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# 低压船用电机 Low voltage marine motors

我们提供电机、发电机、机械传动产品、各项相应服务及专门技术，帮助客户在产品的整个使用周期及更长的期限内，实现节能及工艺改进。

We provide motors, generators and mechanical power transmission products, services and expertise to save energy and improve customers' processes over the total life cycle of our products, and beyond.



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ABB 低压船用电机拥有了 ABB 的一流品质和雄厚支持，这些电机的功能得到大量客户和 OEM（原始设备制造商）的认可。电机达到 IE2 效率。

ABB's Low voltage marine motors are with ABB quality and support. These motors have the features appreciated by volume customers and serial OEMs. Motors achieve IE2 efficiency.



# 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 和 EN 国际标准。同时，可按要求提供符合其他国家规范的电机。

所有生产厂家均通过 ISO 9001 国际质量认证及 ISO 14000 环境标准，并符合所有适用的欧盟指令。

### 产品概要

ABB 推出全新一代低压船用电机 - M2BAX 系列船用三相异步电动机，以满足船用设备的应用需求。电机符合 ABS, BV, CCS, DNV, GL, KR, LR, NK, RINA 船级社的规范要求，适用于船用泵、风机、液压机械等各种设备，效率达到 IE2。

ABB 船用电机在世界造船业得到广泛应用。严格的制造工艺及一流的品质得到大量客户的认可。

### 突出特点

- 专门为船用设备设计，以优异的性能和可靠性广泛应用于全球的各大船用设备制造企业
- IE2 高效电机，符合中国 3 级能效标准
- 电机外壳材料采用高强度铸铁，具有良好的耐冲压性能
- 适应各国船用设备对电源和频率的要求，可用 380V/50Hz，亦可使用 440V/60Hz

### Standards

ABB motors are of the totally enclosed, three phase squirrel cage type, built to comply with international IEC and EN standards. Motors conforming to other national and international specifications are also available on request.

All production units are certified to ISO 9001 international quality standard as well ISO 14000 environmental standard and conform to all applicable EU Directives.

### Product summary

M2BAX series marine three-phase induction motors are ABB' s latest generation of low voltage marine motors, suitable for marine applications like pump, fan, hydraulic machinery, etc.. M2BAX series marine motors conform to the requirements from ABS, BV, CCS, DNV, GL, KR, LR, NK, RINA societies. The efficiency level reaches IE2, equivalent to Grade 3.

ABB marine motors are being widely used in shipbuilding industry. Strict manufacturing process and outstanding quality are appreciated by customers.

### Outstanding features

- Special designed for marine equipments and environment, the M2BAX marine motors with high performance and high reliability are widely used by leading marine equipment manufactures
- IE2 high efficiency motors, complying with China Grade 3 energy efficiency standard
- High strength materials are used in parts such as frame and shaft
- Power supply and frequency can meet the requirements of both 380V/50Hz and 440V/60Hz



# 订购信息

## Ordering information

订购时，请按照示例在订单中说明以下最小数据。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.

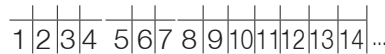
示例	
电机型号	M2BAX 112 MA
极数	4
安装方式 (IM 代码)	IM B3 (IM1001)
额定输出	4 kW
产品代码	3GBA 112 310-ADCCN
船用代码	629 <sup>*)</sup>
附加代码 (如需)	

<sup>\*)</sup> 629 为船用电机必加代码

Example	
Motor type	M2BAX 112 MA
Pole number	4
Mounting arrangement (IM-code)	IM B3 (IM1001)
Rated output	4 kW
Product code	3GBA 112 310-ADCCN
Marine features	629 <sup>*)</sup>
Variant codes if needed	

<sup>\*)</sup> Must add 629 to order marine motors

A                      B                      C                      D                       
**M2BAX                      112MA                      3GBA 112 310 - ADCCN, 629, etc**



- A 电机型号
- B 电机尺寸
- C 产品代码
- D 安装方式代码，电压及频率代码 (后跟产品族代码，客户代码及变量代码)

- A Motor type
- B Motor size
- C Product code
- D Codes for mounting, arrangement, voltage and frequency; followed by codes for generation, customer and variants

### 产品代码说明

<b>位置 1-4</b>			
3GBA = 全封闭铸铁机座电机			
<b>位置 5-6</b>			
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	
<b>位置 7</b>			
极对数			
1=2 极			
2=4 极			
3=6 极			
<b>位置 8 和 10</b>			
序列号			
<b>位置 11</b>			
-(破折号)			
<b>位置 12</b>			
安装方式			
A = 底脚安装型电机			
B = 凸缘安装型电机带通孔的大凸缘。			
<b>位置 13</b>			
电压和频率			
D 380 V Δ, 400 V Δ, 660 VY 50 Hz			
S 220 V Δ, 380 VY, 400 VY 50 Hz			
<b>位置 14</b>			
产品族代码			

### Explanation of the product code

<b>Positions 1 to 4</b>			
3GBA = Totally enclosed motor with cast iron frame			
<b>Positions 5 to 6</b>			
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	
<b>Positions 7</b>			
Speed (pole pairs)			
1=2 poles			
2=4 poles			
3=6 poles			
<b>Positions 8 to 10</b>			
Serial number			
<b>Positions 11</b>			
-(dash)			
<b>Position 12</b>			
Mounting arrangement			
A = Foot-mounted motor			
B = Flange-mounted motor. Large flange with clearance holes.			
<b>Position 13</b>			
Voltage and frequency			
D 380 V Δ, 400 V Δ, 660 VY 50 Hz			
S 220 V Δ, 380 VY, 400 VY 50 Hz			
<b>Position 14</b>			
Generation code			

# 铭牌

## Rating plates

铭牌以表格形式提供两个电压的转速、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.

机座号 71-355

Motor sizes 71-355

<b>ABB</b> Marine Motors						
IE2 IEC 60034-1						
3 ~ Motor		M2BAX 90LA 4		IMB3/IM1001		2015
AMB +50°C						
No. <span style="float:right">Ins.cl. F IP 55</span>						
V	Hz	kW	r/min	A	cos φ	Duty
380Y	50	1.5	1435	3.53	0.78	S1
440Y	60	1.5	1735	3.17	0.74	S1
50Hz:IE2-82.8(100%)						
Prod. code		3GBA092510-ASCCN629				
6205-2Z/C3		6204-2Z/C3		23 kg		

<b>ABB</b> Marine Motors						
IE2 IEC 60034-1						
3 ~ Motor		M2BAX 180MLB 4		IMB3/IM1001		2015
AMB +50°C						
No. <span style="float:right">Ins.cl. F IP 55</span>						
V	Hz	kW	r/min	A	cos φ	Duty
380Δ	50	22	1457	42.4	0.86	S1
440Δ	60	22	1763	37.2	0.84	S1
50Hz:IE2-91.6(100%)						
Prod. code		3GBA182420-ADCCN629				
6310-2Z/C3		6209-2Z/C3		168 kg		

说明：  
铭牌图片仅供格式参考，最终数据以实际铭牌为准。

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

# 轴承

## Bearings

电机通常安装以下单列深沟球轴承。

### 标准及可选设计

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	6203-2Z/C3
90	2-6	6205-2Z/C3	6204-2Z/C3
100	2-6	6206-2Z/C3	6205-2Z/C3
112	2-6	6206-2Z/C3	6205-2Z/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	6209-2Z/C3
200	2-6	6312-2Z/C3	6209-2Z/C3
225	2-6	6313-2Z/C3	6210-2Z/C3
250	2-6	6315-2Z/C3	6212-2Z/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。

Motors are normally fitted with single-row deep groove ball bearings, as shown in the table below.

### Standard and alternative 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	6203-2Z/C3
90	2-6	6205-2Z/C3	6204-2Z/C3
100	2-6	6206-2Z/C3	6205-2Z/C3
112	2-6	6206-2Z/C3	6205-2Z/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	6209-2Z/C3
200	2-6	6312-2Z/C3	6209-2Z/C3
225	2-6	6313-2Z/C3	6210-2Z/C3
250	2-6	6315-2Z/C3	6212-2Z/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 with an axially locked bearing at D-end as standard.

技术数据

Technical data

低压船用电机, 3000 r/min

Low voltage marine motors, 3000 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F

0.18-0.75kW, 符合 GB 25928-2010 的 3 级能效;

0.75-355kW, 符合 IEC 60034-30-1; 2014 的 IE2 效率等级及 GB 18613-2012 的 3 级能效

IP 55 - IC 411 - Insulation class F, temperature rise class F

0.18-0.75kW, Grade 3 according to GB 18613-2010;

0.75-355kW, IE2 efficiency class according to 60034-30-1; 2014 , Grade 3 according to GB 18613-2012

