



# 皮带输送机专用 低速大扭矩永磁电机智能驱动系统

Permanent Magnet Motor with Intelligent Control System for Conveyor



日照东方电机有限公司

Rizhao Oriental Motor Co.,Ltd

永磁电机应用技术研究所

Applied Technology Research Institute for Permanent Magnet Motor



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## 一、公司简介

### Company Profile

日照东方电机有限公司成立于 2013 年，总部坐落于美丽的海滨城市—山东日照，主要加工基地设在重工业城市山西太原。公司专注于大中型低速大扭矩永磁电机及其智能驱动系统的高端装备制造业；是一家集研发、制造、检测、销售及服务于一体的高新技术企业。

Rizhao Oriental Motor Co., Ltd, founded in 2013, lies in the beautiful coastal city of Rizhao, Shandong Province; Its main processing base located in the heavy industry city of Taiyuan, Shanxi Province. The company focuses on high-end equipment manufacturing, large and medium-sized permanent magnet motor and its intelligent drive system with low speed and high torque; Our company is a collection of research and development, manufacturing, testing, sales and services in one of the high-tech enterprises.

公司汇集了行业内诸多具有丰富实践经验和创新能力的电机专家、智能控制专家、机械传动专家、应用工程师及专业技师。拥有多种专用数控加工中心、检测装备以及先进的永磁电机性能综合检测实验中心。

The company converged many motor experts with rich practical experience and innovative ability , mechanical transmission experts, application engineers and professional technicians in the industry. And the company has a variety of special CNC machining center , testing equipment and advanced comprehensive testing and experimental center of permanent magnet motor.

公司建有国内外一流的高端机电控一体化“产、学、研”研发平台，设有院士工作站、永磁电机应用技术研究所、山东省永磁电机工程实验室、山西省智能传动联合实验室、与中科院电工研究所合作成立的低速大扭矩永磁电机研发基地等，可独立承接国家级重大专项科研攻关项目。公司厚积薄发，拥有多项低速大扭矩永磁电机及其智能驱动系统的专利和专有技术，实现了低速、重载、大扭矩驱动系统的重大变革。



The company has first-class high-end electromechanical control integration platform for industry-university-research research at home and abroad, which has academician workstation, Application Technology Institute of Permanent Magnet Motor, Shandong Engineering Laboratory of Permanent Magnet Motor, Shanxi Intelligent Drive Joint Laboratory, and the research and development base of low-speed and high-torque permanent magnet motor established in cooperation with institute of Electrical Engineering, Chinese Academy of Sciences. The company can independently undertake national major special scientific research projects with a solid foundation. It has a number of patents and proprietary technologies of low-speed and high-torque permanent magnet motor and its intelligent driving system, which has realized a major reform of low-speed, heavy-duty and high-torque driving system.

公司产品涵盖了大跨度功率范围（11kW~3000kW），大跨度转速范围（5r/min~600r/min），多种电压等级（380V~10kV），渐已形成系列化、标准化、模块化、规模化生产，广泛应用于煤炭矿山、水泥建材、水利工程、港口码头、橡塑化工以及钢铁冶金等诸多行业。特别是在矿山行业皮带输送机、水利行业高压大功率低速泵，水泥行业斗提机、辊压机、球磨机，港口码头的门座式起重机，橡塑行业大功率密炼机上的应用，均为国内永磁电机驱动系统技术的重大突破，具有极高的声誉和市场认可度，多项产品获得了国家和省部级奖项。作为行业领先者，日照东方电机有限公司牵头制定并发布包含集成型永磁电机驱动系统在内的六项行业标准，将标准化、科技创新融入产品中。公司不仅研发生产集成型高低压永磁电机，还同时生产皮带机专用集成型高低压永磁变频一体机、永磁直驱电机以及高低压永磁电动滚筒，为皮带机等设备提供多种永磁驱动方案。

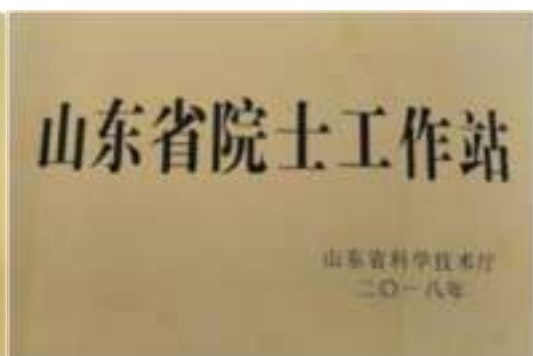
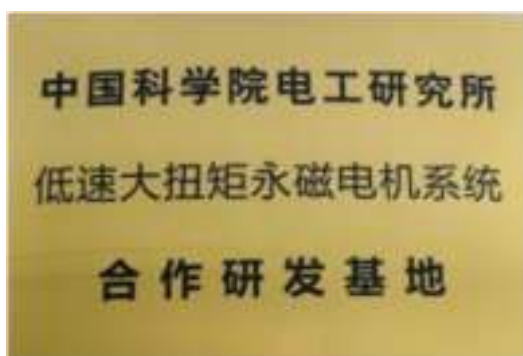
The company's products cover the large span power range（11kW~3000kW），large span speed range（5r/min~600r/min），a variety of voltage levels（380V~10kV）. We have achieved the process for low and high-voltage-serialized,



modularized and standardized production. Our products are widely used in cement building materials, coal mine, water conservancy project, steel metallurgy, rubber chemical, ports and many other industries, especially the application in belt conveyor of the mining industry, high power and low-speed pump of water conservancy industry, bucket elevator, roller press, ball mill of cement industry, Internal Mixer of rubber and plastic industry. All of them are major breakthroughs in permanent magnet motor drive system technology in China, with high reputation and market recognition, and many products have won national and provincial awards. Six items of group standards including integrated permanent magnet synchronous motor were developed and published by our company. In addition to the integrated permanent magnet motor, the company also produces high and low voltage of the integrated VFD motor, permanent magnet direct drive motor and high and low voltage permanent magnet electric roller for conveyor, which provides a variety of permanent magnet drive schemes for conveyor and other equipment.

公司秉承“节能节材，利国利民”的核心理念，为社会各行业提供高品质、高可靠性、高性价比的低速大扭矩永磁电机驱动系统。我们不断探求永磁驱动科技的市场需求，注重前沿科技、创新和产品研发，为品牌注入源源不断的新鲜生命力；竭力为用户提供定制化的低速大扭矩永磁电机及其智能驱动系统和优质服务。

The company sticks to the management concept of “highly-qualified and customized products” and provides permanent magnet motor drive system with low speed and big torque which is reliable, efficient, energy-saving and of high cost performance .We constantly explore the market demand of permanent magnet drive technology, pay attention to advanced technology, innovation and product research and development, and inject endless fresh vitality into the corporate brand. We strive to provide customized permanent magnet motor with low speed and high torque and its intelligent drive system and quality service.







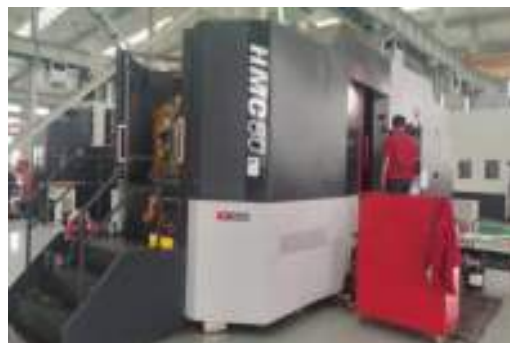
# 日照东方电机有限公司（总装综试产品研发基地）

D&R Base For Assembling and Comprehensive Test in Rizhao Company





永磁电机试验中心



数控立式加工中心



真空含浸机



全数控机床



整形机



动平衡机



焊接机器人



热处理系统



## 日照东方电机有限公司 (太原生产基地) 一览

Manufacture Base of Rizhao Oriental  
Motor in Taiyuan

生产基地位于山西太原，总占地面积 120 亩。建有科研中心、智能工厂 1 号车间、2 号车间、3 号物流仓储车间。

The production base located in Taiyuan, Shanxi, is covering a total area of 120 mu, which has science research center, intelligent factory Workshop 1, 2 and workshop 3 for warehousing.

基地拥有国内外先进的数控加工中心和检测、试验设备 160 台，其中包括 1500kW 减速机试验台和 2000kW 永磁电机变频综合试验台。是为煤炭、冶金行业用皮带输送机配套生产减速器及永磁电机的专业化生产基地。

There are 160 sets of advanced CNC machining centers and testing and testing equipment at home and abroad, including 1500kW reducer test bench and comprehensive test bench of 2000kW permanent magnet motor with

frequency conversion. It is a professional production base for producing reducer and permanent magnet motor with belt conveyor for coal metallurgy industry





## 二、皮带输送机专用集成型永磁电机驱动系统简介

### **Brief Introduction of the Drive System of the Integrated Permanent Magnet Motors Used in Conveyor**

皮带输送机专用集成型永磁电机驱动系统是根据皮带输送机的运行特点，量身定做的一款专用驱动系统。集成型永磁电机智能驱动系统，优化组合了永磁同步电机、扭矩放大器（行星减速机）、变频器各自的结构和性能，在大扭矩领域优势十分突出。集成型永磁电机驱动系统已经完成模块化、标准化、系列化研发及生产，技术成熟度高，已在皮带机等设备上推广应用十余年。

The drive system of the integrated permanent magnet motor is a special drive system customized according to the operation characteristics of belt conveyor. Taking the advantages of the big torque of the permanent magnet motors, the drive system for the integrated permanent magnet motor with low speed and big torque has optimized the structures of performance of the permanent magnet motors, torque amplifiers (primary reducer) and frequency convertors etc.

永磁电机采用集中绕组，最佳极槽配合，以及集隔磁、受力、定位、轻量化于一体的专利转子结构，转动惯量小，漏磁通量少，主磁通量大，功率因数更高（可达 0.99），机械效率更高（96%以上）。与永磁电机耦合的扭矩放大器（一级行星减速器）具备降低电机转速、增大输出转矩、匹配负载惯量、多齿啮合独用的特性。在变频器控制下，当永磁电机多机联动时，由于机械特性较软，再加上通过变频器调整可使得各电机的特性达到最佳，并使之非常接近，由各台变频器通过通讯的方式交换数据，很容易实现各电机之间的功率平衡。

The patented rotor structure adopted in the permanent magnet motors is featured of concentrated winding and optimized slot coordination level as well as magnetic separation, stress, location and light weight. It is of small moment of inertia, low leakage flux, large main magnetic flux, higher power factor (0.99) and mechanic

efficiency (over 96%). The torque amplifier coupling with the permanent magnet motors is capable of reducing the motor rotate speed, enlarging output torque, matching load moment of inertia and meshing multi-tooth separately. With the control of the frequency convertor, it is easy to balance the power among the motors while they work coordinately owing to the advantages of soft mechanical properties and data exchange of frequency convertors in the way of communication.

日照东方集成型永磁电机驱动系统具有节能高效、体积小、重量轻、易安装、转矩密度大、过载能力强、免维护、性价比高、可靠性高等优点，还具有低温升、低噪声、低振动的特点。适用于各种低速大扭矩皮带输送设备。驱动系统配有永磁电机专用无感矢量控制型变频器，操作简单、运行稳定、动态响应迅捷、无级调速方便、多台联动功率平衡精度高，保护功能完善。

The drive system of the integrated permanent magnet motor with low speed and big torque used in conveyor is a special drive system customized based on the operation characteristics of the conveyor. They are featured with high High energy and reliability, high cost performance, small size, light weight, easy installation, big density of torque, big overload capacity, low temperature rise, noise and vibration, and are free from maintenance. They are suitable for various types of conveyor in cement industry. The drive system is installed with non-inductive vector control inventor specially for permanent magnet motors and is characteristic of easy handling, stable operation, convenient speed-adjustment, high precision of power balance and perfect protection function while a number of equipment work together.

### 新型高效高品质集成型永磁电机智能驱动系统



智能变频  
控制系统



含一级行星减速器的  
集成型永磁电机



## 1、集成型永磁电机介绍 Introduction of the Integrated PMSM

日照东方集成型永磁电机驱动系统的核心---电机部分，采用最新的电磁方案和结构设计，具有体积小、重量轻、扭矩密度大、效率高、功率因数高、过载能力强、谐波小、漏磁小、扭矩脉动小等优点。

永磁材料选用高磁能积、高矫顽力的钕铁硼稀土永磁材料；铜线选用 H 级高强度聚酯亚胺扁铜线；定子采用最新生产加工工艺，结构紧凑、发热量低；转子采用我公司专利组合式 IPM 结构，具有调速范围宽、抗去磁能力强的特点；定子三相绕组以及前后轴承安装有高灵敏度的测温元件。

The motor, the key part of the integrated drive system with low speed and big torque produced by Rizhao Orient Motor, has adopted the latest electromagnetism draft and structure design. It has the advantages of small size, light weight, big density of the torque, high efficiency and power factor, big overload capacity ,less harmonic and magnetic flux leakage, low torque pulsa.

The rare earth NdFeB, which has high magnetic energy product and coercivity, is selected as the magnetic material. H level polyester imide flat copper wire is used. The stator is manufactured with the latest technological craft with compact structure and low temperature. The rotor is of our patented IPM compact structure, which is featured with wide speed range and strong resistance to demagnetization. The temperature measurer of high sensitivity is installed at the stator three-phase winding and the head and rear bearings.

## 2、传动单元介绍 Introduction of drive system

日照东方集成型永磁电机驱动系统的机械传动单元，转速低，转动惯量小，扭矩密度高，功率密度高；机械传动单元整体机械效率高

（98.5%以上），系统简单，使用永磁电机智能驱动系统直接驱动负载，缩短了传动链，安全可靠，杜绝了跑冒漏，减少了对环境的污染和备件



的消耗，节能高效，低温升，低振动，低噪声，基本免维护，皮带输送机整体性能得到了明显提升。

The mechanical transmission unit of the integrated drive system with low speed and big torque produced by Rizhao Orient Motor has the features of low speed of the system, big density of the torque and power, high mechanical efficiency (over 98.5%) and simplicity of the system. By using the permanent magnet motor direct intelligent driving systems can shorten the transmission chain. They are safe and reliable. Leakage and venting can be avoided. Thus the pollution of the environment and consumption of the are parts are reduced. They are of saving energy, low temperature rise, noise and vibration, and are free from maintenance. The performance of the conveyor are obviously improved.

### 3、控制系统介绍 Introduction of the control system

日照东方低速大扭矩永磁电机的控制系统，采用永磁专用无感矢量控制（开环）变频器。具有重载软起、软停、急停、自由停车、多机联动和功率平衡的功能，动态响应性好，过载（机械）能力强，可靠性高，故障率低，对电网的谐波污染小，过流、过压、过载等保护功能齐全，满足对地耐压 $(2U_n+2000)V$  的要求。具有  $1\sim 1.5m/s$  低速验带的的能力。

The non-inductive vector control convertor is used in the control system of the permanent magnet motors with low speed and big torque produced by Rizhao Orient Motor. It has the functions of soft start with heavy load, slow, quick and free stop, coordinative work of multi-motors with balanced power. It is also of good dynamic response, big over-load mechanical capacity, high reliability, low accident rate, light pollution of the harmonic wave in the grid ,complete protection function of over current, over voltage, and over load. It can meet the demand of the ground pressure  $(2U_n+2000)$ . It can test detect and maintain the conveyor at an ultra low speed  $1\sim 1.5m/s$ .

◆ 我公司联合研发的永磁同步电机专用配套变频器，其核心部件选择原装进口产品，采用最先进的永磁电机控制技术，并选配 EMC 滤波器、du/dt 滤波器、正弦滤波器、电抗器和制动电阻以及应用编程软件。

The key parts for the special frequency convertor jointly developed by our company for the synchronous permanent magnet motors are imported. The control technology for the permanent magnet motors is advanced with EMC filter, du/dt filter, sine filter, electric reactor, brake resistor and application programming software.



- ◆ 直接转矩控制（DTC）,替代为了实现闭环控制而配置的昂贵的速度反馈编码器，一定程度上达到编码器闭环控制的功效。

The direct torque control has replaced the expensive speed feedback encoder to realize closed-loop control. It can reach the closed-loop control to some extent.

- ◆ 对多驱输送机，变频器通过选配光纤通信插接模块，即可实现主/从机的通讯功能以及主从联动，实现永磁同轴多驱输送机的同步驱动控制，转速同步，功率平衡精度误差 $\leq 1\%$

For the dual drive conveyor, two frequency convertors can have the function of the communication or coordination between the master and slave convertors to realize the synchronous drive control for the permanent magnet coaxial dual drive conveyor.

- ◆ 变频器提供多种数据接口，可支持 CAN、RS485、PROFBUS DP 等多种通信接口的接入，可实现与上位机通讯，实现多台设备集中控制运行，可将运行数据传送至中央控制室进行在线监控。

The frequency convertor provides multi-data interface and can access to communication interface CAN、RS485、PROFBUS DP etc. so that a number of equipment can be controlled at the same time and the operation data can be transmitted the control centre to be monitored online.

- ◆ 我公司所配套永磁电机专用变频控制系统，具有完善的智能检测和保护系统，可实现全天候对自身及驱动设备的预警和保护，并能长期保存详细的报警及故障信息。

The special frequency convertor control system for permanent magnet motors has a perfect intelligent detection and protection system. It can give warning and protection for the equipment itself and the drive equipment 24 hours, and can record a long-term information for the warning and accident.



### 三、集成型永磁电机驱动系统应用优势

#### **The Application Advantages of the Drive System of the Integrated Permanent Magnet Motors**

日照东方电机有限公司研发生产的集成型永磁电机智能驱动系统，是对以异步电机为主导的低速传动系统的突破，其技术优势、性能优势、效益优势以及质量稳定性均处于国际领先水平。

The drive system of the integrated permanent magnet motors developed by Rizhao Orient Motor is a breakthrough for the low-speed drive system controlled by the asynchronous motors. Its advantage regarding technology, performance, efficiency and the quality is in the international advanced level.

该系统以高性能低速大扭矩永磁电机为核心，优化耦合机械传动（减速机）单元，并配以先进的控制系统（变频器）。永磁电机的磁路系统漏磁通量少，主磁通量大，机械传动系统转速低，转动惯量小。与传统三相异步电动机低速驱动系统相比，其显著特点是：

The key part of the system is the permanent magnet motors with low speed and big torque. It has optimized the coupling mechanical drive unit (reduction gears) and has the advanced control system (frequency convertor). The magnetic circuit of the permanent magnet motors has a small magnetic leakage flux and a big main magnetic flux. The speed of the mechanical drive is low and the moment of inertia is small. Compared with the low-speed drive system of the traditional three-phase asynchronous motors, the direct drive system for the permanent magnet motors has some advantages as following:

#### **1、节能高效 Saving energy and high efficiency**

系统中永磁电机无转子铜耗和转子铁耗，风磨耗低，定子铜耗低，功率因数可达 0.95~0.99，整体机械效率达 96%以上。在负载率 20%~120%内可保持极高的效率与功率因数。



There is no rotator copper and iron consumption for the permanent magnet motors of system. The wind abrasion is low as well as stator copper consumption. The power factor can reach 0.95~0.99. The total mechanical efficiency can reach over 96%.

## 2、安全可靠、基本免维护 **Higher reliability and free of maintenance**

与传统异步电机驱动系统相比，去掉了易于失效的高速传动部分，整个系统在低速下运行，可靠性大大增加；与永磁直驱电机相比，采用电机与扭矩放大器（行星减速机）独立单元耦合结构，缩小了转子的外径，从而增加了转子转动的稳定性和可靠性；系统设计合理，各耦合单元技术非常成熟，安全服务系数大，稳定可靠性高，大幅减少了日后维护工作量（基本免维护）。

Compared with the traditional asynchronous motors, there is no high speed part of the driving chain which is often loses efficacy. The whole system operates at a low speed. Thus it has increased reliability. It has adopted the separate coupling structure of motor and torque amplifier ( star shape reduction gears) so that the external diameter of the rotator is shortened and the stability and reliability of the rotation of the rotor is increased. The system is reasonably designed and has the coupling unit is of mature technology and big service factor. So it has greatly reduced the future maintenance ( Almost free of maintenance).

## 3、体积小、重量轻，易于安装，节省空间 **Compact structure, small size, light weight, easy installation, saving space**

与传统“异步电机+液力耦合器+制动器+减速机”驱动系统相比，缩短了传动链，体积、重量减少 1/2~1/3；与永磁直驱电机相比，体积、重量减少 1/2~1/4，中心高比永磁直驱电机降低 2~3 个机座号。因此，集成型永磁电机驱动系统适合各种工况条件以及安装空间有限制的条件下使用。

Compared with the drive system of the traditional “asynchronous motor + hydraulic coupling + brake + reduction gears”, the size and weight of the permanent direct-drive magnet motors is reduced by 1/2~1/4. The centre height of the frame is 2~3 level lower than that of the permanent motors with direct driving relatively. Therefore, the drive system of the integrated permanent magnet motors can be used in any working environment and under the limited condition of the mounting space.

#### **4、 起动扭矩大、过载能力强 Big starting torque and overload capacity**

永磁电机起动时电流是随着负载逐步增加，不存在大电流冲击的情况。因此在相同线路容量的条件下，采用集成型永磁电机驱动系统直接驱动负载，可实现带载软起动和带载缓停。

The current is gradually increased while the permanent magnet motors start so as to avoid the attack of big current. So the motor can have soft start and slow stop with load under the condition of the same line capacity by using the direct drive system for the permanent magnet motors with low speed and big torque.

#### **5、 低振动、低噪声、低温升 Low vibration, noise and temperature rise**

永磁电机转子不发热，同时整个系统在低速下运行，齿轮箱密封可靠性以及润滑油使用寿命大大提高，系统的噪音、振动、温升也相应降低。

The temperature of the rotor of the permanent magnet motors is not high when the whole system operates at a low speed. The sealing performance of the gear box and service life of lubricating oil is greatly improved. The noise, vibration and temperature rise is correspondingly reduced.

#### **6、 性价比高 High cost performance**

与永磁直驱电机相比，材料综合用量减少 20%以上，提高了产品性价比。新建设备采用永磁电机智能驱动系统，将进一步的降低工程造价，更体现其较优的性价比。



Compared with the direct-drive permanent magnet motors, the comprehensive consumption of the materials is reduced over 20% and the cost performance of the products is raised. The newly built equipment is adopted with the intelligent drive system for permanent magnet motors. This shall reduce the cost of the project.

### 7、系统优化设计、结构合理、工艺先进 **Optimized design, reasonable structure and advanced technological craft**

采用最新生产加工工艺，结构紧凑、发热量低。转子采用专利组合式 IPM 结构，具有漏磁小、调速范围宽、抗去磁能力强、磁钢寿命长等特点；选用进口免维护轴承。

We have adopted the newest production technological craft with compact size and low temperature rise. The rotor is of patented combined structure IPM with the features of small magnetic leakage, wide range of speed adjustment, big resistance capacity of demagnetization and long service life of magnetic steel. The imported bearing is used and is free of maintenance.

一台精心制作的集成型永磁电机

可完全替代原先一整套复杂的拖动系统



## 四、中低压集成型永磁电机产品及技术参数

### Introduction of Hi- and low voltage Product

#### 4.1 普通型中低压系列产品

##### Introduction of the Normal Product with Low Voltage

###### 4.1.1、概述：Product overview

我公司研制生产的 RMY 系列皮带输送机专用集成型永磁电机智能驱动系统，是根据输送机的运行特性，专为电厂、水泥、港口和矿山等非隔爆场所设计、生产的皮带机驱动系统，具有独立自主知识产权。

The intelligent RMY drive system of the integrated permanent magnet motors with its own intelligence properties developed and produced by Rizhao Orient Motor is specially designed according to the operation performance of conveyor for the material transportation in the harbor enterprise, power industry, cement industry and mine industry.

