

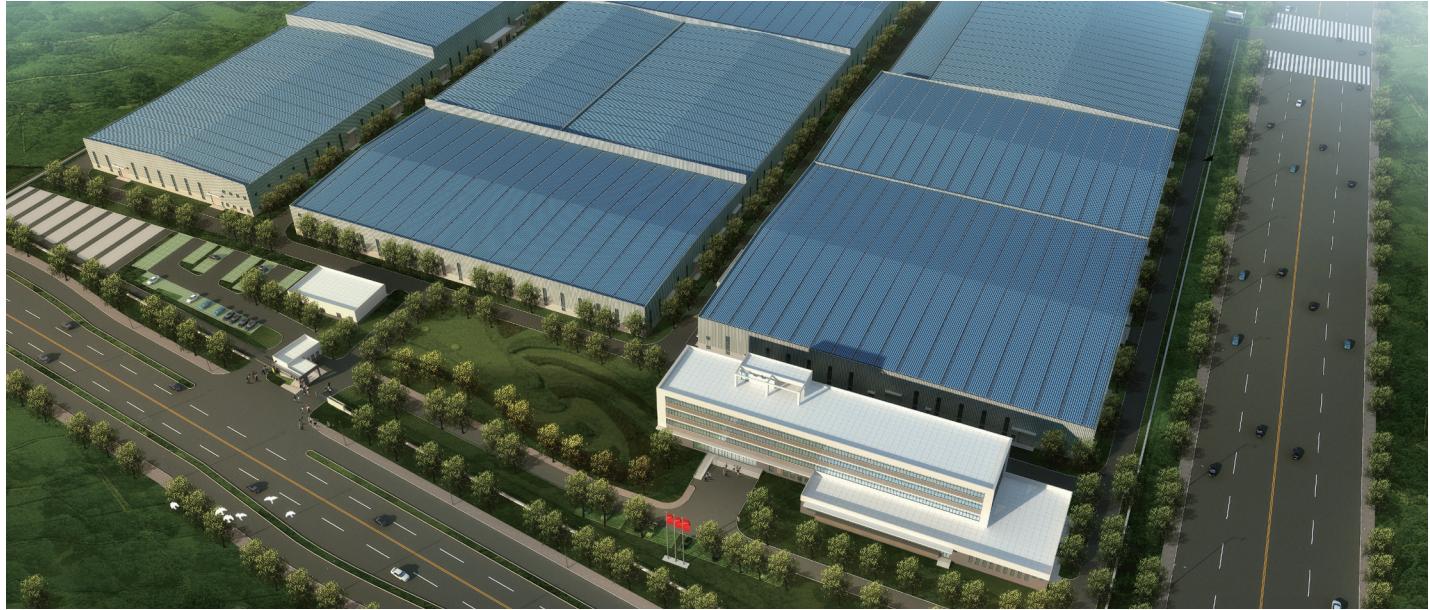


1MT0003 隔爆型三相异步电动机
1MT0003 series Flameproof Low Voltage
Three-phase Asynchronous Motor

产品样本 Catalogue
2023.05



公司概况 Company Profile



西门子电机（中国）有限公司 Siemens Standard Motors Ltd. (SSML)

西门子电机（中国）有限公司是西门子在中国的独资企业，位于江苏省仪征市，公司主要致力于研发和生产中小型低压三相异步电动机。目前生产符合 IEC 标准的西门子品牌三相异步电动机、以及按中国标准设计的贝得品牌系列三相异步电动机。

作为西门子在全球中小型低压电机产品的重要生产基地之一，公司坚持秉承西门子 100 多年的电动机设计和生产经验和先进技术，拥有先进的生产设备和生产工艺，采用西门子特色的现代化管理模式，严格按照国际标准 ISO9001:2015 实施全面质量管理，竭诚为广大客户提供优质的产品和服务！

Siemens Standard Motors Ltd. (SSML) is a Siemens-owned company in China. SSML is located in Yizheng City, Jiangsu Province. The company focuses on developing and producing small and medium low-voltage motors. Currently, SSML mainly produce Siemens brand low voltage AC motors according to IEC standards, and Beide brand low voltage motors designed according to China local standards.

As one of Siemens main low-voltage motor production facilities worldwide, SSML uses the knowledge and experience of more than 100 years in motor design and manufacturing, owns the advanced manufacture equipment and process, adopts the SIEMENS modern management model , and implements comprehensive quality control according to ISO9001 2015. SSML will continuously serve customers with high quality products and good service.

公司概况 Company Profile



质量方针

- 质量从我做起，第一次把事情做对。
- 鼓励员工发现问题并勇于承担责任。
- 拒不接受不合格产品。
- 持续改进我们的流程，超越客户期望。

Quality Guideline

- Quality starts with me, Do it right in the first time.
- Encourage our employee to address problem openly and take responsibility.
- Refuse to accept defective product.
- Continuously improve our process to exceed customer's expectation.

环境方针

西门子电机（中国）有限公司的环境、职业健康和安全方针是：

- 我们依据 ISO14001:2015 和 ISO 45001-2018 标准的要求，有效建立、实施环境和职业健康安全管理体系，不断提高，持续改进。
- 我们承诺遵守环境、职业健康安全相关的法律法规，履行环境保护及职业健康安全防护职责。
- 我们致力于履行应负的社会责任和义务，合理使用资源，保护环境，加强职业健康安全管理，实现安全生产零伤害。

Environmental Guideline

EHS Policy of Siemens Standard Motors Ltd. is as follows:

- We institute and implement a continuously improving management system addressing our environment, occupational health and safety in compliance with the requirements of ISO14001:2015 and ISO 45001-2018 criteria.
- We commit ourselves to abiding by the environmental, occupational health and safety laws and regulations, and fulfilling our duties in environmental protecting and occupational health safeguarding.
- We commit ourselves to the fulfillment of our social responsibility and obligation, properly harnessing resources, protecting our environment, enhancing occupational health and safety management with the ultimate goal of zero harm in our production process.

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概览 Overview

在许多工业和公共部门，爆炸危险一直存在，例如在化学工业、炼油厂、钻井平台、加油站、饲料制造和污水处理厂。当爆炸性的气体、烟雾、雾气或尘埃与空气中的氧气以一定的易爆炸比例混合时，如果有接近于能够释放所谓最小点火能量的着火源，会存在爆炸的风险。

为了保证在这些地区的安全性，大多数国家的立法者都根据国家和国际的标准，以法律和法规的形式制定和实施了适当的规定。防爆设备的设计可以使正确使用这些设备时避免爆炸。

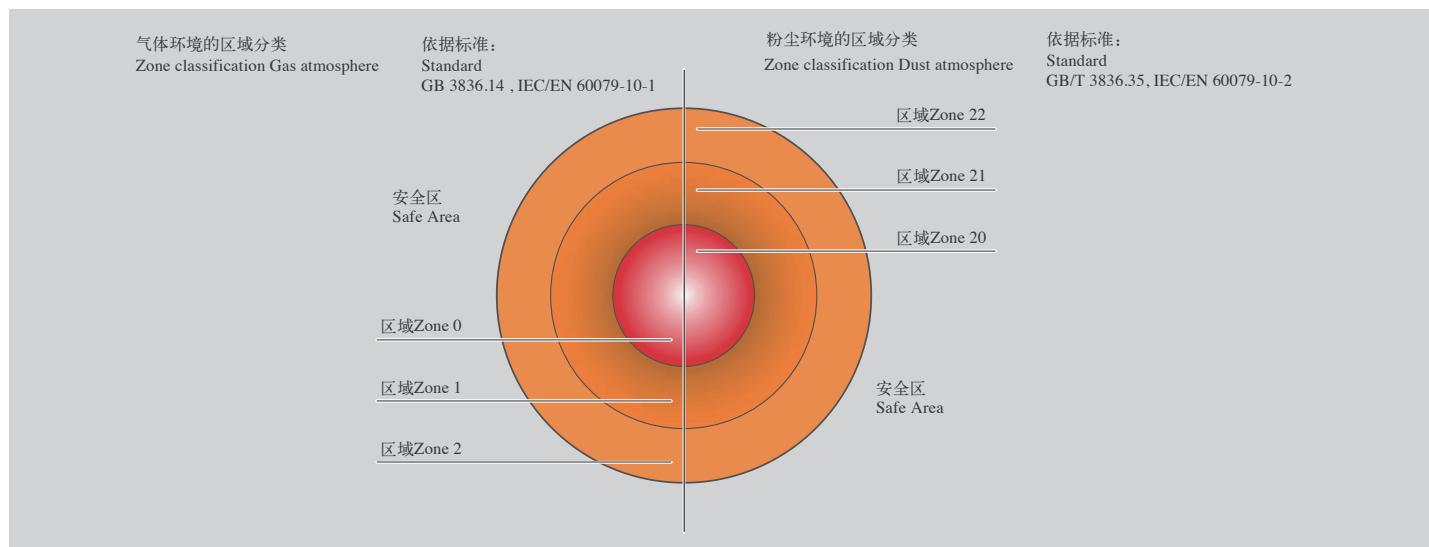
防爆设备可以根据不同类型的保护来设计。

区域的分类

有爆炸风险的场所被划分为不同的区域。划分区域的标准取决于危险物质存在的时间以及发生危险的概率。各个区域分类的信息和规则遵循以下标准：

- GB 3836.14, IEC/EN 60079-10-1 适用于气体环境
- GB/T 3836.35, IEC/EN 60079-10-2 适用于粉尘环境

此外，在不同的爆炸分组和温度等级之间进行了分类，这些都包含在危险等级评估中。



根据各区域的分类和存在的危险，所使用的设备必须满足最低防护要求。设备必须在符合要求的工况下使用，以避免点燃外部的爆炸性环境。

In many industrial and public industries, explosion hazards are ever-present, e.g. the chemicals industry, refineries, on drilling platforms, gas stations, feed manufacturing and sewage treatment plants. The risk of explosion is always present when gases, fumes, mist or dust are mixed with oxygen in the air in an explosive ratio close to sources of ignition that are able to release the so-called minimum ignition energy.

To ensure safety in these areas, legislators in most countries have implemented appropriate stipulations in the form of laws and regulations based on national and international standards. Explosion-protected equipment is designed such that an explosion can be prevented when it is used properly.

Classification of zones

Areas subject to explosion hazard are divided into zones. Zoning is based on the presence time of explosive substances and probability of explosion. Information and specifications for classification of the zones are laid down in the following standards:

- GB 3836.14, IEC/EN 60079-10-1 for gas atmospheres
- GB/T 3836.35, IEC/EN 60079-10-2 for dust atmospheres

Furthermore, a distinction is made between various explosion groups as well as temperature classes and these are included in the hazard assessment.

Depending on the particular zone and therefore the associated hazard, operating equipment must comply with defined minimum requirements regarding the type of protection. The different types of protection require corresponding measures to prevent ignition that should be implemented at the motor in order to prevent a surrounding explosive atmosphere from being ignited.

区域 Zone		区域定义的标准： Zone definition acc. to GB 3836.14 & IEC/EN 60079-10-1 用于气体环境 for gas atmospheres GB/T 3836.35 & IEC/EN 60079-10-2 用于粉尘环境 for dust atmospheres	分配保护类型 Assigned types of protection	分类根据 Category according to 2014/34/EU	设备保护等级根据 Equipment protection level acc. to GB/T 3836.1 & IEC/EN 60079-0
气体 Gas ^{1) 2)}	粉尘 Dust ^{1) 2)}	持续、长时间或频繁存在爆炸性气体环境的区域 An area in which there is an explosive gas atmosphere constantly, over a long period or frequently.		不允许低压电机使用 Low-voltage motors not permitted	1 Ga
0	-	在正常运行过程中，预计偶尔会出现爆炸性气体环境的区域 An area in which it is expected that an explosive gas atmosphere will occur occasionally during normal operation.		Ex eb, Ex db eb, Ex db	2 Gb
1	-	在正常运行过程中，预计很少或只短暂出现爆炸性气体环境的区域 An area in which it is expected that an explosive gas atmosphere will occur only rarely and then only briefly during normal operation.		Ex ec	3 Gc
-	20	持续、长时间或频繁存在由粉尘-空气混合物组成的爆炸性气体环境的区域 An area in which there is an explosive gas atmosphere comprising a dust-air mixture constantly, over a long period or frequently.		不允许低压电机使用 Low-voltage motors not permitted	1 Da
-	21	在正常运行的过程中，预计会偶尔存在由粉尘-空气混合物组成的爆炸性气体环境的区域 An area in which it is expected that an explosive gas atmosphere comprising a dust-air mixture will occur occasionally during normal operation.		Ex tb	2 Db
-	22	在正常运行的过程中，预计很少或只短暂在空气中形成一团易燃尘埃的爆炸性气体环境的区域 An area in which it is expected that an explosive gas atmosphere in the form of a cloud of flammable dust in air will occur only rarely and then only briefly during normal operation.		Ex tc ³⁾	3 Dc

¹⁾ 电机用于

- 区域 1 也可以用于区域 2。
- 区域 21 也可以用于区域 22。

²⁾ 若电机仅有气体防爆认证或粉尘防爆认证，不允许在混合环境中使用。混合环境：爆炸性的气体和粉尘同时在大气环境中存在。

³⁾ Ex tc 电机不允许在含有导电粉尘的环境中运行。

¹⁾ Motors of

- Zone 1 can also be used in Zone 2.
- Zone 21 can also be used in Zone 22.