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor cos φ	电流 Current			转矩 / Torque			转动惯量 Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>i</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>				
kW			r/min								CENELEC- 设计 design					
3000 r/min = 2 极 / 2 poles			380 V 50Hz													
0.37	M2BAX 71 MA	3GBA 071 310-●●CCN	2769	73.5	73.0	70.3	0.84	0.91	4.9	1.26	2.5	3.0	0.00033	9	56	
0.55	M2BAX 71 MB	3GBA 071 320-●●CCN	2790	75.5	75.3	73.1	0.83	1.33	5.2	1.86	2.8	3.2	0.00041	10	58	
0.75	M2BAX 80 MA	3GBA 081 310-●●CCN	2797	77.4	76.5	76.2	0.86	1.71	5.3	2.51	2.7	3.9	0.00067	13	63	
1.1	M2BAX 80 MB	3GBA 081 320-●●CCN	2821	79.6	80.2	79.8	0.87	2.41	5.2	3.67	2.8	3.7	0.00088	14	62	
1.5	M2BAX 90 SA	3GBA 091 110-●●CCN	2876	81.3	80.6	78.6	0.84	3.34	6.7	4.93	2.8	3.5	0.00208	20	66	
2.2	M2BAX 90 LA	3GBA 091 510-●●CCN	2882	83.2	83.6	82.9	0.88	4.57	7.1	7.25	2.8	3.4	0.00274	23	67	
3	M2BAX 100 LA	3GBA 101 510-●●CCN	2894	84.6	85.2	84.1	0.93	5.79	7.1	9.90	2.6	3.4	0.00475	32	74	
4	M2BAX 112 MA	3GBA 111 310-●●CCN	2878	85.8	87.0	86.9	0.94	7.54	7.0	13.3	2.4	3.2	0.00561	36	74	
5.5	M2BAX 132 SA	3GBA 131 110-●●CCN	2908	87.0	86.5	84.8	0.89	10.8	7.6	18.0	2.3	3.8	0.01170	54	74	
7.5	M2BAX 132 SB	3GBA 131 120-●●CCN	2905	88.1	87.7	86.7	0.88	14.7	8.1	24.6	2.7	4.0	0.01319	58	72	
11	M2BAX 160 MLA	3GBA 161 410-●●CCN	2919	89.4	89.9	89.6	0.88	21.2	6.2	35.9	2.2	3.1	0.041	102	72	
15	M2BAX 160 MLB	3GBA 161 420-●●CCN	2929	90.3	90.7	90.5	0.90	28.0	7.0	48.9	2.7	3.1	0.054	115	72	
18.5	M2BAX 160 MLC	3GBA 161 430-●●CCN	2932	90.9	91.2	91.1	0.90	34.4	7.9	60.1	2.8	3.4	0.060	123	73	
22	M2BAX 180 MLA	3GBA 181 410-●●CCN	2929	91.3	92.2	92.3	0.93	39.4	7.5	71.7	3.1	3.1	0.073	150	72	
30	M2BAX 200 MLA	3GBA 201 410-●●CCN	2940	92.0	91.9	91.2	0.90	55.0	7.5	97.4	3.2	3.5	0.110	198	81	
37	M2BAX 200 MLB	3GBA 201 420-●●CCN	2943	92.5	92.8	92.6	0.91	66.8	7.6	120	3.2	3.3	0.141	229	80	
45	M2BAX 225 SMA	3GBA 221 210-●●CCN	2946	92.9	93.3	93.1	0.92	80.0	7.6	146	2.8	3.0	0.226	273	82	
55	M2BAX 250 SMA	3GBA 251 210-●●CCN	2958	93.2	93.5	93.4	0.89	99.6	7.4	177	3.1	2.7	0.344	334	78	
75	M2BAX 280 SA	3GBA 281 110-●●CCN	2975	93.9	93.7	92.4	0.89	136	6.9	241	1.8	2.7	0.8	546	78	
90	M2BAX 280 SMB	3GBA 281 220-●●CCN	2973	94.1	94.2	93.5	0.90	161	6.7	289	2.0	2.7	0.9	586	79	
110	M2BAX 315 SMA	3GBA 311 210-●●CCN	2981	94.3	94.0	92.8	0.84	211	6.7	352	2.0	2.9	1.2	767	78	
132	M2BAX 315 SMB	3GBA 311 220-●●CCN	2979	94.6	94.5	93.6	0.86	247	6.9	423	2.1	2.8	1.4	827	78	
160	M2BAX 315 SMC	3GBA 311 230-●●CCN	2979	95.1	95.0	94.3	0.90	284	6.8	512	2.1	2.7	1.7	917	78	
200	M2BAX 315 MLA	3GBA 311 410-●●CCN	2978	95.0	95.1	94.4	0.89	359	7.1	641	2.6	2.6	2.1	1037	83	
250	M2BAX 355 SMA	3GBA 351 210-●●CCN	2981	95.3	95.2	94.4	0.90	442	6.2	800	1.4	2.5	2.7	1329	83	
315	M2BAX 355 SMB	3GBA 351 220-●●CCN	2978	95.4	95.4	94.8	0.89	563	6.5	1010	1.7	2.5	3.4	1469	83	
355	M2BAX 355 SMC	3GBA 351 230-●●CCN	2981	95.4	95.5	95.1	0.89	635	6.8	1137	1.9	2.4	3.6	1539	83	

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).

根据 IEC 60034-2-1:2007 的要求, 给出效率值。  
请注意, 在测试方法未知时, 这些数值没有可比性。  
ABB 已经根据间接法计算出效率值, 且根据测量得出杂散损耗（附加损耗）。  
Efficiency values are given according to IEC 60034-2-1; 2007.  
Please note that the values are not comparable without knowing the testing method.  
ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.

IE 等级涉及功率为 0.75KW-355KW。  
IE-class concerns motors from 0.75KW-355KW .

I<sub>s</sub>/I<sub>N</sub> = 启动电流  
Starting current  
T<sub>i</sub>/T<sub>N</sub> = 转子堵转 - 转矩  
Locked -rotor torque  
T<sub>B</sub>/T<sub>N</sub> = 最大转矩  
Breakdown torque



# 技术数据

## Technical data

低压船用电机, 3000 r/min

Low voltage marine motors, 3000 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F

符合 IEC 60034-30-1;2014 的效率等级

IP 55 - IC 411 - Insulation class F, temperature rise class F

IE2 efficiency class according to 60034-30-1; 2014

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor cos φ	电流 Current		转矩 / Torque			转动惯量 Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	I <sub>0</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>i</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>			
3000 r/min = 2 极 / 2 poles			440 V 60Hz				CENELEC- 设计 design								
0.37	M2BAX 71 MA	3GBA 071 310-••CCN	3412	74.7	73.5	68.8	0.80	0.81	5.7	1.04	2.7	3.8	0.00033	9	59
0.55	M2BAX 71 MB	3GBA 071 320-••CCN	3426	78.9	78.2	74.5	0.80	1.15	6.1	1.53	3.0	4.0	0.00041	10	61
0.75	M2BAX 80 MA	3GBA 081 310-••CCN	3428	75.5	76.6	73.2	0.82	1.59	6.2	2.09	3.0	4.8	0.00067	13	66
1.1	M2BAX 80 MB	3GBA 081 320-••CCN	3450	78.5	79.3	76.6	0.83	2.22	6.1	3.04	3.1	4.6	0.00088	14	65
1.5	M2BAX 90 SA	3GBA 091 110-••CCN	3497	84.0	82.0	78.6	0.87	2.69	8.0	4.10	2.5	3.7	0.00208	20	69
2.2	M2BAX 90 LA	3GBA 091 510-••CCN	3501	81.5	84.0	81.5	0.89	3.98	8.7	6.00	2.6	3.8	0.00274	23	70
3	M2BAX 100 LA	3GBA 101 510-••CCN	3508	83.1	82.4	79.5	0.92	5.15	8.6	8.17	2.9	4.2	0.00475	32	77
4	M2BAX 112 MA	3GBA 111 310-••CCN	3494	84.8	85.0	83.2	0.93	6.66	8.5	10.9	2.7	3.9	0.00561	36	77
5.5	M2BAX 132 SA	3GBA 131 110-••CCN	3518	86.0	83.8	80.0	0.90	9.32	8.7	14.9	2.5	4.5	0.01170	54	77
7.5	M2BAX 132 SB	3GBA 131 120-••CCN	3516	87.5	85.6	82.4	0.85	13.2	8.9	20.4	2.7	4.8	0.01319	58	75
11	M2BAX 160 MLA	3GBA 161 410-••CCN	3531	90.2	89.7	88.1	0.89	18.0	7.5	29.8	2.6	3.4	0.041	102	75
15	M2BAX 160 MLB	3GBA 161 420-••CCN	3532	90.2	91.0	89.8	0.91	24.0	8.3	40.6	3.1	3.7	0.054	115	75
18.5	M2BAX 160 MLC	3GBA 161 430-••CCN	3540	91.0	91.8	90.6	0.90	29.6	8.8	49.9	3.4	3.9	0.060	123	76
22	M2BAX 180 MLA	3GBA 181 410-••CCN	3538	91.0	91.3	90.4	0.93	34.1	9.0	59.4	3.6	3.6	0.073	150	75
30	M2BAX 200 MLA	3GBA 201 410-••CCN	3547	91.7	91.2	89.4	0.89	48.2	8.6	80.8	3.8	3.9	0.110	198	84
37	M2BAX 200 MLB	3GBA 201 420-••CCN	3547	92.4	93.3	92.7	0.89	59.0	9.2	99.6	4.0	3.8	0.141	229	83
45	M2BAX 225 SMA	3GBA 221 210-••CCN	3553	93.0	92.9	91.8	0.91	69.8	9.0	121	2.7	3.4	0.226	273	85
55	M2BAX 250 SMA	3GBA 251 210-••CCN	3567	93.0	94.8	94.1	0.88	88.2	8.2	147	3.4	2.9	0.344	334	81
75	M2BAX 280 SA	3GBA 281 110-••CCN	3578	93.6	92.5	90.5	0.88	119	8.0	200	2.0	3.3	0.8	546	81
90	M2BAX 280 SMB	3GBA 281 220-••CCN	3576	94.5	94.1	92.7	0.90	139	7.7	240	2.1	3.0	0.9	586	83
110	M2BAX 315 SMA	3GBA 311 210-••CCN	3583	94.5	93.8	92.0	0.84	182	7.6	293	2.0	3.2	1.2	767	83
132	M2BAX 315 SMB	3GBA 311 220-••CCN	3581	95.0	94.5	93.0	0.86	212	7.8	352	2.2	3.1	1.4	827	83
160	M2BAX 315 SMC	3GBA 311 230-••CCN	3581	95.1	94.4	92.9	0.88	251	8.1	427	2.4	3.0	1.7	917	81
200	M2BAX 315 MLA	3GBA 311 410-••CCN	3580	95.4	95.0	93.9	0.90	306	8.2	533	2.7	2.9	2.1	1037	88
250	M2BAX 355 SMA	3GBA 351 210-••CCN	3583	95.4	94.9	93.6	0.89	386	6.8	666	1.6	3.2	2.7	1329	86
315	M2BAX 355 SMB	3GBA 351 220-••CCN	3581	95.4	95.2	94.0	0.88	492	7.4	840	2.1	3.1	3.4	1469	86
355	M2BAX 355 SMC	3GBA 351 230-••CCN	3583	95.4	95.5	94.4	0.88	555	7.7	946	2.2	3.0	3.6	1539	86

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).

