

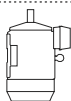



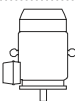
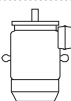




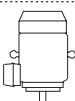
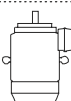





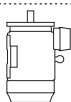





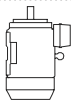



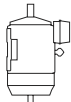




Catalog | February 2015

Low voltage General performance IE2 cast iron motors

General information

Mounting arrangements

Foot-mounted motor						Product code pos. 12 A: foot-mounted, term.box top
Code I / code II						
						
IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071	
Flange-mounted motor, large flange						Product code pos. 12 B: flange mounted, large flange
Code I / code II						
						
IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031	*) IM 3051	*) IM 3061	*) IM 3071	
Flange-mounted motor, small flange						Product code pos. 12 047=B14 from B5
Code I / code II						
						
IM B14 IM 3601	IM V18 IM 3611	IM V19 IM 3631	*) IM 3651	*) IM 3661	*) IM 3671	
Foot- and flange-mounted motor with feet, large flange						Product code pos. 12 009=B35 from B3
Code I / code II						
						
IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	*) IM 2051	*) IM 2061	*) IM 2071	
Foot- and flange-mounted motor with feet, small flange						Product code pos. 12 008=B34 from B3
Code I / code II						
						
IM B34 IM 2101	IM V17 IM 2111	IM 2131	IM 2151	IM 2161	IM 2171	
Foot-mounted motor, shaft with free extensions						Product code pos. 12
Code I / code II						
						
IM 1002	IM 1012	IM 1032	IM 1052	IM 1062	IM 1072	

*) Not stated in IEC 60034-7.

Note: If the motor is mounted shaft upwards, take measures to prevent water or any other liquid from running down the shaft into the motor.

Ordering information

Explanation of the product code

Motor type	Motor size	Product code	Mounting arrangement code, Voltage and frequency code, Generation code	Variant codes
M2BAX	112MA	3GBA 112 310 -	ADC	002, etc.
		1 2 3 4 5 6 7 8 9 10 11 12 13 14		

When placing an order, specify motor type, size and product code according to the following example.

Example

Motor type	M2BAX 112 MA
Pole number	4
Mounting arrangement (IM-code)	IM B3 (IM 1001)
Rated output	4 kW
Product code	3GBA 112 310-ADC
Variant codes if needed	

Positions 1 to 4

3GBA: Totally enclosed fan cooled squirrel cage motor with cast iron frame

Positions 5 and 6

IEC size	
07:	71
08:	80
09:	90
10:	100
11:	112
13:	132
16:	160
18:	180
20:	200
22:	225
25:	250
28:	280
31:	315
35:	355

Position 7

Speed (Pole pairs)	
1:	2 poles
2:	4 poles
3:	6 poles

Positions 8 to 10

Running number

Position 11

-(dash)

Position 12 (marked with black dot in data tables)

Mounting arrangement	
A:	Foot-mounted, top-mounted terminal box
B:	Flange-mounted, large flange

Position 13 (marked with black dot in data tables)

Voltage and frequency	
Single-speed motors	
D:	400 VΔ, 690 VY, 380 VΔ, 660 VY, 50 Hz 440 VΔ, 460 VΔ, 60 Hz
S:	230 VΔ, 400 VY, 220 VΔ, 380 VY, 50 Hz 440 VY, 460 VΔ 60 Hz*

Position 14

A, B, C...= Generation code followed by variant codes

Efficiency values are given according to IEC 60034-2-1; 2014

For detailed dimension drawings please see our web-pages 'www.abb.com/motors&generators' or contact ABB.