²⁾ Motors which are certified for gas or dust protection must not be used in hybrid mixtures! Hybrid mixtures: when explosive gas and dust atmospheres occur simultaneously.

³⁾ Ex tc motors are not approved for operation in environments containing conductive dust.

应用

以下情况常常需要选用防爆电机，以防止爆炸对人造成严重伤害和对财产造成严重损失。

- 化工和石化行业
- 矿物油和天然气生产
- 煤气产业
- 煤气供应公司
- 加油站
- 焦化厂
- 磨粉厂 (例如：玉米，固体)
- 污水处理厂
- 木材加工(例如：木屑，树脂)
- 其他易受爆炸危害的行业

Application

The explosion-proof motors are often used in the following industries to prevent explosion hazards that result in serious injury to persons and severe damage to property.

- Chemical and petrochemical industry
- Production of mineral oil and gas
- Gas works
- Gas supply companies
- Petrol stations
- Coking plants
- Mills (e.g. corn, solids)
- Sewage treatment plants
- Wood processing (e.g. sawdust, tree resin)
- Other industries subject to explosion hazards

气体和蒸汽的隔爆等级 Flameproof class of gases and vapors

使用场所 Location	标准代号 Code of standard GB/T 3836.1 / GB/T 3836.2 / IEC60079-0 / IEC60079-1 隔爆等级 Flameproof class
矿用 For Mines	d I
除煤矿以外的爆炸性气体环境 Explosive gas environment except mines	d II A
	d II B
	d II C

按爆炸性混合物的自然温度 (°C) 分组 Temperature classes

电子设备的温度等级 Temperature class of electrical equipment	电子设备的最大表面温度 IMaximum surface temperature of electrical equipment	气体或蒸汽的点燃温度 Ignition temperature of gases or vapors
T1	450°C	> 450°C
T2	300°C	> 300°C
T3	200°C	> 200°C
T4	135°C	> 135°C
T5	100°C	> 100°C
T6	85°C	> 85°C

根据爆炸组别和温度等级对气体和蒸汽分类

Classification of gases and vapors into explosion groups and temperature classes

爆炸性 气体分组 explosion group	按爆炸性混合物的自然温度 (°C) 分组 Temperature classes					
	T1 (450)	T2 (300)	T3 (200)	T4 (135)	T5 (100)	T6 (85)
材料名称 Material designation	材料名称 Material designation	材料名称 Material designation	材料名称 Material designation	材料名称 Material designation	材料名称 Material designation	材料名称 Material designation
IIA (MESG≥0.9mm)	丙酮 Acetone	醋酸戊酯 i-amyl acetate	汽油 Benzine	乙醛 Acetaldehyde		
	乙烷 Ethane	正丁烷 n-butane	汽油 Gasoline			
	乙酸乙酯 Ethyl acetate	正丁醇 n-butyl alcohol	特殊汽油 Special benzine			
	氯乙烷 Ethyl chloride	环己酮 Cyclohexanone	柴油燃料 Diesel fuel			
	氨 Ammonia	二氯乙烷 1,2-dichloroethane	民用燃油 Heating oils			
	苯 Benzene	乙酸酐 / 醋酸酐 Acetic acid anhydride	n-正己烷 n-hexane			
	醋酸 Acetic acid					
	一氧化碳 Carbon monoxide					
	甲烷 Methane					
	甲醇 Methanol					
	氯甲烷 Methyl chloride					
	萘 Naphthalene					
	苯酚 Phenol					
IIB (0.5mm<MESG <0.9mm)	丙烷 Propane					
	甲苯 Toluene					
	城市煤气 (照明气) Town gas (illuminating gas)	乙醇 Ethyl alcohol	硫化氢 Hydrogen sulfide	乙基醚 Ethyl ether		
		乙烯 Ethylene				
IIC (MESG≤0.5mm)	环氧化乙烷 Ethylene oxide					
	氢 Hydrogen	乙炔 Acetylene				二硫化碳 Carbon disulfide

MESG, GB/T 3836.11和IEC 60079-20-1中规定的最大试验安全间隙，是指在规定的条件下，壳内所有浓度的被试验气体或蒸气与空气的混合物点然后，通过25 mm长的接合面均不能点燃壳外爆炸性气体混合物的外壳空腔两部分之间的最大间隙。

MESG值越小，意味着设备的防爆等级越高，对设备的要求越严苛。当设备可以满足在IIC气体组别下运行时，同时也满足IIA和IIB的要求。

MESG, maximum experimental safe gap (for an explosive mixture). It's maximum gap of a joint of 25 mm in width which prevents any transmission of an explosion during 10 tests made under the conditions specified in GB/T 3836.11 and IEC 60079-20-1.

The smaller the MESG value, the higher the explosion-proof level of the equipment, and the more stringent requirements for the equipment. If the equipment can run under the IIC gas group, it also meets the requirements of II A and II B.

产品概述 Product overview



1MT0003系列高效隔爆型全封闭、自扇冷三相异步电动机是一款全新产品。该系列防爆电机完全符合IEC 60079-0:2017 / IEC 60079-1:2017以及GB/T 3836.1-2021 / GB/T 3836.2-2021等设计标准，防爆等级为Ex db IIB T4 Gb且防爆性能通过CQST认证。其效率达到IEC 60034-30 IE3高效等级要求(50Hz)，符合GB 18613-2020能效等级三级。

具有性能优良，使用安全可靠，安装灵活，维护方便，振动小，噪音低等特点。

1MT0003系列高效隔爆型电动机可广泛应用于石油、化工及油气等危险领域和场所。电机的设计使得电机内部的爆炸不会波及外界环境，内部由爆炸产生的能量在被称作“隔爆腔”的空间内消散，使得这些能量不足以点燃外部的爆炸性环境。

1MT0003 series flameproof motors is newly designed totally enclosed fan cooling (TEFC) high efficiency motor. This series flameproof motor completely meet the standard of IEC 60079- 0:2017/IEC 60079-1:2017 and GB/T 3836.1-2021/GB/T 3836.2-2021. The type of protection for this motor is Ex db IIB T4 Gb. And its efficiency fulfill efficiency grade IE3 (50Hz) of IEC 60034-30, and also Grade 3 efficiency of GB 18613-2020.

This series products have excellent performance, safe and reliable to use, simple and flexible installation, easy to maintain, low vibration, low noise.

1MT0003 series high-efficiency flameproof motors can be widely used in petroleum, chemical industry, oil and gas and other hazardous areas and places. These motors are designed such that an explosion within the housing cannot result in an explosion in the environment. The energy that is generated internally by an explosion is dissipated in the so-called “flameproof enclosure” so far that the energy is no longer sufficient for ignition outside the casing.

噪声

噪声值

噪声值根据 DIN EN ISO 1680 标准在噪音室测得。表面声压级噪声 L_{pfa} 计算表示单位为 dB (A)。声压级噪声的空间平均值是在其测量面上测得的。测量面是距离电机1米的测量包络面。声功率级噪声用 L_{WA} 来表示，单位为 dB (A)。噪音值见选型数据表，选型数据表中的噪音值仅适用于全封闭自扇冷却（冷却方式：IC411）。电动机在 50 Hz 电源供电空载运行时，噪音容差为 +3 dB。当在 60 Hz 电源下空载运行时，噪音容差大约为 +4 dB。

Noise levels

Noise levels for mains-fed operation

The noise levels are measured in accordance with DIN EN ISO 1680 in a anechoic room. It is specified as the A-valued measuring-surface sound pressure level L_{pfa} in dB (A). This is the spatial mean value of the sound pressure levels measured on the measuring surface. The measuring surface is a cube 1 m away from the motor surface. The sound power level is also specified as L_{WA} in dB (A). Please find the noise value in technical data table, the specified values are only valid for totally enclosed fan cooling (cooling method: IC411) motor with no load at 50 Hz with no load, and the tolerance is +3 dB. While motor operating 60 Hz with no load, the values are approximately +4 dB (A) higher.

振动

所有电动机转子都使用半键按照 A 级（标准）振动等级进行动态平衡。电动机在空载时测得振动速度有效值不超过下表中的 A 级所列值。电机还可选择B级振动等级设计。

Vibration

1MT0003 rotors are dynamically balanced to severity grade A using a half key. Table below contains the effective vibration values for unloaded motors. Vibration grade B can be provided as option.

振动等级 Vibration Grade	机座号 Frame size (mm)	56 ≤ FS ≤ 132		H>132	
		安装方式 Mounting	位移 Vibration displacement/um	速度 Vibration velocity/(mm/s)	位移 Vibration displacement/um
A	自由悬置 Free suspension	45		2.8	45
	刚性安装 Rigid mounting	-		-	37
B	自由悬置 Free suspension	18		1.1	29
	刚性安装 Rigid mounting	-		-	24

注：

¹⁾ 该值为GB/T 10068-2020 中定义的轴中心高H>132mm的两极电机，当两倍电网频率占主导时的振动速度限值。

Note:

¹⁾ The level are vibration velocity limit when the twice line frequency vibration level is dominant defined by GB/T 10068-2020, for 2p motors that frame size bigger than 132mm.

防爆标志 Ex-Mark

Ex	db ¹⁾	IIB	T4	Gb

防爆标识

Marking for prevention of explosions

防爆类型 Protection type

db = 由隔爆外壳保护的设备 db = Protection by flameproof enclosures

电器设备类别级别 (II类B) Equipment group (IIB)

II类电气设备最高表面温度

Maximum allowable surface temperature for Group II electrical equipment

T4 = 135°C

设备保护级别 Protection level

Gb = “高”的保护级别 Gb = "high" level of protection

注：

¹⁾ 最新标准IEC60079-0. 2017和GB/T 3836.1-2021中防爆类型标识为db。

Note:

¹⁾ Protection type is db in IEC60079-0. 2017 and GB/T 3836.1-2021.

铭牌样例 Nameplate example



机械特性 Mechanical design

安装结构型式 Construction and mounting type

结构型式 Construction type		机座带底脚, 端盖无法兰 With feet and without flange on the end-shield (DE)					
安装型式 Mounting type		IM B3 FS 80~355	IM B6 FS 80~160	IM B7 ³⁾ FS80~160	IM B8 ⁴⁾ FS80~160	IM V5 ¹⁾ FS80~160	IM V6 ²⁾ FS 80~160
示意图 Diagram							
电机编号第14位号上对应的字母 Letter, position 14 th of Motor code		A	T	U	V	C	D
结构型式 Construction type		机座不带底脚, 端盖有法兰 Without feet and with flange on the end-shield (DE)			机座带底脚, 端盖有法兰 With feet and with flange on the end-shield (DE)		
安装型式 Mounting type		IM B5 FS 80~280	IM V1 ¹⁾ FS 80~355	IM V3 ²⁾ FS80~160	IM B35 FS80~355	IM V15 ¹⁾ FS80~160	
示意图 Diagram							
电机编号第14位号上对应的字母 Letter, position 14 th of Motor code		F	G	H	J	W	
结构型式 Construction type		机座不带底脚, 端盖有标准小法兰 Without feet and with C-flange on driven end-shield (DE)			机座带底脚, 端盖有标准小法兰 With feet and with C-flange on driven end-shield (DE)		
安装型式 Mounting type		IM B14 FS 80 ~ 160	IM V18 ¹⁾ FS 80 ~ 160	IM V19 ²⁾ FS 80 ~ 160	IM B34 FS 80 ~ 160		
示意图 Diagram							
电机编号第14位号上对应的字母 Letter, position 14 th of Motor code		K	M	L	N		

¹⁾ 标配防雨罩。

²⁾ 当户外使用时, 建议采取防护措施, 以避免水直接喷射到电机轴上。

³⁾ 当接线盒位于机座顶部时, 进线口默认朝上, 如需朝下, 请选择选件代码R12。

⁴⁾ 不可同时选用再润滑装置 (选件号L23)。

¹⁾ Protection cover provided as standard.

²⁾ When used outdoors, please take some protection measures to prevent water from spraying on the shaft.

³⁾ When terminal box is on the top of the motor, the cable entry will be upwards, if downwards is needed, please select option code R12.

⁴⁾ Regreasing devise (option code L23) is not allowed.

轴承系统

1MT0003系列电动机标准配置深沟球轴承，这些轴承是密封的或可再润滑型的，轴承设计满足防爆要求。FS160 ~ 355范围的电动机标准设计非驱动端轴承固定。FS80 ~ 132范围的电动机标准设计轴承浮动，可以选配驱动端轴承固定，选件号 L20。

当电动机轴端承受的悬臂力较大时，可以考虑选择增强悬臂力的轴承设计（选件号：L22）。

FS80 ~ 250 范围电动机标配不带再润滑装置，但 FS160 ~ 250 可选择配置再润滑装置（选件号：L23）。FS280 ~ 355 范围的电动机标配再润滑装置。

下表列出了标准配置下的轴承型号。

轴承选配

Bearing Assignment

1MT0003 series motor are supplied with ball bearing as standard, these bearings are either sealed or regreasable type. Bearing design meets the requirements of explosion protection. Fixed bearing at NDE is as standard configuration for FS160 ~ 355 motors；For FS80 ~ 132 motors the bearings are floating, fixed bearing at DE can be ordered with option code L20.

If higher cantilever force on the shaft required, the increased cantilever bearing design (Option code: L22) should be considered.