根据 IEC 60034-2-1:2007 的要求，给出效率值。

请注意，在测试方法未知时，这些数值没有可比性。

ABB 已经根据间接法计算出效率值，且根据测量得出杂散损耗（附加损耗）。

Efficiency values are given according to IEC 60034-2-1; 2007.

Please note that the values are not comparable without knowing the testing method.

ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.

IE 等级涉及功率为 0.75KW-355KW。

IE-class concerns motors from 0.75KW-355KW .

I<sub>0</sub>/I<sub>N</sub> = 启动电流

Starting current

T<sub>i</sub>/T<sub>N</sub> = 转子堵转 - 转矩

Locked -rotor torque

T<sub>B</sub>/T<sub>N</sub> = 最大转矩

Breakdown torque

# 技术数据 Technical data

## 低压船用电机, 1500 r/min Low voltage marine motors, 1500 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F  
0.18-0.75kW, 符合 GB 25928-2010 的 3 级能效;  
0.75-355kW, 符合 IEC 60034-30-1; 2014 的 IE2 效率等级及 GB 18613-2012 的 3 级能效  
IP 55 - IC 411 - Insulation class F, temperature rise class F  
0.18-0.75kW, Grade 3 according to GB 18613-2010;  
0.75-355kW, IE2 efficiency class according to 60034-30-1; 2014 , Grade 3 according to GB 18613-2012

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor cos φ	电流 Current		转矩 / Torque				转动惯量 Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>l</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>				
1500 r/min = 4 极 / 4 poles			380 V 50Hz				CENELEC- 设计 design									
0.25	M2BAX 71 MA	3GBA 072 310-●●CCN	1404	67.0	64.1	58.6	0.77	0.74	4.2	1.68	1.9	2.5	0.00059	9	49	
0.37	M2BAX 71 MB	3GBA 072 320-●●CCN	1393	69.5	68.5	65.2	0.81	1.00	4.2	2.52	1.8	2.3	0.00076	10	46	
0.55	M2BAX 80 MA	3GBA 082 310-●●CCN	1402	73.5	72.8	70.1	0.80	1.42	4.8	3.70	2.1	2.6	0.00156	13	54	
0.75	M2BAX 80 MB	3GBA 082 320-●●CCN	1438	79.6	79.5	76.5	0.75	1.91	6.4	4.97	3.4	3.5	0.00247	17	53	
1.1	M2BAX 90 SA	3GBA 092 110-●●CCN	1440	81.4	80.4	77.3	0.77	2.67	6.3	7.35	3.5	3.8	0.00372	21	51	
1.5	M2BAX 90 LA	3GBA 092 510-●●CCN	1435	82.8	81.9	80.0	0.78	3.53	6.6	10.0	3.3	3.8	0.00462	23	55	
2.2	M2BAX 100 LA	3GBA 102 510-●●CCN	1437	84.3	84.1	82.9	0.82	4.84	6.7	14.5	2.9	3.4	0.00759	31	55	
3	M2BAX 100 LB	3GBA 102 520-●●CCN	1437	85.5	85.4	84.2	0.83	6.42	7.3	19.8	3.2	3.8	0.00939	35	58	
4	M2BAX 112 MA	3GBA 112 310-●●CCN	1433	86.6	87.0	86.1	0.83	8.46	7.1	26.5	3.6	3.9	0.01195	41	56	
5.5	M2BAX 132 SA	3GBA 132 110-●●CCN	1451	87.7	87.8	87.2	0.81	11.76	6.4	36.0	2.2	3.0	0.02570	57	66	
7.5	M2BAX 132 MA	3GBA 132 310-●●CCN	1453	88.7	89.0	88.6	0.81	15.86	6.8	49.1	2.3	3.2	0.03195	68	66	
11	M2BAX 160 MLA	3GBA 162 410-●●CCN	1461	89.8	90.2	90.1	0.82	22.7	7.0	71.5	2.9	2.9	0.078	110	67	
15	M2BAX 160 MLB	3GBA 162 420-●●CCN	1463	90.6	91.1	91.0	0.84	29.9	7.4	97.7	2.9	3.3	0.100	125	66	
18.5	M2BAX 180 MLA	3GBA 182 410-●●CCN	1457	91.2	91.9	92.0	0.85	36.3	7.1	121	2.9	3.2	0.120	155	65	
22	M2BAX 180 MLB	3GBA 182 420-●●CCN	1457	91.6	92.3	92.3	0.86	42.4	7.3	144	3.0	3.2	0.139	168	66	
30	M2BAX 200 MLA	3GBA 202 410-●●CCN	1471	92.3	92.8	92.9	0.84	58.8	6.5	194	2.7	2.8	0.236	222	68	
37	M2BAX 225 SMA	3GBA 222 210-●●CCN	1476	92.7	93.0	93.0	0.85	71.3	6.9	239	2.8	2.9	0.350	263	69	
45	M2BAX 225 SMB	3GBA 222 220-●●CCN	1478	93.1	93.4	93.1	0.84	87.4	7.5	291	3.1	3.1	0.416	290	69	
55	M2BAX 250 SMA	3GBA 252 210-●●CCN	1478	93.5	93.8	93.4	0.85	105	7.1	356	2.9	2.9	0.533	339	77	
75	M2BAX 280 SA	3GBA 282 110-●●CCN	1482	94.0	94.2	93.7	0.86	140	6.2	483	2.2	2.5	1.3	531	71	
90	M2BAX 280 SMB	3GBA 282 220-●●CCN	1481	94.2	94.5	94.2	0.87	166	6.5	580	2.2	2.4	1.5	591	71	
110	M2BAX 315 SMA	3GBA 312 210-●●CCN	1487	94.5	94.7	94.2	0.87	203	6.3	706	2.0	2.6	2.3	792	78	
132	M2BAX 315 SMB	3GBA 312 220-●●CCN	1486	94.9	95.0	94.5	0.87	242	6.4	847	2.0	2.4	2.6	847	78	
160	M2BAX 315 SMC	3GBA 312 230-●●CCN	1485	95.1	95.3	94.8	0.86	297	6.6	1028	2.1	2.6	2.9	887	78	
200	M2BAX 315 MLA	3GBA 312 410-●●CCN	1484	95.2	95.4	95.1	0.87	366	6.4	1286	2.1	2.5	3.5	1012	78	
250	M2BAX 355 SMA	3GBA 352 210-●●CCN	1486	95.1	95.4	95.0	0.86	464	5.7	1606	1.8	2.3	5.4	1419	82	
315	M2BAX 355 SMB	3GBA 352 220-●●CCN	1487	95.4	95.5	95.0	0.86	583	6.7	2021	2.0	2.4	6.9	1589	82	
355	M2BAX 355 SMC	3GBA 352 230-●●CCN	1485	95.4	95.7	95.3	0.87	649	6.1	2279	2.1	2.3	7.2	1669	84	

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).

根据 IEC 60034-2-1:2007 的要求, 给出效率率值。  
请注意, 在测试方法未知时, 这些数值没有可比性。  
ABB 已经根据间接法计算出效率率值, 且根据测量得出杂散损耗（附加损耗）。  
Efficiency values are given according to IEC 60034-2-1; 2007.  
Please note that the values are not comparable without knowing the testing method.  
ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.

I<sub>s</sub>/I<sub>N</sub> = 启动电流  
Starting current  
T<sub>l</sub>/T<sub>N</sub> = 转子堵转 - 转矩  
Locked -rotor torque  
T<sub>B</sub>/T<sub>N</sub> = 最大转矩  
Breakdown torque

IE 等级涉及功率为 0.75KW-355KW。  
IE-class concerns motors from 0.75KW-355KW .

# 技术数据 Technical data

## 低压船用电机, 1500 r/min Low voltage marine motors, 1500 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F  
符合 IEC 60034-30-1;2014 的效率等级  
IP 55 - IC 411 - Insulation class F, temperature rise class F  
IE2 efficiency class according to 60034-30-1; 2014