Technical data

IE2 cast iron motors, 3000 r/min

IP 55 - IC 411 - Insulation class F, temperature rise class B
IE2 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current Torque					Moment of inertia J = 1/4 GD²kgm²	Weight kg	Sound pressure Level L _{PA} dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I _N A	Torque						
									I _S /I _N	T _N Nm	T _f /T _N	T _B /T _N			
3000 r/min = 2 poles				400 V 50 Hz				CENELEC-design							
0.37	M2BAX 71 MA 2	3GBA071310-●●C	2807	73.5	71.4	67.3	0.80	0.91	5.1	1.26	2.8	3.4	0.000330	9	56
0.55	M2BAX 71 MB 2	3GBA071320-●●C	2820	75.5	73.9	70.2	0.79	1.33	5.5	1.86	3.6	3.2	0.000410	10	58
0.75	M2BAX 80 MA 2	3GBA081310-●●C	2830	77.4	76.7	74.4	0.83	1.69	5.7	2.5	3.1	4.3	0.000670	13	63
1.1	M2BAX 80 MB 2	3GBA081320-●●C	2849	79.6	79.7	77.7	0.84	2.4	5.8	3.7	3.2	4.1	0.000880	14	62
1.5	M2BAX 90 SA 2	3GBA091110-●●C	2890	81.3	80.0	76.9	0.80	3.3	7.1	4.9	3.1	3.9	0.00208	20	66
2.2	M2BAX 90 LA 2	3GBA091510-●●C	2897	83.2	82.9	81.2	0.85	4.5	7.7	7.3	3.1	3.8	0.00274	23	67
3	M2BAX 100 LA 2	3GBA101510-●●C	2919	84.6	83.7	81.2	0.85	6.0	8.7	9.8	4.2	5.0	0.00475	32	74
4	M2BAX 112 MA 2	3GBA111310-●●C	2916	85.8	85.3	83.1	0.87	7.7	9.1	13.1	4.1	4.7	0.00561	36	74
5.5	M2BAX 132 SA 2	3GBA131110-●●C	2921	87.0	85.9	83.6	0.86	10.6	8.3	18.0	2.6	4.3	0.0117	54	74
7.5	M2BAX 132 SB 2	3GBA131120-●●C	2916	88.1	87.5	85.8	0.85	14.5	8.7	24.6	3.1	4.5	0.0132	58	74
11	M2BAX 160 MLA 2	3GBA161410-●●C	2931	89.4	89.4	88.4	0.86	20.7	6.6	35.9	2.5	3.5	0.0413	102	72
15	M2BAX 160 MLB 2	3GBA161420-●●C	2938	90.3	90.6	89.8	0.89	26.9	7.6	48.9	3.0	3.5	0.0538	115	72
18.5	M2BAX 160 MLC 2	3GBA161430-●●C	2939	90.9	91.0	90.3	0.88	33.4	7.9	60.1	3.1	3.8	0.0600	123	73
22	M2BAX 180 MLA 2	3GBA181410-●●C	2943	91.3	91.4	90.7	0.88	39.5	8.4	71.4	3.8	3.9	0.0735	150	72
30	M2BAX 200 MLA 2	3GBA201410-●●C	2957	92.0	91.5	90.1	0.85	55.4	8.6	97.1	4.0	4.2	0.110	198	81
37	M2BAX 200 MLB 2	3GBA201420-●●C	2951	92.5	92.5	92.1	0.90	64.2	8.4	120	3.6	3.7	0.141	229	80
45	M2BAX 225 SMA 2	3GBA221210-●●C	2962	92.9	92.8	92.1	0.87	80.4	8.8	145	3.8	3.8	0.226	273	82
55	M2BAX 250 SMA 2	3GBA251210-●●C	2965	93.2	93.2	92.6	0.88	96.8	7.4	177	3.4	3.0	0.344	334	78
75	M2BAX 280 SA 2	3GBA281110-●●C	2977	94.0	93.7	92.3	0.88	130	7.6	240	2.1	3.0	0.800	546	78
90	M2BAX 280 SMB 2	3GBA281220-●●C	2976	94.3	94.2	93.1	0.90	153	7.4	288	2.1	2.9	0.900	570	78
110	M2BAX 315 SMA 2	3GBA311210-●●C	2982	94.6	94.1	92.7	0.86	195	7.6	352	2.0	3.0	1.20	750	78
132	M2BAX 315 SMB 2	3GBA311220-●●C	2982	94.9	94.6	93.4	0.88	228	7.4	422	2.2	3.0	1.40	810	78
160	M2BAX 315 SMC 2	3GBA311230-●●C	2981	95.2	95.0	94.1	0.89	272	7.5	512	2.3	3.0	1.70	900	78
200	M2BAX 315 MLA 2	3GBA311410-●●C	2980	95.3	95.2	94.4	0.90	336	7.7	640	2.6	3.0	2.10	1020	83
250	M2BAX 355 SMA 2	3GBA351210-●●C	2983	95.4	95.2	94.3	0.89	424	6.8	800	1.5	2.8	2.70	1310	83
315	M2BAX 355 SMB 2	3GBA351220-●●C	2980	95.4	95.4	94.7	0.89	535	7.2	1009	1.9	2.8	3.40	1450	83
355	¹⁾ M2BAX 355 SMC 2	3GBA351230-●●C	2983	95.5	95.5	94.9	0.88	609	7.4	1136	2.1	2.7	3.60	1520	83

¹⁾Temperature rise class F

Technical data

IE2 cast iron motors, 1500 r/min

IP 55 - IC 411 - Insulation class F, temperature rise class B
IE2 efficiency class according to IEC 60034-30-1; 2014

