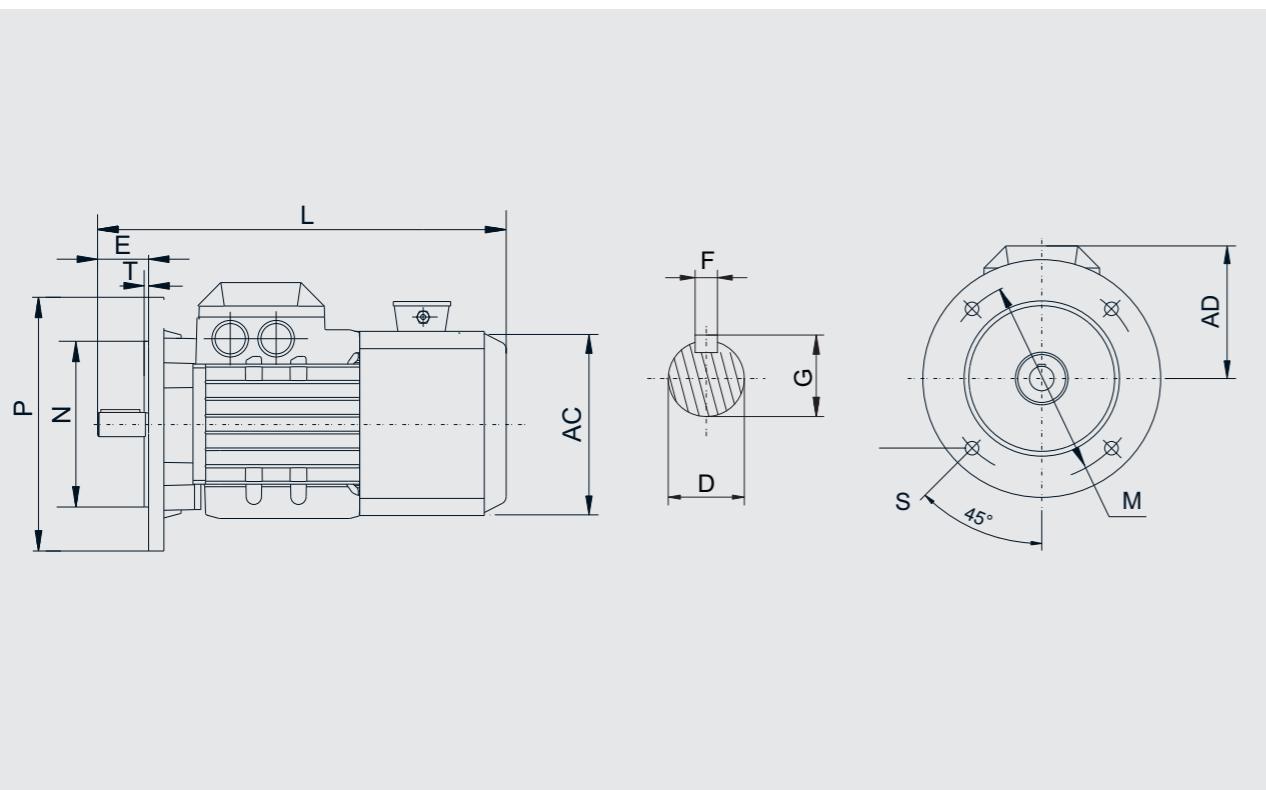


机座号 FRAME SIZE	外型及安装尺寸 INSTALLATION DIMENSIONS												AB	AC	HD	L		
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
63	100	80	40	ø 11	23	4	12.5	63	ø 7	75	60	90	M5	2.5	135	120×120	167	260
71	112	90	45	ø 14	30	5	16	71	ø 7	85	70	105	M6	2.5	137	130×130	178	295
80	125	100	50	ø 19	40	6	21.5	80	ø 10	100	80	110	M6	3.0	155	145×145	190	340
90S	140	100	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	175	160×160	205	390
90L	140	125	56	ø 24	50	8	27	90	ø 10	115	95	120	M8	3.0	175	160×160	205	400
100L	160	140	63	ø 28	60	8	31	100	ø 12	130	110	155	M8	3.5	200	185×185	240	430
112M	190	140	70	ø 28	60	8	31	112	ø 12	230	200×200	270	460					