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor cos φ	电流 Current		转矩 / Torque			转动惯量 Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	I <sub>s</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>i</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>			
1500 r/min = 4 极 / 4 poles			440 V 60Hz			GENELEC- 设计 design									
0.25	M2BAX 71 MA	3GBA 072 310-••CCN	1725	69.3	67.2	61.0	0.69	0.69	4.6	1.38	2.2	3.1	0.00059	9	52
0.37	M2BAX 71 MB	3GBA 072 320-••CCN	1716	70.6	69.5	64.6	0.73	0.94	4.7	2.06	2.0	3.0	0.00076	10	49
0.55	M2BAX 80 MA	3GBA 082 310-••CCN	1721	76.5	75.6	71.6	0.74	1.28	5.5	3.05	2.2	3.3	0.00156	13	57
0.75	M2BAX 80 MB	3GBA 082 320-••CCN	1742	78.0	76.5	71.6	0.69	1.83	6.9	4.11	3.3	4.3	0.00247	17	56
1.1	M2BAX 90 SA	3GBA 092 110-••CCN	1736	84.0	82.0	78.4	0.71	2.42	7.1	6.05	3.5	4.7	0.00372	21	54
1.5	M2BAX 90 LA	3GBA 092 510-••CCN	1735	84.0	83.3	80.2	0.74	3.17	7.1	8.25	3.3	4.6	0.00462	23	58
2.2	M2BAX 100 LA	3GBA 102 510-••CCN	1747	83.0	84.1	81.2	0.79	4.40	7.7	12.0	2.7	4.2	0.00759	31	58
3	M2BAX 100 LB	3GBA 102 520-••CCN	1746	84.1	85.1	82.5	0.80	5.85	8.4	16.4	2.9	4.5	0.00939	35	61
4	M2BAX 112 MA	3GBA 112 310-••CCN	1744	85.3	86.5	84.4	0.80	7.69	8.6	21.9	3.3	4.6	0.01195	41	59
5.5	M2BAX 132 SA	3GBA 132 110-••CCN	1757	87.0	87.1	84.7	0.77	10.8	6.9	29.9	2.5	3.6	0.02570	57	69
7.5	M2BAX 132 MA	3GBA 132 310-••CCN	1759	89.5	88.7	87.0	0.77	14.3	7.6	40.7	2.7	3.8	0.03195	68	69
11	M2BAX 160 MLA	3GBA 162 410-••CCN	1770	91.0	90.7	89.4	0.83	19.1	8.5	59.3	3.0	3.7	0.078	110	70
15	M2BAX 160 MLB	3GBA 162 420-••CCN	1767	91.0	91.7	90.6	0.85	25.4	9.3	81.1	3.7	4.0	0.100	125	69
18.5	M2BAX 180 MLA	3GBA 182 410-••CCN	1763	92.4	92.7	92.1	0.83	31.7	8.3	100	3.4	3.8	0.120	155	68
22	M2BAX 180 MLB	3GBA 182 420-••CCN	1763	92.4	92.7	92.0	0.84	37.2	8.6	119	3.4	3.6	0.139	168	69
30	M2BAX 200 MLA	3GBA 202 410-••CCN	1777	93.0	93.2	92.6	0.84	50.4	7.5	161	3.2	3.1	0.236	222	71
37	M2BAX 225 SMA	3GBA 222 210-••CCN	1780	93.0	93.4	92.6	0.84	62.1	8.2	199	3.2	3.3	0.350	263	72
45	M2BAX 225 SMB	3GBA 222 220-••CCN	1780	93.6	93.8	92.9	0.83	76.0	9.0	241	3.7	3.6	0.416	290	72
55	M2BAX 250 SMA	3GBA 252 210-••CCN	1779	94.1	94.1	93.3	0.86	89.2	9.0	295	3.0	3.3	0.533	339	80
75	M2BAX 280 SA	3GBA 282 110-••CCN	1784	94.5	94.1	93.0	0.85	121	7.3	401	2.5	2.9	1.3	531	74
90	M2BAX 280 SMB	3GBA 282 220-••CCN	1783	94.5	94.6	93.7	0.87	144	7.4	482	2.6	2.8	1.5	591	74
110	M2BAX 315 SMA	3GBA 312 210-••CCN	1788	95.0	94.7	93.7	0.87	175	7.2	587	2.1	2.9	2.3	792	83
132	M2BAX 315 SMB	3GBA 312 220-••CCN	1788	95.0	94.4	93.2	0.86	212	7.1	705	2.2	2.9	2.6	847	81
160	M2BAX 315 SMC	3GBA 312 230-••CCN	1788	95.0	94.7	93.7	0.85	260	7.4	855	2.4	2.9	2.9	887	81
200	M2BAX 315 MLA	3GBA 312 410-••CCN	1787	95.2	95.0	94.1	0.86	321	7.4	1069	2.6	2.9	3.5	1012	81
250	M2BAX 355 SMA	3GBA 352 210-••CCN	1788	95.4	95.2	94.3	0.86	400	6.5	1335	1.9	2.6	5.4	1419	87
315	M2BAX 355 SMB	3GBA 352 220-••CCN	1789	95.4	95.0	94.0	0.86	504	7.0	1682	2.2	2.8	6.9	1589	85
355	M2BAX 355 SMC	3GBA 352 230-••CCN	1787	95.8	95.6	94.7	0.87	559	7.1	1897	2.4	2.6	7.2	1669	85

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).

根据 IEC 60034-2-1:2007 的要求, 给出效率值。  
请注意, 在测试方法未知时, 这些数值没有可比性。  
ABB 已经根据间接法计算出效率值, 且根据测量得出杂散损耗（附加损耗）。  
Efficiency values are given according to IEC 60034-2-1; 2007.  
Please note that the values are not comparable without knowing the testing method.  
ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.

I<sub>s</sub>/I<sub>N</sub> = 启动电流  
Starting current  
T<sub>i</sub>/T<sub>N</sub> = 转子堵转 - 转矩  
Locked - rotor torque  
T<sub>B</sub>/T<sub>N</sub> = 最大转矩  
Breakdown torque

IE 等级涉及功率为 0.75KW-355KW。  
IE-class concerns motors from 0.75KW-355KW .

# 技术数据 Technical data

## 低压船用电机, 1000 r/min Low voltage marine motors, 1000 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F  
0.18-0.75kW, 符合 GB 25928-2010 的 3 级能效;  
0.75-355kW, 符合 IEC 60034-30-1; 2014 的 IE2 效率等级及 GB 18613-2012 的 3 级能效  
IP 55 - IC 411 - Insulation class F, temperature rise class F  
0.18-0.75kW, Grade 3 according to GB 18613-2010;  
0.75-355kW, IE2 efficiency class according to 60034-30-1; 2014 , Grade 3 according to GB 18613-2012

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor  cos φ	电流 Current		转矩 / Torque			转动惯量 Moment of inertia  J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight  kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	I <sub>S</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>I</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>			
1000 r/min = 6 极 / 6 poles			380 V 50Hz			CENELEC- 设计 design									
0.18	M2BAX 71 MA	3GBA 073 310-●●CCN	890	59.0	56.5	50.9	0.77	0.60	3.1	1.87	1.8	2.1	0.00082	9	40
0.25	M2BAX 71 MB	3GBA 073 320-●●CCN	896	63.0	61.4	56.7	0.76	0.79	3.5	2.64	2.1	2.5	0.00105	10	47
0.37	M2BAX 80 MA	3GBA 083 310-●●CCN	906	68.0	67.4	63.4	0.80	1.03	4.0	3.84	2.2	2.5	0.00173	13	49
0.55	M2BAX 80 MB	3GBA 083 320-●●CCN	908	71.0	70.6	67.5	0.77	1.53	4.2	5.74	2.6	2.6	0.00234	14	47
0.75	M2BAX 90 SA	3GBA 093 110-●●CCN	945	75.9	74.0	69.6	0.66	2.27	4.8	7.58	3.0	3.3	0.00438	21	50
1.1	M2BAX 90 LA	3GBA 093 510-●●CCN	926	78.1	77.4	74.8	0.71	3.01	4.4	11.1	2.7	3.0	0.00507	24	48
1.5	M2BAX 100 LA	3GBA 103 510-●●CCN	946	79.8	79.3	77.2	0.71	4.02	5.0	15.0	2.3	2.8	0.00795	31	56
2.2	M2BAX 112 MA	3GBA 113 310-●●CCN	950	81.8	81.1	79.1	0.72	5.68	5.3	21.9	2.6	3.2	0.01157	40	54
3	M2BAX 132 SA	3GBA 133 110-●●CCN	962	83.3	83.2	82.1	0.69	7.93	5.3	29.5	1.8	2.7	0.02509	55	60
4	M2BAX 132 MA	3GBA 133 310-●●CCN	959	84.6	84.9	84.1	0.74	9.71	6.0	40.0	2.4	3.0	0.02935	63	58
5.5	M2BAX 132 MB	3GBA 133 320-●●CCN	959	86.0	86.4	86.0	0.71	13.7	5.5	54.2	2.0	2.6	0.03972	77	62
7.5	M2BAX 160 MLA	3GBA 163 410-●●CCN	970	87.2	88.0	88.1	0.79	16.5	6.7	73.7	2.0	3.2	0.081	113	61
11	M2BAX 160 MLB	3GBA 163 420-●●CCN	968	88.7	90.1	90.2	0.81	23.3	6.6	109	1.4	2.6	0.102	133	62
15	M2BAX 180 MLA	3GBA 183 410-●●CCN	968	89.7	90.3	90.6	0.80	31.8	7.4	147	2.1	3.5	0.136	168	62
18.5	M2BAX 200 MLA	3GBA 203 410-●●CCN	975	90.4	90.8	90.7	0.80	38.9	5.6	181	1.8	2.6	0.204	205	61
22	M2BAX 200 MLB	3GBA 203 420-●●CCN	974	90.9	91.3	91.3	0.80	46.0	5.7	216	1.6	2.6	0.227	219	62
30	M2BAX 225 SMA	3GBA 223 210-●●CCN	986	91.7	91.9	91.5	0.82	60.6	6.7	290	2.4	2.9	0.579	282	64
37	M2BAX 250 SMA	3GBA 253 210-●●CCN	985	92.2	92.7	92.6	0.84	72.6	6.4	359	2.3	2.6	0.783	336	66
45	M2BAX 280 SA	3GBA 283 110-●●CCN	988	92.7	93.3	93.0	0.85	86.8	6.1	435	2.3	2.3	1.9	516	71
55	M2BAX 280 SB	3GBA 283 120-●●CCN	988	93.1	93.6	93.1	0.84	106	6.3	530	2.4	2.3	2.2	556	71
75	M2BAX 315 SMA	3GBA 313 210-●●CCN	991	94.0	94.1	93.4	0.83	146	6.5	722	1.9	2.4	3.2	722	75
90	M2BAX 315 SMB	3GBA 313 220-●●CCN	991	94.2	94.4	93.9	0.84	172	6.6	866	1.9	2.4	4.1	817	75
110	M2BAX 315 SMC	3GBA 313 230-●●CCN	990	94.6	94.9	94.4	0.84	210	6.4	1058	2.0	2.4	4.9	887	75
132	M2BAX 315 MLA	3GBA 313 410-●●CCN	991	94.8	95.1	94.6	0.84	251	6.6	1270	2.2	2.4	5.8	997	75
160	M2BAX 355 SMA	3GBA 353 210-●●CCN	991	94.8	95.0	94.6	0.84	305	5.7	1541	1.9	2.1	7.3	1309	77
200	M2BAX 355 SMB	3GBA 353 220-●●CCN	991	95.1	95.4	95.1	0.85	375	5.9	1927	1.9	2.1	9.7	1459	77
250	M2BAX 355 SMC	3GBA 353 230-●●CCN	990	95.1	95.5	95.3	0.85	469	6.1	2409	2.1	2.1	11.3	1609	77

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

根据 IEC 60034-2-1:2007 的要求, 给出效率值。  
请注意, 在测试方法未知时, 这些数值没有可比性。  
ABB 已经根据间接法计算出效率值, 且根据测量得出杂散损耗 (附加损耗)。  
Efficiency values are given according to IEC 60034-2-1; 2007.  
Please note that the values are not comparable without knowing the testing method.  
ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.