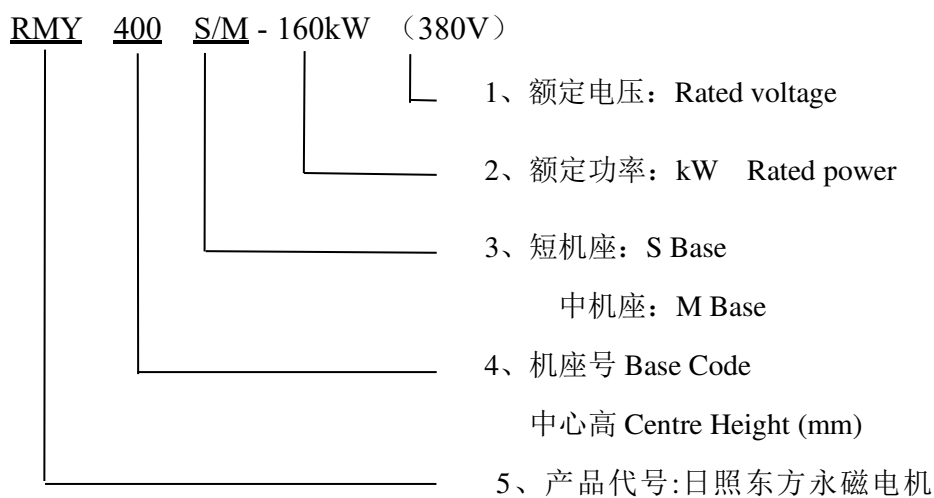
产品采用永磁电机专用无感矢量变频器供电和控制方式驱动。具有能效高、可靠性高、性价比高、低振动、低噪声、体积小、重量轻、安装方便、操控简单等特性。产品涵盖电压等级为 380V、660V、1140V 等多个电压等级，额定转速等级涵盖：30r/min、42r/min、60r/min、80r/min 等多种范围；冷却方式有 IC410（自然冷却）、IC411（自带风扇冷却）、IC416（外带风扇强制冷却），也可根据客户要求或实际工况进行量身设计生产。

The non-inductive vector control convertor is used in the control system for power supply and drive. They are featured with high efficiency and reliability, high cost performance, small size, light weight, easy installation and handling, low noise and vibration. The voltage of the products is 380V/660V/1140V. The rotate speed



range is 30r/min、42r/min、60r/min、80r/min. The cooling mode is composed of IC410 natural cooling, IC411 ( built-in fan) and IC416 (controlled cooling of an external fan). It can be customized according to the actual situation and the endusers' requirments.

#### 4.1.2、型号说明 Model Specification



Product code: Rizhao Oriental Permanent Magnet Motor

#### 4.1.3、普通风冷型中低压产品技术参数、外形及安装尺寸

**Parameter, outline layout and installation dimensions of the Products with air-cooling and Low Voltage**



### 4.1.3.1 普通风冷型中低压产品技术参数 -1

#### Technical parameter of the Low Voltage Products for belt conveyor

额定转速: 30r/min; 调速范围: 3~36r/min 调频范围: 5~60Hz

Rated rotate speed: 30r/min; Speed range: 3~36r/min; Frequency tuning range: 5~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY280-15kW	15	4800	380/660/1140	25/14/8	0.966	96.0	IC410	646	280
RMY280-18.5kW	18.5	5900		30/17/10	0.966	96.0	IC410	646	
RMY280-22kW	22	7000		36/21/12	0.968	96.1	IC410	646	
RMY280-30kW	30	9550		50/28/16	0.963	95.6	IC410	646	
RMY280-37kW	37	11800		61/35/20	0.965	95.7	IC410	646	
RMY315S-30kW	30	9550		50/28/16	0.968	96.1	IC410	1150	315
RMY315S-37kW	37	11800		61/35/20	0.97	96.5	IC410	1150	
RMY315M-45kW	45	14300		72/42/24	0.971	96.8	IC410	1542	
RMY315M-55kW	55	17500		89/51/29	0.971	96.9	IC410	1542	
RMY400S-75kW	75	23900		117/68/39	0.972	97.1	IC410/IC411/IC416	1792	400
RMY400S-90kW	90	28600		144/83/48	0.974	97.2	IC410/IC411/IC416	1792	
RMY400S-110kW	110	35000		176/102/59	0.976	97.4	IC410/IC411/IC416	1792	
RMY400M-132kW	132	4200		210/121/70	0.977	97.5	IC410/IC411/IC416	2403	
RMY400M-160kW	160	50900		254/147/85	0.978	97.6	IC410/IC411/IC416	2403	
RMY450-185kW	185	58900		294/170/98	0.979	97.7	IC411/IC416	4100	450
RMY450-200kW	200	63700		316/183/106	0.98	97.8	IC411/IC416	4100	
RMY450-220kW	220	7000	348/201/116	0.981	97.8	IC411/IC416	4800		
RMY450-250kW	250	79600	395/228/132	0.982	97.9	IC411/IC416	4800		
RMY500S-280kW	280	89100	422/255/147	0.983	97.9	IC411/IC416	5400	500	
RMY500S-315kW	315	100300	497/286/166	0.983	98.0	IC411/IC416	5400		
RMY500M-355kW	355	113000	558/321/186	0.985	98.1	IC411/IC416	5800		
RMY500M-400kW	400	127300	628/361/209	0.985	98.3	IC411/IC416	5800		



## 普通风冷型中低压产品技术参数 -2

### Technical parameter of the Low Voltage Products

额定转速：42r/min；调速范围：3~50r/min；调频范围：3~60Hz

Rated rotate speed: 42r/min; Speed range: 3~50r/min; Frequency tuning range: 3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY280-15kW	15	3400	380/660/1140	25/14/8	0.966	96.0	IC410	646	280
RMY280-18.5kW	18.5	4200		30/17/10	0.966	96.0	IC410	646	
RMY280-22kW	22	5000		36/21/12	0.968	96.1	IC410	646	
RMY280-30kW	30	6800		50/28/16	0.963	95.6	IC410	646	
RMY280-37kW	37	8400		61/35/20	0.965	95.7	IC410	646	
RMY315S-30kW	30	6800		50/28/16	0.968	96.1	IC410	1150	315
RMY315S-37kW	37	8400		61/35/20	0.97	96.5	IC410	1150	
RMY315M-45kW	45	10200		72/42/24	0.971	96.8	IC410	1542	
RMY315M-55kW	55	12500		89/51/29	0.971	96.9	IC410	1542	
RMY400S-75kW	75	17000		117/68/39	0.972	97.1	IC410/IC411/IC416	1792	400
RMY400S-90kW	90	20500	144/83/48	0.974	97.2	IC410/IC411/IC416	1792		
RMY400S-110kW	110	25000	176/102/59	0.976	97.4	IC410/IC411/IC416	1792		
RMY400M-132kW	132	30000	210/121/70	0.977	97.5	IC410/IC411/IC416	2403		
RMY400M-160kW	160	36400	254/147/85	0.978	97.6	IC410/IC411/IC416	2403		
RMY450-185kW	185	42000	294/170/98	0.979	97.7	IC411/IC416	4100	450	
RMY450-200kW	200	45500	316/183/106	0.98	97.8	IC411/IC416	4100		
RMY450-220kW	220	50000	348/201/116	0.981	97.8	IC411/IC416	4800		
RMY450-250kW	250	56800	395/228/132	0.982	97.9	IC411/IC416	4800		
RMY500S-280kW	280	63700	422/255/147	0.983	97.9	IC411/IC416	5400	500	
RMY500S-315kW	315	71600	497/286/166	0.983	98.0	IC411/IC416	5400		
RMY500M-355kW	355	80700	558/321/186	0.985	98.1	IC411/IC416	5800		
RMY500M-400kW	400	90900	628/361/209	0.985	98.3	IC411/IC416	5800		





### 普通风冷型中低压产品技术参数 -3

#### Technical parameter of the Low Voltage Products for belt conveyor

额定转速: 60r/min; 调速范围: 3~72r/min; 调频范围: 3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY280-15kW	15	2400	380/660/1140	25/14/8	0.966	96.0	IC410	646	280
RMY280-18.5kW	18.5	2900		30/17/10	0.966	96.0	IC410	646	
RMY280-22kW	22	3500		36/21/12	0.968	96.1	IC410	646	
RMY280-30kW	30	4800		50/28/16	0.963	95.6	IC410	646	
RMY280-37kW	37	5900		61/35/20	0.965	95.7	IC410	646	
RMY315S-30kW	30	4800		50/28/16	0.968	96.1	IC410	1150	315
RMY315S-37kW	37	5900		61/35/20	0.97	96.5	IC410	1150	
RMY315M-45kW	45	7200		72/42/24	0.971	96.8	IC410	1542	
RMY315M-55kW	55	8800		89/51/29	0.971	96.9	IC410	1542	
RMY400S-75kW	75	12000		117/68/39	0.972	97.1	IC410/IC411/IC416	1792	400
RMY400S-90kW	90	14000		144/83/48	0.974	97.2	IC410/IC411/IC416	1792	
RMY400S-110kW	110	17000		176/102/59	0.976	97.4	IC410/IC411/IC416	1792	
RMY400M-132kW	132	21000		210/121/70	0.977	97.5	IC410/IC411/IC416	2403	
RMY400M-160kW	160	25000		254/147/85	0.978	97.6	IC410/IC411/IC416	2403	
RMY450-185kW	185	30000		294/170/98	0.979	97.7	IC411/IC416	4100	450
RMY450-200kW	200	32000		316/183/106	0.98	97.8	IC411/IC416	4100	
RMY450-220kW	220	35000		348/201/116	0.981	97.8	IC411/IC416	4800	
RMY450-250kW	250	40000		395/228/132	0.982	97.9	IC411/IC416	4800	
RMY500S-280kW	280	45000		422/255/147	0.983	97.9	IC411/IC416	5400	500
RMY500S-315kW	315	50000		497/286/166	0.983	98.0	IC411/IC416	5400	
RMY500M-355kW	355	57000	558/321/186	0.985	98.1	IC411/IC416	5800		
RMY500M-400kW	400	64000	628/361/209	0.985	98.3	IC411/IC416	5800		



## 普通风冷型中低压产品技术参数 -4

### Technical parameter of the Low Voltage Products for belt conveyor

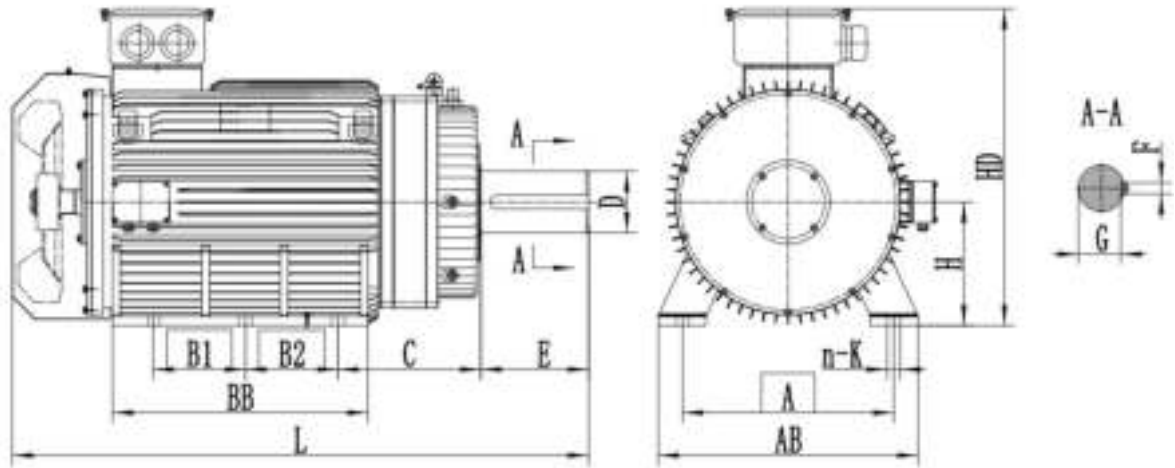
额定转速：80r/min；调速范围：3~95r/min；调频范围：3~60Hz

Rated rotate speed: 80r/min; Speed range: 3~95r/min; Frequency tuning range: 3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY280-15kW	15	1800	380/660/1140	25/14/8	0.966	96.0	IC410	646	280
RMY280-18.5kW	18.5	2200		30/17/10	0.966	96.0	IC410	646	
RMY280-22kW	22	2600		36/21/12	0.968	96.1	IC410	646	
RMY280-30kW	30	3500		50/28/16	0.963	95.6	IC410	646	
RMY280-37kW	37	4400		61/35/20	0.965	95.7	IC410	646	
RMY315S-30kW	30	3500		50/28/16	0.968	96.1	IC410	1150	315
RMY315S-37kW	37	4400		61/35/20	0.97	96.5	IC410	1150	
RMY315M-45kW	45	5300		72/42/24	0.971	96.8	IC410	1542	
RMY315M-55kW	55	6500		89/51/29	0.971	96.9	IC410	1542	
RMY400S-75kW	75	8900		117/68/39	0.972	97.1	IC410/IC411/IC416	1792	400
RMY400S-90kW	90	10700		144/83/48	0.974	97.2	IC410/IC411/IC416	1792	
RMY400S-110kW	110	13100		176/102/59	0.976	97.4	IC410/IC411/IC416	1792	
RMY400M-132kW	132	15700		210/121/70	0.977	97.5	IC410/IC411/IC416	2403	
RMY400M-160kW	160	19100		254/147/85	0.978	97.6	IC410/IC411/IC416	2403	
RMY450-185kW	185	22000		294/170/98	0.979	97.7	IC411/IC416	4100	450
RMY450-200kW	200	23800		316/183/106	0.98	97.8	IC411/IC416	4100	
RMY450-220kW	220	26200	348/201/116	0.981	97.8	IC411/IC416	4800		
RMY450-250kW	250	29800	395/228/132	0.982	97.9	IC411/IC416	4800		
RMY500S-280kW	280	33400	422/255/147	0.983	97.9	IC411/IC416	5400	500	
RMY500S-315kW	315	37600	497/286/166	0.983	98.0	IC411/IC416	5400		
RMY500M-355kW	355	42300	558/321/186	0.985	98.1	IC411/IC416	5800		
RMY500M-400kW	400	47700	628/361/209	0.985	98.3	IC411/IC416	5800		

#### 4.1.3.2 普通风冷型中低压产品外形及安装尺寸

### Output shaft Layout of the special drive system for low voltage permanent magnet motors used in belt conveyor and installation dimension



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

机座号	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n
280S	460	300	0	360	100	210	28	90	280	28	560	430	675	1190	4
280M	460	460	0	399.5	125	210	32	114	280	28	560	636	700	1412	4
315S	540	300	0	500	120	165	32	109	315	42	650	555	775	1160	4
315M	540	350	0	500	120	165	32	109	315	42	650	675	775	1370	4
400S	686	450	0	480	200	350	45	185	400	42	844	762	930	1640	4
400M	686	300	300	550	150	250	36	138	400	42	844	830	1030	1650	6
450	800	510	0	696	200	350	45	185	450	48	950	836	1170	2500	4
500S	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	6
500M	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	6

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.



## 4.2 隔爆型中低压系列产品

### Introduction of Explosion-proof Product with Low Voltage

#### 4.2.1、概述 Product overview

TBVF 系列隔爆型永磁电机驱动系统是根据矿用输送机的运行特性与使用环境，设计、生产的皮带机专用驱动系统。

The drive system of TBVF series explosion-proof permanent magnet motors, have been developed for conveyor according to the characteristics and environment of belt conveyor in mine.

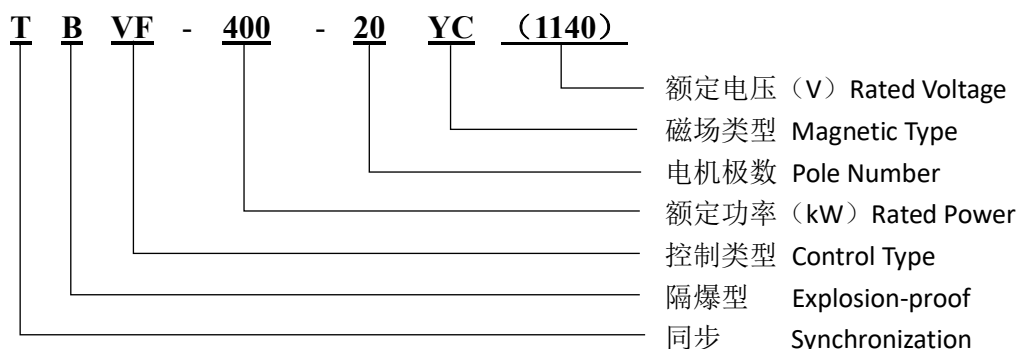
产品采用隔爆型结构设计，分风冷(IC410/IC411/IC416)、水冷(IC3W7)两种，电压等级涵盖 380V、660V、1140V，额定转速 42r/min、60r/min、80r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of products. The cooling mode of products is composed of air-cooling(IC410, IC411, IC416) and water-cooling (IC3W7). The voltage of the products is 380V/660V/1140V, while the rotate speed range is 42r/min/60r/min/80r/min. It can be customized according to the actual situation or the endusers' requirments.

该产品适用于具有甲烷等爆炸性气体或粉尘爆炸性混合物的环境使用。

The motor is suitable for the environment with explosive gas or explosive mixture such as methane.

#### 4.2.2、型号说明 Model Specification





矿用产品安全标志证书、防爆合格证取证范围：30~1000kW

**Safety certificate of approval for mining products and the certification of explosion proof**

**4.2.3、隔爆风冷型中低压产品技术参数、外形及安装尺寸**

**Parameter, outline layout and installation dimensions of the explosion-proof Products with air-cooling and Low Voltage**

**4.2.3.1 隔爆风冷型中低压产品技术参数 -1**

**Technical parameter of the explosion-proof Products with Low Voltage for belt conveyor**



额定转速：42r/min；调速范围：0~50r/min；调频范围：3~60Hz

Rated rotate speed: 42r/min; Speed range: 0~50r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-15-20YC	15	3400	380/660/1140	25/14/8	0.966	96.0	IC410	735	280
TBVF-18.5-20YC	18.5	4200		30/17/10	0.966	96.0	IC410	735	
TBVF-22-20YC	22	5000		36/21/12	0.968	96.1	IC410	735	
TBVF-30-20YC	30	6800		50/28/16	0.963	95.6	IC410	735	
TBVF-37-20YC	37	8500		61/35/20	0.965	95.7	IC410	735	
TBVF-30-20YC	30	6800		50/28/16	0.968	96.1	IC410	1150	315
TBVF-37-20YC	37	8500		61/35/20	0.97	96.5	IC410	1150	
TBVF-45-20YC	45	10000		72/42/24	0.971	96.8	IC410	1390	
TBVF-55-20YC	55	12000		89/51/29	0.971	96.9	IC410	1390	
TBVF-75-20YC	75	17000		117/68/39	0.972	97.1	IC410/IC411/IC416	1980/2300	400
TBVF-90-20YC	90	20000		144/83/48	0.974	97.2	IC410/IC411/IC416	1980/2300	
TBVF-110-20YC	110	25000		176/102/59	0.976	97.4	IC410/IC411/IC416	1980/2300	
TBVF-132-20YC	132	30000		210/121/70	0.977	97.5	IC410/IC411/IC416	2300/2600	
TBVF-160-20YC	160	37000		254/147/85	0.978	97.6	IC410/IC411/IC416	2300/2600	
TBVF-185-20YC	185	42000		294/170/98	0.979	97.7	IC411/IC416	4800	450
TBVF-200-20YC	200	45000		316/183/106	0.98	97.8	IC411/IC416	4800	
TBVF-220-20YC	220	50000		348/201/116	0.981	97.8	IC411/IC416	4800	
TBVF-250-20YC	250	57000		395/228/132	0.982	97.9	IC411/IC416	4800	
TBVF-280-20YC	280	64000		422/255/147	0.983	97.9	IC411/IC416	5804	500
TBVF-315-20YC	315	72000		497/286/166	0.983	98.0	IC411/IC416	6038	
TBVF-355-20YC	355	80000	558/321/186	0.985	98.1	IC411/IC416	6477		
TBVF-400-20YC	400	90000	628/361/209	0.985	98.3	IC411/IC416	6718		



## 隔爆风冷型中低压产品技术参数 -2

### Technical parameter of the explosion-proof Products with Low Voltage

额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-15-20YC	15	2400	380/660/1140	25/14/8	0.962	95.3	IC410	735	280
TBVF-18.5-20YC	18.5	2900		31/18/10	0.962	95.3	IC410	735	
TBVF-22-20YC	22	3500		36/21/12	0.963	95.6	IC410	735	
TBVF-30-20YC	30	4800		50/28/16	0.963	95.6	IC410	735	
TBVF-37-20YC	37	5900		61/35/20	0.965	95.7	IC410	735	
TBVF-30-20YC	30	4800		50/28/16	0.968	96.1	IC410	1150	315
TBVF-37-20YC	37	5900		61/35/20	0.97	96.5	IC410	1150	
TBVF-45-20YC	45	7200		72/42/24	0.971	96.8	IC410	1390	
TBVF-55-20YC	55	8800		89/51/29	0.971	96.9	IC410	1390	
TBVF-75-20YC	75	12000		117/68/39	0.972	97.1	IC410/IC411/IC416	1980/2300	400
TBVF-90-20YC	90	14000		144/83/48	0.974	97.2	IC410/IC411/IC416	1980/2300	
TBVF-110-20YC	110	17000		176/102/59	0.976	97.4	IC410/IC411/IC416	1980/2300	
TBVF-132-20YC	132	21000		210/121/70	0.977	97.5	IC410/IC411/IC416	2300/2600	
TBVF-160-20YC	160	25000		254/147/85	0.978	97.6	IC410/IC411/IC416	2300/2600	
TBVF-185-20YC	185	30000		294/170/98	0.979	97.7	IC411/IC416	4800	450
TBVF-200-20YC	200	32000		316/183/106	0.98	97.8	IC411/IC416	4800	
TBVF-220-20YC	220	35000		348/201/116	0.981	97.8	IC411/IC416	4800	
TBVF-250-20YC	250	40000		395/228/132	0.982	97.9	IC411/IC416	4800	
TBVF-280-20YC	280	45000		422/255/147	0.983	97.9	IC411/IC416	4837	500
TBVF-315-20YC	315	50000		497/286/166	0.983	98.0	IC411/IC416	5032	
TBVF-355-20YC	355	57000	558/321/186	0.985	98.1	IC411/IC416	5398		
TBVF-400-20YC	400	64000	628/361/209	0.985	98.3	IC411/IC416	5598		