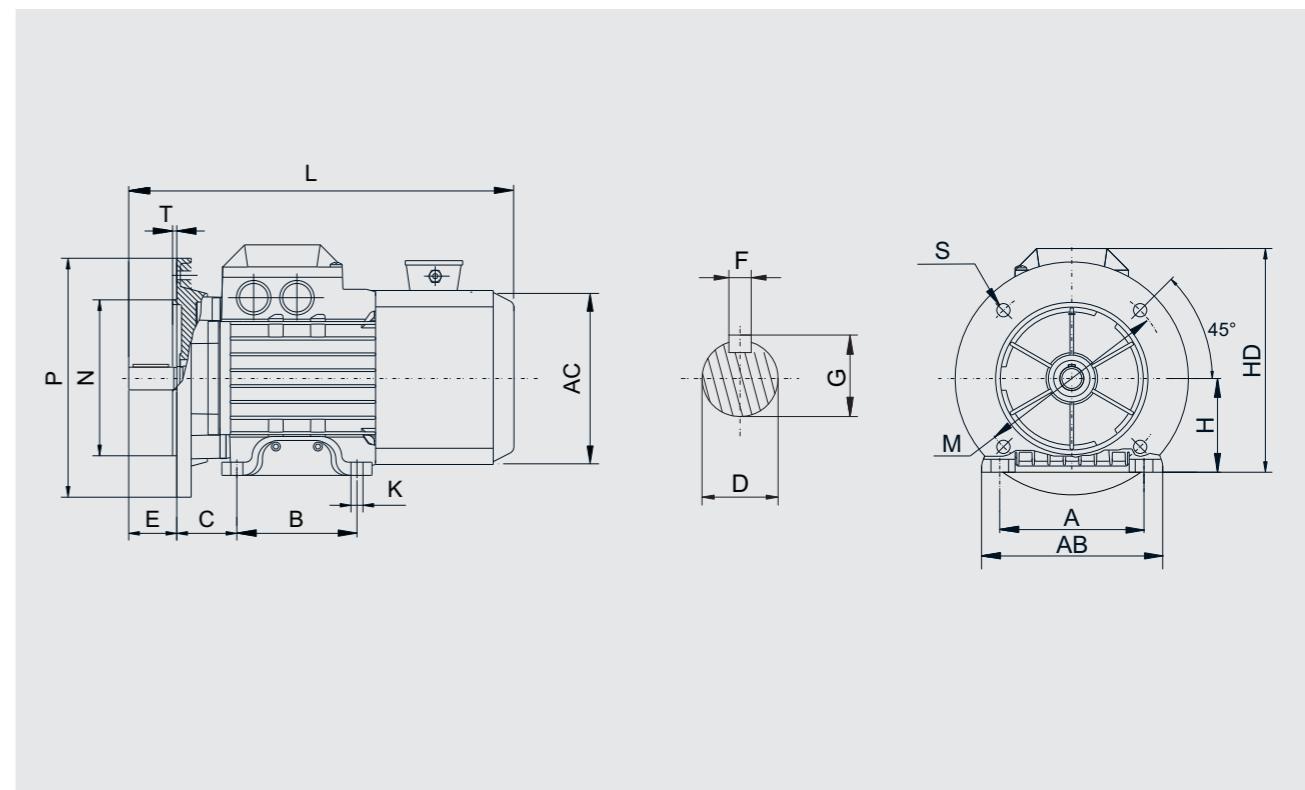
## YVP系列安装尺寸 / YVP series installation size

IM B5 H63-180



## YVP系列安装尺寸 / YVP series installation size

IM B35 H63-180



机座号 FRAME SIZE	外型及安装尺寸 INSTALLATION DIMENSIONS											
	D	E	F	G	M	N	P	S	T	AC	AD	L
63	ø 11	23	4	12.5	115	95	140	10	3.0	120×120	104	260
71	ø 14	30	5	16	130	110	160	10	3.5	130×130	107	295
80M	ø 19	40	6	21.5	165	130	200	12	3.5	145×145	115	340
90S	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	390
90L	ø 24	50	8	27	165	130	200	12	3.5	160×160	122	400
100L	28	60	8	31	215	180	250	14.5	4	185×185	137	430
112M	28	60	8	31	215	180	250	14.5	4	200×200	155	460
132S	38	80	10	41	265	230	300	14.5	4	245×245	180	525
132M	38	80	10	41	265	230	300	14.5	4	245×245	180	525
160M	42	110	12	45	300	250	350	18.5	5	335×335	290	850
160L	42	110	12	45	300	250	350	18.5	5	335×335	290	870
180M	48	110	14	51.5	300	250	350	18.5	5	370×370	340	880
180L	48	110	14	51.5	300	250	350	18.4	5	370×370	340	980

机座号 FRAME SIZE	外型及安装尺寸 INSTALLATION DIMENSIONS																	
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AC	HD	L
63	100	80	40	ø 11	23	4	12.5	63	ø 7	115	95	140	10	2.5	115	120×120	167	260
71	112	90	45	ø 14	30	5	16	71	ø 7	130	110	160	10	3.5	136	130×130	178	295
80M	125	100	50	ø 19	40	6	21.5	80	ø 10	165	130	200	12	3.5	154	145×145	190	340
90S	140	100	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	390
90L	140	125	56	ø 24	50	8	27	90	ø 10	165	130	200	12	3.5	180	160×160	205	400
100L	160	140	63	ø 28	60	8	31	100	ø 12	215	180	250	14.5	4	205	185×185	240	430
112M	190	140	70	ø 28	60	8	31	112	ø 12	215	180	250	14.5	4	235	200×200	270	460
132S	216	140	89	ø 38	80	10	41	132	ø 12	265	230	300	14.5	4	261	245×245	310	525
132M	216	178	89	ø 38	80	10	41	132	ø 12	265	230	300	14.5	4	261	245×245	310	525
160M	254	210	108	ø 42	110	12	45	160	ø 14.5	300	250	350	18.5	5	320	335×335	450	850
160L	254	254	108	ø 42	110	12	45	160	ø 14.5	300	250	350	18.5	5	320	335×335	450	870
180M	279	241	121	ø 48	110	14	51.5	180	ø 14.5	300	250	350	18.5	5	355	370×370	500	880
180L	279	279	121	ø 48	110	14	51.5	180	ø 14.5	300	250	350	18.5	5	355	370×370	500	980



**精度更高 / Higher precision :**

实现了位置、速度和力矩的闭环控制，克服了步进电机失步的问题。

To achieve a closed-loop control of position, speed and torque to overcome the problem of the stepper motor step.