I<sub>S</sub>/I<sub>N</sub> = 启动电流  
Starting current  
T<sub>I</sub>/T<sub>N</sub> = 转子堵转 - 转矩  
Locked -rotor torque  
T<sub>B</sub>/T<sub>N</sub> = 最大转矩  
Breakdown torque

IE 等级涉及功率为 0.75KW-355KW。  
IE-class concerns motors from 0.75KW-355KW .



# 技术数据

## Technical data

### 低压船用电机, 1000 r/min

### Low voltage marine motors, 1000 r/min

IP 55 – IC 411 – 绝缘等级 F, 温升等级 F

符合 IEC 60034-30-1;2014 的效率等级

IP 55 - IC 411 - Insulation class F, temperature rise class F

IE2 efficiency class according to 60034-30-1; 2014

输出 Output	电机型号 Motor type	产品代码 Product code	转速 Speed	效率 / Efficiency IEC 60034-2-1; 2007			功率 因数 Power factor  cos φ	电流 Current		转矩 / Torque				转动惯量 Moment of inertia  J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	重量 Weight  kg	声压等级 Sound pressure level, L <sub>PA</sub> dB
				满载 load 100%	3/4 负载 load 75%	1/2 负载 load 50%		I <sub>N</sub> A	T <sub>N</sub> Nm I <sub>s</sub> / I <sub>N</sub>	T <sub>i</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>					
1000 r/min = 6 极 / 6 poles			440 V 60Hz			GENELEC- 设计 design										
0.18	M2BAX 71 MA	3GBA 073 310-●●CCN	1121	61.7	59.0	52.0	0.73	0.53	3.8	1.53	2.4	2.6	0.00082	9	43	
0.25	M2BAX 71 MB	3GBA 073 320-●●CCN	1114	66.1	64.3	58.3	0.72	0.69	4.2	2.14	2.6	2.7	0.00105	10	50	
0.37	M2BAX 80 MA	3GBA 083 310-●●CCN	1128	71.2	69.7	64.4	0.74	0.92	4.7	3.13	2.5	3.0	0.00173	13	52	
0.55	M2BAX 80 MB	3GBA 083 320-●●CCN	1126	71.8	70.6	65.6	0.70	1.43	4.8	4.67	2.7	3.3	0.00234	14	50	
0.75	M2BAX 90 SA	3GBA 093 110-●●CCN	1154	73.0	73.6	67.8	0.57	2.37	4.7	6.21	3.0	4.2	0.00438	21	53	
1.1	M2BAX 90 LA	3GBA 093 510-●●CCN	1139	75.0	79.0	75.4	0.61	3.15	4.8	9.22	2.6	3.5	0.00507	24	51	
1.5	M2BAX 100 LA	3GBA 103 510-●●CCN	1154	77.0	80.1	76.5	0.65	3.93	5.6	12.4	2.2	3.4	0.00795	31	59	
2.2	M2BAX 112 MA	3GBA 113 310-●●CCN	1158	78.5	82.1	78.7	0.66	5.57	6.0	18.1	2.4	3.5	0.01157	40	57	
3	M2BAX 132 SA	3GBA 133 110-●●CCN	1168	81.2	84.4	81.3	0.63	7.70	5.3	24.5	1.7	3.2	0.02509	55	63	
4	M2BAX 132 MA	3GBA 133 310-●●CCN	1163	83.8	85.4	83.1	0.66	9.49	6.1	32.9	2.4	2.9	0.02935	63	61	
5.5	M2BAX 132 MB	3GBA 133 320-●●CCN	1164	85.0	86.6	84.6	0.65	13.1	5.4	45.1	2.3	3.0	0.03972	77	65	
7.5	M2BAX 160 MLA	3GBA 163 410-●●CCN	1173	89.5	87.4	86.3	0.76	14.5	7.0	61.0	1.9	3.5	0.081	113	64	
11	M2BAX 160 MLB	3GBA 163 420-●●CCN	1172	90.2	90.7	90.0	0.80	20.0	7.4	89.6	1.6	3.0	0.102	133	65	
15	M2BAX 180 MLA	3GBA 183 410-●●CCN	1173	90.2	92.5	91.9	0.78	28.0	7.5	122	2.4	3.7	0.136	168	65	
18.5	M2BAX 200 MLA	3GBA 203 410-●●CCN	1178	91.7	92.3	91.5	0.79	33.5	6.0	150	1.7	2.9	0.204	205	64	
22	M2BAX 200 MLB	3GBA 203 420-●●CCN	1177	91.7	92.5	91.8	0.79	39.8	6.0	178	1.7	2.9	0.227	219	65	
30	M2BAX 225 SMA	3GBA 223 210-●●CCN	1189	93.0	92.5	91.3	0.80	52.9	8.2	241	3.3	3.5	0.579	282	67	
37	M2BAX 250 SMA	3GBA 253 210-●●CCN	1186	93.0	93.1	92.3	0.82	63.7	7.5	298	3.1	3.2	0.783	336	69	
45	M2BAX 280 SA	3GBA 283 110-●●CCN	1190	93.6	93.7	92.8	0.85	74.2	7.1	361	2.5	2.6	1.9	516	75	
55	M2BAX 280 SB	3GBA 283 120-●●CCN	1190	93.6	93.5	92.5	0.84	91.8	7.2	441	2.8	2.7	2.2	556	74	
75	M2BAX 315 SMA	3GBA 313 210-●●CCN	1193	94.1	93.8	92.6	0.82	126	7.5	601	2.3	3.0	3.2	722	78	
90	M2BAX 315 SMB	3GBA 313 220-●●CCN	1192	94.1	94.2	93.2	0.84	149	7.5	721	2.4	3.0	4.1	817	78	
110	M2BAX 315 SMC	3GBA 313 230-●●CCN	1192	95.0	94.8	93.8	0.83	183	7.3	881	2.5	2.9	4.9	887	78	
132	M2BAX 315 MLA	3GBA 313 410-●●CCN	1192	95.0	95.0	94.1	0.83	220	7.5	1058	2.7	2.9	5.8	997	78	
160	M2BAX 355 SMA	3GBA 353 210-●●CCN	1193	95.0	94.7	93.8	0.84	263	6.5	1281	2.3	2.4	7.3	1309	80	
200	M2BAX 355 SMB	3GBA 353 220-●●CCN	1192	95.0	95.2	94.4	0.85	325	6.5	1602	2.3	2.3	9.7	1459	80	
250	M2BAX 355 SMC	3GBA 353 230-●●CCN	1191	95.0	95.4	94.8	0.85	406	6.6	2004	2.5	2.3	11.3	1609	80	

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T/T<sub>N</sub> = 转子堵转 - 转矩  
Locked -rotor torque  
T<sub>B</sub>/T<sub>N</sub> = 最大转矩  
Breakdown torque

# 变量代码

## Variant codes

代码 Code	变量代码 Variant	M2BAX													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
<b>船用</b> Marine															
629*)	船用电机设计 Marine motor design	P	P	P	P	P	P	P	P	P	P	P	P	P	P
*) 629 为船用电机必加代码, 符合 ABS, BV, CCS, DNV, GL, KR, LR, NK, RINA 船级社要求, 不含证书。如需船检证书, 需额外添加变量代码 Must add 629 to order marine motors. Motors conform to the requirements from ABB, BV, CCS, DNV, GL, KR, LR, NK, RINA societies without certificate. If requiring certificate, add the following variant code accordingly															
024	符合法国 BV 船级社要求, 需要 BV 船检证书 Fulfilling Bureau Veritas (BV) requirements, with certificate	P	P	P	P	P	P	P	P	P	P	P	P	P	P
025	符合挪威 DNV 船级社要求, 需要 DNV 船检证书 Fulfilling Det Norske Veritas (DNV) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
026	符合英国 LR 船级社要求, 需要 LR 船检证书 Fulfilling Lloyds Register of Shipping (LR) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
027	符合美国 ABS 船级社要求, 需要 ABS 船检证书 Fulfilling American Bureau of Shipping (ABS) requirements, with certificate	P	P	P	P	P	P	P	P	P	P	P	P	P	P
049	符合德国 GL 船级社要求, 需要 GL 船检证书 Fulfilling Germanischer Lloyd (GL) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
050	符合意大利 RINA 船级社要求, 需要 RINA 船检证书 Fulfilling Registro Italiano Navale (RINA) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
481	符合日本 NK 船级社要求, 需要 NK 船检证书 Fulfilling Nippon Kaiji Kyokai (NK) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
483	符合中国 CCS 船级社要求, 需要 CCS 船检证书 Fulfilling China Classification Societies (CCS) requirements (Beijing), with certificate	P	P	P	P	P	P	P	P	P	P	P	P	P	P
484	符合韩国 KR 船级社要求, 需要 KR 船检证书 Fulfilling Korea Register of Shipping (KR) requirements, with certificate	R	R	R	R	R	R	R	R	R	R	R	R	R	R
<b>轴承和润滑</b> Bearings and Lubrication															
037	D 端圆柱滚子轴承 Roller bearing at D-end	NA	NA	NA	NA	NA	NA	P	P	P	P	P	P	P	P
040	耐高温油脂 Heat-resistant grease	P	P	P	P	P	P	P	P	P	P	P	P	P	P
041	通过注油嘴对轴承加油 Bearings regreasable via grease nipples	NA	R	R	R	R	R	P	P	P	P	P	S	S	S
043	SPM 振动测量接头 SPM compatible nipples for vibration measurement	P	P	P	P	P	P	P	P	P	P	P	P	P	P
130	轴承 Pt100(3 线) Pt100 3-wire in bearings	NA	NA	NA	NA	NA	NA	R	R	R	R	R	P	P	P
188	63 系列轴承 63-series bearing in D-end	NA	P	P	P	P	P	S	S	S	S	S	S	S	S
379	SKF 轴承 SKF bearing	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>分部标准设计</b> Branch standard designs															
178	不锈钢 / 耐酸底脚螺栓 Stainless steel / acid proof bolts	P	P	P	P	P	P	P	P	P	P	P	P	P	P
209	非标电压或频率 (特殊绕组) Non-standard voltage or frequency, (special winding)	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>冷却系统</b> Cooling system															
068	轻金属风扇 (合金) Light alloy metal fan	P	P	P	P	P	P	P	P	P	P	P	P	P	P
075	冷却方式 IC418(无风扇) Cooling method IC418 (without fan)	P	P	P	P	P	P	P	P	P	P	P	P	P	P