As standard, FS80 ~ 250 motors are not with greasing device, but re-greasing device (Option code: L23) can be configured in FS160~250. FS280 ~ 355 motors with regreasable bearing and greasing device is configured as standard.

The following table lists the standard bearing configuration.

Bearing Assignment

机座号 Frame size	极数 Number of poles	标准配置 Standard design		选项配置 Optional design	
		水平/竖直安装 Horizontal / Vertical mounting		增强悬臂力的设计 (选项代码L22) Increased cantilever force (option code L22)	
		驱动端轴承 DE bearing	非驱动端轴承 NDE bearing	驱动端轴承 DE bearing	非驱动端轴承 NDE bearing
80	2 ~ 6	6204-2RZ C3	6204-2RZ C3	-	-
90	2 ~ 6	6205-2RZ C3	6205-2RZ C3	-	-
100	2 ~ 6	6306-2RZ C3	6306-2RZ C3	-	-
112	2 ~ 6	6306-2RZ C3	6306-2RZ C3	-	-
132	2 ~ 8	6308-2RZ C3	6308-2RZ C3	-	-
160	2 ~ 8	6309-2RZ C3	6309-2RZ C3	NU309	6309 C3
180	2 ~ 8	6310-2RZ C3	6310-2RZ C3	NU310	6310 C3
200	2 ~ 8	6312 C3	6312 C3	NU312	6312 C3
225	2 ~ 8	6313 C3	6313 C3	NU313	6313 C3
250	2 ~ 8	6315 C3	6315 C3	NU315	6315 C3
280	2	6315 C3	6315 C3	NU315	6315 C3
	4 ~ 8	6317 C3	6317 C3	NU317	6317 C3
315	2	6316 C3	6316 C3	NU316	6316 C3
	4 ~ 8	6319 C3	6319 C3	NU319	6319 C3
355	2	6317 C3	6317 C3	NU317	6317 C3
	4 ~ 8	6320 C3	6320 C3	NU320	6320 C3

润滑脂寿命和再润滑周期

对于不可再润滑的轴承，其润滑脂寿命与轴承寿命相当。

Grease life and re-greasing interval

For permanent lubrication, the bearing grease lifetime is matched to the bearing lifetime.

润滑脂寿命和再润滑周期（电动机水平安装）

使用持久润滑型轴承时 Using permanent lubrication bearing		
机座号 Frame size	极数 Poles	润滑脂寿命 Grease lifetime up to CT 40°C ¹⁾
80 ~ 250	2-8	20000 或 (or) 40000 ²⁾

¹⁾ 标准的最高环境温度为40°C，对于持久润滑型轴承，环境温度每升高10°C，润滑脂寿命缩短一半。

²⁾ 40000小时适用于电动机水平安装，且轴不受额外轴向力的工作情况。

¹⁾ Maximum ambient temperature is 40°C under standard conditions. For permanent lubrication bearings, grease lifetime will be halved for each 10K ambient temperature rising.

²⁾ The 40000h grease lifetime is suited for horizontal mounting motors without additional axial force.

使用可再润滑型轴承时 Using re-greasable bearing			
机座号 Frame size	极数 Poles	轴承 Bearing	标准环境温度下的润滑周期 (小时) Interval under standard ambient temperature(h)
160	2P	6309 C3 NU309	4000
	4-8P		8000
180	2P	6310 C3 NU310	4000
	4-8P		8000
200	2P	6312 C3 NU312	4000
	4-8P		8000
225	2P	6313 C3 NU313	4000
	4-8P		8000
250	2P	6315 C3 NU315	4000
	4-8P		8000
280	2P	6315 C3 NU315	4000
	4P		6000
	6-8P		8000
315	2P	6316 C3 NU316	3000
	4P		4000
	6-8P		6000
355	2P	6317 C3 NU317	3000
	4P		4000
	6-8P		6000

当电动机在非正常的条件下运行时，轴承的寿命会缩短。如下几种情况：

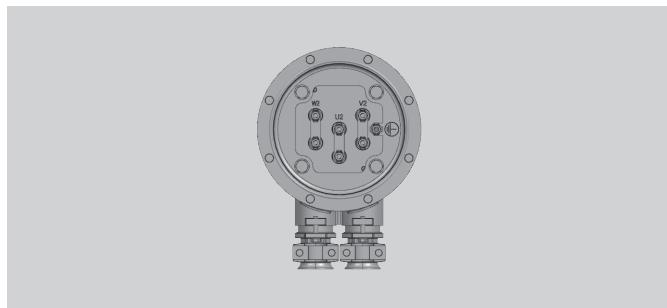
- 当电动机的运行速度高于额定速度时，由于电动机的振动增大，使得轴承受到额外的径向力和轴向力，导致其寿命减少；
- 当环境或设备等因素引起电动机振动加大时，同样轴承也会因此受到额外的径向力和轴向力，而导致其寿命减少；

When the motor runs outside of normal conditions, the bearing life will be reduced, such as the following conditions.

- When motor runs beyond the rated speed, the increase of motor vibration will result in the extra radial and axial force on bearing. This will reduce the life of bearing;
- When the motor vibration increase due to the environment or other equipment, the bearing also will endure more radial and axial force. This also will reduce the life of bearing;

接线盒

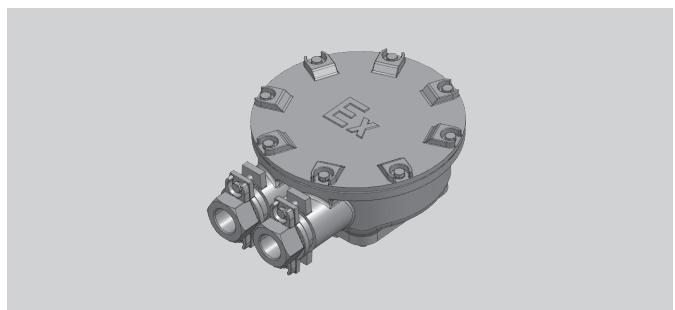
接线盒标准位置位于机座顶端，且自身可 $4 \times 90^\circ$ 旋转，从而使电缆可以从各个方向进入。当选择进线口朝向电机驱动端时，须留意电机安装环境前方是否留有足够的空间供电缆走线。标准接线盒使用喇叭口型进线斗，机座号80~225的电机有一个进线斗，机座号250~355的电机有两个进线斗。



标准配置接线盒 Standard connection box

Connection box

The connection box is located on the top of motor housing as standard, and can be rotated by $4 \times 90^\circ$ to allow for cable entry from each direction. When selecting the entrance to the motor drive end, please notice whether there is enough space in front of the installation for the cable line. For the standard connection box with hoop gland, the motor of FS 80~225 has one hoop gland, and the motor of FS250~355 has two.



X97 接线盒（可选） Connection box of option code X97

标准接线盒 Standard main terminal box

机座号 Frame Size	主接线端子数 No. of main terminal	主接线端子螺纹 Main terminal thread	主进线孔数量 No. of main cable entry	接线斗直径 Hoop gland dia. (mm)	外接电缆直径 ²⁾ Cable diameter (mm)	最大辅助端子数 ¹⁾ Max. auxiliary terminal	辅助电缆进线孔 ³⁾ Auxiliary cable entry
80	3	M5	1	1xΦ42	13 ~ 14 19 ~ 20 24 ~ 25	8	1xM16x1.5 或/or 1xM20x1.5
90							1xM16x1.5 或/or 1xM20x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5
100							1xM16x1.5 或/or 1xM20x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5
112							1xM16x1.5 或/or 1xM20x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5
132							1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5
160	6	M6	1	1xΦ58	13 ~ 14 19 ~ 20 25 ~ 26 30 ~ 31 34 ~ 35	20	1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
180							1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
200	6	M8	1	1xΦ72	19 ~ 20 25 ~ 26 31 ~ 32 37 ~ 38 41 ~ 42	20	1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
225							1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
250	6	M10	2	2xΦ72	19 ~ 20 25 ~ 26 31 ~ 32 37 ~ 38 41 ~ 42	20	1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
280							1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
315	6	M16	2	2xΦ90	30 ~ 31 35 ~ 36 44 ~ 45 49 ~ 50	20	1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5
355							1xM16x1.5 或/or 1xM20x1.5 或/or 1xM25x1.5 或/or 2xM16x1.5 或/or 1xM16x1.5 + 1xM20x1.5 1xM16x1.5 + 1xM25x1.5

注：

¹⁾ 每个辅助接线端子所能适配的电缆接头不超过 2.5 mm^2 。

²⁾ 请根据进线电缆直径可选尺寸选择电缆，并保证所选电缆允许的电缆直径处于此列数据范围内。

³⁾ 当同时选用测温元件和防潮加热带时会配备两个辅助进线孔。孔的螺纹尺寸是根据所需的辅助端子数量决定的。

Notes:

¹⁾ The adaptable diameter to each auxiliary terminal can not exceed 2.5 mm^2 .

²⁾ Please choose the cable entry diameter according to the cable diameter can be selected column. And ensure the allowed cable entry diameter is within the range in this column.

³⁾ If both temperature sensor and heater are selected, 2 auxiliary cable entries will be configured. The dimensions of the cable entries will be configured according to the quantity of the terminals.

选项-标准接线盒带钢管布线孔（选项代码X97） Option-Standard terminal box with conduit entry (Option code X97)

机座号 Frame Size	钢管布线进线孔螺纹 Size of Main Conduit entry
80	
90	M30×2
100	
112	
132	M30×2
160	
180	M36×2
200	
225	M48×2
250	
280	
315	M48×2
355	M64×2

电动机保护

防潮加热保护

当电动机处于较为恶劣的环境时，比如湿度非常大或者昼夜温差比较大，电动机的绕组很可能出现凝露的现象，这样会带来电动机烧毁的风险。对于这种情况，建议对电动机绕组配置防潮加热带（选件号：Q04）进行保护。

电动机防潮加热带必须在电动机工作过程中处于不工作状态；当电动机停机时，防潮加热带必须启动工作，为绕组加热。

防潮加热带的电气参数如下表所示。

防潮加热带电气参数

机座号 Frame size	功率和电压 Power (W) & voltage (V)
	Q04
80 ~ 90	20 W / 220 V
100 ~ 112	30 W / 220 V
132 ~ 160	40 W / 220 V
180 ~ 200	50 W / 220 V
225 ~ 280	60 W / 220 V
315	80 W / 220 V
355	100 W / 220 V

电动机过热保护

电动机热保护是指将温度保护传感器或温度检测传感器嵌入电动机定子绕组或其他适当的地方，从而使其不会因为过热而受到破坏。

不同的电动机热保护方式可以在电动机订货号的第 15 位采用不同的字母或者选件号来表示。

Motor protection

Anti-condensation heater

Motors whose windings are at risk of condensation due to the climatic conditions, e.g. inactive motors in humid atmospheres or motors that are subjected to widely fluctuating temperatures can be equipped with anti-condensation heaters (Option code: Q04).

Anti-condensation heaters must be switched off during operation. When motor shut down, the heaters must be switched on.

The electrical parameters of anti-condensation heaters are shown in the following table.

Electrical data of Anti-condensation heater

Motor thermal overload protection

Motor thermal protection means to use of thermal protectors and thermal detectors incorporated into the stator windings or placed in other suitable positions in motor in order to protect them against serious damage due to thermal overloads.

The order variants for motor protection are coded with letters in the 15th position of the Motor Order No., or ordered with Option code.

电气特性 Electrical design

额定输出

1MT0003 电动机的额定功率是指电动机在连续运行的情况下 S1 (IEC 60034-1) , 此时周围环境温度为 -20 °C ~ 40 °C , 海拔高度不超过 1000 m。

电压、频率

IEC 60034-1 将电压和频率的偏差分为 A 类 (电压偏差 $\pm 5\%$, 频率偏差 $\pm 2\%$) 和 B 类 (电压偏差 $\pm 10\%$, 频率偏差 $+3\% / -5\%$)。电动机均能够在 A 类和 B 类提供额定转矩。在 A 类中, 温度比正常运行下温度大约提升 10 K。

Rated Output

1MT0003 motors rated output powers means that the motor runs under continuous duty S1 (IEC 60034 - 1) operation when operated at ambient temperature from -20 °C to 40 °C and at altitudes of up to 1000 m over sea.

Voltage and Frequency

IEC 60034-1 differentiates between Category A (combination of voltage deviation $\pm 5\%$ and frequency deviation $\pm 2\%$) and Category B (combination of voltage deviation $\pm 10\%$ and frequency deviation $+3\% / -5\%$) for voltage and frequency fluctuations. The motors can supply their rated torque in both Category A and B. In Category A, the temperature rise is approximately 10 K higher than during normal operation.

标准 Standard 60034 - 1	类别 Category A	类别 Category B
电压偏差 Voltage deviation	$\pm 5\%$	$\pm 10\%$
频率偏差 Frequency deviation	$\pm 2\%$	$+3\% / -5\%$

根据标准, 不推荐电动机在 B 类情况下长时间运行
According to the standard, longer operation is not recommended for Category B.