**启动快、启动转矩大 / Fast start, large starting torque :**

当定子一有控制电压，转子立即转动，即具有起动快、灵敏度高的特点。

When there is a control voltage stator, rotor rotation immediately, that has started fast, high sensitivity characteristic.

**稳定性强 / Strong stability :**

低、高速运行平稳，且响应及时。

Low, stable high-speed operation, and respond in a timely manner.

**效率高 / high efficiency :**

比普通电机的效率高35%。

35% higher than the average motor efficiency.

伺服电机

**PERMANENT MAGNET  
SERVO MOTORS**



## 交流永磁伺服电机 / Ac Permanent Magnet Servo Motor

### 一、型号命名 / Model Name

60	ST - M	00630	Z1	
派生代号 Derived Mark				
性能参数代号 Performance Parameter Mark				
反馈元件代号 Feedback Component Mark ( M is Photoelectric Encoder X is Resolver )				
正弦波驱动电机 Sine Wave Driving Motor				
机座号 Frame Size				

- 机座号为：60、80、90、110、130、150、180
- 反馈元件代号：M – 光电脉冲编码器
- 性能参数代号：前三位表示额定转矩  
后两位表示额定转速  
如性能参数代号00630表示额定转矩0.6N.m，额定转速3000rpm
- 派生代号:Z1-电磁制动器  
Z2-永磁制动器
- Frame size : 60、80、90、110、130、150、180
- Feedback Component Mark : M is Photoelectric Encoder X is Resolver
- Performance Parameter Mark : First Three are Rated Torque  
Last Two are Rated Speed  
e.g.: Performance Parameter Mark 00630 indicates the rated torque is 0.6N.m, rated speed is 3000rpm
- Derived Mark : L-electric brake

### 二、使用条件 Servie Conditions

使用环境	-20℃~+40℃
编码器线数	2500PPR
湿度小于	90%
绝缘等级	F
防护等级	IP65

Use environment	-20℃~+40℃
Encoder line number	2500PPR
Humidity less than	90%
Insulation class	F
Protection grade	IP65

## 伺服电机技术参数 / Servo motor technology parameters

### 60系列技术参数 / 60Series Technical Parameter

电机型号 Motor model	60ST-M00630		60ST-M01330												
额定功率 Rated Power W	200		400												
额定线电压 Rated voltage V	220		220												
额定线电流 Rated current A	1.2		2.8												
额定转速 Rated speed rpm	3000		3000												
额定力矩 Holding torque N.m	0.637		1.27												
峰值力矩 Peak torque N.m	1.91		3.9												
转子惯量 Rotor inertia Kg. m <sup>2</sup>	0.175×10 <sup>-4</sup>		0.29×10 <sup>-4</sup>												
重量 Weight kg	1.16		1.63												
编码器线数 Encoder line number PPR	2500														
电机绝缘等级 Insulation class	Class F														
防护等级 Safety class	IP65														
使用环境 The operating of Environmental Conditions	环境温度：-20℃~+40℃ Temperature:-20℃~+40℃		环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing												
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)											
	插座编号 Plug serial number	1	2	3											
				4											
编码器插座 Encoder plug	信号引线 Signal lead wire	5V 0V B+ Z- U+ Z+ U- A+ V+ W+ V- A- B- W- PE													
	插座编号 plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15

其它要求请联系我技术部  
Other special requirements please contact the BMEMB Technology to negotiate



## 伺服电机技术参数 / Servo motor technology parameters

### 80系列技术参数 / 80Series Technical Parameter

电机型号 Motor model	80ST-M01330	80ST-M02430	80ST-M03520	80ST-M04025											
额定功率 Rated Power	kW	0.4	0.75	0.73	1.0										
额定线电压 Rated voltage	V	220	220	220	220										
额定线电流 Rated current	A	2	3	3	4.4										
额定转速 Rated speed	rpm	3000	3000	2000	2500										
额定力矩 Holding torque	N.m	1.27	2.39	3.5	4										
峰值力矩 Peak torque	N.m	3.8	7.1	10.5	12										
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	$1.05 \times 10^{-4}$	$1.82 \times 10^{-4}$	$2.63 \times 10^{-4}$	$2.97 \times 10^{-4}$										
重量 Weight	kg	1.78	2.86	3.7	3.8										
编码器线数 Encoder line number	PPR		2500												
电机绝缘等级 Insulation class			Class F												
防护等级 Safety class			IP65												
使用环境 The operating of Environmental Conditions		环境温度：-20℃~+40℃ Temperature:-20℃~+40℃	环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing												
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)										
	插座编号 Plug serial number	1	2	3	4										
编码器插座 Encoder plug	信号引线 Signal lead wire	5V 0V B+ Z- U+ Z+ U- A+ V+ W+ V- A- B- W- PE													
	插座编号 plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15