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S = 在标准情况下包括  
P = 仅适用于新生产模式  
M = 根据库存电机改装, 或新制造产品, 每次订购数量可能受限  
NA = 不适用  
R = 根据需要

Following variant codes are available, more information from ABB  
S = Included as standard  
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# 变量代码

## Variant codes

代码 Code	变量代码 Variant	M2BAX													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
183	独立电机冷却 (轴流风扇, N 端) Separate motor cooling (fan axial, N-end)	P	P	P	P	P	P	P	P	P	P	P	R	R	R
<b>文件材料</b> Documentation															
141	配外形图 Binding dimension drawing	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>接地螺栓</b> Earthing Bolt															
067	外部接地螺栓 External earthing bolt	P	P	P	P	P	P	P	P	P	P	P	S	S	S
<b>加热元件</b> Heating elements															
450	加热带 100-120V Heating element, 100-120 V	P	P	P	P	P	P	P	P	P	P	P	P	P	P
451	加热带 200-240V Heating element, 200 - 240 V	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>绝缘系统</b> Insulation system															
014	H 级绝缘绕组 Winding insulation class H	P	P	P	P	P	P	P	P	P	P	P	P	P	P
405	用于变频电源的特殊绕组绝缘 Special winding insulation for frequency converter supply	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>安装方式</b> Mounting arrangements															
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)	P	P	P	P	P	P	NA	NA	NA	NA	NA	NA	NA	NA
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)	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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)	P	P	P	P	P	P	NA	NA	NA	NA	NA	NA	NA	NA
066	非标安装方式 (请指定 IM xxxx) (除 B3(1001), B5(3001), B14 (3601), IM B35 (2001) & IM B34 (2101) 外的其它安装型式须在定单中注明) Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001), IM B34 (2101)	P	P	P	P	P	P	P	P	P	P	P	P	P	P
320	IM2001 底脚 / 缺边法兰安装, 由 IM1001 派生 (B3 派生出 B35) IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bottom flange from B3)	P	P	P	P	P	P	P	NA	NA	NA	NA	NA	NA	NA
<b>涂装</b> Painting															
114	特殊油漆颜色, 标准等级 Special paint color, standard grade	P	P	P	P	P	P	P	P	P	P	P	P	P	P
115	符合 ISO 12944-2:2007 的喷漆系统 C4M Painting system C4M acc. to ISO 12944-2: 2007	P	P	P	P	P	P	P	P	P	P	P	P	P	P
754	C5M 涂装系统, 根据 ISO 12944-2:1998 Painting system C5M acc. to ISO 12944-2:1998	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>防护</b> Protection															
005	防护罩, 立式电机, 轴伸向下 Protective roof, vertical motor, shaft down	P	P	P	P	P	P	P	P	P	P	P	P	P	P

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## Variant codes

代码 Code	变量代码 Variant	M2BAX													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
072	D 端径向密封 Radial seal at D-end. Not possible for 2-pole, 280 and 315 frames	P	P	P	P	P	P	P	P	P	P	P	P	P	NA
158	防护等级 IP65 Degree of protection IP65	P	P	P	P	P	P	P	P	P	P	P	P	P	P
403	防护等级 IP56 Degree of protection IP56	P	P	P	P	P	P	P	P	P	P	P	P	P	P
784	D 端伽马密封 Gamma-seal at D-end	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>铭牌和指示牌</b> Rating & instruction plates															
002	重敲铭牌电压、频率、输出、连续工作制 Restamping voltage, frequency and output, continuous duty	P	P	P	P	P	P	P	P	P	P	P	P	P	P
095	重敲输出 (持续电压、频率)、间歇工作制 Restamping output (maintained voltage, frequency), intermittent duty	P	P	P	P	P	P	P	P	P	P	P	P	P	P
098	不锈钢铭牌 Stainless rating plate"	S	S	S	S	S	S	S	S	S	S	S	S	S	S
135	安装额外不锈钢指示牌 Mounting of additional identification plate, stainless	P	P	P	P	P	P	P	P	P	P	P	P	P	P
159	额外带铭牌 "Made in ..." Additional plate with text "Made in ...."	P	P	P	P	P	P	P	P	P	P	P	P	P	P
163	变频铭牌。铭牌数据根据报价单 Frequency converter rating plate. Rating data according to quotation	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>轴和转子</b> Shaft & rotor															
069	根据基本目录的双伸轴 Two shaft extensions according to catalog drawings	P	P	P	P	P	P	P	P	P	P	P	P	P	P
070	D 端特殊轴伸, 标准材料 Special shaft extension at D-End, standard shaft material	P	P	P	P	P	P	P	P	P	P	P	P	P	P
164	闭口键槽轴伸 Shaft extension with closed keyway	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>定子绕组温度传感器</b> Stator winding temperature sensors															
121	定子绕组安装双金属温度开关 (NCC, 3 个串联, 130 °C) Bimetal detectors, break type (NCC), (3 in series), 130 °C, in stator winding	P	P	P	P	P	P	P	P	P	P	P	P	P	P
122	定子绕组安装双金属温度开关 (NCC, 3 个串联, 150 °C) Bimetal detectors, break type (NCC), (3 in series), 150 °C, in stator winding	P	P	P	P	P	P	P	P	P	P	P	P	P	P
435	定子绕组安装 PTC- 热敏电阻 (3 个串联), 130 °C PTC - thermistors (3 in series), 130 °C, in stator winding	P	P	P	P	P	P	P	P	P	P	P	P	P	P
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	P	P	P	P	P	P	P	P	P	P	P	S	S	S
439	定子绕组安装 PTC- 热敏电阻 (2 × 3 个串联), 150 °C PTC - thermistors (2x3 in series), 150 °C, in stator winding	R	R	R	R	R	R	P	P	P	P	P	P	P	P

特定变量代码不能同时使用。  
Certain variant codes cannot be used simultaneously.

可以使用下述变量代码, 详情请咨询 ABB。  
S = 在标准情况下包括  
P = 仅适用于新生产模式  
M = 根据库存电机改装, 或新制造产品, 每次订购数量可能受限  
NA = 不适用  
R = 根据需要

Following variant codes are available, more information from ABB  
S = Included as standard  
P = New manufacture only  
M = On modifications for a stocked motor or on new manufacture; the number of variants per order may be limited  
NA = Not applicable  
R = On request



# 变量代码

## Variant codes

代码 Code	变量代码 Variant	M2BAX													
		71	80	90	100	112	132	160	180	200	225	250	280	315	355
441	定子绕组安装 PTC- 热敏电阻 (3 个串联 ,130 °C 以及 3 个串联 ,150 °C) PTC - thermistors (3 in series, 130 °C & 3 in series, 150 °C), in stator winding	P	P	P	P	P	P	P	P	P	P	P	P	P	P
445	定子绕组安装 Pt100(2 线), 每相 1 个 Pt100 2-wire in stator winding, 1 per phase	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>接线盒</b> Terminal box															
020	分离式接线盒 Detached terminal box	P	P	P	P	P	P	P	P	P	P	P	P	P	P
021	左侧接线盒 (从 D 端看) Terminal box LHS (seen from D-end)	NA	P	P	P	P	P	P	P	P	P	P	R	R	R
022	电缆进线孔在左侧 (从 D 端看) Cable entry LHS (seen from D-end)	P	P	P	P	P	P	P	P	P	P	P	P	P	P
180	右侧接线盒 (从 D 端看) Terminal box RHS (seen from D-end)	NA	P	P	P	P	P	P	P	P	P	P	R	R	R
230	标准金属电缆密封管 Standard metal cable gland	S	S	S	S	S	S	S	S	S	S	S	S	S	S
400	4 x 90 度可转动的接线盒 4 x 90 degree turnable terminal box	P	P	P	P	P	P	S	S	S	S	S	S	S	S
413	延长电缆连接, 无接线盒 Extended cable connection, no terminal box	P	P	P	P	P	P	P	P	P	P	P	P	P	P
418	独立的辅助接线盒, 标准材料 Separate terminal box for auxiliaries, standard material	P	P	P	P	P	P	P	P	P	P	P	R	R	R
447	用于监测装置的独立接线盒, 顶部安装 Top mounted separate terminal box for monitoring equipment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	P	P	P
468	电缆进口从 D 端 Cable entry from D-end	P	P	P	P	P	P	P	P	P	P	P	P	P	P
469	电缆进口从 N 端 Cable entry from N-end	P	P	P	P	P	P	P	P	P	P	P	P	P	P
731	2 个标准金属电缆密封管 Two standard metal cable glands	P	P	P	P	P	P	P	P	P	P	P	S	S	S
753	铸铁接线盒 Cast iron terminal box	S	S	S	S	S	S	S	S	S	S	S	S	S	S
<b>测试</b> Testing															
145	目录电机的型式试验报告 ,400V 50Hz Type test report from a catalogue motor, 400V 50Hz	P	P	P	P	P	P	P	P	P	P	P	P	P	P
146	指定交货批次内的某一电机的型式试验及报告 Type test with report for one motor from specific delivery batch	P	P	P	P	P	P	P	P	P	P	P	P	P	P
148	出厂试验报告 Routine test report	P	P	P	P	P	P	P	P	P	P	P	P	P	P
<b>变速驱动</b> Variable speed drives															
701	N 端绝缘轴承 Insulated bearing at N-end	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	P	P	P
704	EMC 电缆密封管 EMC cable entry	R	R	R	R	R	R	R	R	R	R	R	P	P	P

