
IE5 M2BAF低压一般用途电机
IE5 M2BAF - Low voltage
General performance motors



目录

Content

04	产品概述	04	General information
06	订购信息	06	Ordering information
07	铭牌	07	Rating plates
08	机械设计	08	Mechanical design
13	变频器驱动	13	Variable speed drives
15	技术数据 IE5	15	Technical data IE5
18	外形图及外形尺寸	18	Dimension drawings
23	变量代码	23	Variant codes
24	一般用途电机简介	24	General performance motors in brief

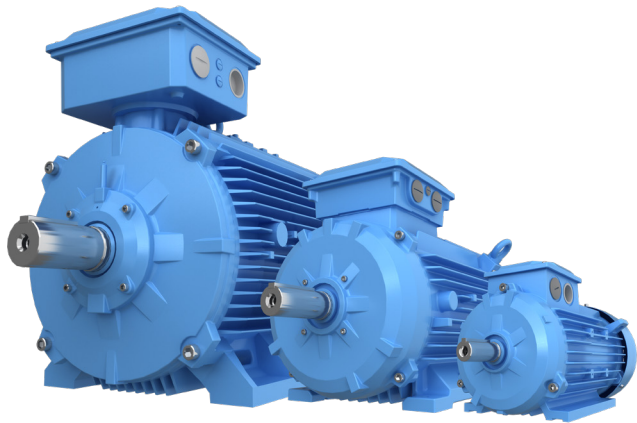
产品概述

General information

标准

ABB 电机采用全封闭三相鼠笼型设计，其工艺符合 IEC 国际标准以及中国 GB 标准。效率达到国标 1 级（GB18613-2020），相当于 IEC 的 IE5 效率水平。

生产厂家通过 ISO9001 国际质量认证及 ISO14000 环境标准。



基本特征	
绝缘等级	F
防护等级	IP55
冷却方式	IC411
额定电压	380V
额定频率	50Hz
接法	3kW及以下Y接，3kW以上Δ接
环境温度	-20℃ ~ 40℃
海拔不超过	1000m

产品简介

M2BAF 系列电机主要是针对风机、水泵，挤出机，搅拌机，线缆机，食品机械等应用的 OEM 客户设计，适用于水处理、暖通空调、食品饮料等诸多行业。M2BAF 的优异品质及服务为客户提供了增值的空间，并确保了订单的快速交付。

产品特点

- 高性价比：优化配置，经济适用
- 细分市场：中国定制，轻载专用
- 超短交期：大量现货，快速交付
- 超快服务：超快服务，迅速响应

Standards

ABB motors are of the totally enclosed, three phase squirrel cage type, built to comply with international IEC and China GB standards. The efficiency level reaches GB Grade 1 (GB18613-2020), the efficiency level is equivalent to IEC IE5.

Production units are certified to ISO 9001 international quality standard as well as ISO 14000 environmental standards.

IEC/EN

电气 Electrical	机械 Mechanical
IEC/EN 60034-1	IEC 60072
IEC/EN 60034-2-1	IEC/EN 60034-5
IEC/EN 60034-30	IEC/EN 60034-6
IEC/EN 60034-8	IEC/EN 60034-7
IEC/EN 60034-12	IEC/EN 60034-8
	IEC 60034-14

GB

电气 Electrical	机械 Mechanical
GB/T 755	GB/T 4772.1
GB/T 1032	GB/T 4942.1
GB 18613	GB/T 1993
GB 1971	GB/T 997
GB/T 21210	GB 1971
	GB/T 10068

General Feature	
Insulation	F
Degrees of protection	IP55
Cooling	IC411
Voltage	380V
Frequency	50Hz
Y connection for 3kW and below,Δ connection for 3kW above	
Ambient temperatue	-20℃ ~ 40℃
Max altitude	1000m

Brief

M2BAF series motors are mainly tailored for fans, pumps, extruder, mixer, cable machinery and food machinery OEM customers, it is suitable for water treatment, HVAC, F&B and many other industries. The excellent quality and service of M2BAF provide customers with value-added space and ensures the fast delivery of orders.

Product Trait

- High cost-effective: optimized configuration, economical and applicable
- Market segment: customized in China, dedicated for light load
- Ultra-short delivery time: large amount of stock, fast delivery
- Excellent service: ultra-fast service, quick response

产品概述 - 安装结构形式

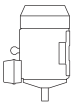
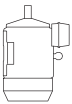
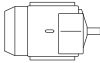
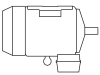
General information - Mounting arrangements

底脚安装型电机

Foot-mounted motor

代码 I / 代码 II

Code I / code II

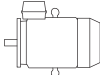
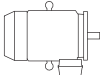
					
IM B3	IM V5	IM V6	IM B6	IM B7	IM B8
IM 1001	IM 1011	IM 1031	IM 1051	IM 1061	IM 1071

凸缘安装型电机，大凸缘

Flange-mounted motor, large flange

代码 I / 代码 II

Code I / code II

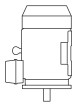
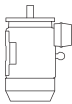
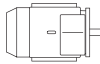
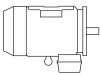
					
IM B5	IM V1	IM V3	*)	*)	*)
IM 3001	IM 3011	IM 3031	IM 3051	IM 3061	IM 3071

底脚和凸缘安装型电机，大凸缘

Foot- and flange-mounted motor with feet, large flange

代码 I / 代码 II

Code I / code II

					
IM B35	IM V15	IM V35	*)	*)	*)
IM 2001	IM 2011	IM 2031	IM 2051	IM 2061	IM 2071

*) Not Stated in IEC 60034-7.

IEC 60034-7 无规定

订购信息

Ordering information

订购时，请按照示例在订单中最少包含以下信息。电机产品代码根据以下示例编写。

When placing an order, please state the following minimum data in the order, as in the example. The product code of the motor is composed in accordance with the following example.

示例	
电机型号	M2BAF 112 MLA
极数	4
安装方式（IM 代码）	IM B3（IM1001）
额定输出	4 kW
产品代码	3GBA 112 410-ADRCN
附加代码（如需）	

Example	
Motor type	M2BAF 112 MLA
Pole number	4
Mounting arrangement（IM-code）	IM B3（IM1001）
Rated output	4 kW
Product code	3GBA 112 410-ADRCN
Variant codes if needed	

产品代码说明

Explanation of the product code

电机型号 Motor type	电机尺寸 Motor size	产品代码 Product code	安装方式代码，电压及频率代码，产品族代码 Mounting arrangement, voltage and frequency code, generation codes	变量代码 Variant codes
M2BAF	112MLA	3GBA 112 410 - ADRCN		002, etc
		1 2 3 4 5 6 7 8 9 10 11 12 13 14		

位置 1-4			
3GBA = 全封闭铸铁机座电机			
位置 5-6			
IEC 机座			
07 = 71	11 = 112	20 = 200	31 = 315
08 = 80	13 = 132	22 = 225	35 = 355
09 = 90	16 = 160	25 = 250	
10 = 100	18 = 180	28 = 280	
位置 7			
极对数			
1=2 极	3=6 极		
2=4 极			
位置 8 -10			
序列号			
位置 11			
-(破折号)			
位置 12			
安装方式			
A = 底脚安装型电机 B = 凸缘安装型电机			
位置 13			
电压和频率			
D 380 VΔ, 660 VY 50 Hz			
S 220 VΔ, 380 VY 50 Hz			
位置 14			
产品族代码			

Positions 1 to 4			
3GBA = Totally enclosed motor with cast iron frame			
Positions 5 to 6			
IEC size			
07 = 71	11 = 112	20 = 200	31 = 315
08 = 80	13 = 132	22 = 225	35 = 355
09 = 90	16 = 160	25 = 250	
10 = 100	18 = 180	28 = 280	
Positions 7			
Speed (pole pairs)			
1=2 poles	3=6 poles		
2=4 poles			
Positions 8 to 10			
Serial number			
Positions 11			
-(dash)			
Position 12			
Mounting arrangement			
A = Foot-mounted motor B = Flange-mounted motor. Large flange.			
Position 13			
Voltage and frequency			
D 380 VΔ, 660 VY 50 Hz			
S 220 VΔ, 380 VY 50 Hz			
Position 14			
Generation code			

铭牌

Rating plates

铭牌以表格形式提供两档电压的转速、电流和功率因数的数值。

The rating plates are in table form giving values for speed current and power factor for two voltages.

ABB Shanghai Motors Co. Ltd Shanghai 200245 P.R of China						
IEC 60034-1						
3 ~ Motor GB1 M2BAF 180MLA 6 IMB3/IM1001 2024						
No.		Ins.cl. F				IP 55
V	Hz	kW	r/min	A	cos φ	Duty
660 Y	50	15	990	18.3	0.76	S1
380 D	50	15	990	31.8	0.76	S1
IE5-50Hz-94.3%(100%)						
Product code 3GBA183410-ADRCN						
6310-2Z/C3 6210-2Z/C3 246 kg						

说明：
铭牌图片仅供格式参考，最终数据以实际铭牌为准。

ABB Shanghai Motors Co. Ltd Shanghai 200245 P.R of China						
IEC 60034-1						
3 ~ Motor GB1 M2BAF 80MLA 2 IMB3/IM1001 2024						
No.		Ins.cl. F				IP 55
V	Hz	kW	r/min	A	cos φ	Duty
380 Y	50	1.1	2911	2.2	0.85	S1
220 D	50	1.1	2912	3.8	0.85	S1
IE5-50Hz-87.8%(100%)						
Product code 3GBA081410-ASRCN						
6204-2Z 6204-2Z 20 kg						

Remark:
The format of the rating plate is for reference only. The final figure will be subject to the actual rating plate.

机械设计

Mechanical design

轴承
电机通常安装以下单列深沟球轴承。

标准设计

机座号	极数	标准设计	
		深沟球轴承	
		D 端	N 端
71	2-6	6203-2Z/C3	6202-2Z/C3
80	2-6	6204-2Z/C3	6204-2Z/C3
90	2-6	6205-2Z/C3	6205-2Z/C3
100	2-6	6206-2Z/C3	6206-2Z/C3
112	2-6	6207-2Z/C3	6206-2Z/C3
132	2-6	6208-2Z/C3	6208-2Z/C3
160	2-6	6309-2Z/C3	6209-2Z/C3
180	2-6	6310-2Z/C3	6210-2Z/C3
200	2-6	6312-2Z/C3	6212-2Z/C3
225	2-6	6313-2Z/C3	6213-2Z/C3
250	2-6	6315-2Z/C3	6215-2Z/C3
280	2-6	6316/C3	6316/C3
315	2	6316/C3	6316/C3
	4-6	6319/C3	6316/C3
355	2	6316/C3	6316/C3
	4-6	6322/C3	6316/C3

说明：
电机铭牌上显示轴承型号及描述方式仅供客户更换、维修轴承作参考，不代表轴承品牌，具体的轴承品牌以公司实际使用的为准。

轴向锁定轴承
所有电机在 D 端标配轴向锁定轴承。

Bearings
General performance motors are normally fitted with single-row deep-groove ball bearings, as shown in the table below.