### 隔爆风冷型中低压产品技术参数 -3

#### Technical parameter of the explosion-proof Products with Low Voltage

额定转速：80r/min；调速范围：3~95r/min；调频范围：3~60Hz

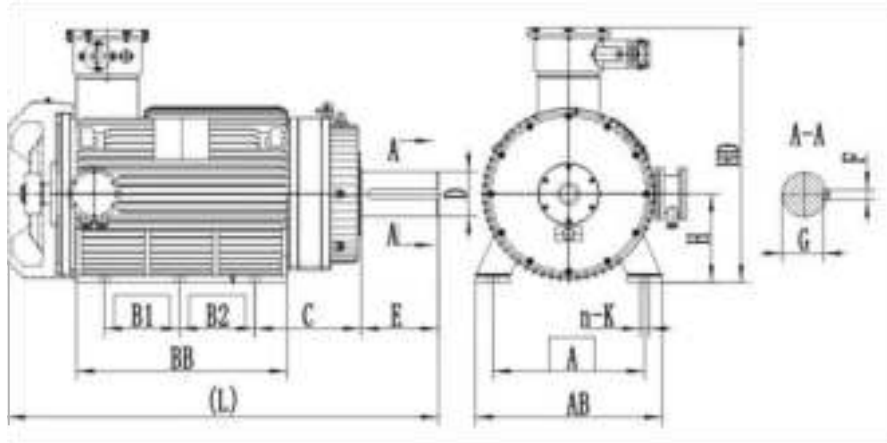
Rated rotate speed: 80r/min; Speed range;3~95r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficien cy	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-15-20YC	15	1800	380/660/1140	25/14/8	0.961	95.3	IC410	735	280
TBVF-18.5-20YC	18.5	2200		31/18/10	0.961	95.3	IC410	735	
TBVF-22-20YC	22	2600		36/21/12	0.962	95.5	IC410	735	
TBVF-30-20YC	30	3500		50/28/16	0.963	95.6	IC410	735	
TBVF-37-20YC	37	4400		61/35/20	0.965	95.7	IC410	735	
TBVF-30-20YC	30	3500		50/28/16	0.968	96.1	IC410	1150	315
TBVF-37-20YC	37	4400		61/35/20	0.97	96.5	IC410	1150	
TBVF-45-20YC	45	5300		72/42/24	0.971	96.8	IC410	1390	
TBVF-55-20YC	55	6500		89/51/29	0.971	96.9	IC410	1390	
TBVF-75-20YC	75	8900		117/68/39	0.972	97.1	IC410/IC411/IC416	1980/2300	
TBVF-90-20YC	90	10700		144/83/48	0.974	97.2	IC410/IC411/IC416	1980/2300	400
TBVF-110-20YC	110	13100		176/102/59	0.976	97.4	IC410/IC411/IC416	1980/2300	
TBVF-132-20YC	132	15700		210/121/70	0.977	97.5	IC410/IC411/IC416	2300/2600	
TBVF-160-20YC	160	19100		254/147/85	0.978	97.6	IC410/IC411/IC416	2300/2600	
TBVF-185-20YC	185	22000		294/170/98	0.979	97.7	IC411/IC416	4800	
TBVF-200-20YC	200	23800		316/183/106	0.98	97.8	IC411/IC416	4800	450
TBVF-220-20YC	220	26200		348/201/116	0.981	97.8	IC411/IC416	4800	
TBVF-250-20YC	250	29800		395/228/132	0.982	97.9	IC411/IC416	4800	
TBVF-280-20YC	280	33400		422/255/147	0.983	97.9	IC411/IC416	4837	500
TBVF-315-20YC	315	37600		497/286/166	0.983	98.0	IC411/IC416	5032	
TBVF-355-20YC	355	42300	558/321/186	0.985	98.1	IC411/IC416	5398		
TBVF-400-20YC	400	47700	628/361/209	0.985	98.3	IC411/IC416	5598		



### 4.2.3.2 隔爆风冷型中低压产品外形及安装尺寸

## Outline and installation dimension of the explosion-proof Products with Low Voltage



产品外形图 Outline Drawing

产品安装尺寸: Installation dimension

额定转速: 42/60/80r/min

Rated rotate speed: 42/60/80r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	机座号 Frame size
TBVF-30-20YC	460	300	0	375	100	165	28	90	280	28	560	430	730	980	280
TBVF-37-20YC	460	300	0	375	100	165	28	90	280	28	560	430	730	980	
TBVF-30-20YC	540	300	0	480	170	300	40	157	315	42	650	625	915	1330	315
TBVF-37-20YC	540	300	0	480	170	300	40	157	315	42	650	625	915	1330	
TBVF-45-20YC	540	450	0	480	170	300	40	157	315	42	650	745	915	1450	
TBVF-55-20YC	540	450	0	480	170	300	40	157	315	42	650	745	915	1450	
TBVF-75-20YC	686	450	0	480	200	350	45	185	400	42	844	762	930	1640/1900	400
TBVF-90-20YC	686	450	0	480	200	350	45	185	400	42	844	762	930	1640/1900	
TBVF-110-20YC	686	450	0	480	200	350	45	185	400	42	844	762	930	1640/1900	
TBVF-132-20YC	686	340	340	480	200	350	45	185	400	42	844	952	1150	2200/2500	
TBVF-160-20YC	686	340	340	480	200	350	45	185	400	42	844	952	1150	2200/2500	450
TBVF-185-20YC	800	510	0	696	200	350	45	185	450	48	950	836	1300	2700	
TBVF-200-20YC	800	510	0	696	200	350	45	185	450	48	950	836	1300	2700	
TBVF-220-20YC	800	510	0	696	200	350	45	185	450	48	950	836	1300	2700	
TBVF-250-20YC	800	510	0	696	200	350	45	185	450	48	950	836	1300	2700	500
TBVF-280-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	
TBVF-315-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	
TBVF-355-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	
TBVF-400-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	



#### 4.2.4 隔爆水冷型中低压产品技术参数、外形及安装尺寸

### Parameter, outline layout and installation dimensions of the explosion-proof Products with water-cooling and Low Voltage

#### 4.2.4.1 隔爆水冷型中低压产品技术参数 -1

### Technical parameter of the explosion-proof Products with water-cooling and low voltage

额定转速：42r/min；调速范围：3~50r/min；调频范围：3~60Hz

Rated rotate speed: 42r/min; Speed range: 3~50r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-200-20YC	200	45000	1140	108	0.971	96.3	IC3W7	3000	400
TBVF-200-20YC	200	45000		108	0.971	96.3	IC3W7	4206	450
TBVF-220-20YC	220	50000		120	0.971	96.3	IC3W7	4464	
TBVF-250-20YC	250	57000		135	0.973	96.5	IC3W7	4542	
TBVF-280-20YC	280	64000		151	0.973	96.5	IC3W7	4836	
TBVF-280-20YC	280	64000		151	0.973	96.5	IC3W7	5804	500
TBVF-315-20YC	315	72000		170	0.973	96.5	IC3W7	6038	
TBVF-355-20YC	355	80000		191	0.975	96.7	IC3W7	6477	
TBVF-400-20YC	400	90000		215	0.975	96.7	IC3W7	6718	
TBVF-400-20YC	400	90000		215	0.975	96.7	IC3W7	8040	560
TBVF-450-20YC	450	100000		242	0.975	96.8	IC3W7	8040	
TBVF-500-20YC	500	120000		270	0.976	96.9	IC3W7	8040	
TBVF-560-20YC	560	130000		297	0.981	97.4	IC3W7	9000	
TBVF-630-20YC	630	150000		333	0.982	97.5	IC3W7	9000	
TBVF-710-20YC	710	160000		376	0.982	97.5	IC3W7	9600	
TBVF-800-20YC	800	180000		422	0.983	97.7	IC3W7	9600	



## 隔爆水冷型中低压产品技术参数 -2

### Technical parameter of the explosion-proof Products with Low Voltage

额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-200-20YC	200	45000	1140	108	0.971	96.3	IC3W7	3000	400
TBVF-200-20YC	200	32000		108	0.971	96.3	IC3W7	3505	450
TBVF-220-20YC	220	35000		120	0.971	96.3	IC3W7	3720	
TBVF-250-20YC	250	40000		135	0.973	96.5	IC3W7	3785	
TBVF-280-20YC	280	45000		151	0.973	96.5	IC3W7	4030	
TBVF-280-20YC	280	45000		151	0.973	96.5	IC3W7	4837	500
TBVF-315-20YC	315	50000		170	0.973	96.5	IC3W7	5032	
TBVF-355-20YC	355	57000		191	0.975	96.7	IC3W7	5398	
TBVF-400-20YC	400	64000		215	0.975	96.7	IC3W7	5598	
TBVF-400-20YC	400	64000		215	0.975	96.7	IC3W7	6700	560
TBVF-450-20YC	450	72000		242	0.975	96.8	IC3W7	6700	
TBVF-500-20YC	500	80000		270	0.976	96.9	IC3W7	6700	
TBVF-560-20YC	560	90000		297	0.981	97.2	IC3W7	7500	
TBVF-630-20YC	630	100000		333	0.982	97.5	IC3W7	7500	560
TBVF-710-20YC	710	110000		376	0.982	97.5	IC3W7	8000	
TBVF-800-20YC	800	130000		422	0.983	97.7	IC3W7	8000	



### 隔爆水冷型中低压产品技术参数 -3

#### Technical parameter of the explosion-proof Products with Low Voltage

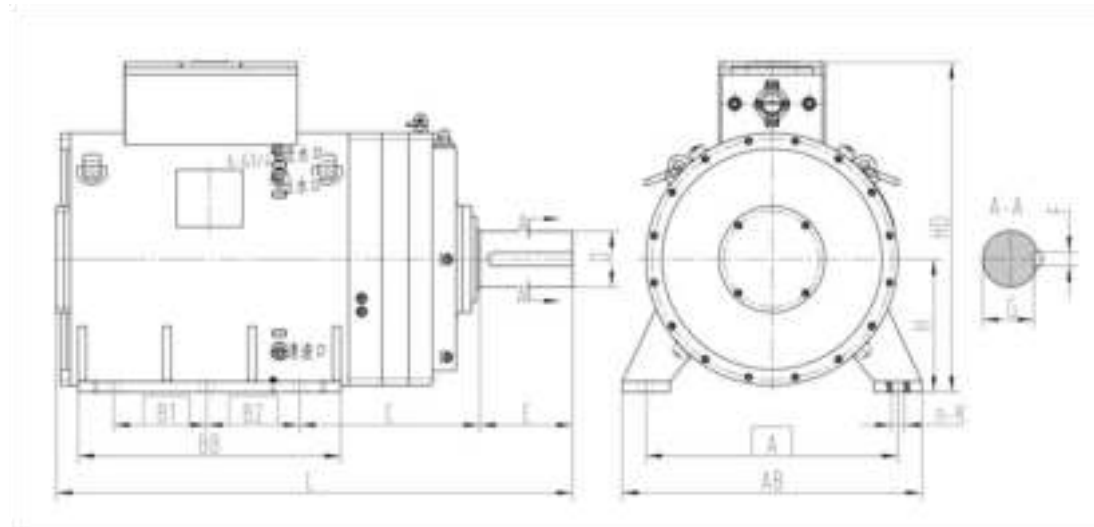
额定转速：80r/min；调速范围：3~95r/min；调频范围：3~60Hz

Rated rotate speed: 80r/min; Speed range: 3~95r/min; Frequency tuning range:3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-200-20YC	200	25000	1140	108	0.971	96.3	IC3W7	3000	400
TBVF-200-20YC	200	25000		108	0.971	96.3	IC3W7	3505	450
TBVF-220-20YC	220	28000		120	0.971	96.3	IC3W7	3720	
TBVF-250-20YC	250	32000		135	0.973	96.5	IC3W7	3785	
TBVF-280-20YC	280	36000		151	0.973	96.5	IC3W7	4030	
TBVF-280-20YC	280	36000		151	0.973	96.5	IC3W7	4837	500
TBVF-315-20YC	315	40000		170	0.973	96.5	IC3W7	5032	
TBVF-355-20YC	355	45000		191	0.975	96.7	IC3W7	5398	
TBVF-400-20YC	400	51000		215	0.975	96.7	IC3W7	5598	
TBVF-400-20YC	400	51000		215	0.975	96.8	IC3W7	6700	560
TBVF-450-20YC	450	57000		242	0.975	96.8	IC3W7	6700	
TBVF-500-20YC	500	64000		270	0.976	96.9	IC3W7	6700	
TBVF-560-20YC	560	72000		297	0.981	97.4	IC3W7	7500	
TBVF-630-20YC	630	80000		333	0.982	97.5	IC3W7	7500	
TBVF-710-20YC	710	90000		376	0.982	97.5	IC3W7	8000	
TBVF-800-20YC	800	100000		422	0.983	97.7	IC3W7	8000	

#### 4.2.4.2、隔爆水冷型中低压产品外形及安装尺寸

#### Outline and installation dimension of the explosion-proof Products with water-cooling and Low Voltage



产品外形图 Outline Drawing

产品安装尺寸: Installation dimension

额定转速: 42/60/80r/min

Rated rotate speed: 42/60/80r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TBVF-200-20YC	686	340	340	480	200	240	45	185	400	42	844	970	1100	1662	6	400
TBVF-200-20YC	850	390	0	617	180	300	45	165	450	48	1030	710	1115	1543	4	450
TBVF-220-20YC	850	470	0	617	180	300	45	165	450	48	1030	790	1115	1623	4	
TBVF-250-20YC	850	470	0	617	180	300	45	165	450	48	1030	790	1115	1623	4	
TBVF-280-20YC	850	540	0	617	180	300	45	165	450	48	1030	860	1115	1693	4	
TBVF-280-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	6	500
TBVF-315-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	6	
TBVF-355-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	6	
TBVF-400-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	6	
TBVF-400-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	560
TBVF-450-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	
TBVF-500-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	
TBVF-560-20YC	1000	450	450	730	250	410	56	230	560	48	1210	1210	1460	2280	6	
TBVF-630-20YC	1000	450	450	730	250	410	56	230	560	48	1210	1210	1460	2280	6	
TBVF-710-20YC	1000	520	520	730	250	410	56	230	560	48	1210	1360	1500	2430	6	
TBVF-800-20YC	1000	520	520	730	250	410	56	230	560	48	1210	1360	1500	2430	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!



## 4.3 矿用隔爆型永磁同步变频调速一体机产品 Introduction of the explosion-proof synchronous Integrated VFD Motor

### 4.3.1、概述 Product overview

永磁同步变频调速一体机是电机、变频器组合的产物，主要应用于刮板机、转载机、皮带机、绞车、风机等设备，具有体积小、安装调试方便的特点，多用于空间狭小的场所。因此永磁同步变频调速一体机在现代化采煤工艺中应用越来越广。

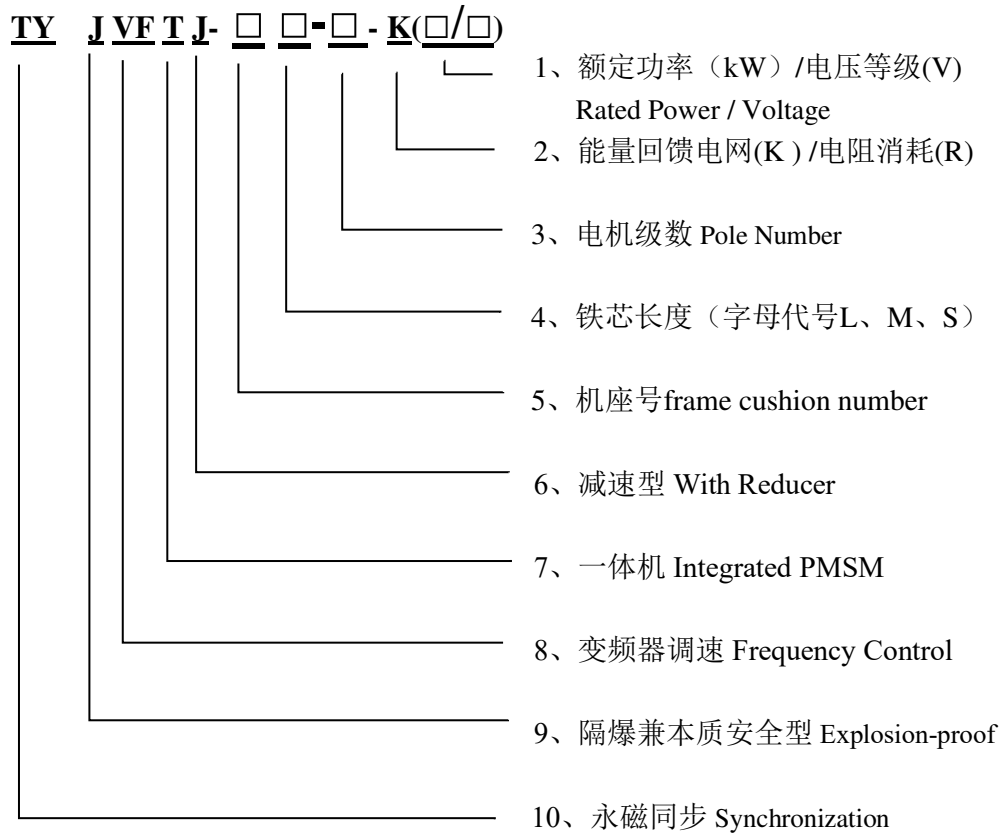
The synchronous Integrated VFD Motor , combined permanent magnet motor with frequency converter, is mainly used in scraper conveyor, belt conveyor, winch fan and other equipment. It is small in size and convenient for installation and debugging in narrow space. Therefore, the explosion-proof synchronous Integrated VFD Motor is more and more widely used in modern coal mining.

TYJVFTJ 系列隔爆兼本质安全型永磁同步变频调速一体机适用于周围空气中含有甲烷、煤尘的煤矿井下。可用于煤矿井下带式输送机等运输设备动力源的变频调速驱动，还可用于乳化液泵、油泵、水泵等控制系统中，实现变频无级调速，恒压供液，节能降耗。

The explosion-proof synchronous Integrated VFD Motor is Suitable for underground coal mine where the surrounding air contains methane coal dust. By stepless speed regulation of frequency conversion, It can also be used in the control system of emulsion pump, oil pump and water pump for constant pressure liquid supply ,which is energy saving and consumption reduction.



### 4.3.2、型号说明 Model Specification



### 4.3.3 一体机专用隔爆水冷型产品技术参数、外形及安装尺寸

**Parameter, outline layout and installation dimensions of the explosion-proof synchronous Integrated VFD Motor with water-cooling**

#### 4.3.3.1 矿用隔爆型永磁同步变频调速一体机技术参数

**Technical parameter of the explosion-proof synchronous Integrated VFD Motor**



额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

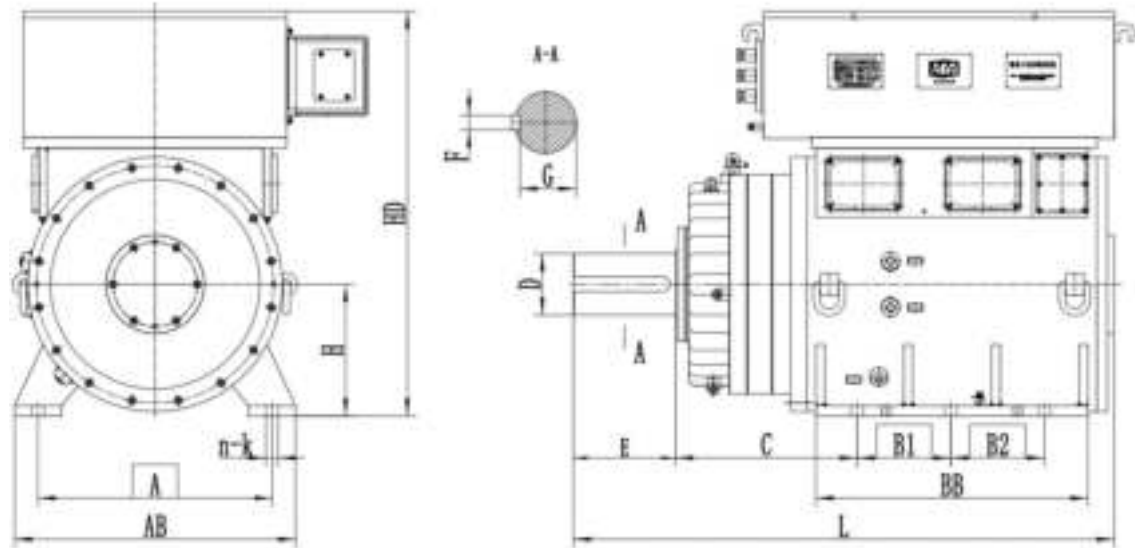
Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

型号 Type	额定功率 kW Rated power	额定转矩 N·m Rated torque	额定电压 V Rated voltage	额定电流 A Rated current	功率因数 cosΦ Power factor	系统效率 η% System efficiency	冷却方式 cooling mode	重量 ≈kg weight	机座号 Frame size	
TYJVFTJ-450S-20(132/□)	132	21000	380/660/ 1140	216/125/72	0.965	96.0	IC3W7	4500	450	
TYJVFTJ-450S-20(160/□)	160	25400		261/150/87	0.97	96.1	IC3W7	4500		
TYJVFTJ-450M-20(185/☑)	185	29400		302/174/101	0.97	96.1	IC3W7	4600		
TYJVFTJ-450M-20(200/□)	200	31800		325/187/108	0.971	96.3	IC3W7	4600		
TYJVFTJ-450M-20(220/□)	220	35000		357/205/119	0.972	96.4	IC3W7	4720		
TYJVFTJ-450L-20(250/□)	250	39800		405/233/135	0.973	96.5	IC3W7	4720		
TYJVFTJ-450L-20(280/□)	280	44500		452/260/151	0.974	96.6	IC3W7	4820		
TYJVFTJ-450L-20(315/□)	315	50100		509/293/170	0.974	96.6	IC3W7	4820		
TYJVFTJ-500M-20(315/1140)	315	50100		1140	170	0.974	96.6	IC3W7		6100
TYJVFTJ-500M-20(355/1140)	355	56500	191		0.975	96.7	IC3W7	6200		
TYJVFTJ-500L-20(400/1140)	400	63600	215		0.975	96.7	IC3W7	6400		
TYJVFTJ-500L-20(450/1140)	450	71600	241		0.976	97	IC3W7	6500		
TYJVFTJ-560M-20(450/1140)	450	71600	1140		241	0.976	97	IC3W7	8500	560
TYJVFTJ-560M-20(500/1140)	500	79500			267	0.976	97.3	IC3W7	8700	
TYJVFTJ-560M-20(560/1140)	560	89100			299	0.982	97.5	IC3W7	8800	
TYJVFTJ-560M-20(630/1140)	630	100200			333	0.983	97.6	IC3W7	8900	
TYJVFTJ-560L-20(710/1140)	710	113000			375	0.983	97.6	IC3W7	9000	
TYJVFTJ-560L-20(800/1140)	800	127300		422	0.983	97.7	IC3W7	9100		
TYJVFTJ-710M-20(800/1140)	800	127300		3300	422	0.983	97.7	IC3W7	11000	710
TYJVFTJ-710M-20(900/1140)	900	143200			475	0.985	97.6	IC3W7	11100	
TYJVFTJ-710L-20(1000/1140)	1000	159100			527	0.985	97.6	IC3W7	11200	
TYJVFTJ-710L-20(1120/1140)	1120	178200	590		0.985	97.6	IC3W7	11300		
TYJVFTJ-710L-20(1000/3300)	1000	159100	183		0.983	97.3	IC3W7	14200		
TYJVFTJ-710L-30(1650/3300)	1650	262600	302		0.983	97.3	IC3W7	17350		
TYJVFTJ-710L-24(1000/10000)	1000	159100	10000		60	0.984	97.4	IC3W7	15200	



### 4.3.3.2 矿用隔爆型永磁同步变频调速一体机外形及安装尺寸

#### Outline and installation dimension of the explosion-proof synchronous Integrated VFD Motor



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

额定转速: 60r/min; 调速范围: 3~72r/min

Rated rotate speed: 60r/min; Speed range: 3~72r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TYJVFTJ-450S-20(110/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	450
TYJVFTJ-450S-20(132/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450S-20(160/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450M-20(185/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450M-20(200/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450M-20(220/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450L-20(250/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450L-20(280/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-450L-20(315/□)	800	320	320	620	210	350	50	193	450	42	960	930	1383	1850	6	
TYJVFTJ-500M-20(315/1140)	950	400	400	680	210	350	50	193	500	48	1130	1130	1415	2230	6	500
TYJVFTJ-500M-20(355/1140)	950	400	400	680	210	350	50	193	500	48	1130	1130	1415	2230	6	
TYJVFTJ-500L-20(400/1140)	950	400	400	680	210	350	50	193	500	48	1130	1130	1415	2230	6	
TYJVFTJ-500L-20(450/1140)	950	400	400	680	210	350	50	193	500	48	1130	1130	1415	2230	6	
TYJVFTJ-560M-20(450/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	560



TYJVFTJ-560M-20(500/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	
TYJVFTJ-560M-20(560/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	
TYJVFTJ-560M-20(630/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	
TYJVFTJ-560L-20(710/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	
TYJVFTJ-560L-20(800/1140)	1000	550	550	745	260	200	-	-	560	48	1210	1410	1630	3040	4	
TYJVFTJ-710M-20(800/1140)	1200	520	520	900	300	380	70	278	710	56	1500	1540	1860	3465	6	710
TYJVFTJ-710M-20(900/1140)	1200	520	520	900	300	380	70	278	710	56	1500	1540	1860	3465	6	
TYJVFTJ-710L-20(1000/1140)	1200	520	520	900	300	380	70	278	710	56	1500	1540	1860	3465	6	
TYJVFTJ-710L-20(1120/1140)	1200	520	520	900	300	380	70	278	710	56	1500	1540	1860	3465	6	
TYJVFTJ-710L-20(1000/3300)	1140	620	620	900	300	400	70	298	710	56	1440	1640	1860	2815	6	
TYJVFTJ-710L-30(1650/3300)	1140	705	705	925	400	460	90	344	710	56	1440	1800	1860	3100	6	
TYJVFTJ-710L-24(1000/10000)	1140	710	710	840	300	380	70	278	710	56	1440	1880	1860	3200	6	

注：根据输出转速和冷却方式不同，C、L尺寸的准确值，向生产厂家确认！

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.