				Efficiency IEC 60034-30-1; 2014					Current		Torque				Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pressure Level L _{PA} dB
Output kW	Motor type	Product code	Speed r/min	Full load 100%	3/4 load 75%	1/2 load 50%	Power factor Cosφ	I _N A	I _S /I _N	T _N Nm	T _f /T _N	T _B /T _N					
1500 r/min = 4 poles				400 V 50 Hz				CENELEC-design									
0.25	M2BAX 71 MA 4	3GBA072310-●●C	1415	67.0	63.1	56.6	0.73	0.74	4.4	1.68	2.1	2.8	0.000587	9	49		
0.37	M2BAX 71 MB 4	3GBA072320-●●C	1407	69.5	67.2	62.2	0.77	1.00	4.4	2.5	1.9	2.7	0.000760	10	46		
0.55	M2BAX 80 MA 4	3GBA082310-●●C	1413	73.5	72.0	67.8	0.76	1.42	5.1	3.7	2.0	2.9	0.00156	13	54		
0.75	M2BAX 80 MB 4	3GBA082320-●●C	1462	79.6	77.1	73.2	0.71	1.92	6.7	5.0	3.1	3.9	0.00247	17	53		
1.1	M2BAX 90 SA 4	3GBA092110-●●C	1447	81.4	79.5	75.7	0.73	2.7	6.6	7.4	3.2	4.3	0.00372	21	51		
1.5	M2BAX 90 LA 4	3GBA092510-●●C	1441	82.8	81.6	78.4	0.74	3.5	6.9	10.0	3.1	4.2	0.00462	23	55		
2.2	M2BAX 100 LA 4	3GBA102510-●●C	1445	84.3	83.4	81.2	0.78	4.8	7.1	14.5	2.6	3.8	0.00759	31	55		
3	M2BAX 100 LB 4	3GBA102520-●●C	1443	85.5	85.0	82.9	0.79	6.4	7.7	19.8	2.8	4.2	0.00939	35	58		
4	M2BAX 112 MA 4	3GBA112310-●●C	1442	86.6	86.2	84.6	0.79	8.4	7.5	26.5	4.0	4.3	0.0120	41	56		
5.5	M2BAX 132 SA 4	3GBA132110-●●C	1457	87.7	87.5	86.2	0.78	11.6	6.9	36.0	2.5	3.4	0.0257	57	66		
7.5	M2BAX 132 MA 4	3GBA132310-●●C	1457	88.7	88.6	87.5	0.78	15.6	7.2	49.1	2.6	3.6	0.0320	68	66		
11	M2BAX 160 MLA 4	3GBA162410-●●C	1466	89.8	89.9	89.2	0.79	22.4	7.0	71.5	3.2	3.2	0.0784	110	67		
15	M2BAX 160 MLB 4	3GBA162420-●●C	1468	90.6	91.1	90.5	0.82	29.1	8.0	97.7	3.2	3.7	0.100	125	66		
18.5	M2BAX 180 MLA 4	3GBA182410-●●C	1470	91.2	91.5	90.6	0.80	36.6	8.5	120	3.7	4.2	0.120	155	65		
22	M2BAX 180 MLB 4	3GBA182420-●●C	1472	91.6	91.3	90.2	0.78	44.4	9.2	143	4.1	4.6	0.139	168	66		
30	M2BAX 200 MLA 4	3GBA202410-●●C	1476	92.3	92.4	92.0	0.81	57.9	6.8	194	3.0	3.2	0.236	222	68		
37	M2BAX 225 SMA 4	3GBA222210-●●C	1479	92.7	92.7	92.2	0.82	70.3	7.4	239	3.1	3.3	0.350	263	69		
45	M2BAX 225 SMB 4	3GBA222220-●●C	1481	93.1	93.0	92.3	0.81	86.1	7.9	290	3.5	3.5	0.416	290	69		
55	M2BAX 250 SMA 4	3GBA252210-●●C	1480	93.5	93.4	92.7	0.83	102	7.6	355	3.3	3.3	0.533	339	77		
75	M2BAX 280 SA 4	3GBA282110-●●C	1484	94.2	94.2	93.5	0.85	135	6.9	482	2.5	2.8	1.25	515	71		
90	M2BAX 280 SMB 4	3GBA282220-●●C	1483	94.4	94.6	94.1	0.86	160	7.2	579	2.5	2.7	1.50	575	71		
110	M2BAX 315 SMA 4	3GBA312210-●●C	1487	94.7	94.6	93.8	0.86	194	7.2	706	2.0	2.5	2.30	775	78		
132	M2BAX 315 SMB 4	3GBA312220-●●C	1487	95.0	95.0	94.3	0.86	233	7.1	847	2.3	2.7	2.60	830	78		
160	M2BAX 315 SMC 4	3GBA312230-●●C	1487	95.2	95.3	94.6	0.85	285	7.2	1027	2.4	2.9	2.90	870	78		
200	M2BAX 315 MLA 4	3GBA312410-●●C	1486	95.3	95.4	94.9	0.86	352	7.0	1285	2.3	2.8	3.50	995	78		
250	M2BAX 355 SMA 4	3GBA352210-●●C	1488	95.2	95.2	94.4	0.85	445	6.7	1604	2.0	2.6	5.40	1400	82		
315	¹⁾ M2BAX 355 SMB 4	3GBA352220-●●C	1488	95.5	95.5	94.8	0.85	560	7.3	2021	2.2	2.7	6.90	1570	82		
355	¹⁾ M2BAX 355 SMC 4	3GBA352230-●●C	1487	95.5	95.7	95.2	0.86	623	6.8	2279	2.4	2.7	7.20	1650	82		