Standard designs

Motor size	Number of poles	Standard design	
		Deep groove ball bearings	
		D-end	N-end
71	2-6	6203-2Z/C3	6202-2Z/C3
80	2-6	6204-2Z/C3	6204-2Z/C3
90	2-6	6205-2Z/C3	6205-2Z/C3
100	2-6	6206-2Z/C3	6206-2Z/C3
112	2-6	6207-2Z/C3	6206-2Z/C3
132	2-6	6208-2Z/C3	6208-2Z/C3
160	2-6	6309-2Z/C3	6209-2Z/C3
180	2-6	6310-2Z/C3	6210-2Z/C3
200	2-6	6312-2Z/C3	6212-2Z/C3
225	2-6	6313-2Z/C3	6213-2Z/C3
250	2-6	6315-2Z/C3	6215-2Z/C3
280	2-6	6316/C3	6316/C3
315	2	6316/C3	6316/C3
	4-6	6319/C3	6316/C3
355	2	6316/C3	6316/C3
	4-6	6322/C3	6316/C3

Remark:
The bearing type and description on rating plate do not represent the bearing brand, instead it is a technical consideration that can help the owner to make replacement and set up a maintenance program. The brand is subject to the bearing installed.

Axially-locked bearings
All motors are equipped as standard with an axially locked bearing. General at D-end.

机械设计

Mechanical design

轴承寿命

根据 ISO 281，轴承的正常寿命 L_{10h} 定义为在特定条件下 90% 的相同轴承在一系列测试中所达到或超过的运行小时数。50% 的轴承至少达到这一数字的五倍。

润滑

电机交货时，已经使用优质的润滑脂对电机进行润滑。
机座号71-250电机采用永久性润滑轴承。
机座号280-355电机采用再润滑轴承。

以下数值可作为轴承使用寿命指导值，具体寿命取决于应用和负载情况：2-6 极电机约为 40,000 小时。

皮带轮直径

所需轴承寿命确定后，最小允许皮带轮直径可使用 F_R 计算，如下所示：

$$D = \frac{1.9 \cdot 10^7 \cdot K \cdot P}{n \cdot F_R}$$

其中:
D： 带轮直径, 单位 (mm)
P： 功率要求, kW
n： 电机转速, r/min
K： 皮带张力因数, 取决于皮带类型和负载类型。 V 形皮带通用值为 2.5。
F_R : 允许径向力

Bearing life

The nominal life L_{10h} of a bearing is defined according to ISO 281 as the number of operating hours achieved or exceeded by 90% of identical bearings in a large test series under specified conditions. 50% of bearings achieve at least five times this lifetime.

Lubrication

On delivery, the motor are ready lubricated with high quality grease. In motor sizes 71-250, Motors are equipped with permanently greased bearings. In motor sizes 280-355, Motors are equipped with regreasable bearings.

The following values can be used as a guide for bearing lifetime, depending on application and load conditions: 2-6 pole motors about 40,000h.

Pulley diameter

When the desired bearing life has been determined, the minimum permissible pulley diameter can be calculated with F_R as follows:

$$D = \frac{1.9 \cdot 10^7 \cdot K \cdot P}{n \cdot F_R}$$

Where:
D： Pulley diameter, mm
P： Power requirement, kW
n： Motor speed, r/min
K： Belt tension factor, dependent on belt type and type of duty A common value of V-belts is 2.5
F_R : Permissible radial force

机械设计

Mechanical design

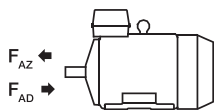
轴上允许负载

允许轴向力

表中提供了环境温度为 25℃ 时，50Hz 的正常条件下，径向力为零时的轴伸允许轴向力（N）。分别对轴承寿命满足 20000 和 40000 小时进行计算。

需提供同时存在径向力和轴向力的允许负载值，请联系 ABB。

给定轴向力 F_{AD} ，假设 D 端轴承由锁环锁定。



安装方式 IM B3

机座号 Motor size	极数 No. of poles	轴伸长度 Length of shaft extension E (mm)	深沟球轴承 Basic design with deep groove ball bearings			
			20,000小时 20,000 h		40,000小时 40,000 h	
			F_{AD} (N)	F_{AZ} (N)	F_{AD} (N)	F_{AZ} (N)
71	2	30	615	335	495	215
	4	30	780	500	610	330
	6	30	895	615	710	430
80	2	40	785	385	640	240
	4	40	990	590	780	380
	6	40	1130	730	885	485
90	2	50	920	360	765	205
	4	50	1145	585	915	355
	6	50	1300	740	1050	490
100	2	60	1205	545	985	325
	4	60	1480	820	1190	530
	6	60	1720	1060	1355	695
112	2	60	1565	905	1260	600
	4	60	1995	1335	1550	890
	6	60	2000	1340	1555	895
132	2	80	1735	855	1415	535
	4	80	2130	1250	1705	825
	6	80	2480	1600	1930	1050
160	2	110	2740	1960	2150	1370
	4	110	3515	2735	2730	1950
	6	110	4145	3365	3140	2360
180	2	110	3135	2335	2445	1645
	4	110	4005	3205	3095	2295
	6	110	4775	3975	3605	2805
200	2	110	4005	3105	3105	2205
	4	110	5140	4240	3960	3060
	6	110	6140	5240	4610	3710

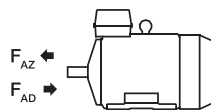
Permissible loading on the shaft

Permissible axial forces

The following table gives the permissible axial forces on shaft in Newton, assuming zero radial force, ambient temperature of 25℃, and normal conditions at 50Hz. The values are given for calculated bearing life of 20000 and 40000 hours per motor size.

Permissible loads of simultaneous radial and axial forces can be supplied on request.

For axial force F_{AD} , it is assumed that the D-bearing is locked with a locking ring.



Mounting arrangement IM B3

机座号 Motor size	极数 No. of poles	轴伸长度 Length of shaft extension E (mm)	深沟球轴承 Basic design with deep groove ball bearings			
			20,000小时 20,000 h		40,000小时 40,000 h	
			F_{AD} (N)	F_{AZ} (N)	F_{AD} (N)	F_{AZ} (N)
225	2	110	4365	3615	3350	2600
	4	140	5630	4880	4290	3540
	6	140	6785	6035	5045	4295
250	2	140	5355	4195	4125	2965
	4	140	7010	5850	5385	4225
	6	140	8095	6935	6170	5010
280	2	140	6125	4125	4805	2805
	4	140	7755	5755	6025	4025
	6	140	8930	6930	6890	4890
315SM	2	140	6080	4080	4765	2765
	4	170	9170	7170	6960	4960
	6	170	10400	8400	7990	5990
315ML	2	140	6005	4005	4690	2690
	4	170	8770	6770	6730	4730
	6	170	10090	8090	7695	5695
355SM	2	140	5697	3985	4397	2685
	4	210	11367	9655	8622	6910
	6	210	13117	11405	9897	8185
355ML	2	140	5632	3920	4332	2620
	4	210	11242	9530	8502	6790
	6	210	12917	11205	9707	7995
355LK	6	210	12747	11035	9542	7830

允许径向力

表中提供了环境温度为 25°C 时, 50Hz 的正常条件下, 轴向力为零时的轴伸允许径向力 (N)。分别对轴承寿命满足 20,000 小时和 40,000 小时进行计算。

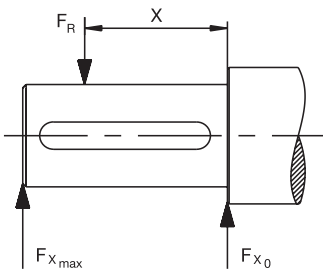
电机为底座安装型 IM B3, 并且含横向力。在某些情况下, 轴的强度影响允许负载力。

需提供同时存在径向力和轴向力的允许负载值, 请联系 ABB。

如果径向力作用于点 X_0 和 $X_{\max}$ 之间, 则允许负载力 F_R 可以通过以下公式计算:

$$F_R = F_{X_0} - \frac{X}{E} (F_{X_0} - F_{X_{\max}})$$

E : 基本型号中的轴伸长度



Permissible radial forces

The following table gives the permissible radial forces on shaft in Newton, assuming zero axial force, ambient temperature of 25°C, and normal conditions at 50Hz. The values are given for calculated bearing life of 20,000 and 40,000 hours per motor size.

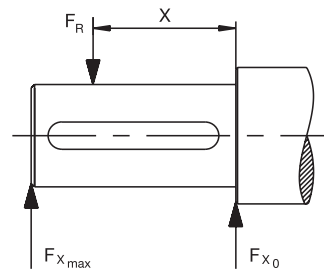
These calculated values further assume mounting position IM B3 (foot-mounted), with force directed sideways. In some cases, the strength of the shaft affects permissible forces.

Permissible loads of simultaneous radial and axial forces can be supplied on request.

If the radial force is applied between points X_0 and $X_{\max}$, the permissible force F_R can be calculated with the following formula:

$$F_R = F_{X_0} - \frac{X}{E} (F_{X_0} - F_{X_{\max}})$$

E : Length of the shaft extension in the standard version



机座号 Motor size	极数 No. of poles	轴伸长度 Length of shaft extension E (mm)	深沟球轴承 Basic design with deep groove ball bearings			
			20,000小时 20,000 h	40,000小时 40,000 h	F_{X_0} (N)	$F_{X_{\max}}$ (N)
71	2	30	565	480	445	380
	4	30	710	605	560	480
	6	30	815	695	645	550
80	2	40	725	610	575	480
	4	40	925	790	730	625
	6	40	1060	905	840	715
90	2	50	775	630	495	400
	4	50	995	840	785	660
	6	50	1125	915	890	725
100	2	60	1115	940	845	710
	4	60	1390	1140	1095	900
	6	60	1585	1305	1245	1025
112	2	60	1545	1310	1215	1030
	4	60	1940	1645	1530	1295
	6	60	1925	1595	1515	1260
132	2	80	1635	1295	1290	1020
	4	80	2040	1615	1600	1270
	6	80	2345	1855	1840	1460
160	2	110	2990	2460	2335	1925
	4	110	3800	3125	2975	2450
	6	110	4345	3600	3395	2825
180	2	110	3515	2965	2740	2310
	4	110	4390	3705	3420	2880
	6	110	5100	4300	3985	3360
200	2	110	4565	3885	3550	3025
	4	110	5725	4875	4450	3790
	6	110	6620	5635	5160	4395

机座号 Motor size	极数 No. of poles	轴伸长度 Length of shaft extension E (mm)	深沟球轴承 Basic design with deep groove ball bearings			
			20,000小时 20,000 h	40,000小时 40,000 h	F_{X_0} (N)	$F_{X_{\max}}$ (N)
225	2	110	5135	4455	3978	3450
	4	140	6420	5375	4960	4150
	6	140	7490	6270	5815	4870
250	2	140	6105	5135	4700	3950
	4	140	7960	6695	6185	5200
	6	140	8950	7525	6915	5815
280	2	140	6565	5605	5060	4320
	4	140	8230	7025	6330	5405
	6	140	9350	7980	7180	6130
315SM	2	140	6415	5465	4925	4195
	4	170	9740	8040	7495	6190
	6	170	11070	9140	8505	7020
315ML	2	140	6305	5470	4795	4160
	4	170	9420	8135	7115	6145
	6	170	10645	9195	8010	6915
355SM	2	140	5865	5140	4365	3825
	4	210	13125	10835	1000	8255
	6	210	14735	12165	11160	9215
355ML	2	140	5755	5110	4240	3765
	4	210	12955	10895	9800	8240
	6	210	14410	12115	10795	9075
355LK	6	210	14160	12155	10505	9020

机械设计

Mechanical design

标准接线盒交付

标准接线盒的防护等级为 IP55。标准情况下，接线盒安装在电机 D 端顶部。此外，还可以将接线盒安装在左侧或右侧，请参考订购信息。机座号 71-132 的电机，采用一体式接线盒。机座号 160-355 的电机，采用分体式接线盒。

机座号为 160-355 的电机接线盒可 4x90°转动。因此电机的两侧都可以接入电缆。但对于机座号为 71-132 的标准电机，接线盒无法转动。

如果未另行规定，则采用标准交付。

Standard terminal box

The degree of protection for the standard terminal box is IP 55. By default, terminal boxes are mounted on top of the motor at D-end. In motor sizes 71-132, the terminal box is integrated in motor frame. In motor sizes 160-355, the terminal box is separate from motor frame.