## 五、高压系列集成型永磁电机产品

### Introduction of High-voltage PMSM

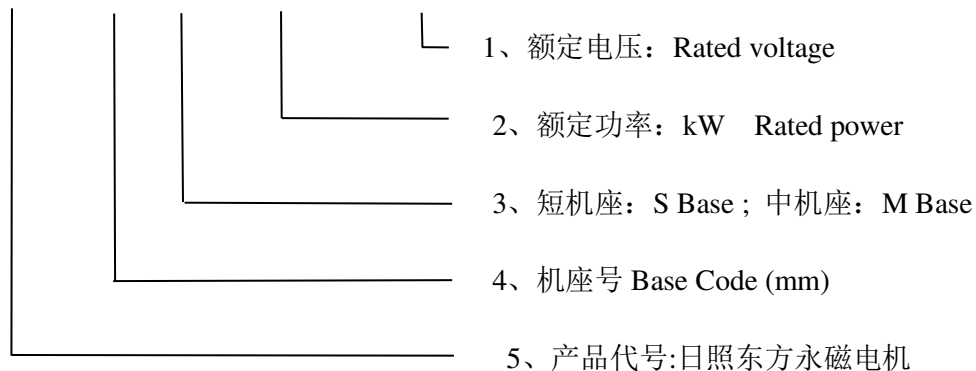
#### 5.1、概述 Product overview

高压系列产品分为非隔爆和隔爆型结构，冷却方式为风冷（IC411, IC416）、水冷（IC3W7），电压等级 6000V、10000V，额定转速 60r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of products. The cooling mode of products is air-cooling(IC411, IC416) and water-cooling (IC3W7). The voltage of the products is 6000V/10000V, while the rotate speed range is 60r/min. It can be customized according to the actual situation or the endusers' requirments.

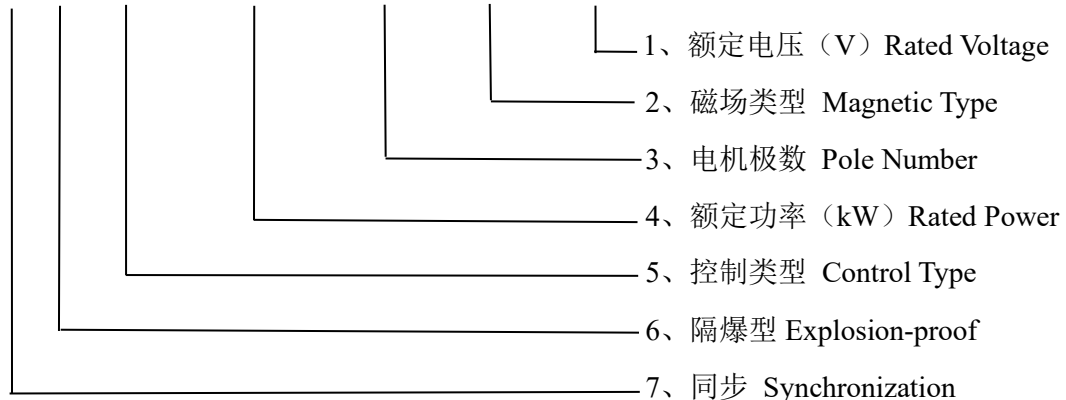
#### 5.2、型号说明 Model Specification

RMY 450 S/M - 160kW (6000V)



Product code: Rizhao Oriental Permanent Magnet Motor

T B VF - 400 - 20 YC (10000)





### 5.3、普通风冷型高压产品技术参数、外形及安装尺寸

#### Parameter, outline layout and installation dimensions of the Normal Products with air-cooling and high voltage

##### 5.3.1 普通风冷型高压产品技术参数

#### Technical parameter of the Normal Products with air-cooling and high voltage

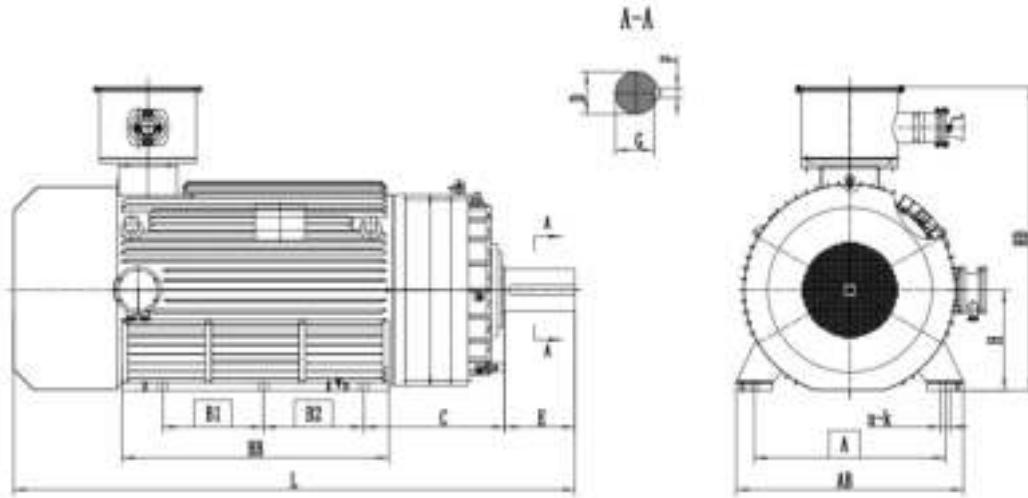
额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY450-160kW	160	25400	6000/10000	17/10	0.97	96.1	IC411/IC416	3660	450
RMY450-185kW	185	29400		19/11	0.97	96.1	IC411/IC416	3660	
RMY450-200kW	200	31800		21/12	0.971	96.3	IC411/IC416	3760	
RMY450-220kW	220	35000		23/14	0.972	96.4	IC411/IC416	3760	
RMY450-250kW	250	39800		26/15	0.973	96.5	IC411/IC416	3860	
RMY450-280kW	280	50100		29/17	0.974	96.6	IC411/IC416	3860	
RMY500-280kW	280	50100		29/17	0.974	96.6	IC416	5200	500
RMY500-315kW	315	56500		32/19	0.974	96.6	IC416	5200	
RMY500-355kW	355	44500		36/22	0.975	96.7	IC416	5300	
RMY500-400kW	400	63600		41/24	0.975	96.7	IC416	5300	
RMY560-400kW	400	63600	41/24	0.975	96.7	IC416	8000	560	
RMY560-450kW	450	71600	46/27	0.976	97.0	IC416	8100		
RMY560-500kW	500	79600	51/30	0.976	97.3	IC416	8300		
RMY560-560kW	560	89100	56/34	0.982	97.5	IC416	8300		
RMY560-630kW	630	100200	63/38	0.983	97.6	IC416	8500		

### 5.3.2 普通风冷型高压产品外形及安装尺寸

#### Outline and installation dimension of the Normal Products with air-cooling and high voltage



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

额定转速: 60r/min; 调速范围: 3~72r/min

Rated rotate speed: 60r/min; Speed range: 3~72r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
RMY450-160kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2450	6	450
RMY450-185kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2450	6	
RMY450-200kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2565	6	
RMY450-220kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2565	6	
RMY450-250kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2565	6	
RMY450-280kW	800	310	310	650	200	350	45	185	450	42	960	910	1340	2565	6	
RMY500-280kW	950	350	350	680	210	350	50	193	500	48	1130	990	1430	2830	6	500
RMY500-315kW	950	350	350	680	210	350	50	193	500	48	1130	990	1430	2830	6	
RMY500-355kW	950	400	400	680	210	350	50	193	500	48	1130	1146	1430	3078	6	
RMY500-400kW	950	400	400	680	210	350	50	193	500	48	1130	1146	1430	3078	6	
RMY560-400kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1550	3220	6	560
RMY560-450kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1550	3220	6	
RMY560-500kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1550	3220	6	
RMY560-560kW	1000	580	580	745	260	410	56	240	560	48	1210	1470	1550	3500	6	
RMY560-630kW	1000	580	580	745	260	410	56	240	560	48	1210	1470	1550	3500	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!



### 5.3.3 隔爆风冷型高压产品技术参数、外形及安装尺寸

#### Parameter, outline layout and installation dimensions of the explosion-proof Products with high-voltage and air-cooling

##### 5.3.3.1 隔爆风冷型高压产品技术参数

#### Technical parameter of the explosion-proof Products with high-voltage and air-cooling

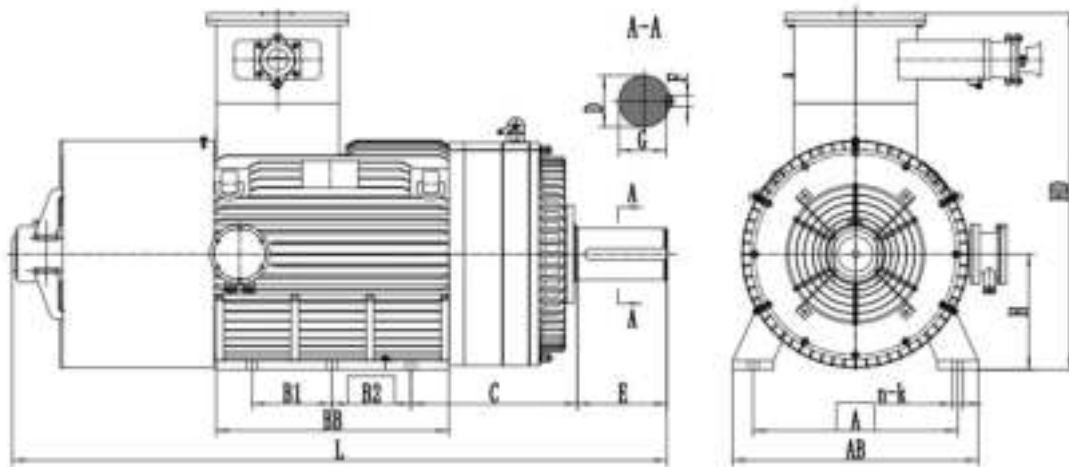
额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-160-20YC	160	25400	6000/10000	17/10	0.97	96.1	IC411/IC416	3800	450
TBVF-185-20YC	185	29400		19/11	0.97	96.1	IC411/IC416	3800	
TBVF-200-20YC	200	31800		21/12	0.971	96.3	IC411/IC416	3960	
TBVF-220-20YC	220	35000		23/14	0.972	96.4	IC411/IC416	3960	
TBVF-250-20YC	250	39800		26/15	0.973	96.5	IC411/IC416	3960	
TBVF-280-20YC	280	50100		29/17	0.974	96.6	IC411/IC416	3960	
TBVF-280-20YC	280	50100		29/17	0.974	96.6	IC416	5300	500
TBVF-315-20YC	315	56500		32/19	0.974	96.6	IC416	5300	
TBVF-355-20YC	355	44500		36/22	0.975	96.7	IC416	5400	
TBVF-400-20YC	400	63600		41/24	0.975	96.7	IC416	5400	
TBVF-400-20YC	400	63600		41/24	0.975	96.7	IC416	8100	560
TBVF-450-20YC	450	71600		46/27	0.976	97.0	IC416	8200	
TBVF-500-20YC	500	79600	51/30	0.976	97.3	IC416	8400		
TBVF-560-20YC	560	89100	56/34	0.982	97.5	IC416	8400		
TBVF-630-20YC	630	100200	63/38	0.983	97.6	IC416	8600		

### 5.3.3.2 隔爆风冷型高压产品外形及安装尺寸

#### Outline and installation dimension of the explosion-proof Products with high-voltage and air-cooling



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

额定转速: 60r/min; 调速范围: 3~72r/min

Rated rotate speed: 60r/min; Speed range: 3~72r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TBVF-160-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2450	6	450
TBVF-185-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2450	6	
TBVF-200-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2565	6	
TBVF-220-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2565	6	
TBVF-250-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2565	6	
TBVF-280-20YC	800	310	310	650	200	350	45	185	450	42	960	910	1390	2565	6	
TBVF-280-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1510	2830	6	500
TBVF-315-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1510	2830	6	
TBVF-355-20YC	950	400	400	680	210	350	50	193	500	48	1130	1146	1510	3078	6	
TBVF-400-20YC	950	400	400	680	210	350	50	193	500	48	1130	1146	1510	3078	6	560
TBVF-400-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1670	3220	6	
TBVF-450-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1670	3220	6	
TBVF-500-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1670	3220	6	
TBVF-560-20YC	1000	580	580	745	260	410	56	240	560	48	1210	1470	1670	3500	6	
TBVF-630-20YC	1000	580	580	745	260	410	56	240	560	48	1210	1470	1670	3500	6	



### 5.3.4 普通水冷型高压产品技术参数、外形及安装尺寸

#### Parameter, outline layout and installation dimensions of the High-voltage Products with water-cooling for belt conveyor

##### 5.3.4.1 普通水冷型高压产品技术参数

##### Technical parameter of the Products with water-cooling

额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

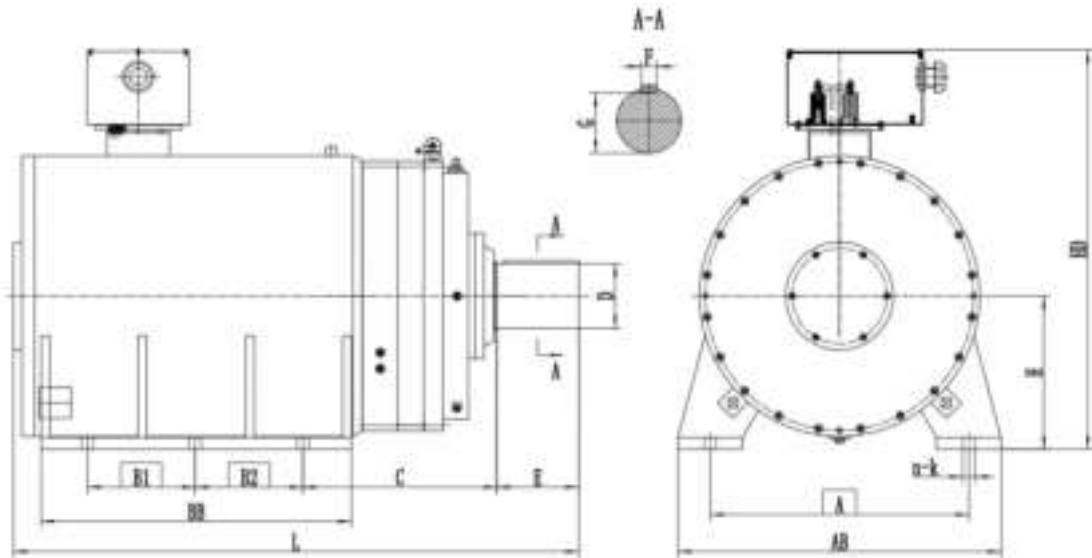
型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY450-160kW	160	25400	6000/10000	17/10	0.97	96.1	IC3W7	3450	450
RMY450-185kW	185	29400		19/11	0.97	96.1	IC3W7	3450	
RMY450-200kW	200	31800		21/12	0.971	96.3	IC3W7	3600	
RMY450-220kW	220	35000		23/14	0.972	96.4	IC3W7	3820	
RMY450-250kW	250	39800		26/15	0.973	96.5	IC3W7	3900	
RMY450-280kW	280	50100		29/17	0.974	96.6	IC3W7	4000	
RMY500-280kW	280	50100		29/17	0.974	96.6	IC3W7	4820	500
RMY500-315kW	315	56500		32/19	0.974	96.6	IC3W7	5030	
RMY500-355kW	355	44500		36/22	0.975	96.7	IC3W7	5400	
RMY500-400kW	400	63600		41/24	0.975	96.7	IC3W7	5600	
RMY560-400kW	400	63600		41/24	0.975	96.7	IC3W7	6800	560
RMY560-450kW	450	71600		46/27	0.976	97.0	IC3W7	6800	
RMY560-500kW	500	79600		51/30	0.976	97.3	IC3W7	6800	
RMY560-560kW	560	89100		56/34	0.982	97.5	IC3W7	7600	
RMY560-630kW	630	100200		63/38	0.983	97.6	IC3W7	7600	
RMY560-710kW	710	113000		71/43	0.983	97.6	IC3W7	8100	



RMY560-800kW	800	127300	6000/10000	80/48	0.983	97.7	IC3W7	8100	630
RMY630-900kW	900	143200		90/54	0.985	97.6	IC3W7	8800	
RMY630-1000kW	1000	159100		100/60	0.985	97.6	IC3W7	8800	
RMY630-1120kW	1120	178200		112/67	0.985	97.6	IC3W7	9100	
RMY630-1250kW	1250	198900		125/75	0.987	97.7	IC3W7	9300	
RMY710-1400kW	1400	222800		140/84	0.987	97.7	IC3W7	10200	710
RMY710-1600kW	1600	254600		160/96	0.987	97.7	IC3W7	10200	
RMY710-1800kW	1800	286500		180/108	0.987	97.7	IC3W7	11800	
RMY710-2000kW	2000	318300		200/120	0.987	97.7	IC3W7	13800	
RMY710-2400kW	2400	382000		240/144	0.987	97.7	IC3W7	15800	

### 5.3.4.2 普通水冷型高压产品外形及安装尺寸

#### Outline and installation dimension of the explosion-proof Products with high-voltage and water-cooling



产品外形图 Outline Drawing



产品安装尺寸: **Installation dimension**

额定转速: 60r/min; 调速范围: 3~72r/min

Rated rotate speed: 60r/min; Speed range: 3~72r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
RMY450-160kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	450
RMY450-185kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	
RMY450-200kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	
RMY450-220kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	
RMY450-250kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	
RMY450-280kW	800	320	320	600	180	300	45	165	450	42	960	930	1377	1780	4	
RMY500-280kW	950	350	350	680	210	350	50	193	500	48	1130	990	1467	1950	6	500
RMY500-315kW	950	350	350	680	210	350	50	193	500	48	1130	990	1467	1950	6	
RMY500-355kW	950	400	400	680	210	350	50	193	500	48	1130	1130	1467	2090	6	
RMY500-400kW	950	400	400	680	210	350	50	193	500	48	1130	1130	1467	2090	6	
RMY560-400kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1603	2180	6	560
RMY560-450kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1603	2180	6	
RMY560-500kW	1000	400	400	730	250	410	56	230	560	48	1210	1110	1603	2180	6	
RMY560-560kW	1000	580	580	745	260	410	56	240	560	48	1210	1470	1603	2560	6	
RMY560-630kW	1000	580	580	745	260	410	56	240	560	48	1210	1470	1603	2560	6	
RMY560-710kW	1000	620	620	900	320	500	70	298	560	48	1210	1720	1603	3000	6	
RMY560-800kW	1000	620	620	900	320	500	70	298	560	48	1210	1720	1603	3000	6	630
RMY630-900kW	1200	560	560	925	300	380	70	278	630	54	1450	1810	1716	3135	6	
RMY630-1000kW	1200	560	560	925	300	380	70	278	630	54	1450	1810	1716	3135	6	
RMY630-1120kW	1200	560	560	925	300	380	70	278	630	54	1450	1810	1716	3135	6	
RMY630-1250kW	1200	560	560	925	300	380	70	278	630	54	1450	1810	1716	3135	6	710
RMY710-1400kW	1200	500	500	900	300	380	70	278	710	56	1500	1440	1852	3000	6	
RMY710-1600kW	1200	500	500	900	300	380	70	278	710	56	1500	1440	1852	3000	6	
RMY710-1800kW	1200	500	500	900	300	380	70	278	710	56	1500	1440	1852	3400	6	
RMY710-2000kW	1200	500	500	900	300	380	70	278	710	56	1500	1440	1852	3400	6	
RMY710-2400kW	1200	500	500	900	300	380	70	278	710	56	1500	1440	1852	3800	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.