电气数据公差

- 效率 η
 $P_{rated} \leq 150 \text{ kW}$: $-0.15 \times (1 - \eta)$
 $P_{rated} > 150 \text{ kW}$: $-0.10 \times (1 - \eta)$

效率 η 为小于 1 的值

- 功率因数: $(1 - \cos \phi) / 6$

最小绝对值: 0.02

最大绝对值: 0.07

- 转差率: $\pm 20\%$ (电动机的偏差 $< 1 \text{ kW} \pm 30\%$ 时是允许的)

- 堵转电流: $+20\%$

- 堵转转矩: $-15\% \sim +25\%$

- 最大转矩: -10%

- 转动惯量: $\pm 10\%$

Tolerance for electrical data

- Efficiency η at

$P_{rated} \leq 150 \text{ kW}$: $-0.15 \times (1 - \eta)$

$P_{rated} > 150 \text{ kW}$: $-0.10 \times (1 - \eta)$

With η being a decimal number

- Power factor: $(1 - \cos \phi) / 6$

Minimum absolute value: 0.02

Maximum absolute value: 0.07

- Slip $\pm 20\%$ (for motors $< 1 \text{ kW} \pm 30\%$ is admissible)

- Locked-rotor current $+20\%$

- Locked-rotor torque $-15\% \sim +25\%$

- Breakdown torque -10%

- Moment of inertia $\pm 10\%$

过载倍数

根据 IEC60034 标准要求, 1MT0003 系列电动机能够在额定电压和频率下承受 1.5 倍的额定电流达 2 分钟。

According to IEC60034, 1MT0003 series motors are designed to withstand overload capacity of 1.5 times rated current for 2 minutes at rated voltage and frequency.

变频应用 Converter fed operation

1MT0003 电动机适于变转速、恒转速的各种应用，如风机、泵、压缩机、纺织机械等。

当变频器驱动电动机时，电磁干扰的程度大小取决于变频器的类型（种类，IGBT 数量，干扰控制措施及制造商）、布线、距离以及应用需求。在设计和应用阶段必须参考变频器制造商关于电磁兼容性的安装指导。

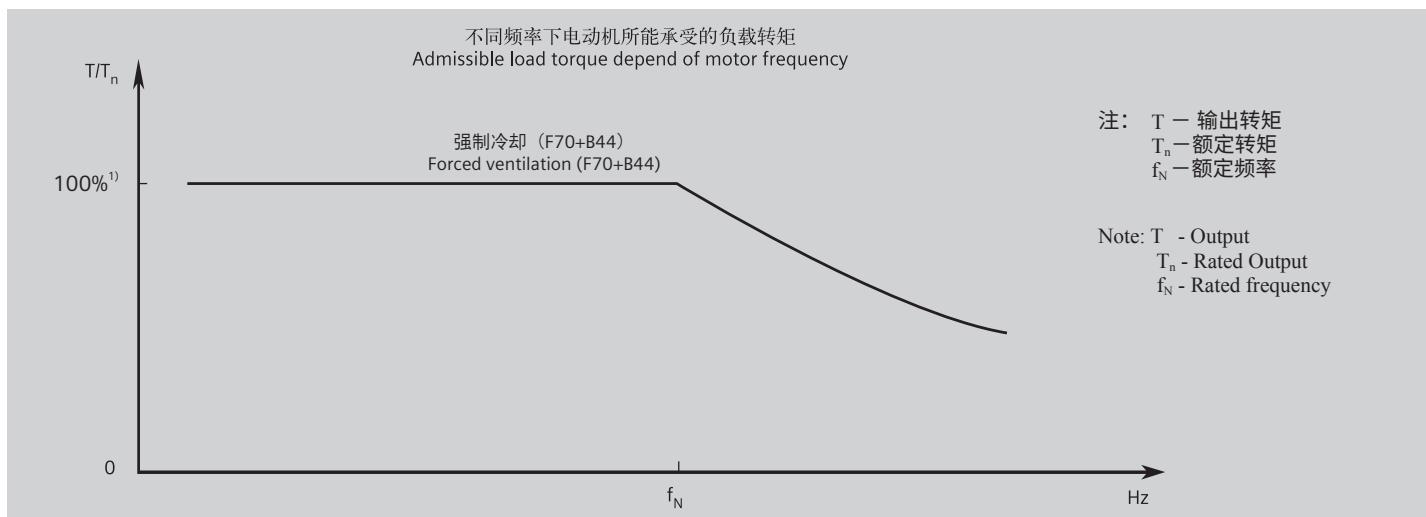
1MT0003 电动机变频应用，冷却方式为 IC416（独立驱动风扇）且输出额定功率时，电动机的绝缘等级155（F），使用温度等级 155（F）。选件号 F70+B44（这两个选件必须同时选用）。

对于变频防爆应用，须选择绕组测温，如 PTC、PT100 等。为了避免杂散电流对电动机轴承的损坏，FS315 和 FS355 电动机在选择 F70+B44 选件后将标配绝缘轴承，推荐 FS250-280 电动机选配绝缘轴承，选件号 L27。请向西门子咨询关于绝缘轴承的详细信息。

变频器驱动运行

1MT0003 电动机的标准绝缘系统设计要求，能够保证其在变频器供电电压不超过 460 V 时正常运行。

1MT0003 电动机带有特定的负载时能够使用变频器驱动，其特定的负载扭矩如以下图表所示：



¹⁾ 部分型号低于100%转矩，详询西门子。

¹⁾ For some types the torque is not equal to 100%, please inquire.

当选择F70+B44时，1MT0003系列电机在不同频率下的工作情况为：5 ~ 50Hz为恒转矩，50Hz ~ Max 为恒功率。

When F70+B44 is selected, the situation 1MB0063 series motors working on different frequencies is: constant torque at 5~50Hz, constant power at 50Hz~Max.

在电动机运行速度超过额定转速时，噪声和振动值将增加，并且轴承的寿命将缩短。需要注意再润滑周期和润滑脂的寿命。

At operating speeds above rated speed the noise and vibration levels increase and the bearing life time reduce. Attention should be paid to the re-greasing intervals and the grease service life.

变频运行时当频率超过 60 Hz 时，需要按照特定的限值进行动平衡。

1MT0003 隔爆电机所允许的变频范围请咨询西门子。

变频铭牌

1MT0003 电动机变频使用时，选件号F70+B44，电机铭牌会有两块，除了标准铭牌外，还额外提供一个变频铭牌，变频铭牌上会提供 5 Hz、25 Hz、50 Hz、Max 这四种频率时的参数。

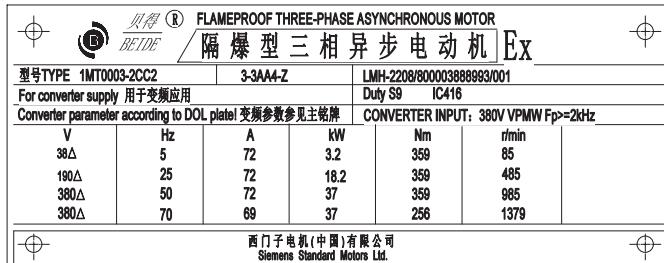
For converter-fed operation with frequencies greater than 60 Hz special balancing is required for compliance with the specified limit values.

The allowed variable frequency range of 1MT0003 flameproof motors please consult with Siemens.

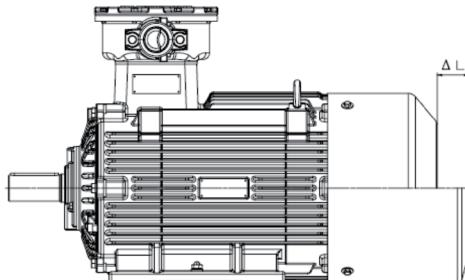
VSD nameplate

When with converter fed operation (option code F70+B44) , 1MT0003 will have two nameplates. In addition to the standard nameplate, an additional VSD nameplate will be mounted on the housing, and the parameters of 5Hz、25Hz、50Hz and Max frequency will be shown on the VSD nameplate.

变频铭牌样例 (F70+B44) VSD Nameplate (F70+B44)



独立驱动风机技术参数 Technical data for separately driven fan



对应电动机机座号 Motor frame size	电压 Voltage(V)	频率 Frequency(Hz)	功率 Rated output (W)	电流 Current (A)	转速 Speed (r/min)	△L (mm)
80	220△/380Y	50	35	0.14/0.08	2800	108
90	220△/380Y	50	50	0.16/0.09	2800	107
100	220△/380Y	50	65	0.175/0.1	2800	106
112	220△/380Y	50	70	0.21/0.12	2800	110
132	220△/380Y	50	80	0.26/0.15	2800	101
160	220△/380Y	50	90	0.61/0.35	1400	111
180	220△/380Y	50	100	0.63/0.36	1400	105
200	220△/380Y	50	180	0.66/0.38	1400	90
225	220△/380Y	50	250	1.13/0.65	1400	100
250	220△/380Y	50	250	1.13/0.65	1400	125
280	220△/380Y	50	370	1.94/1.12	1400	198
315	220△/380Y	50	750	3.30/1.91	1350	201
355-2P	220△/380Y	50	800	4.35/2.5	1350	208
355-4P,6P,8P	220△/380Y	50	800	4.35/2.5	1350	205

注:

- 风扇可以在 210 ~ 240 VD/360 ~ 420 VY 50Hz 电源供电下运行，也可以在 220 ~ 260 VD/380 ~ 480 VY 60 Hz 电源供电下运行。
- 独立风机接线盒有1个进线孔，为钢管布线（螺纹接口）形式，螺纹尺寸为M24*1.5。允许许外接电缆直径为5~10mm。

Note:

- The fan can be running with supply 210 ~ 240 VD/360 ~ 420 VY 50 Hz, as well as 220 ~ 260 VD/380 ~ 480 VY 60 Hz.
- The terminal box of separately driven fan has one screwed cable entry with dimension M24*1.5, the allowed cable diameter is 5~10mm.

订货号和电机型号 Order No. and Motor Type

订货号 Order No.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	M	T	0	0	0	3	1	E	A	2	3	3	A	A	4

电机系列 Motor family

1MT000系列隔爆型三相异步电动机

1MT000 series explosion protected three-phase asynchronous motors

效率 Efficiency

3 = 中国能效等级 3 级, IE3 效率等级

3 = China energy efficiency grade 3, IE3 efficiency

机座号 Frame size

0D = 080 0E = 090

1A = 100 1B = 112 1C = 132 1D = 160 1E = 180

2A = 200 2B = 225 2C = 250 2D = 280

3A = 315 3B = 355

极数 Pole

A = 2 B = 4 C = 6 D = 8

铁芯长度编号 Code of stator length

0, 1 = Short 2, 3 = Medium 4, 5, 6, 7 = Long

电压、连接方式和频率编号 Code of voltage, connections and frequency

2-2 = 50Hz 230VΔ/400VY; 60Hz 460VY

3-4 = 50Hz 400VΔ/690VY; 60Hz 460VΔ

2-1 = 50Hz 220VΔ/380VY; 60Hz 440VY

0-1 = 50Hz 230VΔ

3-3 = 50Hz 380VΔ/660VY; 60Hz 440VΔ

2-3 = 50Hz 240VΔ/415VY; 60Hz 480VY

3-5 = 50Hz 415VΔ; 60Hz 480VΔ

9-0 = 特殊电压和频率 Special voltage & frequency ¹⁾

结构和安装方式编号 Code of construction and mounting type

A = IM B3 T = IM B6 U = IM B7 V = IM B8 D = IM V6 C = IM V5

F = IM B5 G = IM V1 H = IM V3 J = IM B35 W = IM V15

K = IM B14 M = IM V18 L = IM V19 N = IM B34

绕组保护编号 Code of winding protection

A = 无绕组保护 Without winding protection

B = 一组三个PTC热敏电阻用于跳闸 3 PTC thermistors for tripping

C = 两组三个PTC热敏电阻用于报警和跳闸 6 PTC thermistors for alarm and tripping

H = 一组三个PT100温度传感器 3 PT100 resistance thermometers

J = 两组三个PT100温度传感器 6 PT100 resistance thermometers

接线盒位置编号 (从驱动端看) Code of terminal box position (view from drive end)

4 = 顶出线 On top

附注:

¹⁾ 用电压编号 90 及相应选件号来定制其它电压 (参见选项描述);

Foot note:

¹⁾ Order other voltages with voltage code 90 and the corresponding Option code (see under "Option").