The terminal boxes of motor sizes 160-355 can be turned 4x90°, to allow cable entry from either side of motor. For motor sizes 71-132, turning is not possible in the standard motor.

Standard delivery if no other information is provided.

机座号 Motor size	极数 Pole number	螺纹孔 Threaded holes	电缆外径 mm Cable outer diameter mm	单芯横截面 平方毫米/相 Single core cross-section mm²/phase	端子螺栓尺寸 6x terminal bolt size 6x
71	2-6	2xM16x1.5	2xØ5-9	2.5	M4
80-90	2-6	2xM25x1.5	2xØ11-16	4	M4
100-132	2-6	2xM32x1.5	2xØ14-21	10	M5
160-180	2-6	2xM40x1.5, M16x1.5	2xØ19-27, Ø5-9	35	M6
200-250	2-6	2xM63x1.5, M16x1.5	2xØ37-44, Ø5-9	70	M10
280	2-6	2xM63x1.5, 2xM20x1.5	2xØ37-44, 2xØ8-14	2x150	M10
315	2-6	2xM63x1.5, 2xM20x1.5	2xØ37-44, 2xØ8-14	2x240	M12
355	2-6	2xM75x1.5, 2xM20x1.5	2xØ48-60, 2xØ8-14	4x240	M12

电机接地 Earthing	机座接地 Earthing on frame	主接线盒接地 Earthing in main terminal box
71-132	M5	M5
160-250	M6	M6
280-355	M10	M10

变频器驱动

Variable speed drives

轴承电流

功率大于等于 100kW 的电机应该采用消除轴承电流和电压的防护措施,使用镀陶轴(变量代码 692)或绝缘轴承(变量代码 701)。

运行速度

低压一般用途电机设计为可在较宽的转速范围内工作, 并且转速也大大高于标称值。最高速度可以在电机铭牌或 DriveSize 中找到。除此之外, 请确保不超过整个应用的最大或临界速度。

表 1 中显示了低压一般用途电机的最大转速限值

机座号	转速限值 r/min	
	2 极电机	4~6 极电机
71-112	6000	6000
132-200	4500	4500
225-250	4200	4200
280	3600	2500
315	3600	2000
355	3600	1800

变频器驱动的电动机负载能力

变频器驱动和直接启动的电动机的运行温升存在差异, 其受到诸如以下因素的影响: 取决于电动机的轴流风扇的冷却效果, 变频器谐波导致损耗增加, 和在弱磁点上磁通量的降低。所有这些因素的影响都体现在负载曲线中。

图 1-2 中所示的负载能力曲线是通用的, 可以为以变频器驱动的低压电机提供指导。

Bearing current

P ≥ 100kW motors should adopt protect measures to eliminate bearing current and voltage, ether by ceramic coated shaft (variant code 692) or by insulated bearing (variant code 701).

Operating speed

General performance motors are designed to work over a wide speed range and also at speeds significantly higher than nominal. The maximum speeds can be found on motor rating plates or in DriveSize. In addition to motor speed, make sure that the maximum or critical speed of the entire application is not exceeded.

Guideline maximum speed values for general performance motors are shown in Table 1.

Motor size	Maximum speed, r/min	
	2 pole motors	4~6pole motors
71-112	6000	6000
132-200	4500	4500
225-250	4200	4200
280	3600	2500
315	3600	2000
355	3600	1800

Motor loadability with frequency converter drives

The difference in the temperature rise of a motor run direct on line compared to the same motor run with a converter is influenced by factors such as the cooling effect of a shaft-mounted fan depending on the speed of the motor, increased losses due to harmonics generated by the converter and reduced flux above the field weakening point. The effects of all these factors are combined in the loadability curves.

The loadability curves shown in Figures 1-2 are generic and give indicative guidelines for dimen-sioning low-voltage motors used with a frequency converter.

变频器驱动

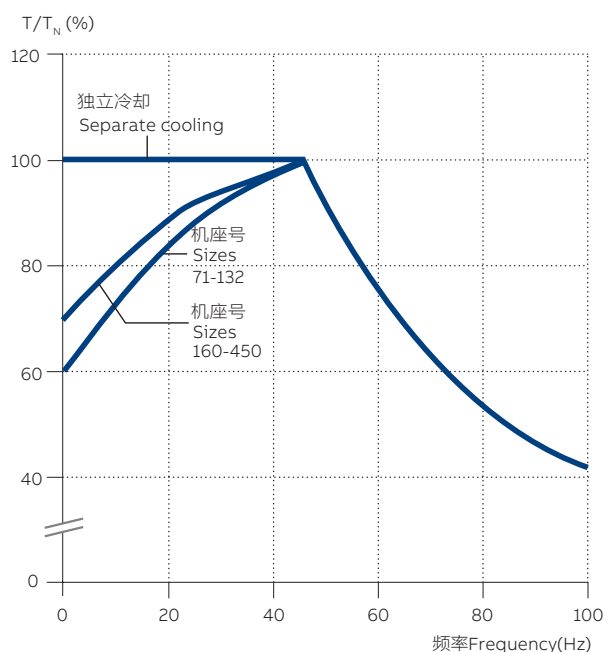
Variable speed drives

图 1 具有 DTC 控制的 ABB 变频器负载曲线

Figure 1. Loadability curves for ABB frequency converters with DTC control

B 级温升

Temperature rise B



F 级温升

Temperature rise F

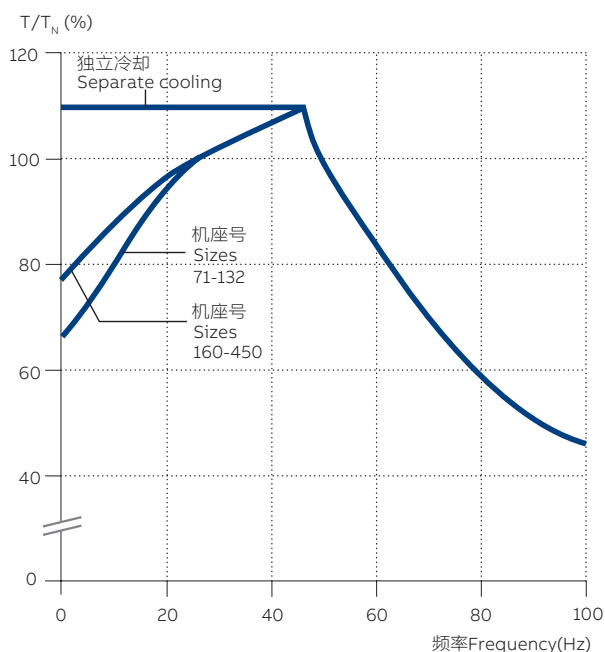
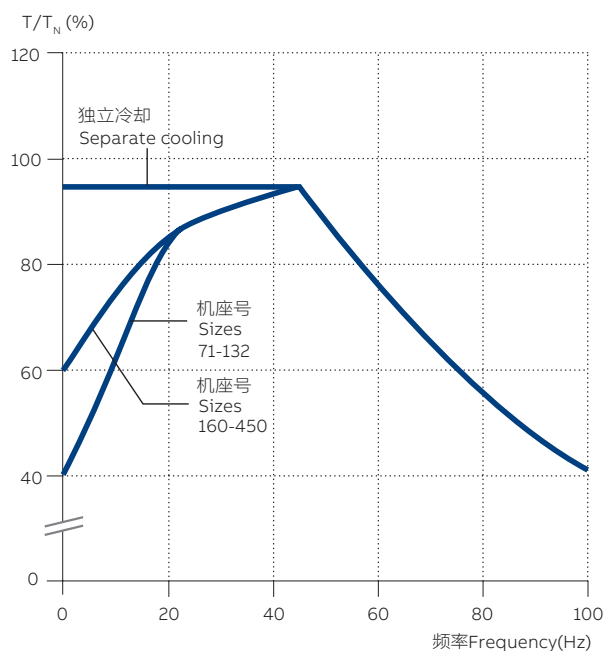


图 2 其它控制类型的变频器负载曲线

Figure 2. Loadability curves for other frequency converters

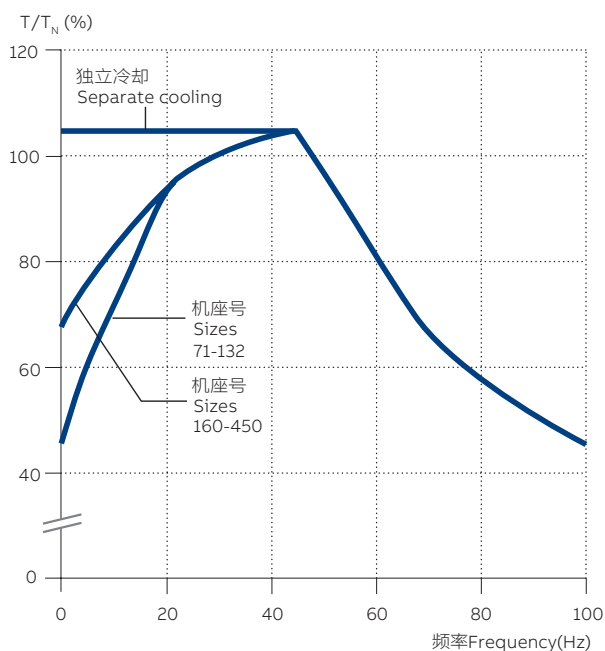
B 级温升

Temperature rise B



F 级温升

Temperature rise F



技术数据

Technical data

IE5

2P 380V 50Hz

三相全封闭鼠笼式电机的技术数据

Technical data for totally enclosed squirrel cage three phase motors

IP55 - IC411 绝缘等级 F，温升等级 B
0.18-355kW，符合 GB 18613-2020 的 1 级能效
IP55 - IC411 Insulation class F, temperature class B
0.18-355kW, Grade 1 according to GB 18613-2020

Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-30-1;2014			功率 因数 Power factor	电流 Current		转矩 / Torque			转动惯量 Moment of inertia	重量 Weight	声压等级 Sound pressure level,
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I _N A	I _s /I _N	T _N Nm	T _l / T _N	T _b / T _N			
kW			r/min				cosφ						J=1/4 GD²kgm²	kg	L _{PA} dB
3000 r/min = 2 极 / 2 poles			380 V			CENELEC- 设计 design									
0.37	M2BAF 71MA 2	3GBA071310---RCN	2843	81.7	82.2	80.4	0.85	0.80	5.9	1.23	3.0	3.3	0.00045	11	52
0.55	M2BAF 71MLA 2	3GBA071410---RCN	2858	84.6	84.5	82.9	0.84	1.17	6.6	1.83	3.4	3.9	0.00054	13	52
0.75	M2BAF 80MA 2	3GBA081310---RCN	2914	86.3	86.3	84.9	0.84	1.57	8.4	2.50	2.9	4.1	0.00119	17	55
1.1	M2BAF 80MLA 2	3GBA081410---RCN	2911	87.8	87.8	86.9	0.85	2.20	9.0	3.60	3.2	4.3	0.00149	20	55
1.5	M2BAF 90SLA 2	3GBA091010---RCN	2906	88.9	89.2	88.1	0.85	3.00	9.0	4.90	4.1	4.6	0.00265	32	60
2.2	M2BAF 90SLB 2	3GBA091020---RCN	2909	90.2	90.8	90.3	0.87	4.20	8.8	7.20	4.1	4.4	0.00306	34	60
3	M2BAF 100LKA 2	3GBA101810---RCN	2926	91.1	92.1	92.1	0.89	5.60	8.3	9.80	2.7	3.7	0.00588	48	57
4	M2BAF 112MLA 2	3GBA111410---RCN	2908	91.8	92.7	93.3	0.90	7.30	7.7	13.2	2.4	3.6	0.00922	57	66
5.5	M2BAF 132SA 2	3GBA131110---RCN	2929	92.6	93.2	93.1	0.89	10.1	7.8	17.9	2.6	3.6	0.0126	74	65
7.5	M2BAF 132SMA 2	3GBA131210---RCN	2936	93.3	93.8	93.7	0.90	13.5	9.1	24.4	2.9	4.1	0.0162	88	65
11	M2BAF 160MLA 2	3GBA161410---RCN	2968	94.0	94.1	93.5	0.89	20.0	8.1	35.4	2.4	3.8	0.0758	162	67
15	M2BAF 160MLB 2	3GBA161420---RCN	2968	94.5	94.7	94.1	0.89	27.1	9.2	48.3	2.8	3.9	0.0982	186	68
18.5	M2BAF 160MLC 2	3GBA161430---RCN	2960	94.9	95.2	95.0	0.90	32.9	7.9	59.7	2.4	3.5	0.119	217	68
22	M2BAF 180MLA 2	3GBA181410---RCN	2975	95.1	95.1	94.5	0.88	39.9	8.9	70.6	2.7	3.7	0.165	263	69
30	M2BAF 200MLA 2	3GBA201410---RCN	2976	95.5	95.5	94.8	0.88	54.2	6.6	96.3	2.1	3.4	0.306	330	73
37	M2BAF 200MLB 2	3GBA201420---RCN	2978	95.8	95.8	95.2	0.88	66.7	7.3	119	2.4	3.6	0.365	367	75
45	M2BAF 225SMA 2	3GBA221210---RCN	2984	96.0	96.0	95.4	0.92	77.4	8.4	144	2.6	4.5	0.62	480	76
55	M2BAF 250SMA 2	3GBA251210---RCN	2979	96.2	96.2	95.6	0.90	96.5	9.5	176	2.8	5.2	1.2	590	73
75	M2BAF 280SMA 2	3GBA281210---RCN	2979	96.5	96.6	96.2	0.89	133	8.3	240	2.7	3.2	0.92	701	76
90	M2BAF 280SMB 2	3GBA281220---RCN	2981	96.6	96.6	96.2	0.89	160	9.4	288	3.3	3.4	1.1	776	78
110	M2BAF 315SMA 2	3GBA311210---RCN	2985	96.8	96.8	96.4	0.89	194	7.6	352	1.9	3	1.64	950	72
132	M2BAF 315MLA 2	3GBA311410---RCN	2986	96.9	96.9	96.5	0.88	235	8.6	422	2.3	3.8	1.82	1045	72
160	M2BAF 315MLB 2	3GBA311420---RCN	2984	97.0	97.1	96.8	0.89	282	8.7	512	2.4	3.8	1.97	1092	73
185	M2BAF 315MLC 2	3GBA311430---RCN	2979	97.1	97.3	97.2	0.89	325	7.4	593	1.8	2.6	2.05	1125	74
200	M2BAF 315MLD 2	3GBA311440---RCN	2977	97.2	97.5	97.5	0.90	347	6.9	642	1.8	2.2	2.05	1125	75
220	M2BAF 355SMA 2	3GBA351210---RCN	2984	97.2	97.2	96.8	0.88	391	8.4	704	2.2	3.3	3.74	1592	78
250	M2BAF 355SMB 2	3GBA351220---RCN	2982	97.2	97.3	97.0	0.89	439	7.6	801	2	3	3.74	1592	78
280	M2BAF 355MLA 2	3GBA351410---RCN	2985	97.2	97.1	96.6	0.87	503	7.7	896	2.3	3.6	4.05	1754	79
315	M2BAF 355MLB 2	3GBA351420---RCN	2982	97.2	97.2	96.9	0.87	566	6.9	1009	2.2	3.2	4.05	1754	80
355	M2BAF 355MLC 2	3GBA351430---RCN	2982	97.2	97.4	97.2	0.89	621	7	1137	2.3	3.1	3.64	1754	79

产品代码中的两个圆点表示可选的安装方式、电压及频率代码（见订购信息一页）。

The two bullets in the product code indicate choice of mounting arrangements, voltage and frequency code (see ordering information page).

I_s / I_N = 启动电流
T_l / T_N = 转子堵转转矩
T_b / T_N = 最大转矩

I_s / I_N = Starting current
T_l / T_N = Locked rotor torque
T_b / T_N = Breakdown torque

技术数据

Technical data

IE5

4P 380V 50Hz

三相全封闭鼠笼式电机的技术数据

Technical data for totally enclosed squirrel cage three phase motors

IP55 - IC411 绝缘等级 F，温升等级 B
0.18-355kW，符合 GB 18613-2020 的 1 级能效
IP55 - IC411 Insulation class F，temperature class B
0.18-355kW，Grade 1 according to GB 18613-2020

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-30-1;2014			功率 因数 Power factor	电流 Current		转矩 / Torque			转动惯量 Moment of inertia	重量 Weight	声压等级 Sound pressure level, L _{PA} dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%									
								I _N A	I _s /I _N	T _N Nm	T _l / T _N	T _B / T _N			
kW			r/min				cosφ						J=1/4 GD²kgm²	kg	
1500 r/min = 4 极 / 4 poles			380 V	CENELEC- 设计 design											
0.25	M2BAF 71MLA 4	3GBA072410-...RCN	1442	81.5	81.9	79.8	0.81	0.57	5.7	1.66	2.1	2.9	0.00103	12	43
0.37	M2BAF 71MLB 4	3GBA072420-...RCN	1449	84.3	84.2	81.9	0.78	0.85	6.9	2.40	2.6	3.8	0.0014	14	43
0.55	M2BAF 80MLA 4	3GBA082410-...RCN	1460	86.7	85.9	83.0	0.74	1.33	8.0	3.60	3.5	4.2	0.00285	22	46
0.75	M2BAF 80MLB 4	3GBA082420-...RCN	1459	88.2	87.1	84.6	0.75	1.77	8.2	4.90	3.6	4.3	0.00342	25	46
1.1	M2BAF 90SLA 4	3GBA092010-...RCN	1468	89.5	89.6	88.1	0.77	2.40	8.3	7.20	2.8	3.8	0.00577	34	44
1.5	M2BAF 90SLB 4	3GBA092020-...RCN	1466	90.4	90.6	89.5	0.78	3.20	8.5	9.80	3.0	3.7	0.00725	40	44
2.2	M2BAF 100LKA 4	3GBA102810-...RCN	1475	91.4	91.3	90.0	0.78	4.80	8.5	14.2	2.6	3.8	0.013	50	54
3	M2BAF 100LKB 4	3GBA102820-...RCN	1478	92.1	92.1	90.9	0.79	6.40	9.0	19.4	2.7	3.8	0.0174	59	54
4	M2BAF 112MLA 4	3GBA112410-...RCN	1472	92.8	92.5	91.9	0.81	8.10	5.4	26.0	2.4	3.9	0.0234	66	57
5.5	M2BAF 132SMA 4	3GBA132210-...RCN	1480	93.4	93.7	93.1	0.81	11.0	8.6	35.5	3.4	3.8	0.0493	92	54
7.5	M2BAF 132SMB 4	3GBA132220-...RCN	1480	94.0	94.2	93.7	0.80	15.0	9.2	48.4	3.7	4.1	0.0627	108	54
11	M2BAF 160MLA 4	3GBA162410-...RCN	1484	94.6	94.7	94.2	0.83	21.3	8.8	70.8	2.7	4.0	0.132	178	59
15	M2BAF 160MLB 4	3GBA162420-...RCN	1485	95.1	95.3	95	0.83	28.9	8.9	96.5	2.7	4.0	0.163	208	60
18.5	M2BAF 180MLA 4	3GBA182410-...RCN	1485	95.3	95.3	94.7	0.82	36.0	7.4	119	2.1	2.9	0.272	248	66
22	M2BAF 180MLB 4	3GBA182420-...RCN	1485	95.5	95.5	95	0.82	42.7	7.3	141	2.0	2.8	0.316	271	67
30	M2BAF 200MLA 4	3GBA202410-...RCN	1488	95.9	95.9	95.3	0.82	58.0	7.0	192	2.5	3.7	0.700	357	64
37	M2BAF 225SMA 4	3GBA222210-...RCN	1492	96.1	96.1	95.5	0.83	70.5	7.2	237	2.0	3.0	0.900	444	62
45	M2BAF 225SMB 4	3GBA222220-...RCN	1493	96.3	96.2	95.6	0.82	86.6	8.1	288	2.4	3.4	1.1	487	64
55	M2BAF 250SMA 4	3GBA252210-...RCN	1491	96.5	96.4	95.7	0.83	104	8.4	352	2.4	3.7	1.1	540	62
75	M2BAF 280SMA 4	3GBA282210-...RCN	1488	96.7	96.9	96.6	0.87	136	8.4	481	3.0	3.2	1.7	718	62
90	M2BAF 280SMB 4	3GBA282220-...RCN	1489	96.9	97.1	96.8	0.86	164	9.0	577	3.7	3.4	2.0	782	63
110	M2BAF 315SMA 4	3GBA312210-...RCN	1489	97	97.2	97.2	0.86	200	7.6	706	2.5	2.8	2.9	996	66
132	M2BAF 315MLA 4	3GBA312410-...RCN	1490	97.1	97.3	97.1	0.86	240	8.1	846	2.6	3.7	4.0	1312	67
160	M2BAF 315MLB 4	3GBA312420-...RCN	1491	97.2	97.3	97.1	0.87	288	7.6	1025	2.2	3.6	4.1	1381	67
185	M2BAF 315MLC 4	3GBA312430-...RCN	1493	97.3	97.3	96.9	0.84	344	8.8	1183	2.7	4.1	4.5	1453	68
200	M2BAF 315MLD 4	3GBA312440-...RCN	1492	97.4	97.5	97.3	0.85	367	8.5	1280	2.6	4.1	4.5	1453	68
220	M2BAF 355SMA 4	3GBA352210-...RCN	1493	97.4	97.4	97	0.85	404	7.6	1407	2.2	4.0	7.2	1703	78
250	M2BAF 355MLA 4	3GBA352410-...RCN	1493	97.4	97.4	97	0.85	459	7.9	1598	2.3	3.6	7.8	1860	78
280	M2BAF 355MLB 4	3GBA352420-...RCN	1493	97.4	97.4	97.1	0.86	508	7.1	1791	2.2	3.7	7.8	1859	79
315	M2BAF 355MLC 4	3GBA352430-...RCN	1494	97.4	97.4	97	0.85	578	8.2	2014	2.3	4.0	8.4	1946	79
355	M2BAF 355MLD 4	3GBA352440-...RCN	1490	97.4	97.6	97.5	0.87	638	7.3	2275	2.5	3.3	8.4	1945	79