### 5.3.5 隔爆水冷型高压产品技术参数、外形及安装尺寸

#### Parameter, outline layout and installation dimensions of the explosion-proof Products with high-voltage and water-cooling

##### 5.3.5.1 隔爆水冷型高压产品技术参数

#### Technical parameter of the explosion-proof Products with high-voltage and water-cooling

额定转速：60r/min；调速范围：3~72r/min；调频范围：3~60Hz

Rated rotate speed: 60r/min; Speed range: 3~72r/min; Frequency tuning range: 3~60Hz

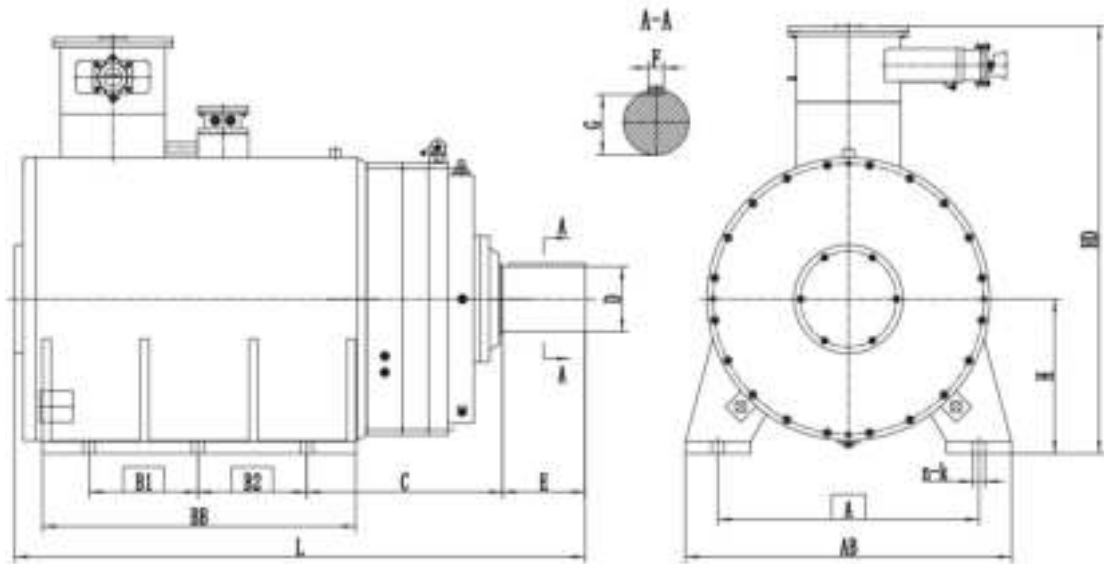
型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficienc y	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-160-20YC	160	25400	6000/10000	17/10	0.97	96.1	IC3W7	3550	450
TBVF-185-20YC	185	29400		19/11	0.97	96.1	IC3W7	3550	
TBVF-200-20YC	200	31800		21/12	0.971	96.3	IC3W7	3700	
TBVF-220-20YC	220	35000		23/14	0.972	96.4	IC3W7	3920	
TBVF-250-20YC	250	39800		26/15	0.973	96.5	IC3W7	4000	
TBVF-280-20YC	280	50100		29/17	0.974	96.6	IC3W7	4100	
TBVF-280-20YC	280	50100		29/17	0.974	96.6	IC3W7	4920	500
TBVF-315-20YC	315	56500		32/19	0.974	96.6	IC3W7	5130	
TBVF-355-20YC	355	44500		36/22	0.975	96.7	IC3W7	5500	
TBVF-400-20YC	400	63600		41/24	0.975	96.7	IC3W7	5700	
TBVF-400-20YC	400	63600		41/24	0.975	96.7	IC3W7	6900	560
TBVF-450-20YC	450	71600		46/27	0.976	97.0	IC3W7	6900	
TBVF-500-20YC	500	79600		51/30	0.976	97.3	IC3W7	6900	
TBVF-560-20YC	560	89100		56/34	0.982	97.5	IC3W7	7700	
TBVF-630-20YC	630	100200		63/38	0.983	97.6	IC3W7	7700	
TBVF-710-20YC	710	113000		71/43	0.983	97.6	IC3W7	8200	
TBVF-800-20YC	800	127300	80/48	0.983	97.7	IC3W7	8200		



TBVF-900-20YC	900	143200	6000/10000	90/54	0.985	97.6	IC3W7	9000	630
TBVF-1000-20YC	1000	159100		100/60	0.985	97.6	IC3W7	9000	
TBVF-1120-20YC	1120	178200		112/67	0.985	97.6	IC3W7	9300	
TBVF-1250-20YC	1250	198900		125/75	0.987	97.7	IC3W7	9500	
TBVF-1400-20YC	1400	222800		140/84	0.987	97.7	IC3W7	10400	710
TBVF-1600-20YC	1600	254600		160/96	0.987	97.7	IC3W7	10400	
TBVF-1800-20YC	1800	286500		180/108	0.987	97.7	IC3W7	12000	
TBVF-2000-20YC	2000	318300		200/120	0.987	97.7	IC3W7	14000	
TBVF-2400-20YC	2400	382000		240/144	0.987	97.7	IC3W7	16200	

### 5.3.5.2 隔爆水冷型高压产品外形及安装尺寸

#### Outline and installation dimension of the explosion-proof Products with high-voltage and water-cooling



产品外形图 Outline Drawing



产品安装尺寸: **Installation dimension**

额定转速: 60r/min; 调速范围: 3~72r/min

Rated rotate speed: 60r/min; Speed range: 3~72r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TBVF-160-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	450
TBVF-185-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	
TBVF-200-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	
TBVF-220-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	
TBVF-250-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	
TBVF-280-20YC	800	320	320	600	180	300	45	165	450	42	960	930	1467	1780	4	
TBVF-280-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	6	500
TBVF-315-20YC	950	350	350	680	210	350	50	193	500	48	1130	990	1300	1950	6	
TBVF-355-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	6	
TBVF-400-20YC	950	400	400	680	210	350	50	193	500	48	1130	1130	1300	2090	6	
TBVF-400-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	560
TBVF-450-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	
TBVF-500-20YC	1000	400	400	730	250	410	56	230	560	48	1210	1110	1405	2180	6	
TBVF-560-20YC	1000	580	580	745	260	410	56	240	560	48	1210	1470	1716	2560	6	
TBVF-630-20YC	1000	580	580	745	260	410	56	240	560	48	1210	1470	1716	2560	6	
TBVF-710-20YC	1000	620	620	900	320	500	70	298	560	48	1210	1720	1716	3000	6	
TBVF-800-20YC	1000	620	620	900	320	500	70	298	560	48	1210	1720	1716	3000	6	630
TBVF-900-20YC	1200	560	560	925	300	380	70	278	630	54	1450	1810	1827	3135	6	
TBVF-1000-20YC	1200	560	560	925	300	380	70	278	630	54	1450	1810	1827	3135	6	
TBVF-1120-20YC	1200	560	560	925	300	380	70	278	630	54	1450	1810	1827	3135	6	
TBVF-1250-20YC	1200	560	560	925	300	380	70	278	630	54	1450	1810	1827	3135	6	710
TBVF-1400-20YC	1200	500	500	900	300	380	70	278	710	56	1500	1440	1980	3000	6	
TBVF-1600-20YC	1200	500	500	900	300	380	70	278	710	56	1500	1440	1980	3000	6	
TBVF-1800-20YC	1200	500	500	900	300	380	70	278	710	56	1500	1440	1980	3400	6	
TBVF-2000-20YC	1200	500	500	900	300	380	70	278	710	56	1500	1440	1980	3400	6	
TBVF-2400-20YC	1200	500	500	900	300	380	70	278	710	56	1500	1440	1980	3800	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.



## 六、永磁直驱电机产品及技术参数

### Introduction of Permanent Magnet Direct Drive Motor

与集成型永磁电机相比，永磁直驱电机体积重量较大，在新建项目中应用较多，具有能效高、可靠性高、低振动、低噪声、安装方便、操控简单等特性。

They are featured with high efficiency and reliability, high cost performance, small size, light weight, easy installation and handling, low noise and vibration.

#### 6.1 普通型中低压系列产品

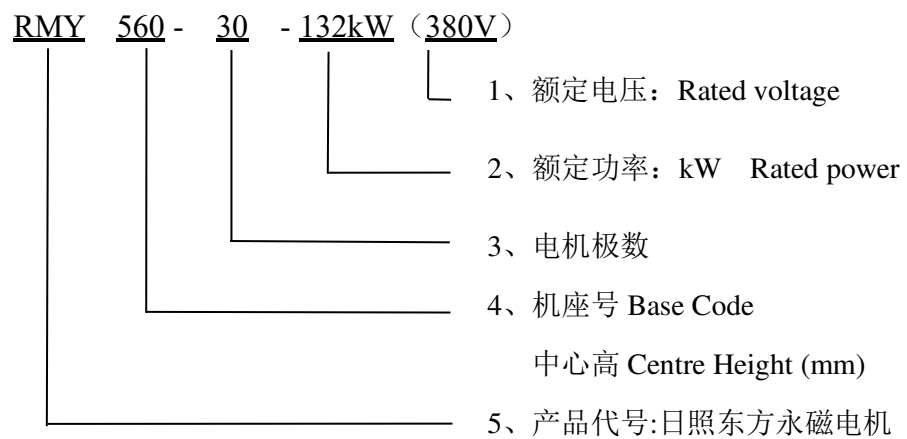
##### Introduction of the Normal Product with Low Voltage

###### 6.1.1、概述：Product overview

我公司同时提供低速大扭矩永磁直驱电机智能驱动系统，产品采用永磁电机专用无感矢量变频器供电和控制方式驱动。产品涵盖电压等级为 380V、660V、1140V 等多个电压等级，额定转速等级涵盖：60r/min、75r/min；冷却方式有 IC416（外带风扇强制冷却）、IC3W7（水冷），也可根据客户要求或实际工况进行量身设计生产。

The non-inductive vector control convertor is used in the control system for power supply and drive. The voltage of the products is 380V/660V/1140V. The rotate speed range is 60r/min、75r/min. The cooling mode is composed of IC416 (controlled cooling of an external fan) and IC3W7( water cooling). It can be customized according to the actual situation and the endusers' requirments.

### 6.1.2、型号说明 Model Specification



Product code: Rizhao Oriental Permanent Magnet Motor

### 6.1.3、普通型中低压产品技术参数、外形及安装尺寸

**Parameter, outline layout and installation dimensions of the Products with air-cooling and Low Voltage**



### 6.1.3.1 普通中低压产品技术参数 -1

#### Technical parameter of the Low Voltage Products for belt conveyor

额定转速：60r/min；调速范围：3~60r/min 调频范围：3~15Hz/20Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range: 3~15Hz/20Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY450-30-37kW	37	5900	380/660/1140	61/35/20	0.956	96	IC416	2930	450
RMY450-30-45kW	45	7100		74/43/25	0.957	96	IC416	3460	
RMY450-30-37kW	55	8700		91/52/30	0.958	96.1	IC416	3570	
RMY450-30-75kW	75	11900		124/71/41	0.959	96.1	IC416	3780	
RMY500-30-55kW	55	8700		91/52/30	0.958	96.1	IC416	3850	500
RMY500-30-75kW	75	11900		124/71/41	0.959	96.1	IC416	4290	
RMY500-30-90kW	90	14300		148/85/49	0.961	96.3	IC416	4680	
RMY500-30-110kW	110	17500		180/104/60	0.962	96.3	IC416	4950	
RMY560-30-75kW	75	11900		124/71/41	0.959	96.1	IC416/IC3W7	4050/4350	560
RMY560-30-90kW	90	14300		148/85/49	0.961	96.3	IC416/IC3W7	4560/4860	
RMY560-30-110kW	110	17500		180/104/60	0.962	96.3	IC416/IC3W7	4820/5120	
RMY560-30-132kW	132	21000		216/124/72	0.964	96.5	IC416/IC3W7	5400/5700	
RMY560-30-160kW	160	25500		260/150/87	0.967	96.6	IC416/IC3W7	6120/6420	
RMY560-30-185kW	185	29500		301/173/100	0.968	96.6	IC416/IC3W7	6860/7160	710
RMY710-30-160kW	160	25500		260/150/87	0.967	96.6	IC416/IC3W7	6990/7300	
RMY710-30-185kW	185	29500		301/173/100	0.968	96.6	IC416/IC3W7	7190/7450	
RMY710-30-200kW	200	31800		323/186/108	0.971	96.8	IC416/IC3W7	7400/7730	
RMY710-30-220kW	220	35000		356/205/119	0.971	96.8	IC416/IC3W7	7750/8050	
RMY710-30-250kW	250	39800		403/232/134	0.973	96.9	IC416/IC3W7	8100/8400	
RMY710-30-280kW	280	44500		450/259/150	0.974	97	IC416/IC3W7	8400/8700	
RMY710-30-315kW	315	50000	504/290/168	0.977	97.2	IC416/IC3W7	8500/8800		





RMY710-30-355kW	355	56500		565/325/188	0.98	97.4	IC416/IC3W7	8670/8900	
RMY800-40-315kW	315	50000	1140	168	0.977	0.972	IC3W7	9600	800
RMY800-40-355kW	355	56500		188	0.98	0.974	IC3W7	10500	
RMY800-40-400kW	400	63500		211	0.982	0.976	IC3W7	11400	
RMY800-40-450kW	450	71500		237	0.983	0.978	IC3W7	12200	
RMY800-40-500kW	500	79500		262	0.985	0.98	IC3W7	13100	
RMY800-40-560kW	560	89000		294	0.985	0.981	IC3W7	14100	

## 普通中低压产品技术参数 -2

### Technical parameter of the Low Voltage Products

额定转速: 75r/min; 调速范围: 3~75r/min 调频范围: 3~19Hz/25Hz

Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range: 3~19Hz/25Hz

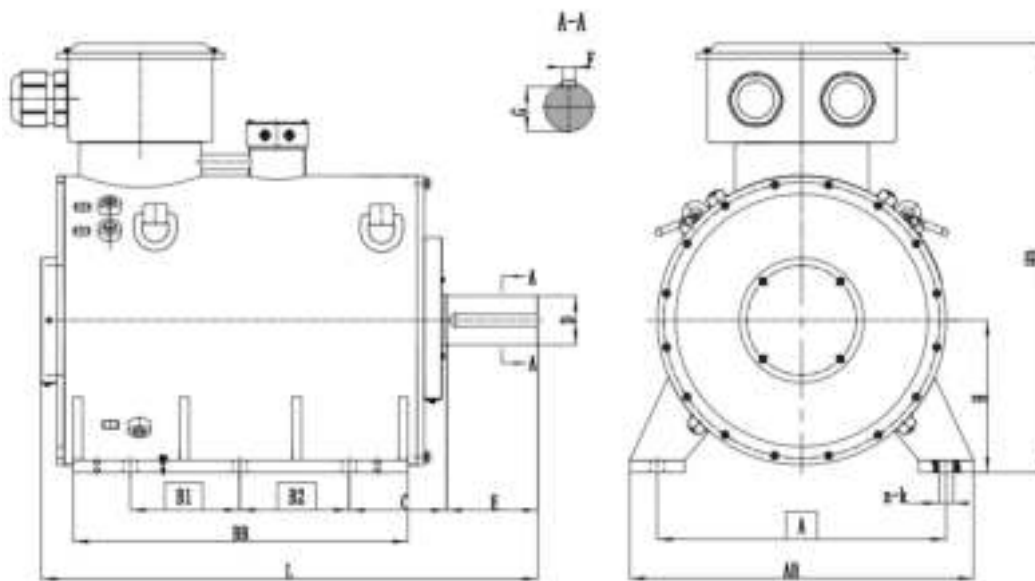
型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY450-30-37kW	37	4700	380/660/1140	61/35/20	0.956	96	IC416	2930	450
RMY450-30-45kW	45	5700		74/43/25	0.957	96	IC416	3460	
RMY450-30-37kW	55	7000		91/52/30	0.958	96.1	IC416	3570	
RMY450-30-75kW	75	9550		124/71/41	0.959	96.1	IC416	3780	
RMY500-30-55kW	55	7000		91/52/30	0.958	96.1	IC416	3850	500
RMY500-30-75kW	75	9550		124/71/41	0.959	96.1	IC416	4290	
RMY500-30-90kW	90	11450		148/85/49	0.961	96.3	IC416	4680	
RMY500-30-110kW	110	14000		180/104/60	0.962	96.3	IC416	4950	
RMY560-30-75kW	75	9550		124/71/41	0.959	96.1	IC416/IC3W7	4050/4350	560
RMY560-30-90kW	90	11450		148/85/49	0.961	96.3	IC416/IC3W7	4560/4860	
RMY560-30-110kW	110	14000		180/104/60	0.962	96.3	IC416/IC3W7	4820/5120	
RMY560-30-132kW	132	16800		216/124/72	0.964	96.5	IC416/IC3W7	5400/5700	
RMY560-30-160kW	160	20300	260/150/87	0.967	96.6	IC416/IC3W7	6120/6420		



RMY560-30-185kW	185	23500	380/660/1140	301/173/100	0.968	96.6	IC416/IC3W7	6860/7160	710
RMY710-30-160kW	160	20300		260/150/87	0.967	96.6	IC416/IC3W7	6990/7300	
RMY710-30-185kW	185	23500		301/173/100	0.968	96.6	IC416/IC3W7	7190/7450	
RMY710-30-200kW	200	25400		323/186/108	0.971	96.8	IC416/IC3W7	7400/7730	
RMY710-30-220kW	220	28000		356/205/119	0.971	96.8	IC416/IC3W7	7750/8050	
RMY710-30-250kW	250	31800		403/232/134	0.973	96.9	IC416/IC3W7	8100/8400	
RMY710-30-280kW	280	35600		450/259/150	0.974	97	IC416/IC3W7	8400/8700	
RMY710-30-315kW	315	40100		504/290/168	0.977	97.2	IC416/IC3W7	8500/8800	
RMY710-30-355kW	355	45200		565/325/188	0.98	97.4	IC416/IC3W7	8670/8900	
RMY800-40-315kW	315	40100	1140	168	0.977	0.972	IC3W7	9600	800
RMY800-40-355kW	355	45200		188	0.98	0.974	IC3W7	10500	
RMY800-40-400kW	400	50900		211	0.982	0.976	IC3W7	11400	
RMY800-40-450kW	450	57300		237	0.983	0.978	IC3W7	12200	
RMY800-40-500kW	500	63600		262	0.985	0.98	IC3W7	13100	
RMY800-40-560kW	560	71300		294	0.985	0.981	IC3W7	14100	

### 6.1.3.2 普通中低压产品外形及安装尺寸

#### Outline and installation dimension of the Normal Products with low voltage



产品外形图 Outline Drawing



**产品安装尺寸：Installation dimension**

额定转速：60r/min/75r/min；调速范围：3~60r/min/75r/min

Rated rotate speed: 60r/min/75r/min; Speed range: 3~60r/min/75r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
RMY450-30-37kW	800	400	-	255	130	250	32	119	450	42	960	636	1160	1645	4	450
RMY450-30-45kW	800	400	-	255	130	250	32	119	450	42	960	636	1160	1645	4	
RMY450-30-37kW	800	260	260	255	130	250	32	119	450	42	960	776	1160	1785	6	
RMY450-30-75kW	800	330	330	255	130	250	32	119	450	42	960	916	1160	1924	6	
RMY500-30-55kW	950	450	-	260	140	250	36	128	500	48	1130	750	1260	1850	4	500
RMY500-30-75kW	950	450	-	260	140	250	36	128	500	48	1130	750	1260	1850	4	
RMY500-30-90kW	950	400	400	260	160	300	40	147	500	48	1130	990	1260	2140	6	
RMY500-30-110kW	950	400	400	260	160	300	40	147	500	48	1130	990	1260	2140	6	560
RMY560-30-75kW	1000	360	-	365	150	250	36	138	560	48	1210	776	1425	1270	4	
RMY560-30-90kW	1000	360	-	365	150	250	36	138	560	48	1210	776	1425	1270	4	
RMY560-30-110kW	1000	295	295	365	170	300	40	157	560	48	1210	1006	1425	1550	4	
RMY560-30-132kW	1000	295	295	365	170	300	40	157	560	48	1210	1006	1425	1550	4	
RMY560-30-160kW	1000	400	400	365	190	350	45	175	560	48	1210	1216	1046	1810	6	
RMY560-30-185kW	1000	400	400	365	190	350	45	175	560	48	1210	1216	1046	1810	6	710
RMY710-30-160kW	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	
RMY710-30-185kW	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	
RMY710-30-200kW	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	
RMY710-30-220kW	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
RMY710-30-250kW	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
RMY710-30-280kW	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
RMY710-30-315kW	1400	470	470	350	240	350	56	220	710	56	1720	1240	1870	2000	6	
RMY710-30-355kW	1400	470	470	350	240	350	56	220	710	56	1720	1240	1870	2000	6	800
RMY800-40-315kW	1600	360	360	415	260	410	56	240	800	56	1960	1290	2080	2000	6	
RMY800-40-355kW	1600	360	360	415	260	410	56	240	800	56	1960	1290	2080	2000	6	
RMY800-40-400kW	1600	440	440	415	280	470	56	260	800	56	1960	1450	2080	2220	6	
RMY800-40-450kW	1600	440	440	415	280	470	56	260	800	56	1960	1450	2080	2220	6	
RMY800-40-500kW	1600	520	520	415	300	470	56	278	800	56	1960	1610	2080	2380	6	
RMY800-40-560kW	1600	520	520	415	300	470	56	278	800	56	1960	1610	2080	2380	6	

注：根据输出转速和冷却方式不同，C、L尺寸的准确值，向生产厂家确认！

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.



## 6.2 隔爆型中低压系列产品

### Introduction of Explosion-proof Product with Low Voltage

#### 6.2.1、概述 Product overview

TBVF 系列隔爆型永磁直驱电机驱动系统常应用于矿用输送机。

The drive system of TBVF series explosion-proof permanent magnet motors, have been used for belt conveyor in mine.

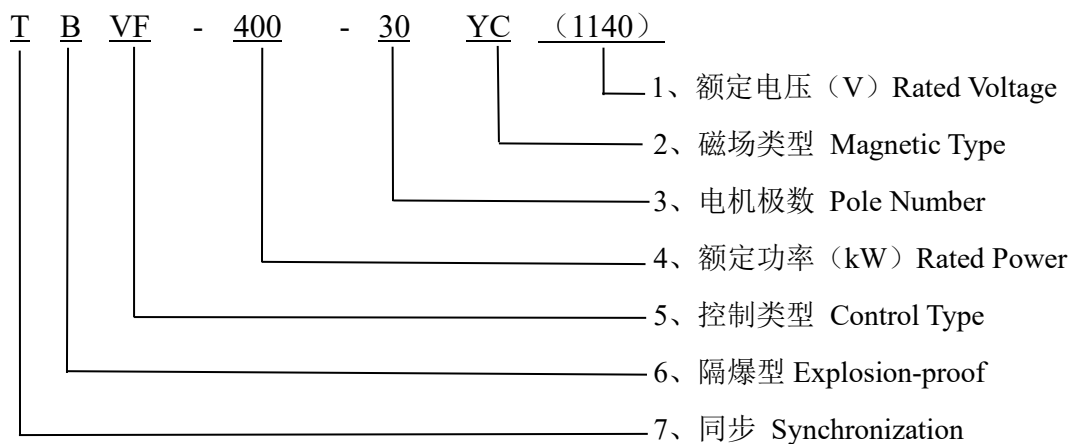
产品采用隔爆型结构设计，分风冷(IC416)、水冷（IC3W7）两种，电压等级涵盖 380V、660V、1140V，额定转速 60r/min、75r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of products. The cooling mode of products is composed of air-cooling(IC416) and water-cooling (IC3W7). The voltage of the products is 380V/660V/1140V, while the rotate speed range is 60r/min/75r/min. It can be customized according to the actual situation or the endusers' requirments.

该产品适用于具有甲烷等爆炸性气体或爆炸性混合物的环境使用。

The motor is suitable for the environment with explosive gas or explosive mixture such as methane.