其它要求请联系我技术部

Other special requirements please contact the BMEMB Technology to negotiate

## 伺服电机技术参数 / Servo motor technology parameters

### 90系列技术参数 / 90Series Technical Parameter

电机型号 Motor model	90ST-M02430	90ST-M03520	90ST-M04025												
额定功率 Rated Power	kW	0.75	0.73	1.0											
额定线电压 Rated voltage	V	220	220	220											
额定线电流 Rated current	A	3	3	4											
额定转速 Rated speed	rpm	3000	2000	2500											
额定力矩 Holding torque	N.m	2.4	3.5	4											
峰值力矩 Peak torque	N.m	7.1	10.5	12											
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	$2.45 \times 10^{-4}$	$3.4 \times 10^{-4}$	$3.7 \times 10^{-4}$											
重量 Weight	kg	3.4	3.8	4.31											
编码器线数 Encoder line number	PPR		2500												
电机绝缘等级 Insulation class			Class F												
防护等级 Safety class			IP65												
使用环境 The operating of Environmental Conditions		环境温度：-20℃~+40℃ Temperature:-20℃~+40℃	环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing												
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)											
	插座编号 Plug serial number	1	2	3	4										
编码器插座 Encoder plug	信号引线 Signal lead wire	5V 0V B+ Z- U+ Z+ U- A+ V+ W+ V- A- B- W- PE													
	插座编号 plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15

其它要求请联系我技术部

Other special requirements please contact the BMEMB Technology to negotiate



## 伺服电机技术参数 / Servo motor technology parameters

### 110系列技术参数 / 110Series Technical Parameter

电机型号 Motor model	110ST-M02030 110ST-M04020 110ST-M04030 110ST-M05030 110ST-M06020 110ST-M06030															
额定功率 Rated Power	kW	0.6	0.8	1.2	1.5	1.2	1.8									
额定线电压 Rated voltage	V	220	220	220	220	220	220									
额定线电流 Rated current	A	2.5	3.5	5.0	6.0	4.5	6.0									
额定转速 Rated speed	rpm	3000	2000	3000	3000	2000	3000									
额定力矩 Holding torque	N.m	2	4	4	5	6	6									
峰值力矩 Peak torque	N.m	6	12	12	15	12	18									
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	0.31×10 <sup>-3</sup>	0.54×10 <sup>-3</sup>	0.54×10 <sup>-3</sup>	0.63×10 <sup>-3</sup>	0.76×10 <sup>-3</sup>	0.76×10 <sup>-3</sup>									
重量 Weight	kg	4.5	5.5	5.5	6.1	6.7	6.7									
编码器线数 Encoder line number	PPR	2500														
电机绝缘等级 Insulation class	Class F															
防护等级 Safety class	IP65															
使用环境 The operating of Environmental Conditions	环境温度：-20℃~+40℃ Temperature:-20℃~+40℃		环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing													
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)											
	插座编号 Plug serial number	2	3	4	1											
	信号引线 Signal lead wire	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
编码器插座 Encoder plug	插座编号 plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

其它要求请联系我技术部  
Other special requirements please contact the BMEMB Technology to negotiate

## 伺服电机技术参数 / Servo motor technology parameters

### 130系列技术参数 / 130Series Technical Parameter

电机型号 Motor model	130ST-M04025 130ST-M05025 130ST-M06025 130ST-M07725 130ST-M10010 130ST-M10015 130ST-M10025 130ST-M15015 130ST-M15025															
额定功率 Rated Power	kW	1.0	1.3	1.5	2.0	1.0	1.5	2.6	2.3	3.8						
额定线电压 Rated voltage	V	220	220	220	220	220	220	220	220	220						
额定线电流 Rated current	A	4.0	5.0	6.0	7.5	4.5	6.0	10	9.5	13.5						
额定转速 Rated speed	rpm	2500	2500	2500	2500	1000	1500	2500	1500	2500						
额定力矩 Holding torque	N.m	4	5.0	6	7.7	10	10	15	15	15						
峰值力矩 Peak torque	N.m	12	15	18	22	20	25	25	30	30						
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	0.85×10 <sup>-3</sup>	1.06×10 <sup>-3</sup>	1.26×10 <sup>-3</sup>	1.53×10 <sup>-3</sup>	1.94×10 <sup>-3</sup>	1.94×10 <sup>-3</sup>	2.77×10 <sup>-3</sup>	2.77×10 <sup>-3</sup>	2.77×10 <sup>-3</sup>						
重量 Weight	kg	7.7	8.2	8.9	10	11.5	11.5	14.4	14.4	14.4						
编码器线数 Encoder line number	PPR	2500														
电机绝缘等级 Insulation class	Class F															
防护等级 Safety class	IP65															
使用环境 The operating of Environmental Conditions	环境温度：-20℃~+40℃ Temperature:-20℃~+40℃		环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing													
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)											
	插座编号 Plug serial number	2	3	4	1											
	信号引线 Signal lead wire	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
编码器插座 Encoder plug	插座编号 plug serial number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

其它要求请联系我技术部  
Other special requirements please contact the BMEMB Technology to negotiate



## 伺服电机技术参数 / Servo motor technology parameters

### 150系列技术参数 / 150Series Technical Parameter

电机型号 Motor model	150ST-M15025	150ST-M15020	150ST-M18020	150ST-M23020	150ST-M27020	
额定功率 Rated Power	kW	3.8	3.0	3.6	4.7	5.5
额定线电压 Rated voltage	V	220	220	220	220	220
额定线电流 Rated current	A	17	14	17	21	24
额定转速 Rated speed	rpm	2500	2000	2000	2000	2000
额定力矩 Holding torque	N.m	15	15	18	23	27
峰值力矩 Peak torque	N.m	30	30	36	46	54
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	$3.88 \times 10^{-3}$	$3.88 \times 10^{-3}$	$4.6 \times 10^{-3}$	$5.8 \times 10^{-3}$	$6.8 \times 10^{-3}$
重量 Weight	kg	15.2	15.2	17.2	21	23.5
编码器线数 Encoder line number	PPR		2500			
电机绝缘等级 Insulation class			Class F			
防护等级 Safety class			IP65			
使用环境 The operating of Environmental Conditions		环境温度：-20℃~+40℃ Temperature:-20℃~+40℃	环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing			
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)	
	插座编号 Plug serial number	2	3	4	1	
编码器插座 Encoder plug	信号引线 Signal lead wire	5V 0V A+ B+ Z+ A- B- Z-	U+ V+ W+	U- V- W-	PE	
	插座编号 plug serial number	2 3 4 5 6 7 8 9 10 11 12 13 14 15 1				