产品代码中的两个圆点表示可选的安装方式、电压及频率代码（见订购信息一页）。
The two bullets in the product code indicate choice of mounting arrangements, voltage and frequency code (see ordering information page).

I_s / I_N = 启动电流
T_l / T_N = 转子堵转转矩
T_B / T_N = 最大转矩

I_s / I_N = Starting current
T_l / T_N = Locked rotor torque
T_B / T_N = Breakdown torque

技术数据

Technical data

IE5

6P 380V 50Hz

三相全封闭鼠笼式电机的技术数据

Technical data for totally enclosed squirrel cage three phase motors

IP55 - IC411 绝缘等级 F，温升等级 B
0.18-355KW，符合 GB 18613-2020 的 1 级能效
IP55 - IC411 Insulation class F，temperature class B
0.18-355KW，Grade 1 according to GB 18613-2020

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-30-1;2014			功率 因数 Power factor	电流 Current		转矩 / Torque			转动惯量 Moment of inertia	重量 Weight	声压等级 Sound pressure level,
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I _N A	I _s /I _N	T _N Nm	T _I / T _N	T _B / T _N			
kW			r/min				cosφ					J=1/4 GD²kgm²	kg	L _{PA} dB	
1000 r/min = 6 极 / 6 poles			380 V	CENELEC- 设计 design											
0.18	M2BAF 71MLA 6	3GBA073410-...RCN	931	74.6	74.6	71.0	0.74	0.49	3.8	1.85	2.1	2.5	0.00109	12	37
0.25	M2BAF 71MLB 6	3GBA073420-...RCN	934	78.1	78.2	75.3	0.71	0.68	4.1	2.60	2.5	2.8	0.00148	14	37
0.37	M2BAF 80MLA 6	3GBA083410-...RCN	956	81.6	81.0	77.9	0.72	0.95	6.0	3.70	3.0	3.3	0.00295	22	56
0.55	M2BAF 80MLB 6	3GBA083420-...RCN	957	84.2	82.4	79.7	0.71	1.39	6.1	5.50	3.1	3.4	0.00354	25	56
0.75	M2BAF 90SLA 6	3GBA093010-...RCN	974	85.7	84.5	80.6	0.74	1.79	6.4	7.40	2.4	3.3	0.00604	32	48
1.1	M2BAF 90SLB 6	3GBA093020-...RCN	969	87.2	87.0	84.9	0.73	2.60	5.7	10.8	2.2	3.0	0.00731	36	48
1.5	M2BAF 100LKA 6	3GBA103810-...RCN	975	88.4	88.6	87.3	0.75	3.50	6.4	14.7	2.6	3.1	0.0154	44	47
2.2	M2BAF 112MLA 6	3GBA113410-...RCN	973	89.7	89.9	89.4	0.75	5.00	5.4	21.6	1.8	2.7	0.0198	57	48
3	M2BAF 132SA 6	3GBA133110-...RCN	987	90.6	90.6	89.4	0.73	6.80	7.4	29.0	2.1	3.1	0.0472	74	61
4	M2BAF 132SMA 6	3GBA133210-...RCN	987	91.4	91.4	90.2	0.73	9.00	7.9	38.7	2.4	3.2	0.0596	89	61
5.5	M2BAF 132SMB 6	3GBA133220-...RCN	987	92.2	92.3	91.3	0.74	12.1	8.0	53.2	2.3	3.3	0.0811	110	61
7.5	M2BAF 160MLA 6	3GBA163410-...RCN	991	92.9	93.2	92.7	0.72	17.0	7.5	72.3	2.2	3.4	0.169	163	57
11	M2BAF 160MLB 6	3GBA163420-...RCN	992	93.7	93.8	93.2	0.71	25.1	8.3	106	2.5	3.7	0.237	206	58
15	M2BAF 180MLA 6	3GBA183410-...RCN	990	94.3	94.4	93.8	0.76	31.8	7.4	145	2.3	3.1	0.357	246	63
18.5	M2BAF 200MLA 6	3GBA203410-...RCN	991	94.6	94.8	94.3	0.82	36.2	8.0	178	2.8	3.8	0.662	307	63
22	M2BAF 200MLB 6	3GBA203420-...RCN	992	94.9	95	94.4	0.81	43.5	8.8	212	3.2	4.2	0.795	343	63
30	M2BAF 225SMA 6	3GBA223210-...RCN	993	95.3	95.3	94.6	0.80	59.8	8.9	288	2.6	4.0	1.0	466	65
37	M2BAF 250SMA 6	3GBA253210-...RCN	994	95.6	95.6	95	0.83	70.8	7.2	356	2.1	2.8	1.7	596	61
45	M2BAF 280SMA 6	3GBA283210-...RCN	993	95.8	96	95.7	0.85	84.0	8.2	433	3.0	2.9	2.6	698	66
55	M2BAF 280SMB 6	3GBA283220-...RCN	993	96	96.2	95.9	0.85	102	8.6	529	3.2	3.0	3.1	778	68
75	M2BAF 315SMA 6	3GBA313210-...RCN	994	96.3	96.6	96.5	0.83	143	7.6	721	2.5	2.7	5.0	952	61
90	M2BAF 315MLA 6	3GBA313410-...RCN	993	96.5	96.8	96.8	0.84	169	6.9	865	2.5	2.9	5.7	1067	61
110	M2BAF 315MLB 6	3GBA313420-...RCN	993	96.6	96.9	96.8	0.84	206	7.3	1057	2.5	3.0	6.5	1149	62
132	M2BAF 315MLC 6	3GBA313430-...RCN	993	96.8	97.1	97	0.84	247	7.5	1269	2.6	3.2	7.7	1352	62
160	M2BAF 355SMA 6	3GBA353210-...RCN	995	96.9	97	96.7	0.85	295	8.4	1535	2.4	3.2	12.2	1767	72
185	M2BAF 355SMB 6	3GBA353220-...RCN	995	97	97.1	96.9	0.85	341	8.3	1775	2.4	3.4	12.2	1767	72
200	M2BAF 355MLA 6	3GBA353410-...RCN	995	97	97.3	97.1	0.84	373	7.6	1920	2.2	3.6	12.8	1897	73
220	M2BAF 355MLB 6	3GBA353420-...RCN	995	97	97.2	97.1	0.83	415	7.6	2112	2.3	3.6	13.4	1949	73
250	M2BAF 355MLC 6	3GBA353430-...RCN	995	97	97.2	97.1	0.83	472	7.4	2399	2.3	3.5	14.1	2007	74
280	M2BAF 355MLD 6	3GBA353440-...RCN	995	97	97.2	97.3	0.84	522	7.7	2687	2.3	3.5	14.6	2053	74
315	M2BAF 355LKA 6	3GBA353810-...RCN	994	97	97.2	97	0.84	590	6.2	3027	2.1	2.8	14.8	2263	76
355	M2BAF 355LKB 6	3GBA353820-...RCN	995	97	97.2	96.9	0.81	686	7	3409	2.4	3.2	16.1	2327	76

产品代码中的两个圆点表示可选的安装方式、电压及频率代码（见订购信息一页）。

The two bullets in the product code indicate choice of mounting arrangements, voltage and frequency code (see ordering information page).

I_s / I_N = 启动电流
T_I / T_N = 转子堵转转矩
T_B / T_N = 最大转矩

I_s / I_N = Starting current
T_I / T_N = Locked rotor torque
T_B / T_N = Breakdown torque