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详情请咨询 ABB。

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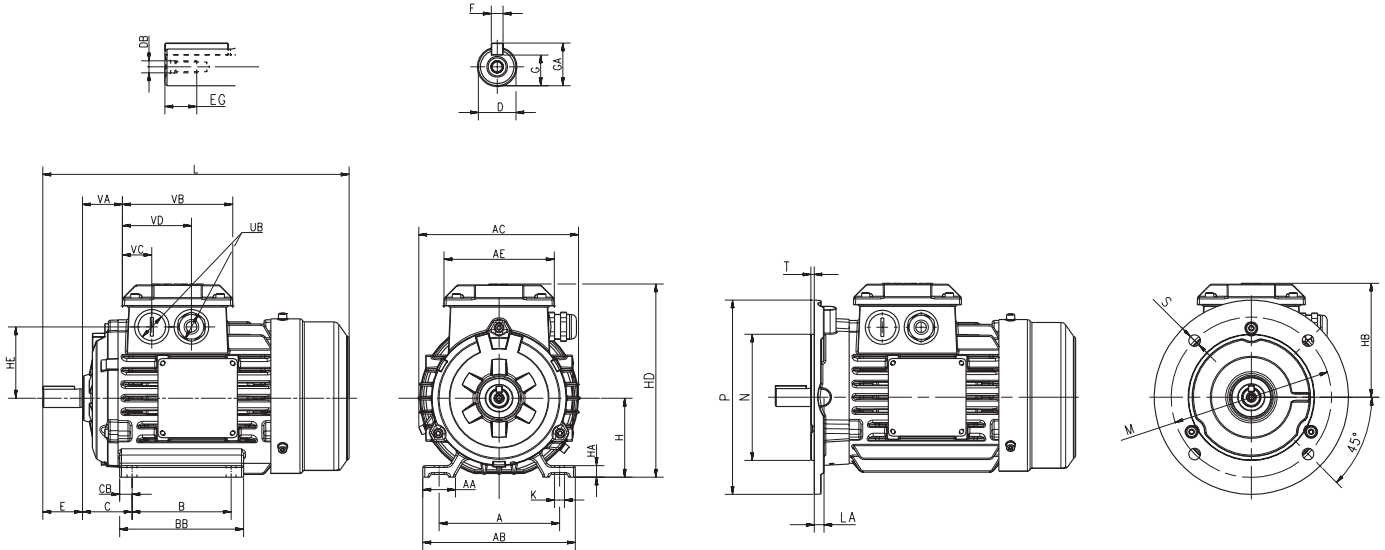
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# 尺寸图 Dimension drawings

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

Motor size	AE	D-tol.	DB	E	EG	F	G	GA	H	HA	HE	L	UB	VA	VB	VC	VD	
M2BAX	71M	101	14-j6	M5	30	12.5	5	11	16	71	9	65	257	M16x1.5	40	101	30	62
	80M	111	19-j6	M6	40	16	6	15.5	21.5	80	12	72	309	M25x1.5	40	111	30	70
	90S	111	24-j6	M8	50	19	8	20	27	90	12	88	335	M25x1.5	47	111	30	70
	90L	111	24-j6	M8	50	19	8	20	27	90	12	88	351	M25x1.5	47	111	30	70
	100L	127	28-j6	M10	60	22	8	24	31	100	15	100	376	M32x1.5	52	127	35	82
	112M	127	28-j6	M10	60	22	8	24	31	112	15	100	411	M32x1.5	52	127	35	82
	132S	127	38-k6	M12	80	28	10	33	41	132	18	129	479	M32x1.5	62	127	35	82
	132M	127	38-k6	M12	80	28	10	33	41	132	18	129	521	M32x1.5	62	127	35	82

IM B3 (IM1001)

IM B5 (IM3001)

### 电机尺寸

Motor size	A	AA	AB	AC	B	BB	C	CB	HD	K	HB	LA	M	N	P	S	T	
M2BAX	71M	112	30	136	147	90	110	45	10	178	7	107	9	130	110	160	10	3.5
	80M	125	33	154	160	100	125	50	12.5	194	10	116	10	165	130	200	12	3.5
	90S	140	33	170	195	100	124	56	12	221	10	131	10	165	130	200	12	3.5
	90L	140	33	170	195	125	150	56	12	221	10	131	10	165	130	200	12	3.5
	100L	160	38	200	218	140	170	63	15	246	12	146	11	215	180	250	15	4
	112M	190	48	230	230	140	170	70	15	258	12	146	11	215	180	250	15	4
	132S	216	53	262	270	140	170	89	16	307	12	175	12	265	230	300	15	4
	132M	216	53	262	270	178	210	89	16	307	12	175	12	265	230	300	15	4

IM B14 (IM3601)

### 电机尺寸

Motor size	M	N	P	S	T	
M2BAX	71M	85	70	105	M6	2.5
	80M	100	80	120	M6	3
	90S	115	95	140	M8	3
	90L	115	95	140	M8	3
	100L	130	110	160	M8	3.5
	112M	130	110	160	M8	3.5
	132S	165	130	200	M10	3.5
	132M	165	130	200	M10	3.5

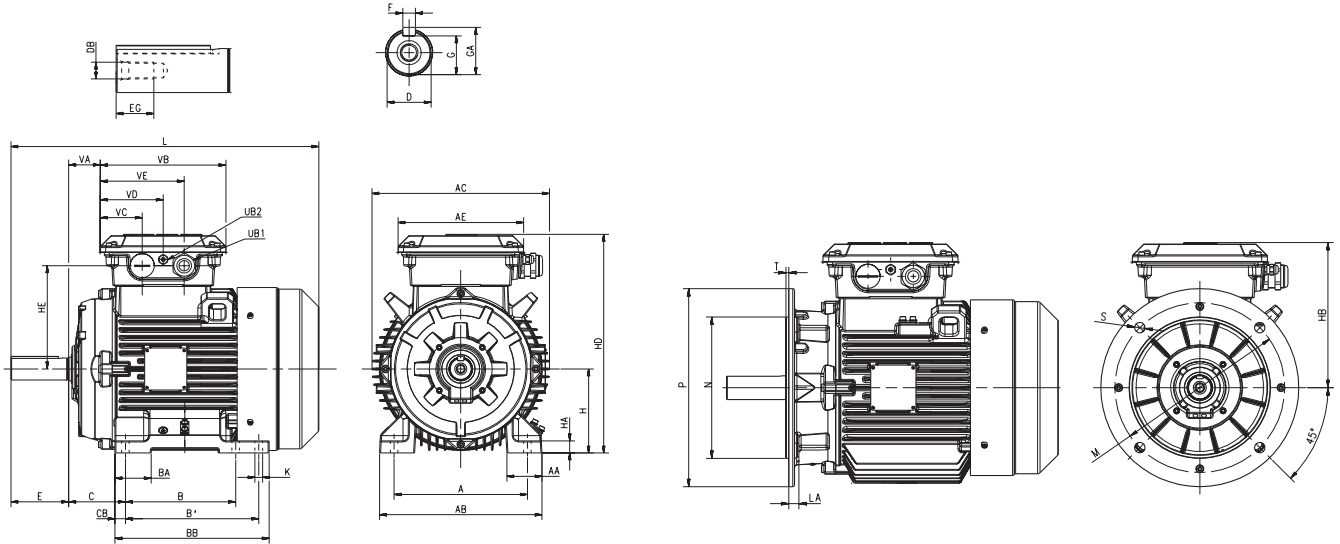
### 公差

Tolerance	
A, B	± 0.8
D	ISO j6 ≤ φ 28 mm ISO k6 ≤ φ 38 mm
F	ISO h9
H	+0, -0.5
N	ISO j6
C	± 0.8

尺寸图  
Dimension drawings

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

Motor size	Poles	AE	D-tol.	DB	E	EG	F	G	GA	H	HA	HE	L	UB1	UB2	VA	VB	VC	VD	VE
M2BAX 160ML	2-6	239	42-k6	M16	110	36	12	37	45	160	23	188	586.5	M40	M16	60	239	80	120	160
160MLB6	2-6	239	42-k6	M16	110	36	12	37	45	160	23	188	626.5	M40	M16	60	239	80	120	160
180	2-6	239	48-k6	M16	110	36	14	42.5	51.5	180	23	188	683	M40	M16	60	239	80	120	160
200	2-6	239	55-m6	M20	110	42	16	49	59	200	23	208	728	M40	M16	71	239	80	120	160
225	2	257	55-m6	M20	110	42	16	49	59	225	23	228	824	M63	M16	82	257	81	129	177
225	4-6	257	60-m6	M20	140	42	18	53	64	225	23	228	854	M63	M16	82	257	81	129	177
250	2	257	60-m6	M20	140	42	18	53	64	250	23	248	882	M63	M16	75	257	81	129	177
250	4-6	257	65-m6	M20	140	42	18	58	69	250	23	248	882	M63	M16	75	257	81	129	177