选型技术数据表 Technical data table

中国能效等级 3 级, IE3

机座号 Frame Size	型号 Order No.	额定功率 Rated Output	额定转速 Rated Speed	效率 — 参照 GB18613-2020, 即 IEC 60034-30 Efficiency is in accordance with GB18613-2020, IEC 60034-30				额定转矩 Rated torque	起动电流 Starting Current	起动转矩 Starting torque	最大转矩 Max torque	转动惯量 Moment of inertia(J)	噪音 ¹⁾ Noise LpFA	噪音 ¹⁾ Noise LWA	重量 Weight IMB3																
				效率 Efficiency at (50 Hz) 4/4 load	效率 Efficiency at (50 Hz) 3/4 load	功率因数 Power factor	额定电流 (380V) Rated current																								
				KW	rpm	%	%	A	Nm	直接起动对额定转矩(电流)的倍数 For direct-on-line starting as multiple of the rated																					
3000rpm 2 - pole																															
380VY²⁾ 50Hz																															
80M	1MT0003-0DA29-0 □□□	0.75	2835	80.7	82.9	0.86	1.64	2.5	6.0	2.4	3.0	0.0010	51	62	29																
80M	1MT0003-0DA39-0 □□□	1.1	2850	82.7	84.0	0.83	2.45	3.7	6.5	2.6	3.4	0.0013	51	62	31																
90S	1MT0003-0EA09-0 □□□	1.5	2870	84.2	84.8	0.86	3.15	5.0	7.0	2.0	3.0	0.0024	55	67	37																
90L	1MT0003-0EA49-0 □□□	2.2	2890	85.9	87.2	0.88	4.4	7.3	7.5	2.8	3.6	0.0030	55	67	42																
100L	1MT0003-1AA49-0 □□□	3	2865	87.1	88.3	0.87	6	10.0	7.8	3.3	3.6	0.0046	62	74	53																
3000rpm 2 - pole																															
380VD/660VY 50Hz																															
112M	1MT0003-1BA23-3 □□□	4	2915	88.1	89.6	0.90	7.7	13.1	7.8	2.6	3.6	0.0087	65	77	67																
132S	1MT0003-1CA03-3 □□□	5.5	2930	89.2	90.2	0.89	10.5	17.9	7.5	2.3	3.6	0.018	67	79	83																
132S	1MT0003-1CA13-3 □□□	7.5	2930	90.1	91.5	0.90	14.1	24.4	7.5	2.3	3.6	0.022	67	79	92																
160M	1MT0003-1DA23-3 □□□	11	2935	91.2	92.0	0.89	20.5	35.8	7.5	2.3	3.4	0.037	69	81	140																
160M	1MT0003-1DA33-3 □□□	15	2935	91.9	92.6	0.89	28	48.8	7.5	2.4	3.4	0.046	69	81	151																
160L	1MT0003-1DA43-3 □□□	18.5	2935	92.4	93.0	0.89	34	60.2	7.8	2.4	3.4	0.054	69	81	170																
180M	1MT0003-1EA23-3 □□□	22	2950	92.7	93.0	0.89	40.5	71.2	7.8	2.4	3.4	0.088	70	83	207																
200L	1MT0003-2AA43-3 □□□	30	2955	93.3	93.4	0.87	55	97.0	7.8	2.4	3.4	0.156	71	84	288																
200L	1MT0003-2AA53-3 □□□	37	2955	93.7	93.9	0.89	67	120	7.8	2.4	3.4	0.183	71	84	319																
225M	1MT0003-2BA23-3 □□□	45	2960	94.0	94.3	0.89	82	145	7.8	2.4	3.2	0.301	72	85	400																
250M	1MT0003-2CA23-3 □□□	55	2975	94.3	94.1	0.89	100	177	7.8	2.6	3.2	0.507	75	89	478																
280S	1MT0003-2DA03-3 □□□	75	2975	94.7	94.8	0.89	135	241	7.5	2.8	3.0	0.856	77	91	595																
280M	1MT0003-2DA23-3 □□□	90	2975	95.0	95.3	0.90	160	289	7.5	2.8	3.4	1.029	77	91	665																
315S	1MT0003-3AA03-3 □□□	110	2985	95.2	95.1	0.90	195	352	7.9	2.3	2.6	1.59	78	92	940																
315M	1MT0003-3AA23-3 □□□	132	2982	95.4	95.3	0.90	235	423	7.9	2.3	2.6	1.77	78	92	1030																
315L	1MT0003-3AA53-3 □□□	160	2982	95.6	95.7	0.91	280	512	7.9	2.3	2.6	2.10	78	92	1130																
315L	1MT0003-3AA63-3 □□□	185	2978	95.7	95.9	0.92	320	593	8.5	2.3	2.6	2.52	78	92	1210																
315L	1MT0003-3AA73-3 □□□	200	2982	95.8	95.9	0.92	345	641	8.5	2.8	3.2	2.52	78	92	1230																
355M	1MT0003-3BA23-3 □□□	220	2986	95.8	95.4	0.90	390	704	8.5	2.2	2.8	2.65	85	100	1580																
355M	1MT0003-3BA33-3 □□□	250	2985	95.8	95.7	0.90	440	800	8.0	2.2	2.8	2.65	85	100	1580																
355L	1MT0003-3BA53-3 □□□	280	2988	95.8	95.7	0.90	495	895	8.5	2.2	2.8	3.24	85	100	1720																
355L	1MT0003-3BA63-3 □□□	315	2982	95.8	95.8	0.90	560	1009	8.0	2.2	2.8	3.24	85	100	1790																

注:

¹⁾ 当电动机在50Hz电源供电空载运行时, 噪音容差为+3dB。当在60Hz电源下空载运行时, 噪音容差为+4dB。

²⁾ 380VY 50Hz, 电动机订货号第 12、13 位代码为 90, 且须带选件 M3F。

Note:

¹⁾ Noise value is only applicable to the direct power supply and the condition of no-load operation. If the motor in 50Hz power supply, the tolerance is +3dB. If the motor in 60Hz power supply, the tolerance is +4dB.

²⁾ 380VY 50Hz, the 12th,13th digit of motor order No. must be "90", with option code M3F.

选型技术数据表 Technical data table

中国能效等级 3 级, IE3

机座号 Frame Size	型号 Order No.	额定 功率 Rated Output	额定 转速 Rated Speed	效率 - 参照 GB18613-2020, 即 IEC 60034-30 Efficiency is in accordance with GB18613-2020, IEC 60034-30				额定 转矩 Rated torque	起动 电流 Starting Current	起动 转矩 Starting torque	最大 转矩 Max torque	转动惯量 Moment of inertia(J)	噪音 ¹⁾ Noise LpfA	噪音 ¹⁾ Noise LWA	重量 Weight IMB3									
				效率 Efficiency at (50 HZ) 4/4 load	效率 Efficiency at (50 HZ) 3/4 load	功率 因数 Power factor	额定 电流 (380V) Rated current																	
				KW	rpm	%	%																	
1000rpm 6 - pole																								
380VY ²⁾ 50HZ																								
80M	1MT0003-0DC39-0 □□□	0.55	935	77.2	77.5	0.67	1.62	5.6	5.0	2.6	3.2	0.0030	44	55	33									
90S	1MT0003-0EC09-0 □□□	0.75	940	78.9	80.3	0.70	2.05	7.6	5.0	2.4	3.2	0.0042	45	57	39									
90L	1MT0003-0EC49-0 □□□	1.1	945	81.0	81.6	0.69	3	11.1	5.5	2.7	3.5	0.0050	45	57	42									
100L	1MT0003-1AC49-0 □□□	1.5	950	82.5	84.1	0.74	3.75	15.1	5.5	2.5	3.5	0.0113	49	61	58									
112M	1MT0003-1BC29-0 □□□	2.2	945	84.3	86.1	0.74	5.4	22.2	6.0	2.7	3.4	0.0136	53	65	70									
132S	1MT0003-1CC09-0 □□□	3	965	85.6	86.6	0.75	7.1	29.7	6.0	2.7	4.0	0.0234	57	69	82									
1000rpm 6 - pole																								
380VD/660VY 50HZ																								
132M	1MT0003-1CC23-3 □□□	4	955	86.8	88.5	0.75	9.3	40.0	6.0	2.7	3.4	0.030	57	69	96									
132M	1MT0003-1CC33-3 □□□	5.5	960	88.0	89.2	0.76	12.5	54.7	6.5	2.7	4.0	0.040	57	69	111									
160M	1MT0003-1DC23-3 □□□	7.5	980	89.1	90.4	0.78	16.4	73.1	7.0	2.7	3.6	0.119	61	73	146									
160L	1MT0003-1DC43-3 □□□	11	980	90.3	90.3	0.77	24	107	7.0	2.7	3.6	0.161	61	73	176									
180L	1MT0003-1EC43-3 □□□	15	975	91.2	92.1	0.80	31	147	7.0	2.3	3.0	0.206	59	73	209									
200L	1MT0003-2AC43-3 □□□	18.5	978	91.7	92.5	0.80	38.5	181	7.0	2.3	3.0	0.312	59	73	282									
200L	1MT0003-2AC53-3 □□□	22	980	92.2	93.1	0.80	45.5	214	7.0	2.4	3.0	0.357	59	73	297									
225M	1MT0003-2BC23-3 □□□	30	982	92.9	93.9	0.83	59	292	7.6	2.4	3.0	0.761	60	74	408									
250M	1MT0003-2CC23-3 □□□	37	985	93.3	94.1	0.84	72	359	7.6	2.6	3.0	1.070	62	76	483									
280S	1MT0003-2DC03-3 □□□	45	988	93.7	94.5	0.84	87	435	7.8	3.2	3.0	1.484	64	78	575									
280M	1MT0003-2DC23-3 □□□	55	988	94.1	94.6	0.84	106	532	7.8	3.2	3.0	1.748	64	78	640									
315S	1MT0003-3AC03-3 □□□	75	990	94.6	95.0	0.84	143	723	7.8	2.4	3.0	2.76	69	83	960									
315M	1MT0003-3AC23-3 □□□	90	990	94.9	95.3	0.84	172	868	7.8	2.4	3.0	3.47	69	83	1050									
315L	1MT0003-3AC53-3 □□□	110	991	95.1	95.3	0.85	205	1060	7.8	2.6	3.0	4.43	69	83	1180									
315L	1MT0003-3AC63-3 □□□	132	991	95.4	95.7	0.85	245	1272	7.8	2.6	3.0	4.75	69	83	1230									
355S	1MT0003-3BC23-3 □□□	160	994	95.6	95.7	0.84	305	1537	8.5	3.0	2.4	10.57	71	85	1780									
355M	1MT0003-3BC33-3 □□□	185	993	95.7	95.8	0.84	350	1779	8.5	3.0	2.4	10.60	71	85	1870									
355M	1MT0003-3BC43-3 □□□	200	993	95.8	95.9	0.84	380	1923	8.5	3.0	2.4	11.09	71	85	1910									
355L	1MT0003-3BC53-3 □□□	220	993	95.8	96.0	0.84	415	2116	8.5	3.0	2.4	13.09	71	85	2070									
355L	1MT0003-3BC63-3 □□□	250	992	95.8	96.1	0.84	470	2407	8.5	3.0	2.4	13.09	71	85	2110									

注:

¹⁾ 当电动机在50Hz电源供电空载运行时, 噪音容差为+3dB。当在60Hz电源下空载运行时, 噪音容差为+4dB。

²⁾ 380VY 50Hz, 电动机订货号第 12、13 位代码为 90, 且须带选件 M3F。

Note:

¹⁾ Noise value is only applicable to the direct power supply and the condition of no-load operation. If the motor in 50Hz power supply, the tolerance is +3dB. If the motor in 60Hz power supply, the tolerance is +4dB.

²⁾ 380VY 50Hz, the 12th,13th digit of motor order No. must be "90", with option code M3F.

选型技术数据表 Technical data table

中国能效等级 3 级, IE3

机座号 Frame Size	型号 Order No.	额定 功率 Rated Output	额定 转速 Rated Speed	效率 – 参照 GB18613-2020, 即 IEC 60034-30 Efficiency is in accordance with GB18613-2020, IEC 60034-30				额定 转矩 Rated torque	起动 电流 Starting Current	起动 转矩 Starting torque	最大 转矩 Max torque	转动惯量 Moment of inertia(J)	噪音 ¹⁾ Noise LpfA	噪音 ¹⁾ Noise LWA	重量 Weight IMB3															
				效率 Efficiency at (50 HZ) 4/4 load	效率 Efficiency at (50 HZ) 3/4 load	功率 因数 Power factor	额定 电流 (380V) Rated current																							
				KW	rpm	%	%	A	Nm	直接起动对额定转矩(电流)的倍数 For direct-on-line starting as multiple of the rated																				
750rpm 8-pole																														
380VY²⁾ 50HZ																														
132S	1MT0003-1CD09-0 □□□	2.2	725	81.9	82.6	0.73	5.6	29	5.5	1.8	3.0	0.047	51	64	83															
132M	1MT0003-1CD29-0 □□□	3	720	83.5	84.5	0.74	7.4	39.8	5.5	1.8	3.0	0.062	51	64	97															
750rpm 8-pole																														
380VD/660VY 50HZ																														
160M	1MT0003-1DD23-3 □□□	4	728	84.8	86.4	0.74	9.7	52.5	5.5	1.7	2.8	0.076	55	68	129															
160M	1MT0003-1DD33-3 □□□	5.5	732	86.2	87.1	0.74	13.1	71.8	6.0	1.7	3.0	0.101	55	68	140															
160L	1MT0003-1DD43-3 □□□	7.5	732	87.3	88.3	0.74	17.6	97.8	6.0	1.8	3.0	0.128	55	68	162															
180L	1MT0003-1ED43-3 □□□	11	720	88.6	89.9	0.74	25.5	146	5.5	2.0	3.0	0.261	60	73	234															
200L	1MT0003-2AD53-3 □□□	15	728	89.6	90.2	0.73	35	197	6.5	2.5	3.5	0.413	61	74	313															
225S	1MT0003-2BD03-3 □□□	18.5	732	90.1	90.9	0.75	41.5	241	6.5	2.0	3.0	0.552	58	72	331															
225M	1MT0003-2BD23-3 □□□	22	732	90.6	91.5	0.75	49	287	6.5	2.0	2.5	0.608	58	72	359															
250M	1MT0003-2CD23-3 □□□	30	735	91.3	92.1	0.79	63	390	6.5	2.0	3.0	0.924	67	80	451															
280S	1MT0003-2DD03-3 □□□	37	735	91.8	92.8	0.79	78	481	5.5	2.4	2.5	1.183	69	82	540															
280M	1MT0003-2DD23-3 □□□	45	735	92.2	93.1	0.80	93	585	6.0	2.4	2.5	1.736	69	82	650															
315S	1MT0003-3AD03-3 □□□	55	738	92.5	93.0	0.81	112	710	6.2	1.8	2.9	2.16	70	83	860															
315M	1MT0003-3AD23-3 □□□	75	738	93.1	93.6	0.81	151	970	6.7	1.8	2.5	2.70	70	83	955															
315L	1MT0003-3AD53-3 □□□	90	738	93.4	93.9	0.82	179	1165	5.9	1.8	2.3	3.40	70	83	1000															
315L	1MT0003-3AD63-3 □□□	110	738	93.7	94.2	0.82	220	1418	7.1	2.3	3.0	4.25	70	83	1150															
355S	1MT0003-3BD23-3 □□□	132	743	94.0	94.5	0.81	265	1699	7.1	2.2	2.4	8.09	77	90	1630															
355M	1MT0003-3BD33-3 □□□	160	742	94.3	94.8	0.81	320	2059	7.1	2.2	2.4	9.50	77	90	1840															
355L	1MT0003-3BD53-3 □□□	185	742	94.6	95.0	0.82	360	2382	7.1	2.0	2.1	11.25	77	90	2010															
355L	1MT0003-3BD63-3 □□□	200	742	94.6	95.0	0.83	385	2576	7.4	2.0	2.1	12.63	77	90	2120															

注:

¹⁾ 当电动机在50Hz电源供电空载运行时, 噪音容差为+3dB。当在60Hz电源下空载运行时, 噪音容差为+4dB。

²⁾ 380VY 50Hz, 电动机订货号第 12、13 位代码为 90, 且须带选件 M3F。

Note:

¹⁾ Noise value is only applicable to the direct power supply and the condition of no-load operation. If the motor in 50Hz power supply, the tolerance is +3dB. If the motor in 60Hz power supply, the tolerance is +4dB.