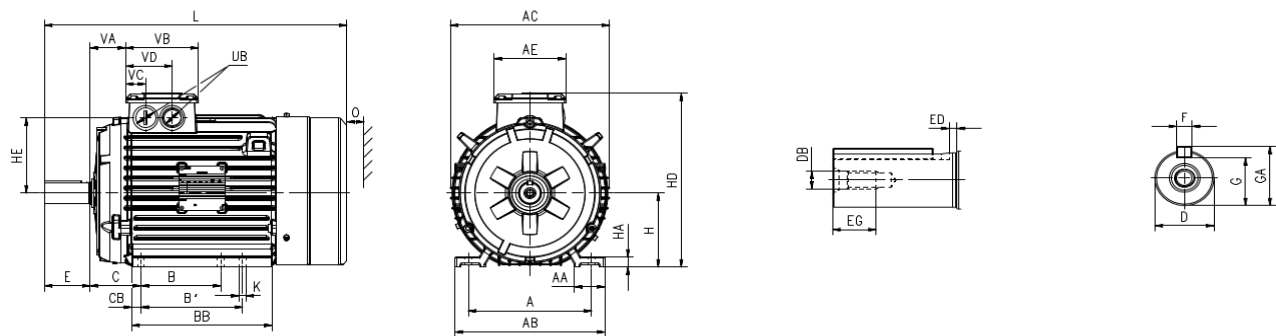
外形图及外形尺寸

Dimension drawings

机座号 71-132

Frame size 71-132

底脚安装型电机 IM1001, B3
Foot-mounted motor IM1001, B3



电机尺寸 Motor size		A	AA	AB	AC	AE	B	B'	BB	C	CB	D-tol.	DB	E	EG	ED
IE5	71M	112	30	136	147	101	90	-	110	45	10	14-j6	M5	30	13	5
M2BAF	71MLA2/MLA4/MLA4	112	30	136	147	101	90	-	135	45	10	14-j6	M5	30	13	5
	71MLB4/MLB6	112	30	136	147	101	90	100	150	45	10	14-j6	M5	30	13	5
	80M	125	33	154	164	111	100	-	125	50	12.5	19-j6	M6	40	16	4
	80MLA2	125	33	154	184	111	100	112	150	50	12.5	19-j6	M6	40	16	4
	80MLA4/MLA6	125	33	154	184	111	100	112	165	50	12.5	19-j6	M6	40	16	4
	80MLB4/MLB6	125	33	154	184	111	100	112	180	50	12.5	19-j6	M6	40	16	4
	90SLA2/SLB2/SLA4/SLA6	140	33	170	195	111	100	125	185	56	12	24-j6	M8	50	19	5
	90SLB4/SLB6	140	33	170	195	111	100	125	185	56	12	24-j6	M8	50	19	5
	100LKA2/LKA4	160	38	200	232	127	140	160	205	63	15	28-j6	M10	60	22	5
	100LKB4	160	38	200	232	127	140	160	225	63	15	28-j6	M10	60	22	5
	100LKA6	160	38	200	232	127	140	160	190	63	15	28-j6	M10	60	22	5
	112MLA2/MLA6	190	48	230	236	127	140	159	215	70	15	28-j6	M10	60	22	5
	112MLA4	190	48	230	236	127	140	159	219	70	15	28-j6	M10	60	22	5
	132S	216	53	262	279	127	140	-	196	89	16	38-k6	M12	80	28	5
	132SMA2/SMA4/SMA6	216	53	262	279	127	140	178	246	89	16	38-k6	M12	80	28	5
	132SMB4/SMB	216	53	262	279	127	140	178	246	89	16	38-k6	M12	80	28	5

电机尺寸 Motor size		F(h9)	G	GA	H	HA	HD	HE	K	L	UB	VA	VB	VC	VD	O
IE5	71M	5	11	16	71	9	178	65	7	262	M16x1.5	37.5	101	32.5	64.5	20
M2BAF	71MLA2/MLA4/MLA4	5	11	16	71	9	178	65	7	287	M16x1.5	37.5	101	32.5	64.5	20
	71MLB4/MLB6	5	11	16	71	9	178	65	7	312	M16x1.5	37.5	101	32.5	64.5	20
	80M	6	15.5	21.5	80	12	193	69.5	10	312	M25x1.5	40	111	30	70	20
	80MLA2	6	15.5	21.5	80	12	193	69.5	10	337	M25x1.5	40	111	30	70	20
	80MLA4/MLA6	6	15.5	21.5	80	12	193	69.5	10	367	M25x1.5	40	111	30	70	20
	80MLB4/MLB6	6	15.5	21.5	80	12	193	69.5	10	397	M25x1.5	40	111	30	70	20
	90SLA2/SLB2/SLA4/SLA6	8	20	27	90	12	220	86	10	390	M25x1.5	48	111	30	70	20
	90SLB4/SLB6	8	20	27	90	12	220	86	10	430	M25x1.5	48	111	30	70	20
	100LKA2/LKA4	8	24	31	100	15	247	103	12	464	M32x1.5	53	127	34	81	25
	100LKB4	8	24	31	100	15	247	103	12	509	M32x1.5	53	127	34	81	25
	100LKA6	8	24	31	100	15	247	103	12	419	M32x1.5	53	127	34	81	25
	112MLA2/MLA6	8	24	31	112	15	268	112	12	480	M32x1.5	64	127	34	81	25
	112MLA4	8	24	31	112	15	268	112	12	520	M32x1.5	64	127	34	81	25
	132S	10	33	41	132	18	310	134	12	480	M32x1.5	63	127	34	81	30
	132SMA2/SMA4/SMA6	10	33	41	132	18	310	134	12	530	M32x1.5	63	127	34	81	30
	132SMB4/SMB	10	33	41	132	18	310	134	12	580	M32x1.5	63	127	34	81	30

公差 Tolerance

A, B	±0.8
H	+0, -0.5
C	±0.8

上表给出了主要尺寸 (单位: mm)
如需图纸详情, 请访问我们的网页
www.abb.com/motors&generators 或联系 ABB。

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages
www.abb.com/motors&generators or contact ABB.

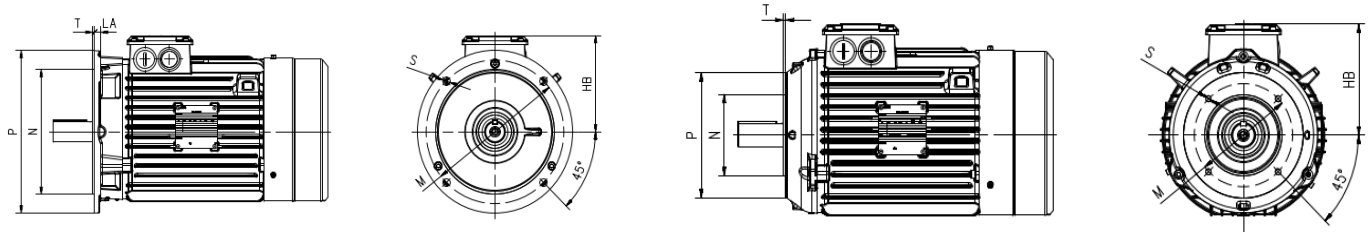
外形图及外形尺寸

Dimension drawings

机座号 71-132

Frame size 71-132

凸缘安装型电机 IM3001, B5
Flange-mounted motor IM3001, B5



电机尺寸 Motor size		HB	LA	M	N	P	S	T
IE5 M2BAF	71	108	9	130	110	160	10	3.5
	80	113	10	165	130	200	12	3.5
	90	130	10	165	130	200	12	3.5
	100	147	11	215	180	250	14.5	4
	112	156	11	215	180	250	14.5	4
	132	178	12	265	230	300	14.5	4

电机尺寸 Motor size		HB	M	N	P	S	T
IE5 M2BAF	71	108	85	70	105	M6	2.5
	80	113	100	80	120	M6	3
	90	130	115	95	140	M8	3
	100	147	130	110	160	M8	3.5
	112	156	130	110	160	M8	3.5
	132	178	165	130	200	M10	3.5

上表给出了主要尺寸 (单位: mm)
如需图纸详情, 请访问我们的网页
www.abb.com/motors&generators 或联系 ABB。

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages
www.abb.com/motors&generators or contact ABB.

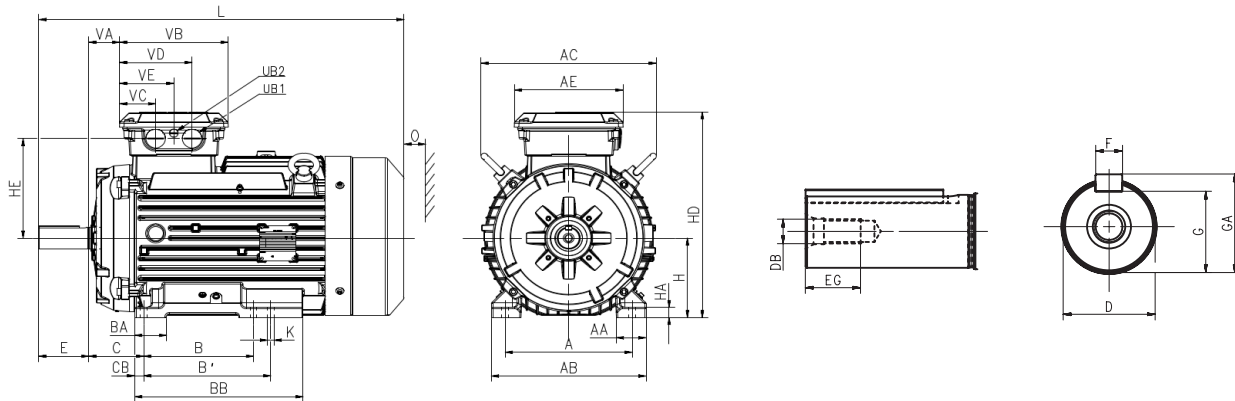
外形图及外形尺寸

Dimension drawings

机座号 160-250

Frame size 160-250

底脚安装型电机 IM1001, B3
Foot-mounted motor IM1001, B3



电机尺寸 Motor size	极数 Poles	A	AA	AB	AC	AE	B	B'	BA	BB	C	CB	D-tol.	DB	E	EG	ED
IE5 160ML ¹⁾	2-6p	254	67	310	348	239	210	254	71	295	108	20	42-k6	M16	110	36	10
M2BAF 160ML ²⁾	2-6p	254	67	310	348	239	210	254	71	350	108	20	42-k6	M16	110	36	10
180ML	2-6p	279	65	340	382	239	241	279	70	370	121	20	48-k6	M16	110	36	5
200ML	2-6p	318	69	378	442	257	267	305	82	408	133	19.5	55-m6	M20	110	42	5
225SM	2P	356	90	434	486	257	286	311	68	407	149	20	55-m6	M20	110	42	5
225SM	4-6P	356	90	434	486	257	286	311	68	407	149	20	60-m6	M20	140	42	7.5
250SM	2P	406	96	480	506	257	311	349	79	420	168	24	60-m6	M20	140	42	7.5
250SM	4-6P	406	96	480	506	257	311	349	79	420	168	24	65-m6	M20	140	42	7.5

电机尺寸 Motor size	极数 Poles	F(h9)	G	GA	H	HA	HD	HE	K	L	UB1	UB2	VA	VB	VC	VD	VE	O
IE5 160ML ¹⁾	2-6p	12	37	45	160	23	428	208	14.5	715	M40x1.5	M16x1.5	60.5	239	80	160	120	45
M2BAF 160ML ²⁾	2-6p	12	37	45	160	23	428	208	14.5	788	M40x1.5	M16x1.5	60.5	239	80	160	120	45
180ML	2-6p	14	42.5	51.5	180	23	466	226	14.5	803	M40x1.5	M16x1.5	68	239	80	160	120	50
200ML	2-6p	16	49	59	200	23	537	264	18.5	883	M63x1.5	M16x1.5	81	257	81	177	129	70
225SM	2P	16	49	59	225	23.5	580	282	18.5	976	M63x1.5	M16x1.5	78	257	81	177	129	80
225SM	4-6P	18	53	64	225	23.5	580	282	18.5	1006	M63x1.5	M16x1.5	78	257	81	177	129	80
250SM	2P	18	53	64	250	24	626	303	24	1029	M63x1.5	M16x1.5	80	257	81	177	129	90
250SM	4-6P	18	58	69	250	24	626	303	24	1029	M63x1.5	M16x1.5	80	257	81	177	129	90

公差 Tolerance	附注 Footnotes
A, B ±0.8	¹⁾ MLA2/MLB2/MLA4/MLA6
H +0, -0.5	²⁾ MLC2/MLB4/MLB6
C ±0.8	

上表给出了主要尺寸 (单位: mm)
如需图纸详情, 请访问我们的网页
www.abb.com/motors&generators 或联系 ABB。

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages
www.abb.com/motors&generators or contact ABB.