其它要求请联系我技术部

Other special requirements please contact the BMEMB Technology to negotiate

## 伺服电机技术参数 / Servo motor technology parameters

### 180系列技术参数 / 180Series Technical Parameter

电机型号 Motor model	180ST-M17215	180ST-M19015	180ST-M21520	180ST-M27010	
额定功率 Rated Power	kW	2.7	3.0	4.5	2.9
额定线电压 Rated voltage	V	220 380	220 380	220 380	220 380
额定线电流 Rated current	A	10.5 6.5	12 7.5	16 9.5	12 7.5
额定转速 Rated speed	rpm	1500	1500	2000	1000
额定力矩 Holding torque	N.m	17.2	19	21.5	27
峰值力矩 Peak torque	N.m	43	47	53	67
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	$3.4 \times 10^{-3}$	$3.8 \times 10^{-3}$	$4.7 \times 10^{-3}$	$6.1 \times 10^{-3}$
重量 Weight	kg	19.5	20.5	22.2	25.5
编码器线数 Encoder line number	PPR		2500		
电机绝缘等级 Insulation class			Class F		
防护等级 Safety class			IP65		
使用环境 The operating of Environmental Conditions		环境温度：-20℃~+40℃ Temperature:-20℃~+40℃	环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing		
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)
	插座编号 Plug serial number	2	3	4	1
编码器插座 Encoder plug	信号引线 Signal lead wire	5V 0V A+ B+ Z+ A- B- Z-	U+ V+ W+	U- V- W-	PE
	插座编号 plug serial number	2 3 4 5 6 7 8 9 10 11 12 13 14 15 1			

其它要求请联系我技术部

Other special requirements please contact the BMEMB Technology to negotiate



## 伺服电机技术参数 / Servo motor technology parameters

### 180系列技术参数 / 180Series Technical Parameter

电机型号 Motor model	180ST-M027015	180ST-M35010	180ST-M35015	180ST-M48015	
额定功率 Rated Power	kW	4.3	3.7	5.5	7.5
额定线电压 Rated voltage	V	220 380	220 380	220 380	220 380
额定线电流 Rated current	A	16 10	16 10	24 12	32 20
额定转速 Rated speed	rpm	1500	1000	1500	1500
额定力矩 Holding torque	N.m	27	35	35	48
峰值力矩 Peak torque	N.m	67	70	70	96
转子惯量 Rotor inertia	Kg. m <sup>2</sup>	$6.1 \times 10^{-3}$	$8.6 \times 10^{-3}$	$8.6 \times 10^{-3}$	$9.5 \times 10^{-3}$
重量 Weight	kg	25.5	30.5	30.5	40
编码器线数 Encoder line number	PPR	2500			
电机绝缘等级 Insulation class	Class F				
防护等级 Safety class	IP65				
使用环境 The operating of Environmental Conditions	环境温度：-20℃~+40℃ Temperature:-20℃~+40℃		环境湿度：相对湿度<90%(不结霜条件) Humidity Below 90%RH No dewing		
电机绕组插座 Motor winding plue	绕阻引线 Winding lead wire	U(红) U(red)	V(黄) V(yellow)	W(蓝) W(blue)	PE(黄绿/黑) PE(yellowgreen/black)
	插座编号 Plug serial number	2	3	4	1
	信号引线 Signal lead wire	5V 0V A+ B+ Z+ A- B- Z- U+ V+ W+ U- V- W- PE			
编码器插座 Encoder plug	插座编号 plug serial number	2 3 4 5 6 7 8 9 10 11 12 13 14 15 1			