²⁾ 380VY 50Hz, the 12th,13th digit of motor order No. must be "90", with option code M3F.

选件 Options

电动机订货号 Motor order code	选件号 Option Code ¹⁾	描述 Description	应用范围 Application Scope
电压与频率 <i>Voltages and frequency</i>			
1MT003-□□□□2-1□□□	—	220VΔ / 380VY 50 Hz (50Hz output, 50Hz功率输出)	FS112 ~ 280 ³⁾
1MT003-□□□□3-3□□□	—	380VΔ / 660VY 50 Hz (50Hz output, 50Hz功率输出, 4 kW ~ 315 kW ²⁾)	FS112 ~ 355 ³⁾
1MT003-□□□□2-2□□□	—	230VΔ / 400VY 50 Hz (50Hz output, 50Hz功率输出)	FS112 ~ 280 ³⁾
1MT003-□□□□3-4□□□	—	400VΔ / 690VY 50 Hz (50Hz output, 50Hz功率输出)	FS112 ~ 355 ³⁾
1MT003-□□□□9-0□□□-Z	M3F ²⁾	380 VY 50 Hz (50Hz output, 50Hz的输出功率)	FS80 ~ 132 ⁴⁾
绕组保护和轴承保护 <i>Winding protection and bearing protection</i>			
1MT003-□□□□□-□□A□ ²⁾	—	无绕组保护 Without motor protection	FS80 ~ 355
1MT003-□□□□□-□□B□	—	绕组带一组三芯串联的 PTC 热敏电阻用于跳闸, 需用2个辅助接线端子 Motor protection with PTC thermistors with three embedded temperature sensors for tripping, need 2 terminals	FS80 ~ 355
1MT003-□□□□□-□□C□	—	绕组带两组三芯串联的 PTC 热敏电阻用于报警和跳闸, 需用4个辅助接线端子 Motor protection with PTC thermistors with six embedded temperature sensors for alarm & tripping, need 4 terminals	FS80 ~ 355
1MT003-□□□□□-□□H□-Z	—	绕组带3个单支两线制PT100测温元件, 需用6个辅助接线端子 Installation of 3 single 2 wires PT100 resistance thermometers, need 6 terminals	FS100 ~ 355
1MT003-□□□□□-□□J□-Z	—	绕组带6个单支两线制PT100测温元件, 需用12个辅助接线端子 Installation of 6 single 2 wires PT100 resistance thermometers, need 12 terminals	FS180 ~ 355
—	Q04	绕组带 220 V 防潮加热带 Anti-condensation heating for 220 V	FS80 ~ 355
—	Q72 ⁵⁾	轴承带2个单支双线制PT100测温元件, 需用4个辅助接线端子 Installation of 2 single 2 wires PT100 resistance thermometers for bearings, need 4 terminals	FS160 ~ 355
冷却与通风 <i>Ventilation</i>			
—	F76	金属风扇 Metal Fan	FS80 ~ 355

¹⁾ 订货时, 电动机订货号需带 “-Z” , 另外附带上选件号。

¹⁾ When ordering, need supplement "-Z" after order number. Add option code after that.

²⁾ 无需附加费用。

²⁾ Without additional charge.

³⁾ 适用于4kW及以上的功率。

³⁾ Apply to 4kW and above.

⁴⁾ 适用于3kW及以下的功率。

⁴⁾ Apply to 3kW and below.

⁵⁾ 适用于2, 4, 6极电机。

⁵⁾ Apply to motors with 2,4,6 poles.

选件 Options

电动机订货号 Motor order code	选件号 Option Code ¹⁾	描述 Description	应用范围 Application Scope
电动机接线盒 Motor connection box			
1MT0003-□□□□□-□□□ ²⁾	—	接线盒在顶端 Connection box on top 进线孔在右侧（从驱动端看）（标准电动机） cable entry on right (view from DE) (Standard version)	FS80 ~ 355
—	R10 ⁶⁾	接线盒顺时针旋转 90° Clockwise rotate the connection box through 90°	FS80 ~ 355
—	R11	接线盒逆时针旋转 90° Counter-clockwise rotate the connection box through 90°	FS80 ~ 355
—	R12	接线盒直接旋转 180° Rotation of the connection box through 180°	FS80 ~ 355
—	X97	钢管布线孔 Conduit entry	FS80 ~ 355
轴承 bearing			
—	L80	SKF轴承 SKF bearings	FS80 ~ 355
—	L81	其他进口品牌轴承 Other import brand bearing	FS80 ~ 355
—	L82	驱动端轴带螺纹孔 DE shaft with threaded hole	FS80 ~ 355
—	L20	驱动端轴承固定 Located bearing at DE	FS80 ~ 132
—	L22	增强悬臂力轴承设计 Bearing design for increased cantilever forces	FS160 ~ 355
—	L23 ⁷⁾	再润滑装置 Regreasing device	FS160 ~ 250

¹⁾ 订货时，电动机订货号需带“-Z”，另外附带上选件号。

¹⁾ When ordering, need supplement "-Z" after order number. Add option code after that.

²⁾ 无需附加费用。

²⁾ Without additional charge.

⁶⁾ 选择此项时需留意安装环境，请确认进线孔前方有足够的空间用于接入电缆。

⁶⁾ When ordering this option, please take care about the installation location that whether there is enough space for cable inserting.

⁷⁾ 对于FS280、FS315、FS355，再润滑装置是标配。加排油装置不可用于B8安装方式。

⁷⁾ Re-grease device is configured as standard for FS280, FS315, and FS355. Re-grease device can't be configured together with mounting construction IM B8.

选件 Options

电动机订货号 Motor order code	选件号 Option Code ¹⁾	描述 Description	应用范围 Application Scope
平衡及振动等级 Balance and Vibration quantity			
—	L00	B 级振动等级 Vibration quantity level B	FS80 ~ 355
机械设计和防护等级 Mechanical design and degrees of protection			
—	H70	第二外部接地 2nd External grounding	FS80 ~ 355
—	H22	IP56 防护等级 (非高海况) IP56 degree of protection (non-heavy-sea)	FS80 ~ 355
变频应用 Converter fed application			
—	F70+B44 ⁸⁾	由变频器驱动的电机，IC416冷却方式, 电机带独立驱动风扇, 温升等级按照F级考核 For converter-fed operation, Mounting of separately-driven fan ,utilization in accordance with temperature class F	FS80~355
铭牌和测试证书 Rating plate and test certificates			
—	B80	出厂检验报告 Acceptance test certificate 3.1 in accordance with EN 10204	FS80 ~ 355
颜色和喷漆 Colors and Paint finish			
—	S01	不喷漆, 只带底漆 Unpainted, only primed	FS80 ~ 355
包装 Packing			
—	B90	包装 (FS80 ~ 132 电动机采用纸箱包装, FS160 ~ 355 电动机采用木箱包装) Packing(FS80~132 motors adopt the carton packaging, FS160~355 motors adopt the wooden cases packaging)	FS80 ~ 355

¹⁾ 订货时, 电动机订货号需带 “-Z” , 另外附带上选件号。

¹⁾ When ordering, need supplement "-Z" after order number. Add option code after that.

⁸⁾ 对于变频防爆应用, 须同时选用绕组测温。机座号为FS315和FS355的电机在选F70+B44时, 非驱动端标配为绝缘轴承, 无需增加选件。当选择F70+B44时, 全系列标配金属风扇, 无需选择F76。

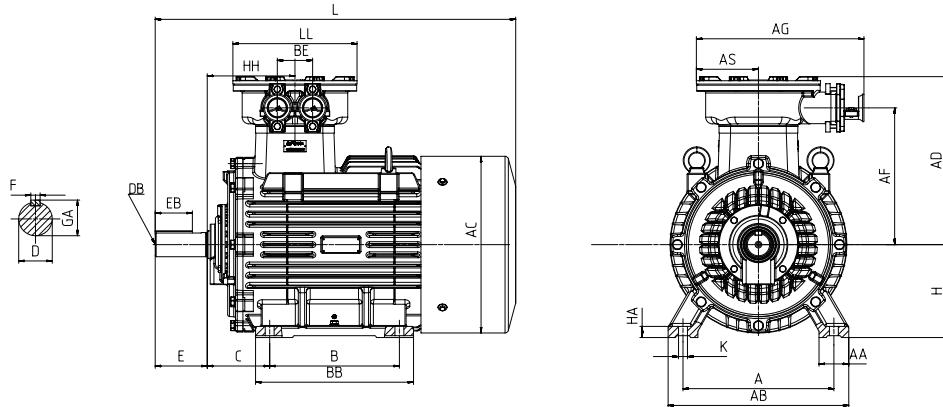
⁸⁾ For VSD application, please select winding protection. For FS315/355, insulated bearing at NDE is configurated as default. When F70+B44 is selected, the motor is configured with metal fan for FS80-FS355. No need to select F76.

外形尺寸 Dimension drawings

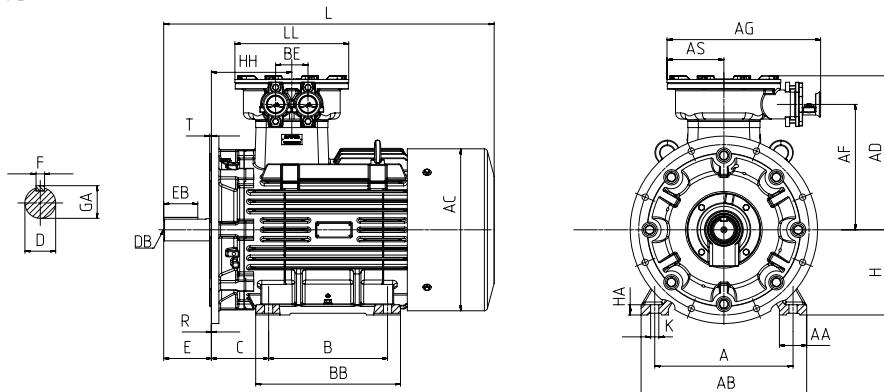
1MT0003隔爆系列电动机 Flameproof series motor 1MT0003