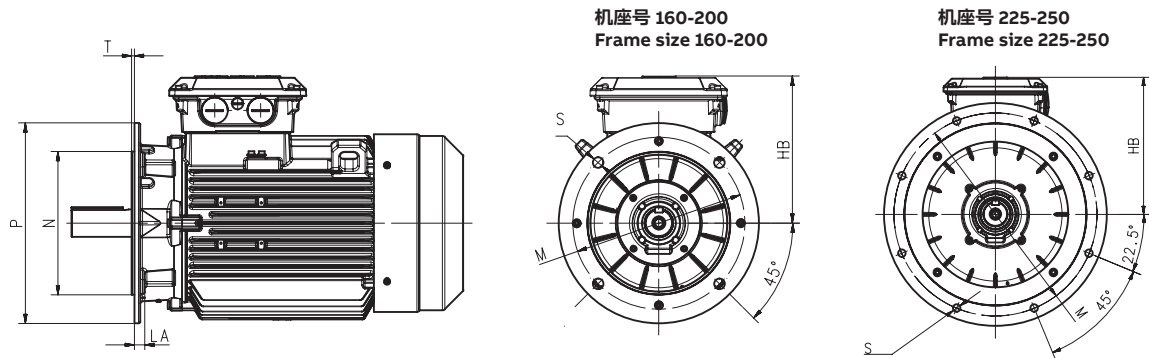
外形图及外形尺寸

Dimension drawings

机座号 160-250

Frame size 160-250

凸缘安装型电机 IM3001, B5
Flange-mounted motor IM3001, B5



电机尺寸 Motor size		极数 Poles	HB	LA	M	N	P	S	T
IE5 M2BAF	160 ML	2-6p	268	15	300	250-j6	350	18.5	5
	180 ML	2-6p	286	16	300	250-j6	350	18.5	5
	200 ML	2-6p	337	20	350	300-h6	400	18.5	5
	225 SM	2-6p	355	20	400	350-h6	450	18.5	5
	250 SM	2-6p	376	20	500	450-h6	550	18.5	5

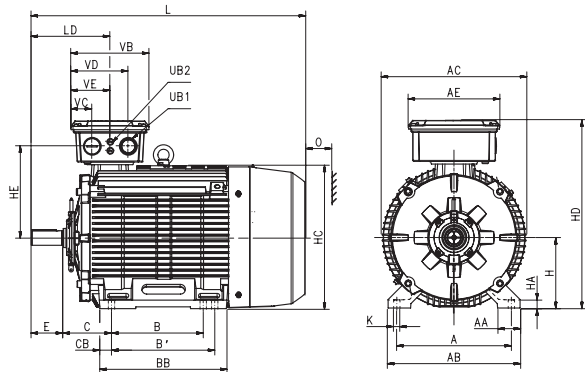
上表给出了主要尺寸（单位：mm）
如需图纸详情，请访问我们的网页
www.abb.com/motors&generators 或联系 ABB。

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages
www.abb.com/motors&generators or contact ABB.

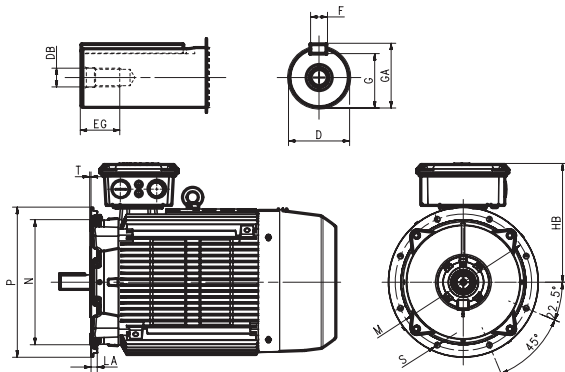
外形图及外形尺寸 Dimension drawings

机座号 280-355 Frame size 280-355

底脚安装型电机 IM1001, B3
Foot-mounted motor IM1001, B3



凸缘安装型电机 IM3001, B5
Flange-mounted motor IM3001, B5



电机尺寸		极数	A	AA	AB	AC	AE	B	B'	BB	C	CB	D-tol.	DB	E	EG	F(h9)	G
Motor size		Poles																
IE5 M2BAF	280SM	2P	457	75	530	590	348	368	419	596	190	47	65-m6	M20	140	42	18	58
	280SM	4-6P	457	75	530	590	348	368	419	596	190	47	75-m6	M20	140	42	20	67.5
	315SM	2P	508	100	590	650	406	406	457	562	216	52	65-m6	M20	140	42	18	58
	315SM	4-6P	508	100	590	650	406	406	457	562	216	52	80-m6	M20	170	42	22	71
	315ML	2P	508	100	590	650	406	457	508	664	216	52	65-m6	M20	140	42	18	58
	315ML ¹⁾	6P	508	100	590	650	406	457	508	664	216	52	80-m6	M20	170	42	22	71
	315ML ²⁾	6P	508	100	590	650	406	457	508	664	216	52	90-m6	M24	170	50	25	81
	315ML ³⁾	4P	508	100	590	660	406	457	508	831	216	59	80-m6	M20	170	42	22	71
	315ML ⁴⁾	4-6P	508	100	590	660	406	457	508	831	216	59	90-m6	M24	170	50	25	81
	355SM	2P	610	120	700	744	466	500	560	698	254	72	70-m6	M20	140	42	20	62.5
	355SM	4-6P	610	120	700	744	466	500	560	698	254	72	100-m6	M24	210	50	28	90
	355ML	2P	610	120	700	754	466	560	630	782	254	79.5	70-m6	M20	140	42	20	62.5
355ML	4-6P	610	120	700	754	466	560	630	782	254	79.5	100-m6	M24	210	50	28	90	
355LK	6P	610	120	700	754	466	630	710	1035	254	89.5	100-m6	M24	210	50	28	90	

电机尺寸 Motor size		极数 Poles	GA	H	HA	HC	HD	HE	K	L	LD	O	UB1	UB2	VB	VC	VD	VE
IE5 M2BAF	280SM	2P	69	280	30	580	747	354	24	1182	342	100	M63x1.5	M20x1.5	286	81	205	143
	280SM	4-6P	79.5	280	30	580	747	354	24	1182	342	100	M63x1.5	M20x1.5	286	81	205	143
	315SM	2P	69	315	38	637	837	409	28	1216	348	115	M63x1.5	M20x1.5	346	93	253	173
	315SM	4-6P	85	315	38	637	837	409	28	1246	378	115	M63x1.5	M20x1.5	346	93	253	173
	315ML	2P	69	315	38	637	837	409	28	1327	348	115	M63x1.5	M20x1.5	346	93	253	173
	315ML ¹⁾	6P	85	315	38	637	837	409	28	1357	378	115	M63x1.5	M20x1.5	346	93	253	173
	315ML ²⁾	6P	95	315	38	637	837	409	28	1357	378	115	M63x1.5	M20x1.5	346	93	253	173
	315ML ³⁾	4P	85	315	38	637	837	409	28	1518	378	115	M63x1.5	M20x1.5	346	93	253	173
	315ML ⁴⁾	4-6P	95	315	38	637	837	409	28	1518	378	115	M63x1.5	M20x1.5	346	93	253	173
	355SM	2P	74.5	355	41	725	935	462	35	1399	399	130	M75x1.5	M20x1.5	356	98	258	178
355SM	4-6P	106	355	41	725	935	462	35	1469	469	130	M75x1.5	M20x1.5	356	98	258	178	
355ML	2P	74.5	355	41	725	935	462	35	1514	399	130	M75x1.5	M20x1.5	356	98	258	178	
355ML	4-6P	106	355	41	725	935	462	35	1584	469	130	M75x1.5	M20x1.5	356	98	258	178	
355LK	6P	106	355	41	725	935	462	35	1748	469	130	M75x1.5	M20x1.5	356	98	258	178	

电机尺寸		极数	HB	LA	M	N	P	S	T
Motor size		Poles							
IE5	280	2-6P	467	21	500	450-j6	550	18.5	5
M2BAF	315	2-6P	522	27	600	550-js6	660	24	6
	355	2-6P	580	22	740	680-is6	800	24	6

公差 Tolerance	附注 Footnotes
A, B ±0.8	¹⁾ MLA6
H +0, -1	²⁾ MLB6
C ±0.8	³⁾ MLA4
	⁴⁾ MLB4/MLC4/MLD4/MLC6

上表给出了主要尺寸 (单位: mm)
如需图纸详情, 请访问我们的网页
www.abb.com/motors&generators 或联系 ABB。

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages
www.abb.com/motors&generators or contact ABB.

变量代码

Variant codes

变量代码 Variant code	描述 Description	M2BAF													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
002	重敲铭牌电压、频率、输出、连续工作制 Restamping voltage, frequency and output, continuous duty	●	●	●	●	●	●	●	●	●	●	●	●	●	●
005	防护罩, 立式电机, 轴伸向下 Protective roof	●	●	●	●	●	●	●	●	●	●	●	●	●	●
008	IM 2101 底脚 / 法兰安装, IEC 法兰, 由 IM 1001 派生 (B3 派生出 B34) IM 2101 foot/flange mounted, IEC flange, from IM 1001 (B34 from B3)	●	●	●	●	●	●	-	-	-	-	-	-	-	-
009	IM 2001 底脚 / 法兰安装, IEC 法兰, 由 IM 1001 派生 (B3 派生出 B35) IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
021	左侧接线盒 (从 D 端看) Terminal box LHS (seen from D-end)	-	●	●	●	●	●	●	●	●	●	●	●	●	●
047	IM 3601 法兰安装, IEC 法兰, 由 IM 3001 派生 (B5 派生出 B14) IM 3601 flange mounted, IEC flange, from IM 3001 (B14 from B5)	●	●	●	●	●	●	-	-	-	-	-	-	-	-
066	除 IM B3(1001)、IM B5(3001) 外的其它安装方式 (仅支持 V1 方式) IM V1 mounting	●	●	●	●	●	●	●	●	●	●	●	●	●	●
114	特殊油漆颜色, 标准等级 Special paint color, standard grade	●	●	●	●	●	●	●	●	●	●	●	●	●	●
130	轴承安装 Pt100 (3 线) Pt100 3-wire in bearings	-	-	-	-	-	-	●	●	●	●	●	●	●	●
148	出厂试验报告 Routine test report	●	●	●	●	●	●	●	●	●	●	●	●	●	●
180	右侧接线盒 (从 D 端看) Terminal box RHS (seen from D-end)	-	●	●	●	●	●	●	●	●	●	●	●	●	●
181	变频铭牌 Frequency converter rating plate	●	●	●	●	●	●	●	●	●	●	●	●	●	●
183	独立电机冷却 (轴流风扇, N 端) Separate motor cooling (fan axial, N-end)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
375	标准塑料葛兰 Standard plastic cable gland	●	●	●	●	●	●	●	●	●	●	●	●	●	-
379	SKF 轴承 SKF bearings	●	●	●	●	●	●	●	●	●	●	●	●	●	●
403	防护等级 IP56 Degree of protection IP56	●	●	●	●	●	●	●	●	●	●	●	●	●	●
436	定子绕组安装 PTC- 热敏电阻 (3 个串联), 150 °C PTC - thermistors (3 in series), 150 °C, in stator winding	●	●	●	●	●	●	●	●	●	●	●	○	○	○
446	定子绕组安装 Pt100(2 线), 每相 2 个 Pt100 2-wire in stator winding, 2 per phase	-	-	-	-	-	-	●	●	●	●	●	●	●	●
451	加热带, 200-240V Heating element, 200 - 240V	●	●	●	●	●	●	●	●	●	●	●	●	●	●
502	定子绕组安装 Pt100(3 线), 每相 1 个 Pt100 3-wire in stator winding, 1 per phase	-	-	-	-	-	-	●	●	●	●	●	●	●	●
530	正常质保期延长 2 年 Two-year extension on standard warranty	●	●	●	●	●	●	●	●	●	●	●	●	●	●
622	铸铁轴承内盖 (低窜动) Inner bearing cover of cast iron	●	●	●	●	●	●	●	●	●	●	●	○	○	○
692	镀陶轴 Ceramic coated shaft	-	-	-	-	-	-	-	-	-	-	-	●	●	●
701	N 端绝缘轴承 Insulated bearing at N-end	-	-	-	-	-	-	-	-	-	-	-	●	●	●
865	延长一年质保 One-year extension on standard warranty	●	●	●	●	●	●	●	●	●	●	●	●	●	●
880	锂电行业专用 (电机表面锌, 铜含量 <0.5%) Lithium battery industry (motor surface zinc/copper content less than 0.5%)	●	●	●	●	●	●	●	●	●	●	●	●	●	●