#### 6.2.2、型号说明 Model Specification



#### 6.2.3 隔爆型中低压产品技术参数、外形及安装尺寸

### Parameter, outline layout and installation dimensions of the explosion-proof Products with low-voltage



### 6.2.3.1 隔爆型中低压产品技术参数

#### Technical parameter of the explosion-proof Products with low-voltage

额定转速：60r/min；调速范围：3~60r/min；调频范围：3~15Hz/19Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range: 3~15Hz/19Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-37-30YC	37	5900	380/660/1140	61/35/20	0.956	96	IC416	3000	450
TBVF-45-30YC	45	7100		74/43/25	0.957	96	IC416	3530	
TBVF-55-30YC	55	8700		91/52/30	0.958	96.1	IC416	3640	
TBVF-75-30YC	75	11900		124/71/41	0.959	96.1	IC416	3850	
TBVF-55-30YC	55	8700		91/52/30	0.958	96.1	IC416	3920	500
TBVF-75-30YC	75	11900		124/71/41	0.959	96.1	IC416	4360	
TBVF-90-30YC	90	14300		148/85/49	0.961	96.3	IC416	4750	
TBVF-110-30YC	110	17500		180/104/60	0.962	96.3	IC416	5020	
TBVF-75-30YC	75	11900		124/71/41	0.959	96.1	IC416/IC3W7	4150/4450	560
TBVF-90-30YC	90	14300		148/85/49	0.961	96.3	IC416/IC3W7	4660/4960	
TBVF-110-30YC	110	17500		180/104/60	0.962	96.3	IC416/IC3W7	4920/5220	
TBVF-132-30YC	132	21000		216/124/72	0.964	96.5	IC416/IC3W7	5500/5800	
TBVF-160-30YC	160	25500		260/150/87	0.967	96.6	IC416/IC3W7	6220/6520	710
TBVF-185-30YC	185	29500		301/173/100	0.968	96.6	IC416/IC3W7	6960/7260	
TBVF-160-30YC	160	25500		260/150/87	0.967	96.6	IC416/IC3W7	7050/7450	
TBVF-185-30YC	185	29500		301/173/100	0.968	96.6	IC416/IC3W7	7340/7600	
TBVF-200-30YC	200	31800		323/186/108	0.971	96.8	IC416/IC3W7	7550/7880	710
TBVF-220-30YC	220	35000		356/205/119	0.971	96.8	IC416/IC3W7	7900/8200	
TBVF-250-30YC	250	39800		403/232/134	0.973	96.9	IC416/IC3W7	8250/8550	
TBVF-280-30YC	280	44500		450/259/150	0.974	97	IC416/IC3W7	8550/8850	
TBVF-315-30YC	315	50000	504/290/168	0.977	97.2	IC416/IC3W7	8650/8950		



TBVF-355-30YC	355	56500		565/325/188	0.98	97.4	IC416/IC3W7	8820/9050	
TBVF-315-40YC	315	50000	1140	168	0.977	0.972	IC3W7	9800	800
TBVF-355-40YC	355	56500		188	0.98	0.974	IC3W7	10700	
TBVF-400-40YC	400	63500		211	0.982	0.976	IC3W7	11600	
TBVF-450-40YC	450	71500		237	0.983	0.978	IC3W7	12400	
TBVF-500-40YC	500	79500		262	0.985	0.98	IC3W7	13300	
TBVF-560-40YC	560	89000		294	0.985	0.981	IC3W7	14300	

## 隔爆型中低压产品技术参数 -2

### Technical parameter of the explosion-proof Products with low-voltage

额定转速: 75r/min; 调速范围: 3~75r/min 调频范围: 3~19Hz/25Hz

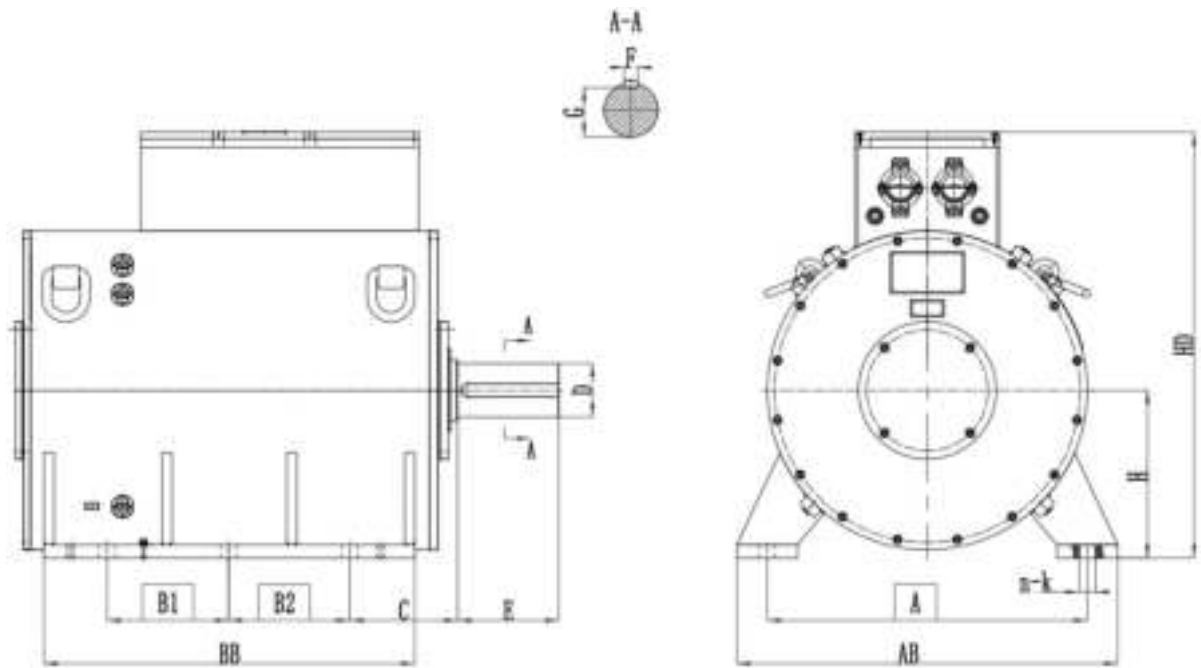
Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range: 3~19Hz/25Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-37-30YC	37	4700	380/660/1140	61/35/20	0.956	96	IC416	3000	450
TBVF-45-30YC	45	5700		74/43/25	0.957	96	IC416	3530	
TBVF-55-30YC	55	7000		91/52/30	0.958	96.1	IC416	3640	
TBVF-75-30YC	75	9550		124/71/41	0.959	96.1	IC416	3850	
TBVF-55-30YC	55	7000		91/52/30	0.958	96.1	IC416	3920	500
TBVF-75-30YC	75	9550		124/71/41	0.959	96.1	IC416	4360	
TBVF-90-30YC	90	11450		148/85/49	0.961	96.3	IC416	4750	
TBVF-110-30YC	110	14000		180/104/60	0.962	96.3	IC416	5020	
TBVF-75-30YC	75	9550		124/71/41	0.959	96.1	IC416/IC3W7	4150/4450	560
TBVF-90-30YC	90	11450		148/85/49	0.961	96.3	IC416/IC3W7	4660/4960	
TBVF-110-30YC	110	14000		180/104/60	0.962	96.3	IC416/IC3W7	4920/5220	
TBVF-132-30YC	132	16800		216/124/72	0.964	96.5	IC416/IC3W7	5500/5800	
TBVF-160-30YC	160	20300		260/150/87	0.967	96.6	IC416/IC3W7	6220/6520	

TBVF-185-30YC	185	23500	380/660/1140	301/173/100	0.968	96.6	IC416/IC3W7	6960/7260	710
TBVF-160-30YC	160	20300		260/150/87	0.967	96.6	IC416/IC3W7	7050/7450	
TBVF-185-30YC	185	23500		301/173/100	0.968	96.6	IC416/IC3W7	7340/7600	
TBVF-200-30YC	200	25400		323/186/108	0.971	96.8	IC416/IC3W7	7550/7880	
TBVF-220-30YC	220	28000		356/205/119	0.971	96.8	IC416/IC3W7	7900/8200	
TBVF-250-30YC	250	31800		403/232/134	0.973	96.9	IC416/IC3W7	8250/8550	
TBVF-280-30YC	280	35600		450/259/150	0.974	97	IC416/IC3W7	8550/8850	
TBVF-315-30YC	315	40100		504/290/168	0.977	97.2	IC416/IC3W7	8650/8950	
TBVF-355-30YC	355	45200		565/325/188	0.98	97.4	IC416/IC3W7	8820/9050	
TBVF-315-40YC	315	40100	1140	168	0.977	0.972	IC3W7	9800	800
TBVF-355-40YC	355	45200		188	0.98	0.974	IC3W7	10700	
TBVF-400-40YC	400	50900		211	0.982	0.976	IC3W7	11600	
TBVF-450-40YC	450	57300		237	0.983	0.978	IC3W7	12400	
TBVF-500-40YC	500	63600		262	0.985	0.98	IC3W7	13300	
TBVF-560-40YC	560	71300		294	0.985	0.981	IC3W7	14300	

### 6.2.3.2 隔爆型中低压产品外形及安装尺寸

#### Outline and installation dimension of the Normal Products with low voltage



产品外形图 Outline Drawing



产品安装尺寸: **Installation dimension**

额定转速: 60r/min/75r/min; 调速范围: 3~60r/min/75r/min

Rated rotate speed: 60r/min/75r/min; Speed range: 3~60r/min/75r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TBVF-37-30YC	800	400	-	255	130	250	32	119	450	42	960	636	1160	1645	4	450
TBVF-45-30YC	800	400	-	255	130	250	32	119	450	42	960	636	1160	1645	4	
TBVF-55-30YC	800	260	260	255	130	250	32	119	450	42	960	776	1160	1785	6	
TBVF-75-30YC	800	330	330	255	130	250	32	119	450	42	960	916	1160	1924	6	
TBVF-55-30YC	950	450	-	260	140	250	36	128	500	48	1130	750	1260	1850	4	500
TBVF-75-30YC	950	450	-	260	140	250	36	128	500	48	1130	750	1260	1850	4	
TBVF-90-30YC	950	400	400	260	160	300	40	147	500	48	1130	990	1260	2140	6	
TBVF-110-30YC	950	400	400	260	160	300	40	147	500	48	1130	990	1260	2140	6	560
TBVF-75-30YC	1000	360	-	365	150	250	36	138	560	48	1210	776	1425	1270	4	
TBVF-90-30YC	1000	360	-	365	150	250	36	138	560	48	1210	776	1425	1270	4	
TBVF-110-30YC	1000	295	295	365	170	300	40	157	560	48	1210	1006	1425	1550	4	
TBVF-132-30YC	1000	295	295	365	170	300	40	157	560	48	1210	1006	1425	1550	4	710
TBVF-160-30YC	1000	400	400	365	190	350	45	175	560	48	1210	1216	1046	1810	6	
TBVF-185-30YC	1000	400	400	365	190	350	45	175	560	48	1210	1216	1046	1810	6	
TBVF-160-30YC	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	
TBVF-185-30YC	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	800
TBVF-200-30YC	1400	610	-	350	200	350	45	185	710	56	1720	910	1870	1610	4	
TBVF-220-30YC	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
TBVF-250-30YC	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
TBVF-280-30YC	1400	395	395	350	220	350	50	203	710	56	1720	1090	1870	1790	6	
TBVF-315-30YC	1400	470	470	350	240	350	56	220	710	56	1720	1240	1870	2000	6	
TBVF-355-30YC	1400	470	470	350	240	350	56	220	710	56	1720	1240	1870	2000	6	800
TBVF-315-40YC	1600	360	360	415	260	410	56	240	800	56	1960	1290	2080	2000	6	
TBVF-355-40YC	1600	360	360	415	260	410	56	240	800	56	1960	1290	2080	2000	6	
TBVF-400-40YC	1600	440	440	415	280	470	56	260	800	56	1960	1450	2080	2220	6	
TBVF-450-40YC	1600	440	440	415	280	470	56	260	800	56	1960	1450	2080	2220	6	
TBVF-500-40YC	1600	520	520	415	300	470	56	278	800	56	1960	1610	2080	2380	6	
TBVF-560-40YC	1600	520	520	415	300	470	56	278	800	56	1960	1610	2080	2380	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.





### 6.3 普通型高压系列产品

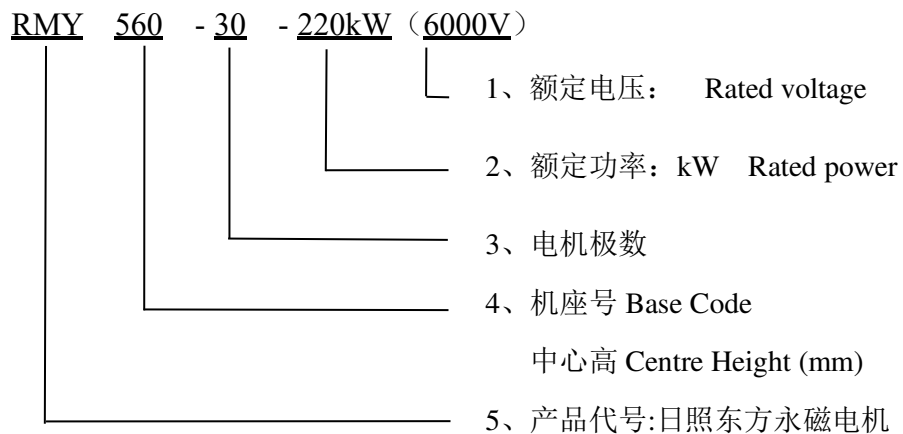
#### Introduction of the explosion-proof Product with high-Voltage

##### 6.3.1、概述：Product overview

高压永磁直驱电机产品涵盖电压等级为 3300V、6000V、10000V 电压等级，额定转速等级涵盖：60r/min、75r/min；冷却方式有 IC416（外带风扇强制冷却）、IC3W7（水冷），也可根据客户要求或实际工况进行量身设计生产。

The non-inductive vector control convertor is used in the control system for power supply and drive. The voltage of the products is 3300V/6000V/10000V. The rotate speed range is 60r/min、75r/min. The cooling mode is composed of IC416 (controlled cooling of an external fan) and IC3W7( water cooling). It can be customized according to the actual situation and the endusers' requirments.

##### 6.3.2、型号说明 Model Specification



Product code: Rizhao Oriental Permanent Magnet Motor



### 6.3.3、普通型高压产品技术参数、外形及安装尺寸

#### Parameter, outline layout and installation dimensions of the Products with High Voltage

##### 6.3.3.1 普通高压产品技术参数 -1

##### Technical parameter of the Products with High Voltage

额定转速：60r/min；调速范围：3~60r/min 调频范围：3~15Hz/20Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range: 3~15Hz/20Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY560-30-110kW	110	17500	3300/6000	21/11	0.962	96.3	IC416/IC3W7	4900/5200	560
RMY560-30-132kW	132	21000		25/14	0.964	96.5	IC416/IC3W7	5480/5780	
RMY710-30-132kW	132	21000		25/14	0.964	96.5	IC416/IC3W7	7070/7380	710
RMY710-30-160kW	160	25400		30/16	0.967	96.6	IC416/IC3W7	7070/7380	
RMY710-30-185kW	185	29400		35/19	0.968	96.6	IC416/IC3W7	7270/7530	
RMY710-30-200kW	200	31800		37/20	0.971	96.8	IC416/IC3W7	7480/7810	
RMY710-30-220kW	220	35000		41/23	0.971	96.8	IC416/IC3W7	7830/8130	
RMY710-30-250kW	250	39790		46/26	0.973	96.9	IC416/IC3W7	8180/8480	
RMY710-30-280kW	280	44500		52/29	0.974	97	IC416/IC3W7	8480/8780	
RMY800-40-280kW	280	44500		52/29	0.977	97.2	IC3W7	9820	
RMY800-40-315kW	315	50100	58/32	0.98	97.4	IC3W7	10000		
RMY800-40-355kW	355	56500	65/36	0.98	97.4	IC3W7	10500		
RMY800-40-400kW	400	63600	73/40	0.982	97.6	IC3W7	11400		
RMY800-40-450kW	450	71600	6000	45	0.983	97.8	IC3W7	12200	
RMY800-40-500kW	500	79500		50	0.983	97.8	IC3W7	13000	
RMY800-40-560kW	560	89100		56	0.983	97.8	IC3W7	14000	



## 普通高压产品技术参数 -2

### Technical parameter of the Products with High Voltage

额定转速：60r/min；调速范围：3~60r/min 调频范围：3~15Hz/20Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range: 3~15Hz/20Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY630-30-110kW	110	17500	6000/10000	11/7	0.962	96.3	IC3W7	5530	560
RMY630-30-132kW	132	21000		14/8	0.964	96.5	IC3W7	5880	
RMY710-30-160kW	160	25400		16/10	0.967	96.6	IC3W7	7380	710
RMY710-30-185kW	185	29400		19/11	0.968	96.6	IC3W7	7530	
RMY710-30-200kW	200	31800		20/12	0.971	96.8	IC3W7	7810	
RMY710-30-220kW	220	35000		23/14	0.971	96.8	IC3W7	8130	
RMY710-30-250kW	250	39790		26/15	0.973	96.9	IC3W7	8480	
RMY710-30-280kW	280	44500		29/17	0.974	97	IC3W7	8780	
RMY710-30-315kW	315	50100		32/19	0.98	97.4	IC3W7	9090	
RMY710-30-355kW	355	56500		36/21	0.98	97.4	IC3W7	9520	
RMY800-40-400kW	400	63600		40/24	0.982	97.6	IC3W7	11480	800
RMY800-40-450kW	450	71600		45/27	0.983	97.8	IC3W7	12280	
RMY800-40-500kW	500	79500		50/30	0.985	98	IC3W7	13180	
RMY800-40-560kW	560	89100		56/33	0.985	98	IC3W7	14180	
RMY800-40-630kW	630	10200		63/38	0.985	98.2	IC3W7	15450	



### 普通高压产品技术参数 -3

#### Technical parameter of the Products with High Voltage

额定转速：75r/min；调速范围：3~75r/min 调频范围：3~19Hz/25Hz

Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range:3~19Hz/25Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size	
RMY560-30-110kW	110	14000	3300/6000	25/14	0.964	96.5	IC416/IC3W7	4900/5200	560	
RMY560-30-132kW	132	16800		30/16	0.967	96.6	IC416/IC3W7	5480/5780		
RMY710-30-132kW	132	16800		30/16	0.967	96.6	IC416/IC3W7	6870/5780	710	
RMY710-30-160kW	160	20370		30/16	0.967	96.6	IC416/IC3W7	7070/7380		
RMY710-30-185kW	185	23550		35/19	0.968	96.6	IC416/IC3W7	7270/7530		
RMY710-30-200kW	200	25460		37/20	0.971	96.8	IC416/IC3W7	7480/7810		
RMY710-30-220kW	220	28000		41/23	0.971	96.8	IC416/IC3W7	7830/8130		
RMY710-30-250kW	250	31800		46/26	0.973	96.9	IC416/IC3W7	8180/8480		
RMY710-30-280kW	280	35650		52/29	0.974	97	IC416/IC3W7	8480/8780		
RMY710-30-315kW	315	40100		58/32	0.974	97	IC416/IC3W7	8480/8780		
RMY800-40-315kW	315	40100		6000	58/32	0.98	97.4	IC3W7	9520	800
RMY800-40-355kW	355	45200			65/36	0.98	97.4	IC3W7	9600	
RMY800-40-400kW	400	50900	73/40		0.982	97.6	IC3W7	10500		
RMY800-40-450kW	450	57300	45		0.983	97.8	IC3W7	11400		
RMY800-40-500kW	500	63600	50		0.983	97.8	IC3W7	12200		
RMY800-40-560kW	560	71300	56		0.983	97.8	IC3W7	13100		



## 普通高压产品技术参数 -4

### Technical parameter of the Products with High Voltage

额定转速：75r/min；调速范围：3~75r/min 调频范围：3~19Hz/25Hz

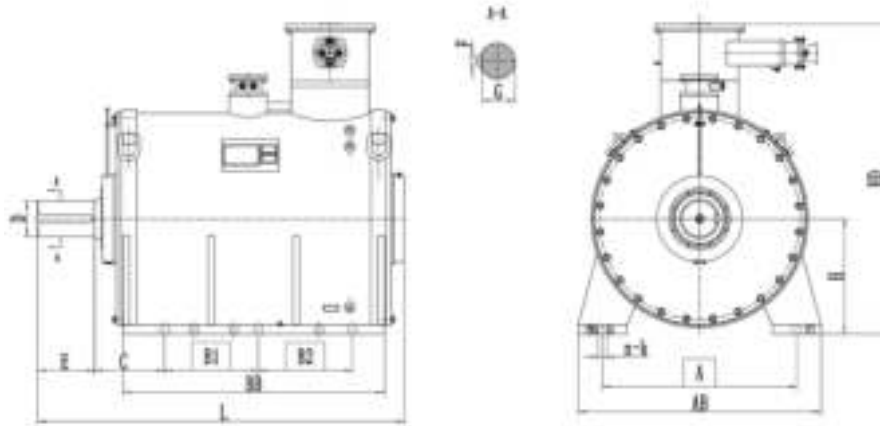
Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range:3~19Hz/25Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
RMY630-30-132kW	132	16800	6000/10000	14/8	0.964	96.5	IC3W7	5530	560
RMY630-30-160kW	160	20300		16/10	0.967	96.6	IC3W7	5880	
RMY710-30-185kW	185	23550		19/11	0.968	96.6	IC3W7	7380	710
RMY710-30-200kW	200	25400		20/12	0.971	96.8	IC3W7	7530	
RMY710-30-220kW	220	28000		23/14	0.971	96.8	IC3W7	7810	
RMY710-30-250kW	250	31800		26/15	0.973	96.9	IC3W7	8130	
RMY710-30-280kW	280	35650		29/17	0.974	97	IC3W7	8480	
RMY710-30-315kW	315	40100		32/19	0.98	97.4	IC3W7	8780	
RMY710-30-355kW	355	45200		36/21	0.98	97.4	IC3W7	9090	
RMY710-30-400kW	400	50900		40/24	0.982	97.6	IC3W7	9520	
RMY800-40-450kW	450	57300		45/27	0.983	97.8	IC3W7	13180	800
RMY800-40-500kW	500	63600		50/30	0.985	98	IC3W7	14180	
RMY800-40-560kW	560	71300		56/33	0.985	98	IC3W7	15450	
RMY800-40-630kW	630	80200		63/38	0.985	98.2	IC3W7	16100	
RMY800-40-710kW	710	90400		71/42	0.985	98.3	IC3W7	16970	



### 6.3.3.2 普通高压产品外形及安装尺寸

#### Outline and installation dimension of the Normal Products with high voltage



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

额定转速: 60r/min/75r/min; 调速范围: 3~60r/min/75r/min

Rated rotate speed: 60r/min/75r/min; Speed range: 3~60r/min/75r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
RMY560-30-110kW	1000	295	295	365	170	300	40	157	560	48	1210	1006	1440	1550	6	560
RMY560-30-132kW	1000	295	295	365	170	300	40	157	560	48	1210	1006	1440	1550	6	
RMY560-30-160kW	1000	340	340	365	190	350	45	175	560	48	1210	1030	1440	1810	6	
RMY710-30-160kW	1400	665	665	480	210	350	50	193	710	56	1620	1750	1923	2419	6	710
RMY710-30-185kW	1400	665	665	480	210	350	50	193	710	56	1720	1750	1923	2419	6	
RMY710-30-200kW	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
RMY710-30-220kW	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
RMY710-30-250kW	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
RMY710-30-280kW	1400	665	665	480	240	350	56	220	710	56	1620	1710	1958	2435	6	
RMY710-30-315kW	1400	705	705	480	240	350	56	220	710	56	1620	1890	1958	2615	6	
RMY710-30-355kW	1400	705	705	480	240	350	56	220	710	56	1620	1890	1958	2615	6	
RMY800-40-400kW	1600	500	500	485	260	410	56	260	800	56	1960	1710	2105	2420	6	800
RMY800-40-450kW	1600	580	580	485	260	410	63	280	800	56	1960	1870	2105	2640	6	
RMY800-40-500kW	1600	580	580	485	260	470	63	280	800	56	1960	1870	2105	2640	6	
RMY800-40-560kW	1600	660	660	485	280	470	70	300	800	56	1960	2030	2105	2800	6	
RMY800-40-630kW	1600	660	660	485	280	470	70	300	800	56	1960	2030	2105	2800	6	
RMY800-40-710kW	1600	740	740	485	300	470	70	278	800	56	1960	2030	2105	2900	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

## 6.4 隔爆型高压系列产品

### Introduction of the explosion-proof Product with high-Voltage

#### 6.4.1、概述：Product overview

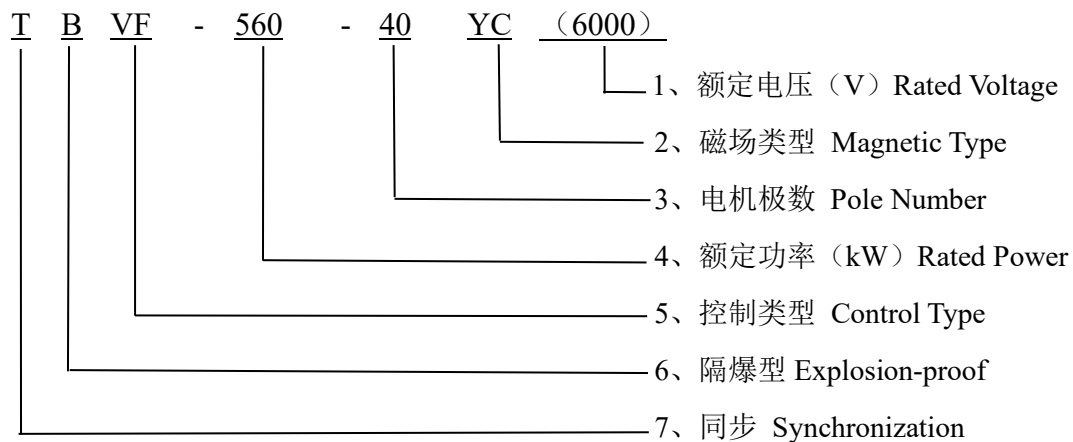
产品采用隔爆型结构设计，分风冷(IC416)、水冷（IC3W7）两种，电压等级涵盖 3300V、6000V、10000V，额定转速 60r/min、75r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of products. The cooling mode of products is composed of air-cooling(IC416) and water-cooling (IC3W7). The voltage of the products is 3300V/6000V/10000V, while the rotate speed range is 60r/min/75r/min. It can be customized according to the actual situation or the endorser' requirements.

该产品适用于具有甲烷等爆炸性气体或爆炸性混合物的环境使用。

The motor is suitable for the environment with explosive gas or explosive mixture such as methane.