机座号从 80M ~ 355M Frame sizes 80M to 355M

IM B3 安装结构型式 Type of construction IM B3

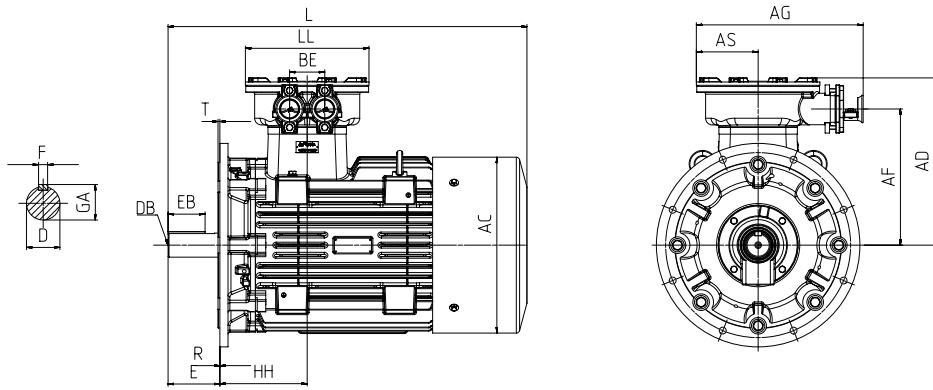


IM B35 安装结构型式 Type of construction IM B35

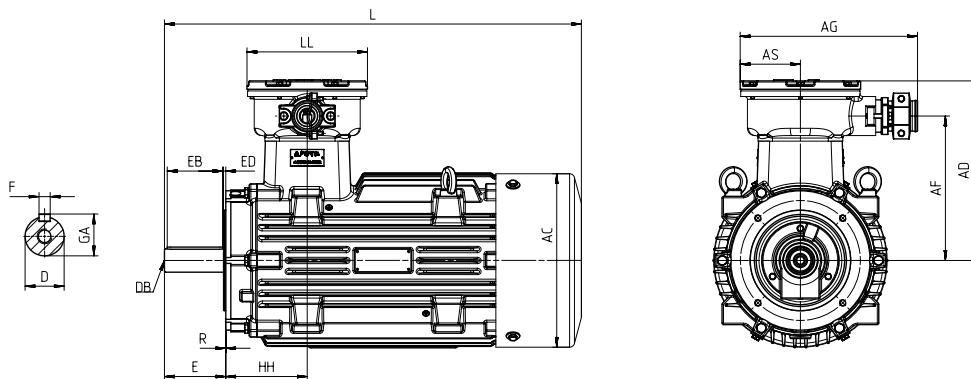


机座号 Frame size	订货号 MLFB 1MT0003-	极数 Poles	尺寸及公差/mm Dimension and tolerance											
			A	B	C		D		E		F		GA	
					基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance		
80M	0DA2, 0DA3, 0DB2, 0DB3, 0DC3	2,4,6	125	100	50	± 1.5	19	$+0.009$ -0.004	40	± 0.3	6	0 -0.030	21.5	
90S	0EA0, 0EB0, 0EC0	2,4,6	140	100	56	± 1.5	24	$+0.009$ -0.004	50	± 0.3	8	0 -0.036	27	
90L	0EA4, 0EB4, 0EC4	2,4,6	140	125	56	± 1.5	24	$+0.009$ -0.004	50	± 0.3	8	0 -0.036	27	
100L	1AA4, 1AB4, 1AB5, 1AC4	2,4,6	160	140	63	± 2.0	28	$+0.009$ -0.004	60	± 0.3	8	0 -0.036	31	
112M	1BA2, 1BB2, 1BC2	2,4,6	190	140	70	± 2.0	28	$+0.009$ -0.004	60	± 0.3	8	0 -0.036	31	
132S	1CA0, 1CA1, 1CB0, 1CC0, 1CD0	2,4,6,8	216	140	89	± 2.0	38	$+0.018$ $+0.002$	80	± 0.3	10	0 -0.036	41	
132M	1CB2, 1CC2, 1CC3, 1CD2	4,6,8	216	178	89	± 2.0	38	$+0.018$ $+0.002$	80	± 0.3	10	0 -0.036	41	
160M	1DA2, 1DA3, 1DB2, 1DC2, 1DD2, 1DD3	2,4,6,8	254	210	108	± 3.0	42	$+0.018$ $+0.002$	110	± 0.3	12	0 -0.043	45	
160L	1DA4, 1DB4, 1DC4, 1DD4	2,4,6,8	254	254	108	± 3.0	42	$+0.018$ $+0.002$	110	± 0.3	12	0 -0.043	45	
180M	1EA2, 1EB2	2,4	279	241	121	± 3.0	48	$+0.018$ $+0.002$	110	± 0.3	14	0 -0.043	51.5	

IM B5 以及 IM V1 安装结构型式 Type of construction IM B5 and IM V1



IM B14 安装结构型式 Type of construction IM B14



尺寸及公差/mm Dimension and tolerance

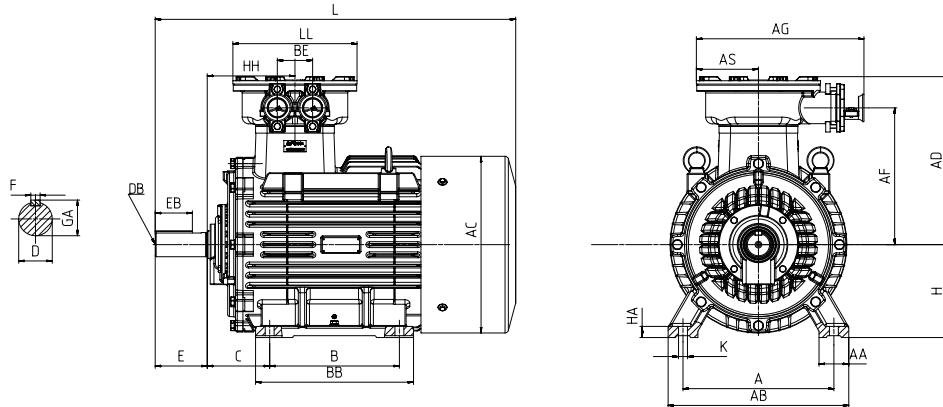
基本尺寸 dimension	H		K		AB	AC	AD	L	AA	AF	AG	AS	BB	BE	HA	LL	DB	EB		AQ	LM	HH	R
	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance														基本尺寸 dimension	极限偏差 tolerance				
80	0 -0.5	10	+0.36 0	160	161	215	390	34	159	265	84	130	-	10	168	M6	32	0 -0.62	145	445	108	0	
90	0 -0.5	10	+0.36 0	176	175	225	420	36	167	265	84	130	-	14	168	M8	40	0 -0.62	165	475	111	0	
90	0 -0.5	10	+0.36 0	176	175	225	455	36	167	265	84	155	-	14	168	M8	40	0 -0.62	165	510	111	0	
100	0 -0.5	12	+0.43 0	200	196	245	535	40	187	265	84	174	-	14	168	M10	50	0 -0.62	195	590	131	0	
112	0 -0.5	12	+0.43 0	240	221	255	485	50	187	300	104	180	-	16	208	M10	50	0 -0.62	220	540	125	0	
132	0 -0.5	12	+0.43 0	262	257	285	530	55	215	300	104	190	-	18	208	M12	70	0 -0.74	257	585	127	0	
132	0 -0.5	12	+0.43 0	262	257	285	580	55	215	300	104	230	-	18	208	M12	70	0 -0.74	257	640	127	0	
160	0 -0.5	15	+0.43 0	324	311	330	690	70	259	318	108	258	-	25	216	M16	100	0 -0.87	300	755	146	0	
160	0 -0.5	15	+0.43 0	324	311	330	755	70	259	318	108	302	-	25	216	M16	100	0 -0.87	300	820	146	0	
180	0 -0.5	15	+0.43 0	349	356	350	785	70	280	318	108	321	-	22	216	M16	100	0 -0.87	330	855	169	0	

外形尺寸 Dimension drawings

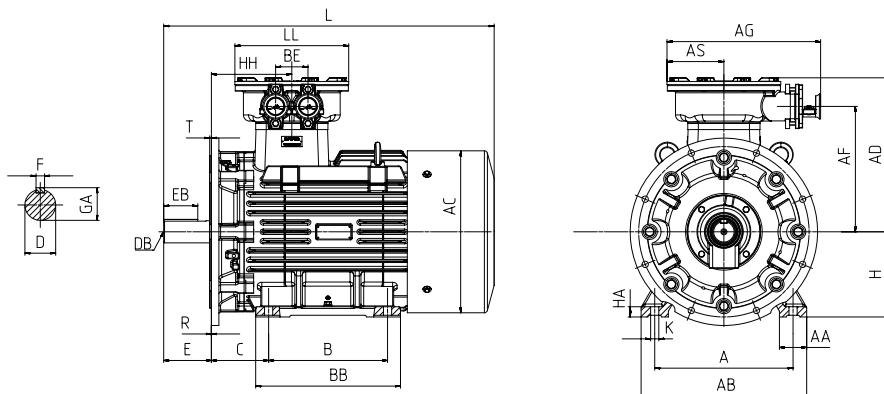
1MT0003隔爆系列电动机 Flameproof series motor 1MT0003

机座号从 80M ~ 355M Frame sizes 80M to 355M

IM B3 安装结构型式 Type of construction IM B3

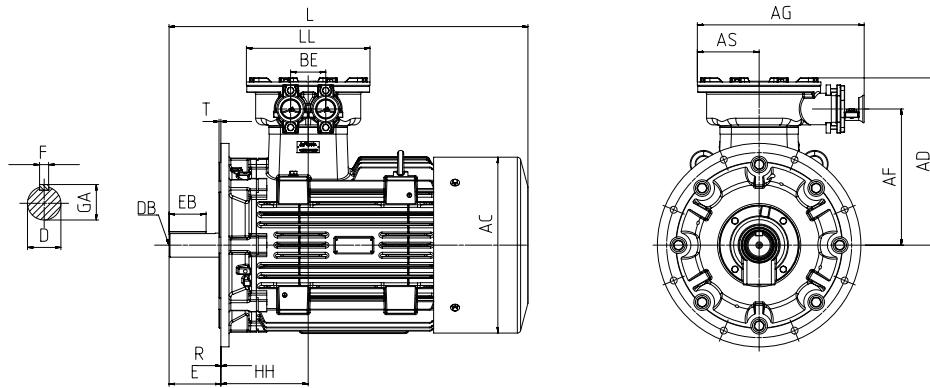


IM B35 安装结构型式 Type of construction IM B35

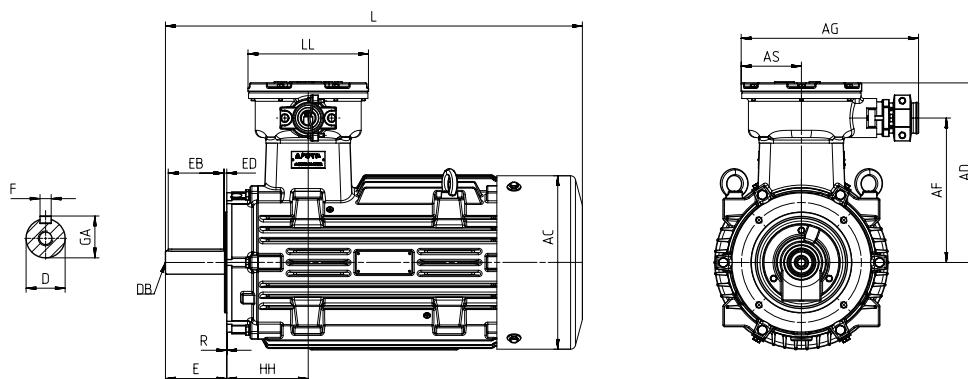


机座号 Frame size	订货号 MLFB 1MT0003-	极数 Poles	尺寸及公差/mm Dimension and tolerance											
			A	B	C		D		E		F		GA	
					基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance		
180L	1EB4, 1EC4, 1ED4	4,6,8	279	279	121	±3.0	48	+0.018 +0.002	110	±0.3	14	0 -0.043	51.5	
200L	2AA4, 2AA5, 2AB4, 2AC4, 2AC5, 2AD5	2,4,6,8	318	305	133	±3.0	55	+0.030 +0.011	110	±0.3	16	0 -0.043	59	
225S	2BB0, 2BD0	4,8	356	286	149	±4.0	60	+0.030 +0.011	140	±0.5	18	0 -0.043	64	
225M	2BA2	2	356	311	149	±4.0	55	+0.030 +0.011	110	±0.3	16	0 -0.043	59	
	2BB2, 2BC2, 2BD2	4,6,8	356	311	149	±4.0	60	+0.030 +0.011	140	±0.5	18	0 -0.043	64	
250M	2CA2	2	406	349	168	±4.0	60	+0.030 +0.011	140	±0.5	18	0 -0.043	64	
	2CB2, 2CC2, 2CD2	4,6,8	406	349	168	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043	69	
280S	2DA0	2	457	368	190	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043	69	
	2DB0, 2DC0, 2DD0	4,6,8	457	368	190	±4.0	75	+0.030 +0.011	140	±0.5	20	0 -0.052	79.5	

IM B5 以及 IM V1 安装结构型式 Type of construction IM B5 and IM V1



IM B14 安装结构型式 Type of construction IM B14



尺寸及公差/mm Dimension and tolerance

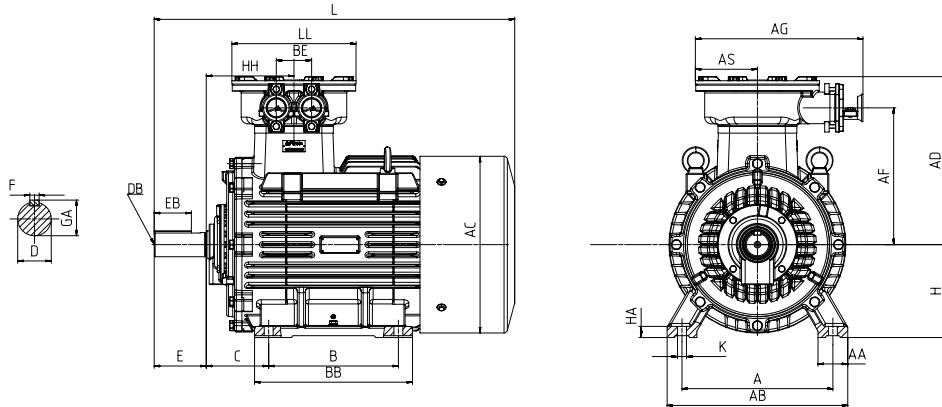
基本尺寸 dimension	H		K		AB	AC	AD	L	AA	AF	AG	AS	BB	BE	HA	LL	DB	EB		ED	AQ	LM	HH	R
	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance														基本尺寸 dimension	极限偏差 tolerance					
180	0 -0.5	15	+0.43 0	349	356	350	825	70	280	318	108	359	-	22	216	M16	100	0 -0.87	5	330	890	169	0	
200	0 -0.5	19	+0.52 0	388	398	390	905	70	311.5	371	129	369	-	25	258	M20	100	0 -0.87	5	370	970	200	0	
225	0 -0.5	19	+0.52 0	431	429	405	925	75	332	371	129	355	-	28	258	M20	125	0 -1	10	415	900	205	0	
225	0 -0.5	19	+0.52 0	431	429	405	980	75	332	371	129	380	-	28	258	M20	100	0 -0.87	5	415	1045	205	0	
225	0 -0.5	19	+0.52 0	431	429	405	1010	75	332	371	129	380	-	28	258	M20	125	0 -1	10	415	1075	205	0	
250	0 -0.5	24	+0.52 0	486	475	455	975	80	368	451	167	425	95	30	334	M20	125	0 -1	10	465	1055	236	0	
250	0 -0.5	24	+0.52 0	486	475	455	975	80	368	451	167	425	95	30	334	M20	125	0 -1	10	465	1055	236	0	
280	0 -1.0	24	+0.52 0	542	530	485	1020	85	398	451	167	445	95	35	332	M20	125	0 -1	10	505	1100	235	0	
280	0 -1.0	24	+0.52 0	542	530	485	1020	85	398	451	167	445	95	35	332	M20	125	0 -1	10	505	1100	235	0	