○ 标配 | ● 可选 | - 不适用

○ = Included as standard | ● = Available as option | - = Not applicable

一般用途电机简介

General performance motors in brief

机座号 71-132

Frame size 71-132

电机尺寸 Motor size		71	80	90	100	112	132
机座与端盖 Stator and end shields	材料 Material	铸铁 Cast iron					
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25					
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)					
底脚 Feet		一体式铸铁底脚 Integrated cast iron feet					
轴承 Bearings	D 端 D-end	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6206-2Z/C3	6207-2Z/C3	6208-2Z/C3
	N 端 N-end	6202-2Z/C3	6204-2Z/C3	6205-2Z/C3	6206-2Z/C3	6206-2Z/C3	6208-2Z/C3
轴向锁定轴承 Axially locked bearings		D 端锁定 Locked at D-end					
轴承密封 Bearing seals	D 端 , N 端 D-end, N-end	V 形圈 V-ring					
润滑 Lubrication		封闭式轴承 Bearings greased for life					
铭牌 Rating plate	材料 Material	不锈钢 Stainless steel					
接线盒 Terminal box	接线盒材料 Frame material	铸铁 Cast iron					
	接线盒盖材料 Cover material	铸铁 Cast iron					
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)					
	螺钉 Screws	电镀锌钢 Zinc-electroplated steel					
	螺纹孔 Threaded openings	2xM16	2xM25		2xM32		
连接件 Connections	最大铜线 (Cu) 截面积 (mm²) Max Cu-area mm²	4	6		10		
	接线 Terminals	电缆接线头, 6 个端子 Cable lugs, 6 terminals					
风扇 Fan	材料 Material	玻璃纤维增强聚丙烯 Glass-fiber reinforced polypropylene					
风罩 Fan cover	材料 Material	钢板 Steel					
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25					
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)					
定子绕组 Stator winding	材料 Material	铜 Copper					
	绝缘 Insulation	F 级绝缘, B 级温升, 除非另有规定 Insulation class F. Temperature rise class B unless otherwise stated					
	绕组保护 Winding protection	可选 As option					
转子绕组 Rotor winding	材料 Material	压铸铝 Pressure die-cast aluminum					
平衡方法 Balancing method		半键平衡 Half-key balancing as standard					
排水孔 Drain holes		排水孔具有可闭合塞, 交付时为打开状态 Drain holes with closable plastic plugs, open on delivery					
键槽 Keyway		开口槽 Open keyway					
防护等级 Enclosure		IP 55					
冷却方式 Cooling method		IC 411					
吊环 Lifting lug		一体式铸铁吊环 Integrated cast iron lifting lug					

一般用途电机简介

General performance motors in brief

机座号 160-250

Frame size 160-250

电机尺寸 Motor size		160	180	200	225	250
机座与端盖 Stator and end shields	材料 Material	铸铁 Cast iron				
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25				
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)				
底脚 Feet		一体式铸铁底脚 Integrated cast iron feet				
轴承 Bearings	D 端 D-end	6309-2Z/C3	6310-2Z/C3	6312-2Z/C3	6313-2Z/C3	6315-2Z/C3
	N 端 N-end	6209-2Z/C3	6210-2Z/C3	6212-2Z/C3	6213-2Z/C3	6215-2Z/C3
轴向锁定轴承 Axially locked bearings		D 端锁定 Locked at D-end				
轴承密封 Bearing seals	D 端, N 端 D-end, N-end	V 形圈 V-ring				
润滑 Lubrication		封闭式轴承 Bearings greased for life				
铭牌 Rating plate	材料 Material	不锈钢 Stainless steel				
接线盒 Terminal box	接线盒材料 Frame material	铸铁 Cast iron				
	接线盒盖材料 Cover material	铸铁 Cast iron				
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)				
	螺钉 Screws	电镀锌钢 Zinc-electroplated steel				
	螺纹孔 Threaded openings	2xM40+M16		2xM63+M16		
连接件 Connections	最大铜线 (Cu) 截面积 (mm²) Max Cu-area mm²	35		70		
	接线 Terminals	电缆接线头, 6 个端子 Cable lugs, 6 terminals				
风扇 Fan	材料 Material	玻璃纤维增强聚丙烯 Glass-fiber reinforced polypropylene				
风罩 Fan cover	材料 Material	钢板 Steel				
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25				
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)				
定子绕组 Stator winding	材料 Material	铜 Copper				
	绝缘 Insulation	F 级绝缘, B 级温升, 除非另有规定 Insulation class F. Temperature rise class B unless otherwise stated				
	绕组保护 Winding protection	可选 As option				
转子绕组 Rotor winding	材料 Material	压铸铝 Pressure die-cast aluminum				
平衡方法 Balancing method		半键平衡 Half-key balancing as standard				
排水孔 Drain holes		排水孔具有可闭合塞, 交付时为打开状态 Drain holes with closable plastic plugs, open on delivery				
键槽 Keyway		开口槽 Open keyway				
防护等级 Enclosure		IP 55				
冷却方式 Cooling method		IC 411				
吊环 Lifting lug		分体式钢制吊环, 通过吊环螺栓连接到机座 Separate steel lifting lug,bolted to the stator				

一般用途电机简介

General performance motors in brief

机座号 280-355

Frame size 280-355

电机尺寸 Motor size		280	315	355
机座与端盖 Stator and end shields	材料 Material	铸铁 Cast iron		
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25		
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)		
底脚 Feet		一体式铸铁底脚 Integrated cast iron feet		
轴承 Bearings	D 端 D-end	6316/C3	6316/C3(2P) 6319/C3(4-6P)	6316/C3(2P) 6322/C3(4-6P)
	N 端 N-end	6316/C3	6316/C3	6316/C3
轴向锁定轴承 Axially locked bearings		D 端锁定 Locked at D-end		
轴承密封 Bearing seals	D 端 , N 端 D-end, N-end	V 形圈 V-ring		
润滑 Lubrication		可润滑轴承 Regreasable bearings		
铭牌 Rating plate	材料 Material	不锈钢 Stainless steel		
接线盒 Terminal box	接线盒材料 Frame material	铸铁 Cast iron		
	接线盒盖材料 Cover material	铸铁 Cast iron		
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)		
	螺钉 Screws	电镀锌钢 Zinc-electroplated steel		
	螺纹孔 Threaded openings	2xM63+2xM20	2xM63+2xM20	2xM75+2xM20
连接件 Connections	最大铜线 (Cu) 截面积 (mm²) Max Cu-area mm²	2x150	2x240	4x240
	接线 Terminals	电缆接线头, 6 个端子 Cable lugs, 6 terminals		
风扇 Fan	材料 Material	玻璃纤维增强聚丙烯/金属 Glass-fiber reinforced polypropylene/Metal		
风罩 Fan cover	材料 Material	钢板 Steel		
	油漆颜色 Paint color shade	Munsell 蓝 8B 4.5/3.25 Munsell blue 8B 4.5/3.25		
	防腐蚀等级 Corrosion class	C3 (中等) C3 (medium)		
定子绕组 Stator winding	材料 Material	铜 Copper		
	绝缘 Insulation	F 级绝缘, B 级温升, 除非另有规定 Insulation class F. Temperature rise class B unless otherwise stated		
	绕组保护 Winding protection	定子绕组安装 PTC 热敏电阻 (3 个串联), 150°C PTC - thermistors (3 in series), 150 °C, in stator winding.		
转子绕组 Rotor winding	材料 Material	压铸铝 Pressure die-cast aluminum		
平衡方法 Balancing method		半键平衡 Half-key balancing as standard		
排水孔 Drain holes		排水孔具有可闭合塞, 交付时为打开状态 Drain holes with closable plastic plugs, open on delivery		
键槽 Keyway		开口槽 Open keyway		
防护等级 Enclosure		IP 55		
冷却方式 Cooling method		IC 411		
吊环 Lifting lug		分体式钢制吊环, 通过吊环螺纹连接到机座 Separate steel lifting lug, bolted to the stator		



ABB中国电机与发电机业务单元区域中心

北方区域中心（北京、天津、河北、河南、山西及内蒙古）
北京市朝阳区酒仙桥路甲10号D区1号 401楼
邮编: 100015
电话: +86 18101197623

南方区域中心（广东、广西、福建及海南）
广东省广州市珠江新城珠江西路15号珠江城大厦29楼
邮编: 510623
电话: +86 18116179306

华东区域中心（上海、浙江、江苏、安徽及山东）
上海市闵行区天星路380号
邮编: 200245
电话: +86 18116176178

西北区域中心（陕西、宁夏、青海、甘肃及新疆）
西安市经济技术开发区文景路中段158号3层
邮编: 710075
电话: +86 18112997797

西南区域中心（四川、云南、贵州、西藏及重庆）
成都市人民南路4段三号来福士广场塔T1楼
803-805室
邮编: 610042
电话: +86 18108199063

华中区域中心（湖北、湖南及江西）
湖北省武汉市武昌区临江大道96号武汉万达中心21楼
邮编: 430060
电话: +86 18116177129

东北区域中心（辽宁、吉林及黑龙江）
辽宁省沈阳市沈河区青年大街1-1号
市府恒隆广场办公楼1座3610-3612单元
邮编: 110063
电话: +86 18040066506

<http://new.abb.com/motors-generators/zh>