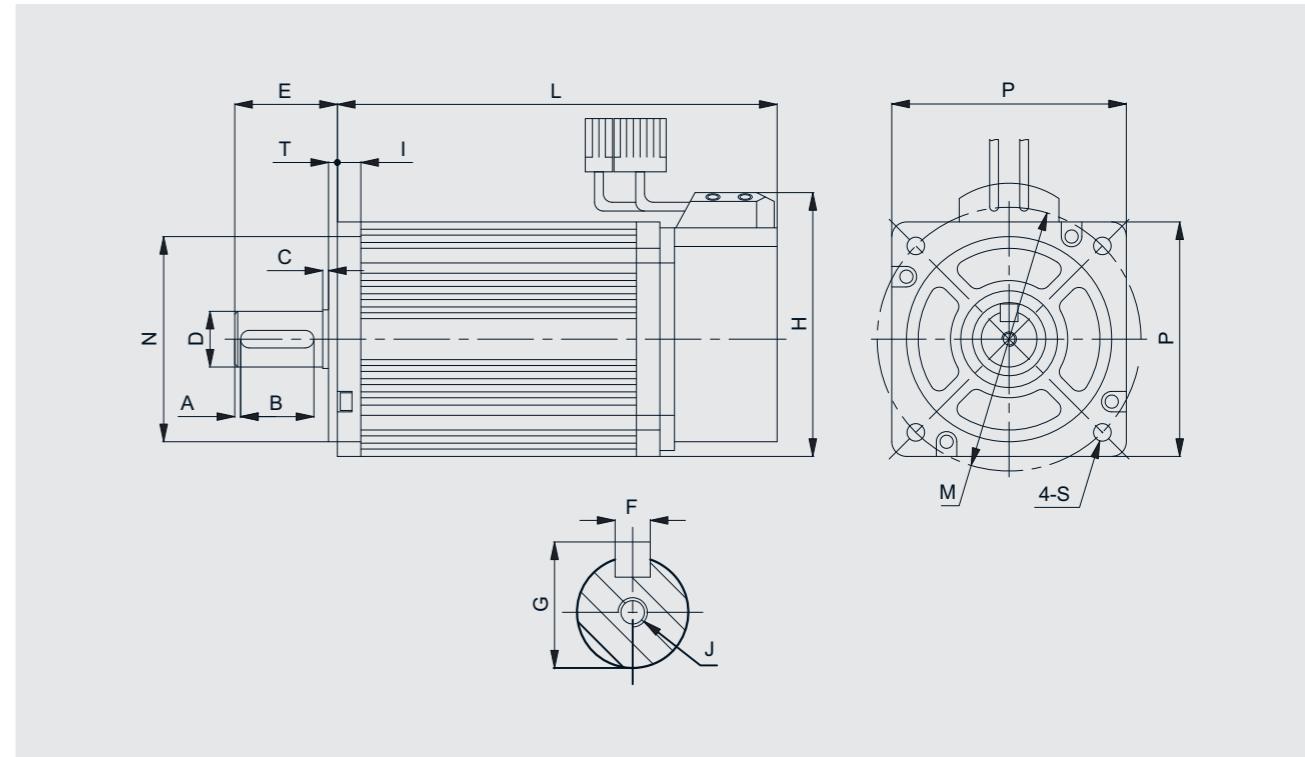
其它要求请联系我技术部

Other special requirements please contact the BMEMB Technology to negotiate

## 伺服电机安装尺寸 / Installation dimension of servo motor

### 60、80、90系列伺服电机外型安装尺寸

60、80、90Series Servo Motor appearance and installation dimensions



电机型号 Motor model	外型及安装尺寸(mm) INSTALLATION DIMENSIONS(mm)																	
	Machine Base No.	A	B	C	D	E	F	G	H	I	J	T	M	P	S	L*	L1*	L2*
60ST-M00630		2	20	2	ø14	30	5	16	72	8	—	3	ø70	60	ø5.5	127	—	175
60ST-M01330		2	20	2	ø14	30	5	16	72	8	—	3	ø70	60	ø5.5	152	—	200
80ST-M01330		2	25	2	ø19	35	6	21.5	90	8	M5	3	ø90	80	ø6	129	169	183
80ST-M02430		2	25	2	ø19	35	6	21.5	90	8	M5	3	ø90	80	ø6	156	196	211
80ST-M03520		2	25	2	ø19	35	6	21.5	90	8	M5	3	ø90	80	ø6	184	224	238
80ST-M04025		2	25	2	ø19	35	6	21.5	90	8	M5	3	ø90	80	ø6	196	236	238
90ST-M02430		3	25	2	ø16	35	5	18	93	8	M5	3	ø100	86	ø6.5	155	203	212
90ST-M03520		3	25	2	ø16	35	5	18	93	8	M5	3	ø100	86	ø6.5	177	225	234
90ST-M04025		3	25	2	ø16	35	5	18	93	8	M5	3	ø100	86	ø6.5	187	235	244