外形尺寸 Dimension drawings

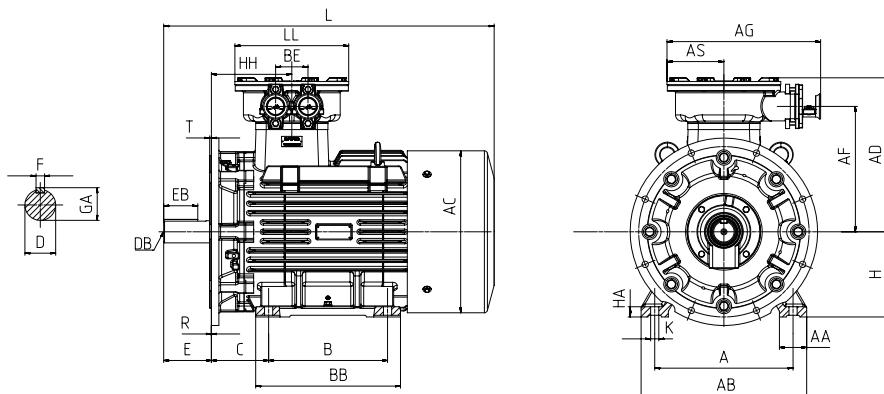
1MT0003隔爆系列电动机 Flameproof series motor 1MT0003

机座号从 80M ~ 355M Frame sizes 80M to 355M

IM B3 安装结构型式 Type of construction IM B3

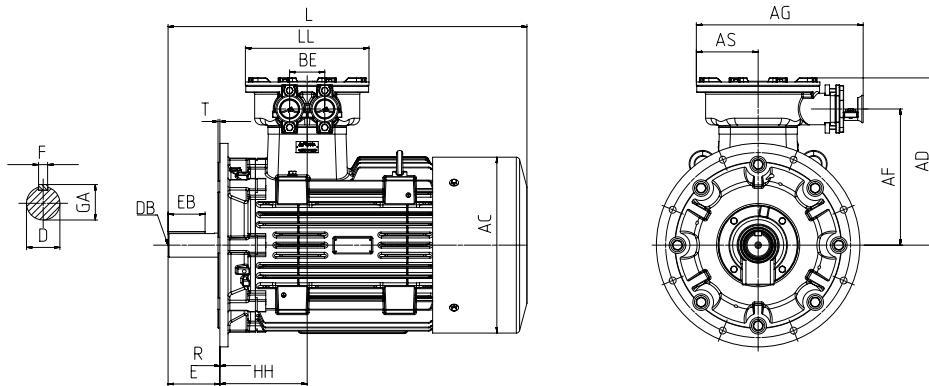


IM B35 安装结构型式 Type of construction IM B35

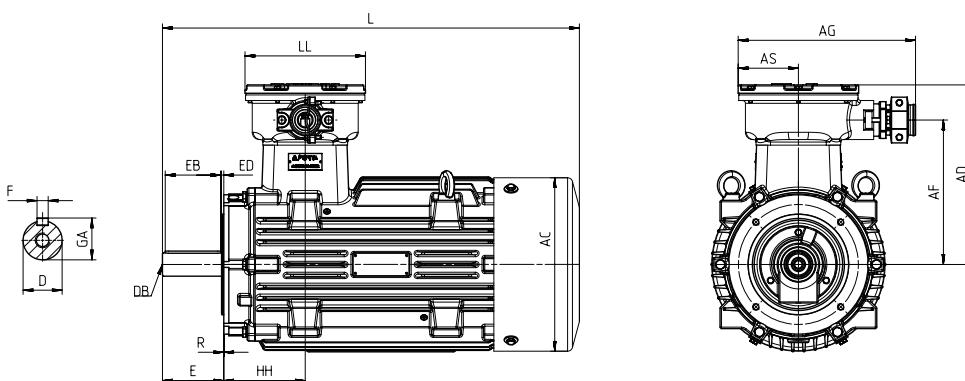


机座号 Frame size	订货号 MLFB 1MT0003-	极数 Poles	尺寸及公差/mm Dimension and tolerance											
			A	B	C		D		E		F		GA	
280M	2DA2	2		457	419	190	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043	69
	2DB2, 2DC2, 2DD2	4,6,8		457	419	190	±4.0	75	+0.030 +0.011	140	±0.5	20	0 -0.052	79.5
315S	3AA0	2	508	406	216	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043	69	
	3AB0,3AC0,3AD0	4,6,8	508	406	216	±4.0	80	+0.030 +0.011	170	±0.5	22	0 -0.052		85
315M	3AA2	2	508	457	216	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043		69
	3AB2,3AC2,3AD2	4,6,8	508	457	216	±4.0	80	+0.030 +0.011	170	±0.5	22	0 -0.052		85
315L	3AA5,3AA6,3AA7	2	508	508	216	±4.0	65	+0.030 +0.011	140	±0.5	18	0 -0.043		69
	3AB5,3AB6,3AB7,3AC5,3AC6,3A D5,3AD6	4,6,8	508	508	216	±4.0	80	+0.030 +0.011	170	±0.5	22	0 -0.052		85
355S	3BC2,3BD2	6,8	610	500	254	±4.0	95	+0.035 +0.013	170	±0.5	25	0 -0.052		100
355M	3BA2,3BA3	2	610	560	254	±4.0	75	+0.030 +0.011	140	±0.5	20	0 -0.052		79.5
	3BB2,3BB3,3BC3,3BC4,3BD3	4,6,8	610	560	254	±4.0	95	+0.035 +0.013	170	±0.5	25	0 -0.052		100
355L	3BA5,3BA6	2	610	630	254	±4.0	75	+0.030 +0.011	140	±0.5	20	0 -0.052		79.5
	3BB5,3BB6,3BC5,3BC6, 3BD5,3BD6	4,6,8	610	630	254	±4.0	95	+0.035 +0.013	170	±0.5	25	0 -0.052		100

IM B5 以及 IM V1 安装结构型式 Type of construction IM B5 and IM V1



IM B14 安装结构型式 Type of construction IM B14



尺寸及公差/mm Dimension and tolerance

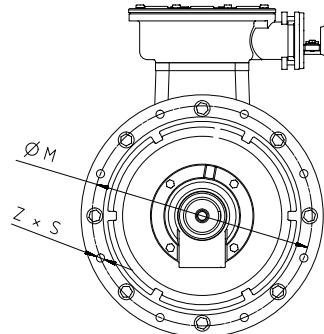
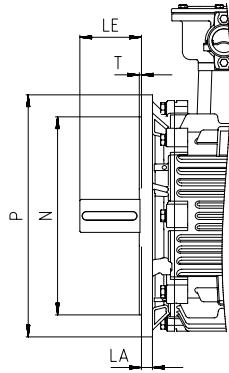
基本尺寸 dimension	H		K		AB	AC	AD	L	AA	AF	AG	AS	BB	BE	HA	LL	DB	EB		ED	AQ	LM	HH	R
	基本尺寸 dimension	极限偏差 tolerance	基本尺寸 dimension	极限偏差 tolerance														基本尺寸 dimension	极限偏差 tolerance					
280	0 -1.0	24	+0.52 0	542	530	485	1085	85	398	451	167	505	95	35	332	M20	125	0 -1	10	505	1165	235	0	
280	0 -1.0	24	+0.52 0	542	530	485	1085	85	398	451	167	505	95	35	332	M20	125	0 -1	10	505	1165	235	0	
315	0 -1.0	28	+0.52 0	628	581	605	1280	120	483	557	211	546	120	45	422	M20	125	0 -1	10	590	1350	299	0	
315	0 -1.0	28	+0.52 0	628	581	605	1310	120	483	557	211	546	120	45	422	M20	140	0 -1	25	590	1380	299	0	
315	0 -1.0	28	+0.52 0	628	581	605	1440	120	483	557	211	648	120	45	422	M20	125	0 -1	10	590	1510	299	0	
315	0 -1.0	28	+0.52 0	628	581	605	1470	120	483	557	211	648	120	45	422	M20	140	0 -1	25	590	1540	299	0	
315	0 -1.0	28	+0.52 0	628	581	605	1440	120	483	557	211	648	120	45	422	M20	125	0 -1	10	590	1510	299	0	
315	0 -1.0	28	+0.52 0	628	581	605	1470	120	483	557	211	648	120	45	422	M20	140	0 -1	25	590	1540	299	0	
355	0 -1.0	28	+0.52 0	730	697	690	1455	120	570	557	211	630	120	50	422	M24	140	0 -1	25	665	1525	294	0	
355	0 -1.0	28	+0.52 0	730	697	690	1585	120	570	557	211	780	120	50	422	M20	125	0 -1	10	665	1655	294	0	
355	0 -1.0	28	+0.52 0	730	697	690	1615	120	570	557	211	780	120	50	422	M24	140	0 -1	25	665	1685	294	0	
355	0 -1.0	28	+0.52 0	730	697	690	1585	120	570	557	211	780	120	50	422	M20	125	0 -1	10	665	1655	294	0	
355	0 -1.0	28	+0.52 0	730	697	690	1615	120	570	557	211	780	120	50	422	M24	140	0 -1	25	665	1685	294	0	

外形尺寸 Dimension drawings

法兰尺寸 Flange dimension

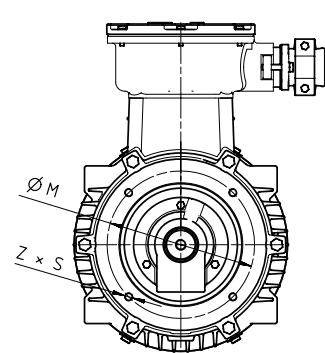
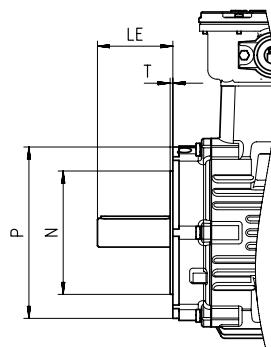
IM B5、IM B35、IM V1、IM V3 安装结构型式

Type of construction IM B5, IM B35, IM V1, IM V3



IM B14、IM V18、IM V19 安装结构型式

Type of construction IM B14, IM V18, IM V19



IM B5法兰尺寸 IM B5 flange dimensions

机座号 Frame size	法兰带通孔(FF/A) Flange with holes	尺寸 Dimension							
		DIN / EN 50347	LA	LE	M	N	P	T	S
80	FF165	12	40	165	130	200	3.5	12	4
90	FF165	10	50	165	130	200	3.5	12	4
100	FF215	13	60	215	180	250	4	14.5	4
112	FF215	13	60	215	180	250	4	14.5	4
132	FF265	15	80	265	230	300	4	14.5	4
160	FF300	18	110	300	250	350	5	18.5	4
180	FF300	18	110	300	250	350	5	18.5	4
200	FF350	20	110	350	300	400	5	18.5	4
225	FF400	20	110/140	400	350	450	5	18.5	8
250	FF500	22	140	500	450	550	5	18.5	8
280	FF500	25	140	500	450	550	5	18.5	8
315	FF600	25	140/170	600	550	660	6	24	8
355	FF740	25	140/170	740	680	800	6	24	8

IM B14法兰尺寸 IM B14 flange dimensions

机座号 Frame size	法兰带盲孔(FT/C) Flange with blind holes	尺寸 Dimension							
		DIN / EN 50347	LA	LE	M	N	P	T	S
80	FT100	—	40	100	80	120	3	M6×15 ¹⁾	4
90	FT115	—	50	115	95	140	3	M8×15	4
100	FT130	—	60	130	110	160	3.5	M8×17	4
112	FT130	—	60	130	110	160	3.5	M8×17	4
132	FT165	—	80	165	130	200	3.5	M10×19	4
160	FT215	—	110	215	180	250	4	M12×23	4

¹⁾ 上表中S尺寸为螺纹规格×孔深（例：M12×23表示螺纹规格M12，螺纹孔深度23mm）。

¹⁾ Dimension S in the table includes screw thread x depth. (eg: M12 x 23 means screw thread is M12 and the depth is 23 mm)

认证 Certificates



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