IM B3 (IM1001)

IM B5 (IM3001)

电机尺寸

Motor size	Poles	A	AA	AB	AC	B	B'	BA	BB	C	CB	HD	K	HB	LA	M	N	P	S	T
M2BAX 160ML	2-6	254	67	310	338	210	254	69	294	108	20	417	14.5	257	16	300	250	350	19	5
160MLB6	2-6	254	67	310	338	210	254	69	294	108	20	417	14.5	257	16	300	250	350	19	5
180	2-6	279	72	340	338	241	279	68	318	121	19	437	14.5	257	16	300	250	350	19	5
200	2-6	318	77	378	382	267	305	82	345	133	20	477	18.5	277	18	350	300	400	19	5
225	2	356	91	435	414	286	311	69	351	149	20	543	18.5	318	20	400	350	450	19	5
225	4-6	356	91	435	414	286	311	69	351	149	20	543	18.5	318	20	400	350	450	19	5
250	2	406	98	480	462	311	349	72	392	168	22	588	24	338	22	500	450	550	19	5
250	4-6	406	98	480	462	311	349	72	392	168	22	588	24	338	22	500	450	550	19	5

公差

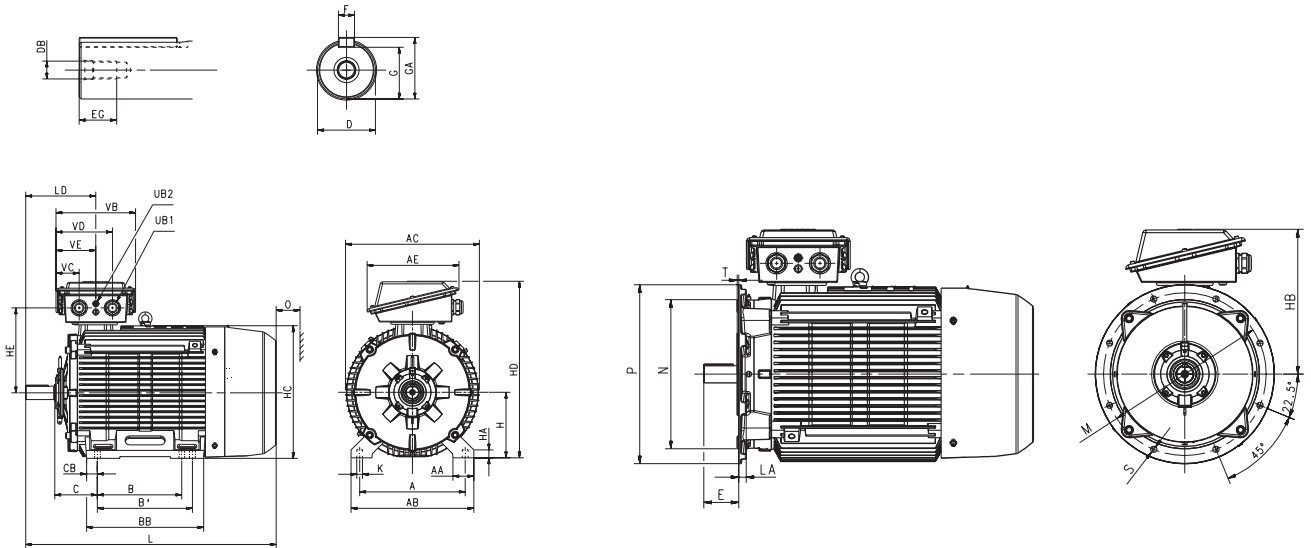
Tolerance

A, B	± 0.8
D	ISO k6 ≤ φ 50 mm ISO m6 ≤ φ 50 mm
F	ISO h9
H	+0, -0.5
N	ISO j6
C	± 0.8

# 尺寸图 Dimension drawings

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

Motor size	Poles	AE	D-tol.	DB	E	EG	F	G	GA	H	HA	HC	HE	L	LD	O	UB1	UB2	VB	VC	VD	VE
M2BAX 280S	2	442	65-m6	M20	140	42	18	58	69	280	30	573	370	982	342	100	M63x1.5	M20x1.5	383	111	271	191
280S	4-6	442	75-m6	M20	140	42	20	67.5	79.5	280	30	573	370	982	342	100	M63x1.5	M20x1.5	383	111	271	191
280SM	2	442	65-m6	M20	140	42	18	58	69	280	30	573	370	1052	342	100	M63x1.5	M20x1.5	383	111	271	191
280SM	4-6	442	75-m6	M20	140	42	20	67.5	79.5	280	30	573	370	1052	342	100	M63x1.5	M20x1.5	383	111	271	191
315SM	2	442	65-m6	M20	140	42	18	58	69	315	38	638	409	1216	348	115	M63x1.5	M20x1.5	383	111	271	191
315SM	4-6	442	80-m6	M20	170	42	22	71	85	315	38	638	409	1246	378	115	M63x1.5	M20x1.5	383	111	271	191
315ML	2	442	65-m6	M20	140	42	18	58	69	315	38	638	409	1327	348	115	M63x1.5	M20x1.5	383	111	271	191
315ML	4-6	442	90-m6	M24	170	50	25	81	95	315	38	638	409	1357	378	115	M63x1.5	M20x1.5	383	111	271	191
355SM	2	493	70-m6	M20	140	42	20	62.5	74.5	355	41	725	462	1399	399	130	M75x1.5	M20x1.5	382	111	271	191
355SM	4-6	493	100-m6	M24	210	50	28	90	106	355	41	725	462	1469	469	130	M75x1.5	M20x1.5	382	111	271	191

IM B3 (IM1001)

IM B5 (IM3001)

## 电机尺寸

Motor size	Poles	A	AA	AB	AC	B	B'	BB	C	CB	HD	K	HB	LA	M	N	P	S	T	VC	VD	VE
M2BAX 280S	2	457	75	530	571	368	-	431	190	38	775	24	495	21	500	450	550	18	5	111	271	191
280S	4-6	457	75	530	571	368	-	431	190	38	775	24	495	21	500	450	550	18	5	111	271	191
280SM	2	457	75	530	571	368	419	485	190	38	775	24	495	21	500	450	550	18	5	111	271	191
280SM	4-6	457	75	530	571	368	419	485	190	38	775	24	495	21	500	450	550	18	5	111	271	191
315SM	2	508	100	590	644	406	457	563	216	52	849	28	534	22	600	550	660	23	6	111	271	191
315SM	4-6	508	100	590	644	406	457	563	216	52	849	28	534	22	600	550	660	23	6	111	271	191
315ML	2	508	100	590	644	457	508	664	216	52	849	28	534	22	600	550	660	23	6	111	271	191
315ML	4-6	508	100	590	644	457	508	664	216	52	849	28	534	22	600	550	660	23	6	111	271	191
355SM	2	610	120	700	739	500	560	698	254	72	933	35	578	22	740	680	800	23	6	111	271	191
355SM	4-6	610	120	700	739	500	560	698	254	72	933	35	578	22	740	680	800	23	6	111	271	191

## 公差

### Tolerance

A, B	± 0.8
D	ISO k6 ≤ φ 50 mm ISO m6 ≤ φ 50 mm
F	ISO h9
H	+0, -0.5
N	ISO j6
C	± 0.8



# 低压船用电机简介

## Low voltage marine motors in brief

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	6206-2Z/C3	6208-2Z/C3
	N 端 / N-end	6202-2Z/C3	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6205-2Z/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 / D-end	V 形环 / V-ring					
润滑 / Lubrication	永久润滑封闭轴承 / Permanently lubricated 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					
连接件 / Connections	螺纹孔 / Threaded openings	2xM25		2xM32			
	金属葛兰 / Metal cable glands	1xM25		1xM32			
	最大铜线 (Cu) 截面积 (mm <sup>2</sup> ) / Max Cu-area mm <sup>2</sup>	6		10			
	接线 / Terminals	电缆接线头, 6 个端子 / Cable lugs, 6 terminals					
风扇 / Fan	材料 / Material	滞燃塑料 / Flame-retardant plastic					
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, F 级温升, 除非另有规定 Insulation class F. Temperature rise class F 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						

# 低压船用电机简介

## Low voltage marine motors in brief

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	6209-2Z/C3	6209-2Z/C3	6210-2Z/C3	6212-2Z/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 / D-end	V 形环 / V-ring				
润滑 / Lubrication	永久润滑封闭轴承 / Permanently lubricated shielded 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				
连接件 / Connections	螺纹孔 / Threaded openings	2xM40+1xM16			2xM63+1xM16	
	金属葛兰 / Metal cable glands	1xM40+1xM16			1xM63+1xM16	
	最大铜线 (Cu) 截面积 (mm <sup>2</sup> ) / Max Cu-area mm <sup>2</sup>	35			70	
	接线 / Terminals	电缆接线头, 6 个端子 / Cable lugs, 6 terminals				
风扇 / Fan	材料 / Material	滞燃塑料 / Flame-retardant plastic				
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, F 级温升, 除非另有规定 Insulation class F. Temperature rise class F 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					

# 低压船用电机简介

## Low voltage marine motors in brief

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	315_2p: 6316/C3 315_4-6p: 6319/C3	355_2p: 6316/C3 355_4-6p: 6322/C3
	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 / D-end	V 形环 / 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		
连接件 / Connections	螺纹孔 / Threaded openings	2xM63+2xM20	2xM63+ 2xM20	2xM75+2xM20
	金属葛兰 / Metal cable glands	2xM63+1xM20	2xM63+1xM20	2xM75+1xM20
	接线 / Terminals	电缆接线头, 6 个端子 / Cable lugs, 6 terminals		
风扇 / Fan	材料 / Material	滞燃塑料 / Flame-retardant plastic		
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, F 级温升, 除非另有规定 Insulation class F. Temperature rise class F 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	分体式吊环, 通过吊环螺纹连接到机座 / Separate lifting lug, bolted to the stator			

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