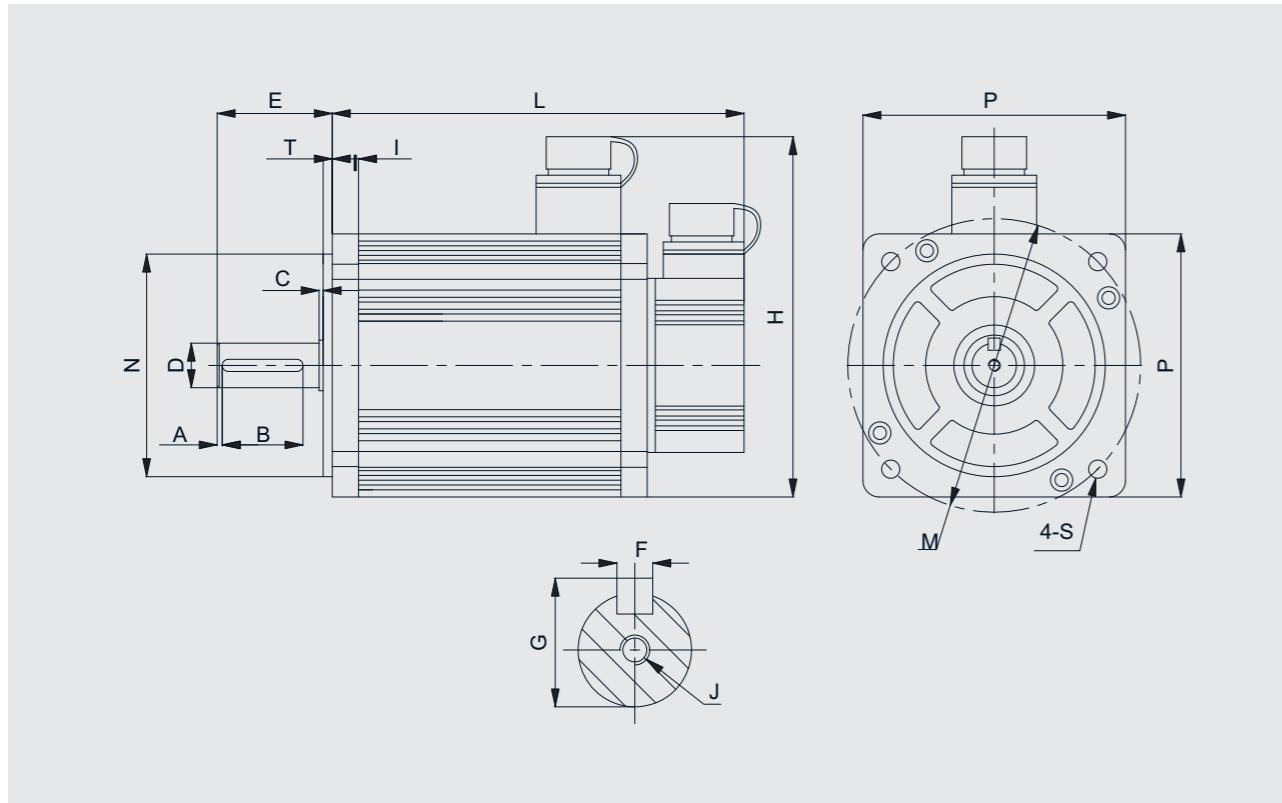
● 注：L为不带制动器电机长度，L1为带电磁制动器电机长度，L2为带永磁制动器电机长度。

● Precaution: L-without brake , L1-with electromagnetic brake , L2-with permanent magnet brake .

## 伺服电机安装尺寸 / Installation dimension of servo motor

110、130、150、180系列伺服电机外型安装尺寸

110、130、150、180Series Servo Motor appearance and installation dimensions



## 伺服电机安装尺寸 / Installation dimension of servo motor

110、130、150、180系列伺服电机外型安装尺寸

110、130、150、180Series Servo Motor appearance and installation dimensions

额定扭矩 Machine Base No.	额定扭矩 Machine Base No.	外型及安装尺寸(mm) INSTALLATION DIMENSIONS(mm)																
		A	B	C	D	E	F	G	H	I	J	T	M	P	S	L*	L1*	L2*
150 系列	15 2500 rpm	4	45	0.5	ø 28	58	8	31	198	14	M8	5	ø 165	150	ø 11	230	303	—
	15 2000 rpm	4	45	0.5	ø 28	58	8	31	198	14	M8	5	ø 165	150	ø 11	230	303	—
	18	4	45	0.5	ø 28	58	8	31	198	14	M8	5	ø 165	150	ø 11	248	321	—
	23	4	45	0.5	ø 28	58	8	31	198	14	M8	5	ø 165	150	ø 11	279	351	—
	27	4	45	0.5	ø 28	58	8	31	198	14	M8	5	ø 165	150	ø 11	302	375	—
	17.2	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	226	298	308
	19	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	232	304	314
	21.5	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	243	315	325
180 系列	27	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	262	334	344
	35	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	292	364	382
	48	3	50	2.5	ø 35	65	10	38	228	18	—	3.2	ø 200	180	ø 13.5	346	418	436

## 安装注意 / Installation Precaution

- 1、安装/拆卸部位到电机轴末端时，请不要用力敲打轴，以防止敲坏轴另一端的编码器。
- 2、尽量防止轴座震动，以防止轴承的损坏。

- 1、Installation/disassembly component coupled to the motor shaft end , do not hit shaft hard to prevent the other side of motor shaft encoder was knocked out bad .
- 2、Striving to make the best of its shaft to prevent vibration and bearing damage .

额定扭矩 Machine Base No.	额定扭矩 Machine Base No.	外型及安装尺寸(mm) INSTALLATION DIMENSIONS(mm)																
		A	B	C	D	E	F	G	H	I	J	T	M	P	S	L*	L1*	L2*
110 系列	2	2.5	40	2	ø 19	55	6	21.5	158	13	M6	5	ø 130	110	ø 9	159	212	215
	4	2.5	40	2	ø 19	55	6	21.5	158	13	M6	5	ø 130	110	ø 9	192	242	245
	5	2.5	40	2	ø 19	55	6	21.5	158	13	M6	5	ø 130	110	ø 9	204	258	260
	6	2.5	40	2	ø 19	55	6	21.5	158	13	M6	5	ø 130	110	ø 9	219	262	275
	4	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	166	223	236
	5	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	171	228	241
	6	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	179	236	249
	7.7	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	192	249	262
130 系列	1000 rpm	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	204	254	264
	1500 rpm	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	204	254	264
	2500 rpm	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	204	254	264
	15	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	241	322	311
	2500 rpm	2.5	40	2	ø 22	57	6	24.5	178	13	M6	5	ø 145	130	ø 9	241	322	311

- 注：L为不带制动器电机长度，L1为带电磁制动器电机长度，L2为带永磁制动器电机长度。
- Precaution: L-without brake , L1-with electromagnetic brake , L2-with permanent magnet brake .