#### 6.4.2、型号说明 Model Specification



#### 6.4.3 隔爆型高压产品技术参数、外形及安装尺寸

**Parameter, outline layout and installation dimensions of the explosion-proof Products with high-voltage**



### 6.4.3.1 隔爆型高压产品技术参数 -1

#### Technical parameter of the Explosion-proof Products with High Voltage

额定转速：60r/min；调速范围：3~60r/min 调频范围：3~15Hz/20Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range:3~15Hz/20Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-110-30YC ( )	110	17500	3300/6000	21/11	0.962	96.3	IC416/IC3W7	4900/5200	560
TBVF-132-30YC ( )	132	21000		25/14	0.964	96.5	IC416/IC3W7	5480/5780	
TBVF-132-30YC ( )	132	21000		25/14	0.964	96.5	IC416/IC3W7	7070/7380	710
TBVF-160-30YC ( )	160	25400		30/16	0.967	96.6	IC416/IC3W7	7070/7380	
TBVF-185-30YC ( )	185	29400		35/19	0.968	96.6	IC416/IC3W7	7270/7530	
TBVF-200-30YC ( )	200	31800		37/20	0.971	96.8	IC416/IC3W7	7480/7810	
TBVF-220-30YC ( )	220	35000		41/23	0.971	96.8	IC416/IC3W7	7830/8130	
TBVF-250-30YC ( )	250	39790		46/26	0.973	96.9	IC416/IC3W7	8180/8480	
TBVF-280-30YC ( )	280	44500		52/29	0.974	97	IC416/IC3W7	8480/8780	800
TBVF-280-40YC ( )	280	44500		52/29	0.977	97.2	IC3W7	9520	
TBVF-315-40YC ( )	315	50100		58/32	0.98	97.4	IC3W7	9600	
TBVF-355-40YC ( )	355	56500		65/36	0.98	97.4	IC3W7	10500	
TBVF-400-40YC ( )	400	63600		73/40	0.982	97.6	IC3W7	11400	
TBVF-450-40YC ( )	450	71600		45	0.983	97.8	IC3W7	12200	
TBVF-500-40YC ( )	500	79500	6000	50	0.985	98	IC3W7	13000	
TBVF-560-40YC ( )	560	89100	6000	56	0.985	98	IC3W7	14000	





## 隔爆型高压产品技术参数 -2

### Technical parameter of the Explosion-proof Products with High Voltage

额定转速：60r/min；调速范围：3~60r/min 调频范围：3~15Hz/20Hz

Rated rotate speed: 60r/min; Speed range: 3~60r/min; Frequency tuning range:3~15Hz/20Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-110-30YC ( )	110	17500	6000/10000	11/7	0.962	96.3	IC3W7	5530	560
TBVF-132-30YC ( )	132	21000		14/8	0.964	96.5	IC3W7	5880	
TBVF-160-30YC ( )	160	25400		16/10	0.967	96.6	IC3W7	7380	710
TBVF-185-30YC ( )	185	29400		19/11	0.968	96.6	IC3W7	7530	
TBVF-200-30YC ( )	200	31800		20/12	0.971	96.8	IC3W7	7810	
TBVF-220-30YC ( )	220	35000		23/14	0.971	96.8	IC3W7	8130	
TBVF-250-30YC ( )	250	39790		26/15	0.973	96.9	IC3W7	8480	
TBVF-280-30YC ( )	280	44500		29/17	0.974	97	IC3W7	8780	
TBVF-315-30YC ( )	315	50100		32/19	0.98	97.4	IC3W7	9090	
TBVF-355-30YC ( )	355	56500		36/21	0.98	97.4	IC3W7	9520	
TBVF-400-40YC ( )	400	63600		40/24	0.982	97.6	IC3W7	11480	800
TBVF-450-40YC ( )	450	71600		45/27	0.983	97.8	IC3W7	12280	
TBVF-500-40YC ( )	500	79500		50/30	0.985	98	IC3W7	13180	
TBVF-560-40YC ( )	560	89100		56/33	0.985	98	IC3W7	14180	
TBVF-630-40YC ( )	630	100200		63/38	0.985	98.2	IC3W7	15450	
TBVF-710-40YC ( )	710	113000		71/42	0.985	98.3	IC3W7	16100	



### 隔爆型高压产品技术参数 -3

#### Technical parameter of the Explosion-proof Products with High Voltage

额定转速：75r/min；调速范围：3~75r/min 调频范围：3~19Hz/25Hz

Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range:3~19Hz/25Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-132-30YC ( )	132	16800	3300/6000	25/14	0.964	96.5	IC416/IC3W7	4900/5200	560
TBVF-160-30YC ( )	160	20370		30/16	0.967	96.6	IC416/IC3W7	5480/5780	
TBVF-160-30YC ( )	160	20370		30/16	0.967	96.6	IC416/IC3W7	7070/7380	710
TBVF-185-30YC ( )	185	23550		35/19	0.968	96.6	IC416/IC3W7	7270/7530	
TBVF-200-30YC ( )	200	25400		37/20	0.971	96.8	IC416/IC3W7	7480/7810	
TBVF-220-30YC ( )	220	28000		41/23	0.971	96.8	IC416/IC3W7	7830/8130	
TBVF-250-30YC ( )	250	31800		46/26	0.973	96.9	IC416/IC3W7	8180/8480	
TBVF-280-30YC ( )	280	35650		52/29	0.974	97	IC416/IC3W7	8480/8780	
TBVF-315-40YC ( )	315	40100		58/32	0.974	97	IC416/IC3W7	8480/8780	
TBVF-315-40YC ( )	315	40100		58/32	0.98	97.4	IC3W7	9520	
TBVF-355-40YC ( )	355	45200		65/36	0.98	97.4	IC3W7	9600	
TBVF-400-40YC ( )	400	50900		73/40	0.982	97.6	IC3W7	10500	
TBVF-450-40YC ( )	450	57300	6000	45	0.983	97.8	IC3W7	11400	
TBVF-500-40YC ( )	500	63660		50	0.983	97.8	IC3W7	12200	
TBVF-560-40YC ( )	560	71300		56	0.985	98	IC3W7	14000	



## 隔爆型高压产品技术参数 -4

### Technical parameter of the Explosion-proof Products with High Voltage

额定转速：75r/min; 调速范围：3~75r/min 调频范围：3~19Hz/25Hz

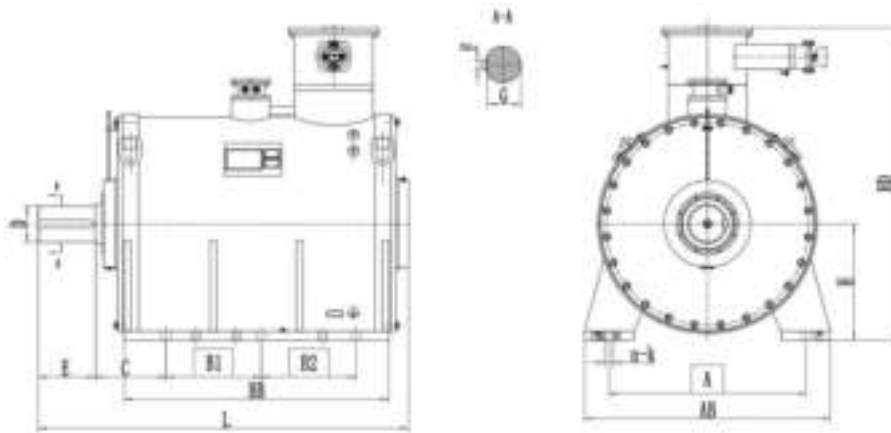
Rated rotate speed: 75r/min; Speed range: 3~75r/min; Frequency tuning range:3~19Hz/25Hz

型号 Type	额定 功率 kW Rated power	额定 转矩 N·m Rated torque	额定 电压 V Rated voltage	额定 电流 A Rated current	功率 因数 cosΦ Power factor	系统 效率 η% System efficiency	冷却 方式 cooling mode	重量 ≈kg weight	机 座 号 Frame size
TBVF-132-30YC ( )	132	16800	6000/10000	14/8	0.964	96.5	IC3W7	5530	560
TBVF-160-30YC ( )	160	20370		16/10	0.967	96.6	IC3W7	5880	
TBVF-185-30YC ( )	185	23550		19/11	0.968	96.6	IC3W7	7380	710
TBVF-200-30YC ( )	200	25400		20/12	0.971	96.8	IC3W7	7530	
TBVF-220-30YC ( )	220	28000		23/14	0.971	96.8	IC3W7	7810	
TBVF-250-30YC ( )	250	31800		26/15	0.973	96.9	IC3W7	8130	
TBVF-280-30YC ( )	280	35650		29/17	0.974	97	IC3W7	8480	
TBVF-315-30YC ( )	315	40100		32/19	0.98	97.4	IC3W7	8780	
TBVF-355-30YC ( )	355	45200		36/21	0.98	97.4	IC3W7	9090	
TBVF-400-40YC ( )	400	50900		40/24	0.982	97.6	IC3W7	9520	
TBVF-450-40YC ( )	450	57300		45/27	0.983	97.8	IC3W7	11480	
TBVF-500-40YC ( )	500	63600		50/30	0.985	98	IC3W7	12280	
TBVF-560-40YC ( )	560	71300		56/33	0.985	98	IC3W7	13180	800
TBVF-630-40YC ( )	630	80200		63/38	0.985	98.2	IC3W7	14180	
TBVF-710-40YC ( )	710	90400		71/42	0.985	98.3	IC3W7	15450	



### 6.4.3.2 隔爆型高压产品外形及安装尺寸

#### Outline and installation dimension of the explosion-proof Products with high voltage



产品外形图 Outline Drawing

#### 产品安装尺寸: Installation dimension

额定转速: 60r/min/75r/min; 调速范围: 3~60r/min/75r/min

Rated rotate speed: 60r/min/75r/min; Speed range: 3~60r/min/75r/min

型号 Type	A	B1	B2	C	D	E	F	G	H	K	AB	BB	HD	L	n	机座号 Frame size
TBVF-110-30YC ( )	1000	295	295	365	170	300	40	157	560	48	1210	1006	1440	1550	6	560
TBVF-132-30YC ( )	1000	295	295	365	170	300	40	157	560	48	1210	1006	1440	1550	6	
TBVF-160-30YC ( )	1000	340	340	365	190	350	45	175	560	48	1210	1030	1440	1810	6	
TBVF-160-30YC ( )	1400	665	665	480	210	350	50	193	710	56	1620	1750	1923	2419	6	710
TBVF-185-30YC ( )	1400	665	665	480	210	350	50	193	710	56	1720	1750	1923	2419	6	
TBVF-200-30YC ( )	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
TBVF-220-30YC ( )	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
TBVF-250-30YC ( )	1400	705	705	480	210	350	50	193	710	56	1720	1990	1923	2659	6	
TBVF-280-30YC ( )	1400	665	665	480	240	350	56	220	710	56	1620	1710	1958	2435	6	
TBVF-315-30YC ( )	1400	705	705	480	240	350	56	220	710	56	1620	1890	1958	2615	6	
TBVF-355-30YC ( )	1400	705	705	480	240	350	56	220	710	56	1620	1890	1958	2615	6	800
TBVF-400-40YC ( )	1600	500	500	485	260	410	56	260	800	56	1960	1710	2105	2420	6	
TBVF-450-40YC ( )	1600	580	580	485	260	410	63	280	800	56	1960	1870	2105	2640	6	
TBVF-500-40YC ( )	1600	580	580	485	260	470	63	280	800	56	1960	1870	2105	2640	6	
TBVF-560-40YC ( )	1600	660	660	485	280	470	70	300	800	56	1960	2030	2105	2800	6	
TBVF-630-40YC ( )	1600	660	660	485	280	470	70	300	800	56	1960	2030	2105	2800	6	
TBVF-710-40YC ( )	1600	740	740	485	300	470	70	278	800	56	1960	2030	2105	2900	6	

注: 根据输出转速和冷却方式不同, C、L 尺寸的准确值, 向生产厂家确认!

According to Rated rotate speed and the cooling mode, the exact value of the C, L dimensions should be confirmed by the producer.

## 七、永磁电动滚筒产品及技术参数

### Introduction of Permanent Magnet Electric Roller

三相永磁同步电动滚筒是将传统的外转子永磁电机与滚筒设计为一体的智能驱动系统，主要应用于带式输送机的电力驱动，替代了原有的异步电机+减速机+液力耦合器+联轴器+传动滚筒等设备组合，实现了产品的轻量化，从结构上简化了传动链，系统运行更稳定，提高了传动系统的可靠性；在设备及系统节能、提高维护性、降低运行成本等方面取得了可观的效果。目前已成功应用于煤炭、水泥、钢铁、电力、港口、有色金属等行业。

The three-phase permanent magnet synchronous electric drum is an intelligent drive system that integrates the traditional outer rotor permanent magnet motor and the drum. It is mainly used in the electric drive of the belt conveyor. It replaces the original asynchronous motor + reducer + hydraulic coupler + coupling + transmission drum and other equipment combinations. It realizes the lightweight of the product, simplifies the transmission chain from the structure, makes the system run more stably, and improves the reliability of the transmission system. It has achieved considerable results in equipment and system energy saving, maintenance improvement and operation cost reduction. At present, it has been successfully applied to coal, cement, steel, electricity, ports, non-ferrous metals and other industries.



## 7.1 中低压系列产品

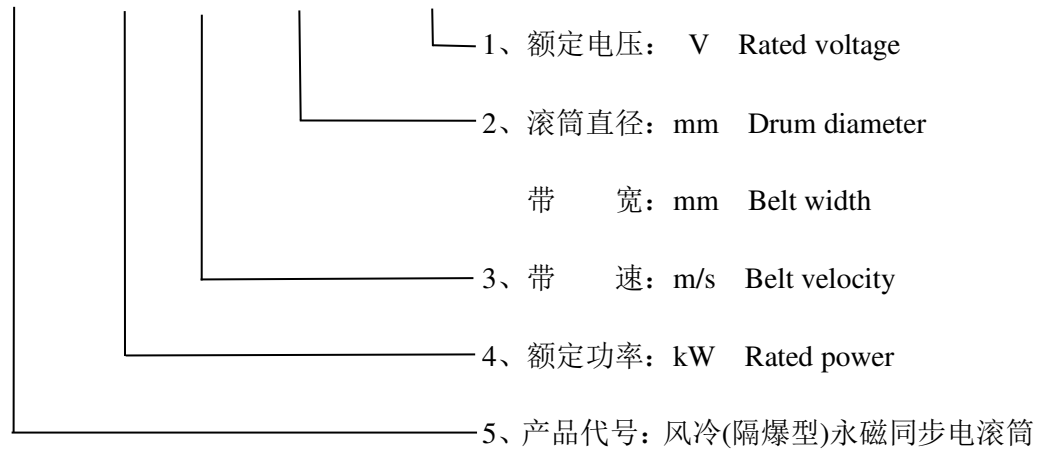
### Introduction of the Low Voltage Product

中低压系列产品分为非隔爆和隔爆型结构，冷却方式为风冷（IC410, IC416）、水冷（IC3W7），电压等级 380V、660V、1140V，额定转速 38r/min~100r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of products. The cooling mode of products is air-cooling(IC410, IC416) and water-cooling (IC3W7). The voltage of the products is 380V/660V/1140V, while the rotate speed range is 38r/min~100r/min. It can be customized according to the actual situation or the endusers' requirments.

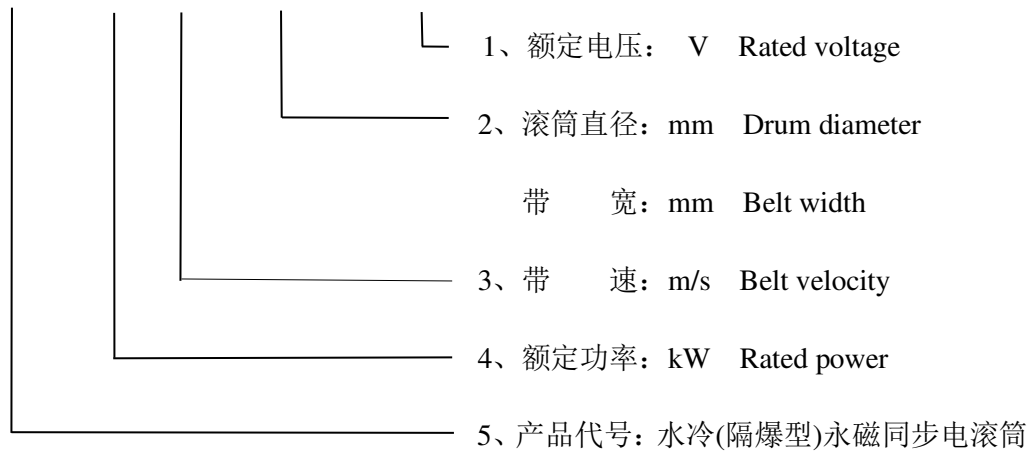
#### 7.1.1、型号说明 Model Specification

FTY(B) 75 - 3.15 - 800×1000 (380)



Product code: Explosion-proof type of permanent magnet electric drum with air cooling

STY(B) 400 - 4.5 - 1250×1400 (1140)



Product code: Explosion-proof type of permanent magnet electric drum with water cooling



## 7.1.2 永磁电动滚筒技术参数

### Technical parameter of Permanent Magnet Electric Roller

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速 额定 (m/s)		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5				
			功率 (kW)	转矩 (N.m)																
500	650	500	11								1100	873	785	687						
650	800	500	11				2199	1718	1374	1222	1100	873	785	687						
			15					2343	1874	1666	1499	1190	1071	937						
			18.5							2311	2055	1849	1468	1321	1156					
			22							2749	2443	2199	1745	1571	1374					
			30										2380	2142	1874					
		630			11			3463	2771	2165	1732	1539	1385	1100	990	866	770	693		
					15				3778	2952	2361	2099	1889	1499	1349	1181	1050	945		
					18.5				4660	3641	2912	2589	2330	1849	1664	1456	1294	1165		
					22						4329	3463	3079	2771	2199	1979	1732	1539	1385	
					30							4723	4198	3778	2999	2699	2361	2099	1889	
					37									5178	4660	3698	3329	2912	2589	2330
					45										5668	4498	4048	3542	3149	2834
800	950	500	11				2199	1718	1374	1222	1100	873	785	687						
			15					2999	2343	1874	1666	1499	1190	1071	937					
			18.5						2889	2311	2055	1849	1468	1321	1156					
			22							3436	2749	2443	2199	1745	1571	1374				
			30									3332	2999	2380	2142	1874				
			37										3698	2935	2642	2311				
			45										4498	3570	3213	2811				
		630			11		4329	3463	2771	2165	1732	1539	1385	1100	990	866	770	693		
					15			4723	3778	2952	2361	2099	1889	1499	1349	1181	1050	945		



800	950	630	18.5			4660	3641	2912	2589	2330	1849	1664	1456	1294	1165
			22			5542	4329	3463	3079	2771	2199	1979	1732	1539	1385
			30				5904	4723	4198	3778	2999	2699	2361	2099	1889
			37					5825	5178	4660	3698	3329	2912	2589	2330
			45					7084	6297	5668	4498	4048	3542	3149	2834
			55							6927	5498	4948	4329	3848	3463
			75								7497	6747	5904	5248	4723
		800	30			9596	7497	5997	5331	4798	3808	3427	2999	2666	2399
			37				9246	7397	6575	5917	4696	4227	3698	3287	2959
			45				11245	8996	7997	7197	5712	5141	4498	3998	3598
			55					10995	9774	8796	6981	6283	5498	4887	4398
			75							11995	9520	8568	7497	6664	5997
			90								11424	10281	8996	7997	7197
			110									12566	10995	9774	8796
125											12495	11106	9996		
132											11728	10555			
1000	1150	500	11		2749	2199	1718	1374	1222	1100	873	785	687		
			15		3748	2999	2343	1874	1666	1499	1190	1071	937		
			18.5			3698	2889	2311	2055	1849	1468	1321	1156		
			22			4398	3436	2749	2443	2199	1745	1571	1374		
			30				4685	3748	3332	2999	2380	2142	1874		
			37					4623	4109	3698	2935	2642	2311		
			45						4998	4498	3570	3213	2811		
			55								4363	3927	3436		
			75										4685		
			90										5623		

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5	
			额定 功率 (kW)	转矩 (N.m)													
1000	1150	630	15		5904	4723	3778	2952	2361	2099	1889	1499	1349	1181	1050	945	
			18.5			5825	4660	3641	2912	2589	2330	1849	1664	1456	1294	1165	
			22			6927	5542	4329	3463	3079	2771	2199	1979	1732	1539	1385	
			30				7557	5904	4723	4198	3778	2999	2699	2361	2099	1889	
			37					7281	5825	5178	4660	3698	3329	2912	2589	2330	
			45					8856	7084	6297	5668	4498	4048	3542	3149	2834	
			55							8659	7697	6927	5498	4948	4329	3848	3463
			75							11807	10495	9446	7497	6747	5904	5248	4723
			90									8996	8096	7084	6297	5668	
			110											8659	7697	6927	
		132												9236	8312		
		800	37					11835	9246	7397	6575	5917	4696	4227	3698	3287	2959
			45					14394	11245	8996	7997	7197	5712	5141	4498	3998	3598
			55						13744	10995	9774	8796	6981	6283	5498	4887	4398
			75							14994	13328	11995	9520	8568	7497	6664	5997
			90								15993	14394	11424	10281	8996	7997	7197
			110									17592	13962	12566	10995	9774	8796
			132										16755	15079	13194	11728	10555
			160												15993	14216	12794
			185													16437	14794
			200														15993
		220														17592	
		900	37					13314	10402	8321	7397	6657	5283	4755	4161	3698	3329
			45					16193	12651	10121	8996	8096	6426	5783	5060	4498	4048
			55					19791	15462	12370	10995	9896	7854	7068	6185	5498	4948
			75						21085	16868	14994	13494	10710	9639	8434	7497	6747

1000	1150	900	90					20241	17992	16193	12852	11566	10121	8996	8096	
			110						21990	19791	15707	14137	12370	10995	9896	
			132							23750	18849	16964	14844	13194	11875	
			160								22847	20563	17992	15993	14394	
			185									23775	20803	18492	16643	
			200										22490	19991	17992	
			220											21990	19791	
			250												22490	
		1000	1000	55				17180	13744	12217	10995	8726	7854	6872	6108	5498
				75					18742	16659	14994	11900	10710	9371	8330	7497
				90						19991	17992	14280	12852	11245	9996	8996
				110							21990	17453	15707	13744	12217	10995
				132								20943	18849	16493	14660	13194
				160								25386	22847	19991	17770	15993
	185													23115	20547	18492
	200													24989	22213	19991
	220														24434	21990
	250															24989
	75						25770	20616	18325	16493	13090	11781	10308	9163	8246	
	90							24739	21990	19791	15707	14137	12370	10995	9896	
	110								26877	24190	19198	17278	15118	13439	12095	
	132										23038	20734	18142	16126	14514	
	160										27924	25132	21990	19547	17592	
	185											29059	25426	22601	20341	
	200												27488	24434	21990	
	220													26877	24190	
	250												27488			

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速 (m/s)		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5		
			额定 转矩 (N.m)	功率 (kW)														
1200	1400	800	45			17992	14394	11245	8996	7997	7197	5712	5141	4498	3998	3598		
			55				17592	13744	10995	9774	8796	6981	6283	5498	4887	4398		
			75					18742	14994	13328	11995	9520	8568	7497	6664	5997		
			90						17992	15993	14394	11424	10281	8996	7997	7197		
			110							21990	19547	17592	13962	12566	10995	9774	8796	
			132									21111	16755	15079	13194	11728	10555	
			160										20309	18278	15993	14216	12794	
			185											21134	18492	16437	14794	
			200												19991	17770	15993	
			220													21990	19547	17592
		250														22213	19991	
		280															22390	
				900	55				19791	15462	12370	10995	9896	7854	7068	6185	5498	4948
					75				26988	21085	16868	14994	13494	10710	9639	8434	7497	6747
					90					25302	20241	17992	16193	12852	11566	10121	8996	8096