## 伺服电机简单故障分析与排除 / Servo motor simple fault analysis and ruled out

故障 / Fault	故障原因 / The fault reason	故障排除 / Troubleshooting
1、通电后电动机不能转动但无异响，也无异味和冒烟。	①电源未通（至少两相未通）； ②熔丝熔断（至少两相熔断）； ③伺服驱动器未调试好； ④控制设备接线错误。	①检查电源回转开关，熔丝、接线盒处是否有断点，修复； ②检验熔丝型号、熔断原因，换新熔丝； ③调节驱动器与电动机配合，修改驱动器参数； ④改正接线。
2、通电后电动机不转有嗡嗡声。	①一相断电或电源一相失电； ②绕阻引出线末端接错或绕阻内部接反； ③电源回路接点松动，接触电阻大； ④电动机负载过大或转子卡住； ⑤电源电压过低； ⑥小型电动机装配太紧或轴承内油脂过硬； ⑦轴承卡住。	①查明断点予以修复； ②检查绕组极性；判断绕阻末端是否正确； ③紧固松动的接线螺丝，用万用表判断各接头是否假接，予以修复； ④减载或查出并消除机械故障； ⑤检查是否把规定的接法误接；是否由于电源导线过细使压降过大，予以纠正； ⑥重新装配使之灵活；更换合格油脂； ⑦修复轴承。
3、电动机起动困难，额定负载时，电动机转速低于额定转速较多。	①电源电压过低； ②电机接法错误； ③转子开焊或断裂； ④定子局部线圈误接、接反； ⑤修复电机绕组时增加匝数过多； ⑥电机过载。	①测量电源电压，设法改善； ②纠正接法； ③检查开焊和断点并修复； ④查出误接处，予以改正； ⑤恢复正常匝数； ⑥减载。
4、电动机空载电流不平衡，三相相差大。	①绕组首尾端接错； ②电源电压不平衡； ③绕组存在匝间短路、线圈反接等故障。	①检查并纠正； ②测量电源电压，设法消除不平衡； ③消除绕组故障。
5、电动机运行时响声不正常，有异响。	①轴承磨损或油内有砂粒等异物； ②轴承缺油； ③电源电压过高或不平衡。	①更换轴承或清洗轴承； ②检修转子铁芯； ③加油； ④检查并调整电源电压。

电动机产生故障的原因很多,有时一个故障可能有几个原因,一个原因也可以产生几种故障。上表所列仅为常见的几种故障,如有其他问题请联系我们技术部!

Motor fault machine fault causes a lot,sometimes there may be severral reasoncan output several kinds of listed in table above is only for several common faults, if you have other questions,please contact our technical department!

## 伺服电机简单故障分析与排除 / Servo motor simple fault analysis and ruled out

故障 / Fault	故障原因 / The fault reason	故障排除 / Troubleshooting
6、运行中电动机震动较大。	①由于磨损轴承间隙较大； ②气隙不均匀； ③转子不平衡； ④转轴弯曲； ⑤联轴器(皮带轮)同轴度过低。	①检修轴承，必要时更换； ②校正转子平衡； ③校直转轴； ④重新校正，使之符合规定。
7、轴承过热	①油脂过多或过少； ②油质不好含杂质； ③轴承与轴颈或端盖配合不当（过松或过紧）； ④轴承内孔偏心，与轴相擦； ⑤电动机端盖或轴承盖未装平； ⑥电动机与负载间联轴器未校正，或皮带过紧； ⑦轴承间隙过大或过小； ⑧电动机轴弯曲。	①按规定加润滑油（容积的1/3-2/3）； ②更换清洁的润滑油； ③过松可用粘结剂修复，磨轴颈或端盖内孔，使之适合； ④修理轴承盖，消除擦点； ⑤重新装配； ⑥重新校正，调整皮带张力； ⑦更换新轴承； ⑧校正电机轴或更换转子。
8、电动机过热甚至冒烟。	①电源电压过高； ②电源电压过低，电动机又带额定负载运行，电流过大使绕组发热； ③修理拆除绕组时，采用热拆除法不当，烧伤铁芯； ④电动机过载或频繁起动； ⑤电动机缺相，两相运行； ⑥重绕后定于绕组浸漆不充分； ⑦环境温度高电动机表面污垢多，或通风道堵塞；	①降低电源电压（如调整供电变压器分接头）； ②提高电源电压或换粗供电导线； ③检验铁芯，排除故障； ④减载；按規定次数控制起动 ⑤恢复三相运行； ⑥采用二次浸漆及真空浸漆工艺； ⑦清洗电动机，改善环境温度，采用降温措施。

电动机产生故障的原因很多,有时一个故障可能有几个原因,一个原因也可以产生几种故障。上表所列仅为常见的几种故障,如有其他问题请联系我们技术部!

Motor fault machine fault causes a lot,sometimes there may be severral reasoncan output several kinds of listed in table above is only for several common faults, if you have other questions,please contact our technical department!



## 售后服务 / After-sale service

客户发现有质量问题时，不要先拆卸零件，应说明以下情况后与本公司售后服务部联系，说明现象后确认问题所在，再采用较理想的方法处理。

Customers have found the quality problem, do not remove parts, should show the company after contact with after-sale service, After the phenomenon that problem, then confirm the ideal method to deal with.

型号规格Model :

出厂日期Date :

编号Number :

已使用时间Use Time :

质量问题Problem :

用户单位(Name)

地址(Add)

电话(Tel)

传真(Fax)

邮编(Post)

联系人(Link man)