1200	1400	900	110					24739	21990	19791	15707	14137	12370	10995	9896
			132					29687	26389	23750	18849	16964	14844	13194	11875
			160							28788	22847	20563	17992	15993	14394
			185								26417	23775	20803	18492	16643
			200								28559	25703	22490	19991	17992
			220									28273	24739	21990	19791
			250										28113	24989	22490
			280											27988	25189
			315												28338
		1000	75			29987	23427	18742	16659	14994	11900	10710	9371	8330	7497
			90				28113	22490	19991	17992	14280	12852	11245	9996	8996
			110					27488	24434	21990	17453	15707	13744	12217	10995
			132						29321	26389	20943	18849	16493	14660	13194
			160							31986	25386	22847	19991	17770	15993

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5		
			额定 功率 (kW)	额定 转矩 (N.m)														
1200	1400	1000	185									29352	26417	23115	20547	18492		
			200										31732	28559	24989	22213	19991	
			220											31415	27488	24434	21990	
			250												31236	27766	24989	
			280													31098	27988	
			315														34985	31486
			355															35485
		1250	90			44981	35141	28113	24989	22490	17849	16064	14056	12495	11245			
			110				42950	34360	30542	27488	21816	19634	17180	15271	13744			
			132				51540	41232	36651	32986	26179	23561	20616	18325	16493			
			160					49978	44425	39983	31732	28559	24989	22213	19991			
			185						57787	51367	46230	36690	33021	28894	25683	23115		
			200							55531	49978	39665	35699	31236	27766	24989		
			220								54976	43632	39269	34360	30542	27488		
			250									49582	44624	39046	34707	31236		
			280										55531	49978	43731	38872	34985	
			315											56226	49197	43731	39358	
			355												55445	49284	44356	
			400													55531	49978	
			450															56226
1400	110			61573	48104	38483	34207	30787	24434	21990	19242	17104	15393					

1200	1400		132				57725	46180	41049	36944	29321	26389	23090	20524	18472	
			160					55976	49756	44781	35540	31986	27988	24878	22390	
			185					64722	57531	51778	41093	36984	32361	28765	25889	
			200					69970	62195	55976	44425	39983	34985	31098	27988	
			220						68415	61573	48868	43981	38483	34207	30787	
			250							69970	55531	49978	43731	38872	34985	
			280								62195	55976	48979	43537	39183	
			315								69970	62973	55101	48979	44081	
			355									70969	62098	55198	49678	
			400										69970	62195	55976	
			450											69970	62973	
			500												69970	
1400	1600	800	55		21990	17592	13744	10995	9774	8796	6981	6283	5498	4887	4398	
			75			23990	18742	14994	13328	11995	9520	8568	7497	6664	5997	
			90				22490	17992	15993	14394	11424	10281	8996	7997	7197	
			110					21990	19547	17592	13962	12566	10995	9774	8796	
			132						26389	23456	21111	16755	15079	13194	11728	10555
			160								25589	20309	18278	15993	14216	12794
			185									23482	21134	18492	16437	14794
			200									25386	22847	19991	17770	15993
			220										25132	21990	19547	17592
			250											24989	22213	19991
			280												24878	22390
			315													25189

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5
			额定 功率 (kW)	额定 转矩 (N.m)												
1400	1600	1400	132				57725	46180	41049	36944	29321	26389	23090	20524	18472	
		1400	160			89561	69970	55976	49756	44781	35540	31986	27988	24878	22390	
		1400	185				80902	64722	57531	51778	41093	36984	32361	28765	25889	
		1400	200					69970	62195	55976	44425	39983	34985	31098	27988	
		1400	220					76967	68415	61573	48868	43981	38483	34207	30787	
		1400	250						77744	69970	55531	49978	43731	38872	34985	
		1400	280							78366	62195	55976	48979	43537	39183	
		1400	315								69970	62973	55101	48979	44081	
		1400	355								78855	70969	62098	55198	49678	
		1400	400									79965	69970	62195	55976	
		1400	450										78716	69970	62973	
		1400	500											77744	69970	
		1400	560												78366	
1600	1800	800	75			23990	18742	14994	13328	11995	9520	8568	7497	6664	5997	
		800	90				22490	17992	15993	14394	11424	10281	8996	7997	7197	
		800	110				27488	21990	19547	17592	13962	12566	10995	9774	8796	
		800	132					26389	23456	21111	16755	15079	13194	11728	10555	
		800	160						28432	25589	20309	18278	15993	14216	12794	
		800	185							29587	23482	21134	18492	16437	14794	
		800	200								25386	22847	19991	17770	15993	
		800	220								27924	25132	21990	19547	17592	
		800	250									28559	24989	22213	19991	
		800	280										27988	24878	22390	
		800	315											27988	25189	
		800	355												28388	



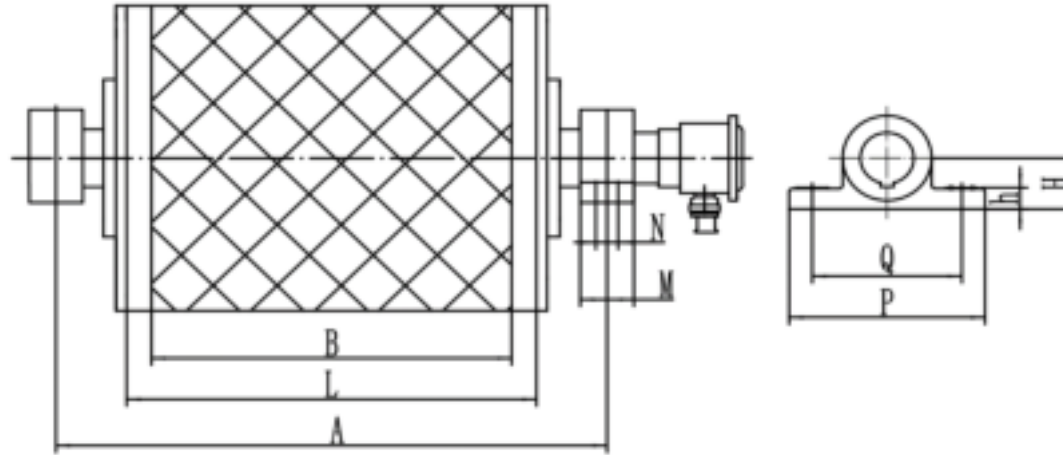
1600	1800	900	90			32386	25302	20241	17992	16193	12852	11566	10121	8996	8096
		900	110			39583	30924	24739	21990	19791	15707	14137	12370	10995	9896
		900	132				37109	29687	26389	23750	18849	16964	14844	13194	11875
		900	160					35984	31986	28788	22847	20563	17992	15993	14394
		900	185					41607	36984	33286	26417	23775	20803	18492	16643
		900	200						39983	35984	28559	25703	22490	19991	17992
		900	220							39583	31415	28273	24739	21990	19791
		900	250								35699	32129	28113	24989	22490
		900	280								39983	35984	31486	27988	25189
		900	315									40482	35422	31486	28338
		900	355										39920	35485	31936
		900	400												35984
		1000	110			43981	34360	27488	24434	21990	17453	15707	13744	12217	10995
		1000	132				41232	32986	29321	26389	20943	18849	16493	14660	13194
		1000	160					39983	35540	31986	25386	22847	19991	17770	15993
		1000	185					46230	41093	36984	29352	26417	23115	20547	18492
		1000	200						44425	39983	31732	28559	24989	22213	19991
		1000	220							43981	34906	31415	27488	24434	21990
		1000	250								39665	35699	31236	27766	24989
		1000	280								44425	39983	34985	31098	27988
		1000	315									44981	39358	34985	31486
		1000	355										44356	39427	35485
		1000	400											44425	39983
		1000	450												44981

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速 (m/s)		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5			
			额定 功率 (kW)	额定 转矩 (N.m)															
1600	1800	1100		132				45355	36284	32253	29027	23038	20734	18142	16126	14514			
				160						43981	39094	35185	27924	25132	21990	19547	17592		
				185							50853	45203	40682	32288	29059	25426	22601	20341	
				200							54976	48868	43981	34906	31415	27488	24434	21990	
				220								53754	48379	38396	34556	30237	26877	24190	
				250									54976	43632	39269	34360	30542	27488	
				280										48868	43981	38483	34207	30787	
				315											49479	43294	38483	34635	
				355												48791	43370	39033	
				375													51540	45813	41232
				400													54976	48868	43981
				450														54976	49479
			500															54976	
				1250		132			65971	51540	41232	36651	32986	26179	23561	20616	18325	16493	
					160					62473	49978	44425	39983	31732	28559	24989	22213	19991	
					185					72234	57787	51367	46230	36690	33021	28894	25683	23115	
					200						62473	55531	49978	39665	35699	31236	27766	24989	
					220						68720	61085	54976	43632	39269	34360	30542	27488	
					250							69414	62473	49582	44624	39046	34707	31236	
					280								69970	55531	49978	43731	38872	34985	
					315									62473	56226	49197	43731	39358	
					355									70406	63365	55445	49284	44356	

1600	1800		375							74373	66935	58568	52061	46855		
			400								71398	62473	55531	49978		
			450										70282	62473	56226	
			500											69414	62473	
			560												69970	
		1400	160			89561	69970	55976	49756	44781	35540	31986	27988	24878	22390	
			185				80902	64722	57531	51778	41093	36984	32361	28765	25889	
			200				87462	69970	62195	55976	44425	39983	34985	31098	27988	
			220				96208	76967	68415	61573	48868	43981	38483	34207	30787	
			250					87462	77744	69970	55531	49978	43731	38872	34985	
			280					97958	87073	78366	62195	55976	48979	43537	39183	
			315						97958	88162	69970	62973	55101	48979	44081	
			355							99357	78855	70969	62098	55198	49678	
			375								104955	83297	74968	65597	58308	52477
			400									88850	79965	69970	62195	55976
			450									99957	89961	78716	69970	62973
			500										99957	87462	77744	69970
			560											97958	87073	78366
			630												97958	88162
			710													99357

### 7.1.3 中低压产品外形及安装尺寸

#### Outline and installation dimension of the Products with low voltage



滚筒直径 D(mm)	带宽 B(mm)	主要尺寸 (mm)								
		A	L	M	N	Q	P	H	h	dO
630	650	1100	750	110		480	570	155	43	M30
	800	1300	950	110		480	570	155	43	M30
	1000	1500	1150	110		480	570	155	43	M30
	1200	1750	1400	110		480	570	155	43	M30

滚筒直径 D(mm)	带宽 B(mm)	主要尺寸 (mm)								
800	800	1400	950	150		420	550	150	60	M30
	1000	1600	1150	150		420	550	150	60	M30
	1200	1850	1400	150		420	550	150	60	M30
	1400	2050	1600	150		420	550	150	60	M30
900	800	1375	950	140		420	550	150	60	M30
	1000	1575	1150	140		420	550	150	60	M30
	1200	1825	1400	140		420	550	150	60	M30
	1400	2025	1600	140		420	550	150	60	M30
1000	800	1450	950	275	140	720	880	210	80	M36
	1000	1650	1150	275	140	720	880	210	80	M36
	1200	1900	1400	275	140	720	880	210	80	M36
	1400	2100	1600	275	140	720	880	210	80	M36
1100	1000	1650	1150	275	140	720	880	210	80	M36
	1200	1900	1400	275	140	720	880	210	80	M36
	1400	2100	1600	275	140	720	880	210	80	M36
1250	1000	1850	1150	320	170	750	900	240	90	M36
	1200	2100	1400	320	170	750	900	240	90	M36
	1400	2300	1600	320	170	750	900	240	90	M36
1400	1000	1870	1150	320	170	750	900	290	125	M36
	1200	2070	1400	320	170	750	900	290	125	M36
	1400	2270	1600	320	170	750	900	290	125	M36



## 7.2 高压系列产品

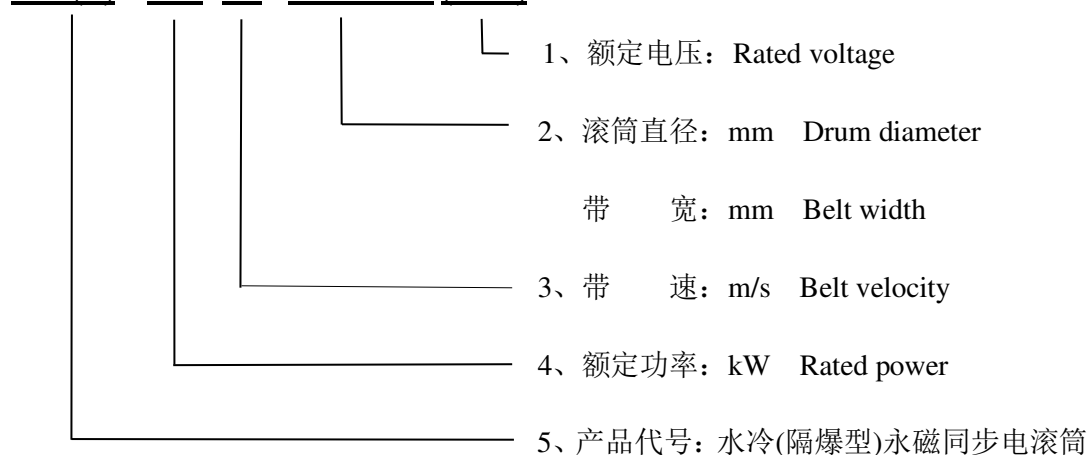
### Introduction of the High Voltage Product

高压系列产品分为非隔爆和隔爆型结构，冷却方式为风冷(IC416)、水冷(IC3W7)，电压等级 6000V、10000V，额定转速 60r/min~100r/min，也可以根据用户要求或实际工况进行设计生产。

The explosion-proof structure is applied to the series of product. The cooling mode of products is air-cooling(IC411, IC416) and water-cooling (IC3W7). The voltage of the products is 6000V/10000V, while the rotate speed range is 60r/min. It can be customized according to the actual situation or the endusers' requirments.

#### 7.2.1、型号说明 Model Specification

STY(B) 400 - 4.5 - 1100×1800 (6000)



Product code: Explosion-proof type of permanent magnet electric drum with water cooling

#### 7.2.2 永磁电动滚筒技术参数

### Technical parameter of Permanent Magnet Electric Roller

带宽 (mm)	筒长 (mm)	筒径 (mm)	带速 (m/s)		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5		
			额定 功率 (kW)	额定 转矩 (N.m)														
1400	1600	900	185										23775	20803	18492	16643		
			200												22490	19991	17992	
			220													24739	21990	19791
			250														24989	22490
		1000	185											29352	26417	23115	20547	18492
			200												28559	24989	22213	19991
			220													27488	24434	21990
			250														27766	24989
		1100	220											38396	34556	30237	26877	24190
			250												39269	34360	30542	27488
			280													38483	34207	30787
		1250	250											49582	44624	39046	34707	31236
			280												49978	43731	38872	34985
			315													49197	43731	39358
		1400	220										61573	48868	43981	38483	34207	30787
			250											55531	49978	43731	38872	34985
			280												55976	48979	43537	39183
			315													55101	48979	44081
			355														55198	49678

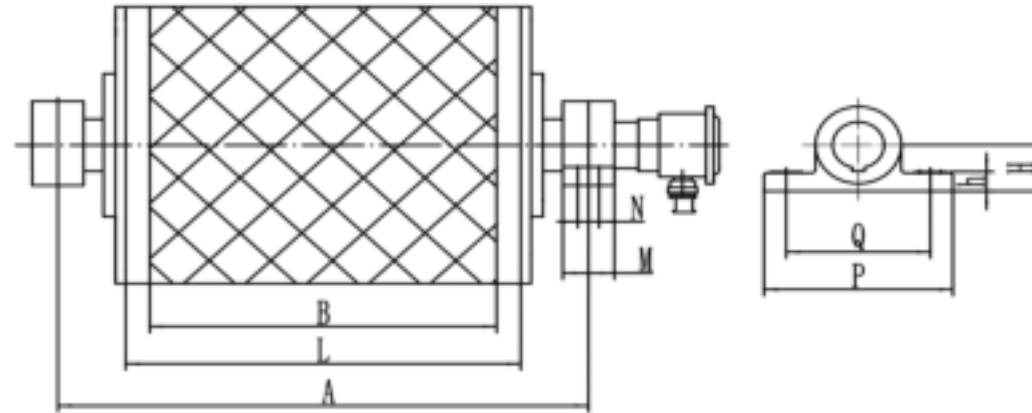
1600	1800	900	185							26417	23775	20803	18492	16643	
			200								25703	22490	19991	17992	
			220									24739	21990	19791	
			250										24989	22490	
			280											25189	
		1000	200								31732	28559	24989	22213	19991
			220									31415	27488	24434	21990
			250										31236	27766	24989
			280											31098	27988
		1100	200							43981	34906	31415	27488	24434	21990
			220								38396	34556	30237	26877	24190
			250								43632	39269	34360	30542	27488
			280									43981	38483	34207	30787
			315											38483	34635
		1250	250							62473	49582	44624	39046	34707	31236
			280								55531	49978	43731	38872	34985
			315									56226	49197	43731	39358
			355										55445	49284	44356
		1400	280							78366	62195	55976	48979	43537	39183
			315								69970	62973	55101	48979	44081
355										70969	62098	55198	49678		
400											69970	62195	55976		



带宽 (mm)	筒长 (mm)	筒径 (mm)	带速		0.8	1	1.25	1.6	2	2.25	2.5	3.15	3.5	4	4.5	5	
			额定 功率 (kW)	转矩 (N.m)													
1800	2000	1000	250								49978	39665	35699	31236	27766	24989	
			280										44425	39983	34985	31098	27988
			315											44981	39358	34985	31486
			355												44356	39427	35485
		1100	250									54976	43632	39269	34360	30542	27488
			280									61573	48868	43981	38483	34207	30787
			315										54976	49479	43294	38483	34635
			355											55762	48791	43370	39033
			400												54976	48868	43981
			450													54976	49479
		1250	280								77744	69970	55531	49978	43731	38872	34985
			315									78716	62473	56226	49197	43731	39358
			355										70406	63365	55445	49284	44356
			400											71398	62473	55531	49978
			450												70282	62473	56226
			500													69414	62473
		1400	280								87073	78366	62195	55976	48979	43537	39183
			315								97958	88162	69970	62973	55101	48979	44081
			355									99357	78855	70969	62098	55198	49678
			400										88850	79965	69970	62195	55976
			450										99957	89961	78716	69970	62973
			500											99957	87462	77744	69970
			560												97958	87073	78366

### 7.2.3 高压产品外形及安装尺寸

#### Outline and installation dimension of the Products with high voltage



滚筒直径 D(mm)	带宽 B(mm)	主要尺寸 (mm)								
		A	L	M	N	Q	P	H	h	dO
900	1400	2250	1600	140		420	550	150	60	M30
	1600	2450	1800	140		420	550	150	60	M30
1000	1400	2250	1600	275	140	720	880	210	80	M36
	1600	2450	1800	275	140	720	880	210	80	M36
	1800	2650	2000	275	140	720	880	210	80	M36
1100	1400	2250	1600	270	170	750	900	240	90	M36
	1600	2450	1800	270	170	750	900	240	90	M36
	1800	2650	2000	270	170	750	900	240	90	M36
1250	1400	2250	1600	320	170	750	900	240	90	M36
	1600	2450	1800	320	170	750	900	240	90	M36
	1800	2650	2000	320	170	750	900	240	90	M36
1400	1400	2250	1600	320	170	750	900	240	90	M36
	1600	2450	1800	320	170	750	900	240	90	M36
	1800	2650	2000	320	170	750	900	240	90	M36

## 八、其他产品简介 Introduction of Other Production

公司经过多年努力，已基本完成对煤炭、水利、水泥、港口码头和橡塑化工等行业低速大扭矩永磁电机智能驱动系统的研发，产品已实现从低压到高压的系列化、模块化、标准化生产，对下列关键设备可提供永磁电机驱动系统范围：

After years' endeavor, the company has basically completed the major research and development of the intelligent drive system of permanent magnet motor with low-speed and big torque in the coal/cementing/water conservancy/ harbor enterprise/ plastic products and chemical industry. We have achieved the process for low and high-voltage-serialized, modularized and standardized production. The scope of supply production for the key equipment is showed as following:

### 港口行业：

#### 门座式起重机用永磁电机驱动系统系列 PMSM for Portal Crane

功率范围 (power range) : 90kW~355kW

转速范围 (speed range) : 15r/min~19.2r/min

额定电压 (rated voltage): 380V

传动方式：直交轴联结

Transmission mode: Intersecting connection



### 水利行业：

#### 低速泵专用永磁电机驱动系统系列 PMSM for Pump with Low Speed

(斜式轴流泵，立式轴流泵，竖井贯流泵，潜水贯流泵等)

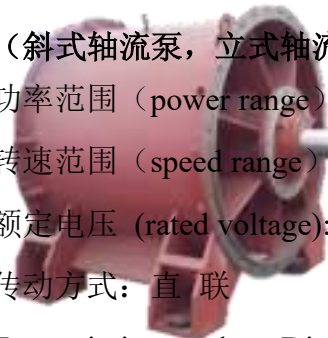
功率范围 (power range) : 55kW~3000kW

转速范围 (speed range) : 根据客户要求

额定电压 (rated voltage): 380V~10000V

传动方式：直联

Transmission mode: Direct connection





## 水泥行业:

### 提升机用永磁电机驱动系统系列 PMSM for Bucket Elevator

功率范围 (power range) : 11kW~200kW

转速范围 (speed range) : 10~50r/min

额定电压 (rated voltage): 380V

传动方式 : 直联、直交轴联结

Transmission mode: Direct connection, intersecting connection



### 选粉机/冷却塔风机用永磁电机驱动系统系列 PMSM for Separator

功率范围 (power range) : 55kW~400kW

转速范围 (speed range) : 50~300r/min

额定电压 (rated voltage): 380V

传动方式 : 直联

Transmission mode: Direct connection



### 辊压机/球磨机用永磁电机驱动系统系列 PMSM for Roller Press/Ball Mill

功率范围 (power range) : 400kW~2500kW

转速范围 (speed range) : 根据客户要求

额定电压 (rated voltage): 6000V,10000V

传动方式 : 直联(辊压机); 边沿传动、中心传动(球磨机)

Transmission mode: Direct connection; Rim drive, center drive



## 橡塑化工行业:

### 开炼机/密炼机用永磁电机驱动系统系列 PMSM for Open mill/Internal Mixer

功率范围 (power range) : 55kW~2500kW

转速范围 (speed range) : 根据客户要求

额定电压 (rated voltage): 380V~10000V

传动方式: 直联

Transmission mode: Direct connection



## 订货须知 **Information for Delivery**

1、本样本为基本选型手册，供用户选型参考。为达到最佳的电机应用效果，建议用户结合自身设备的具体使用情况（例如：工作制、负载率等因素）进行选型，我公司可根据用户具体要求对电机参数指标进行量身订制；

This pamphlet is a basic model selection manual and is just for customer's reference. In order to reach the optimized application effect, we suggest that customers select the motor model according to the actual application of their own equipment, such as working system, load rate etc. Our company can design and manufacture motors according to the concrete requirement of the customers.

2、低速大扭矩永磁电机驱动系统的起动和运行需要配置专用变频器，我公司可成套提供各品牌永磁电机专用变频器；

Special frequency converter is necessary for starting and operation of the permanent magnet motors with low speed and big torque. Our company can supply special frequency converters of different brand for permanent magnet motors.

3、低速大扭矩永磁电机驱动系统的安装形式及安装尺寸均可按用户要求研发和加工生产，个性化定制；

For the mounting mode and dimension of the drive system of the permanent magnet motors with low speed and big torque, it can be customized.

4、客户在订购电机时请按订货表格填写电机参数、低速大扭矩永磁电机驱动系统的输出轴形式以及相关的技术要求，便于技术方案设计及电机报价。

Please fill the delivery form, writing clearly the motor parameters, the mode of the output shaft of the permanent magnet motors with low speed and big torque and the related technical requirement for design and quotation.

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**特此声明!**

**Hereby it is declared.**

日照东方电机有限公司  
**Rizhao Oriental Motor Co., Ltd**



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