¹⁾ Temperature rise class F

Technical data

IE2 cast iron motors, 1000 r/min

IP 55 - IC 411 - Insulation class F, temperature rise class B
IE2 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque		Moment of inertia J = 1/4 GD²kgm²	Weight kg	Sound pressure Level L _{PA} dB	
				Full load 100%	3/4 load 75%	1/2 load 50%		I _N A	I _s /I _N	T _N Nm	T _f /T _N				T _f /T _H
1000 r/min = 6 poles				400 V 50 Hz			CENELEC-design								
0.18	M2BAX 71 MA 6	3GBA073310-●●C	910	59.0	54.7	47.5	0.72	0.61	3.3	1.87	2.0	2.4	0.000823	9	40
0.25	M2BAX 71 MB 6	3GBA073320-●●C	913	63.0	59.9	53.8	0.71	0.81	3.6	2.6	2.4	2.8		10	47
0.37	M2BAX 80 MA 6	3GBA083310-●●C	919	68.0	65.9	60.7	0.74	1.06	4.2	3.8	2.5	2.7	0.00173	13	49
0.55	M2BAX 80 MB 6	3GBA083320-●●C	921	71.0	69.6	64.9	0.73	1.53	4.4	5.7	2.9	3.0	0.00234	14	47
0.75	M2BAX 90 SA 6	3GBA093110-●●C	949	75.9	73.0	67.7	0.62	2.3	5.1	7.6	3.3	3.7	0.00438	21	50
1.1	M2BAX 90 LA 6	3GBA093510-●●C	936	78.1	76.2	72.8	0.67	3.0	4.6	11.1	3.0	3.3	0.00507	24	48
1.5	M2BAX 100 LA 6	3GBA103510-●●C	953	79.8	78.4	75.1	0.67	4.1	5.2	15.0	2.6	3.1	0.00795	31	56
2.2	M2BAX 112 MA 6	3GBA113310-●●C	956	81.8	80.4	77.4	0.68	5.7	5.5	21.9	2.9	3.5	0.0116	40	54
3	M2BAX 132 SA 6	3GBA133110-●●C	967	83.3	82.5	80.2	0.65	8.0	5.5	29.5	2.0	3.0	0.0251	55	60
4	M2BAX 132 MA 6	3GBA133310-●●C	965	84.6	84.2	82.4	0.70	9.8	5.7	40.0	2.6	3.3	0.0294	63	62
5.5	M2BAX 132 MB 6	3GBA133320-●●C	964	86.0	85.9	84.7	0.68	13.6	5.8	54.2	2.2	2.9	0.0397	77	62
7.5	M2BAX 160 MLA 6	3GBA163410-●●C	974	87.2	87.5	87.0	0.76	16.3	6.6	73.7	1.9	3.2	0.0811	113	65
11	M2BAX 160 MLB 6	3GBA163420-●●C	971	88.7	89.4	89.8	0.79	22.7	6.6	108	1.6	2.8	0.102	133	57
15	M2BAX 180 MLA 6	3GBA183410-●●C	971	89.7	90.0	89.6	0.77	31.3	7.4	147	2.4	3.9	0.136	168	62
18.5	M2BAX 200 MLA 6	3GBA203410-●●C	978	90.4	90.7	90.0	0.77	38.4	6.1	181	2.0	2.9	0.204	205	61
22	M2BAX 200 MLB 6	3GBA203420-●●C	978	90.9	91.1	90.5	0.78	44.8	6.2	215	1.8	2.9	0.227	219	62
30	M2BAX 225 SMA 6	3GBA223210-●●C	987	91.7	91.5	90.5	0.79	59.8	7.0	290	2.7	3.2	0.579	282	64
37	M2BAX 250 SMA 6	3GBA253210-●●C	986	92.2	92.5	91.9	0.81	71.5	6.9	359	2.6	2.9	0.783	336	66
45	M2BAX 280 SA 6	3GBA283110-●●C	990	92.8	93.0	92.1	0.84	83.3	7.0	434	2.5	2.5	1.85	500	71
55	M2BAX 280 SB 6	3GBA283120-●●C	990	93.3	93.5	92.9	0.84	101	7.0	530	2.7	2.6	2.20	540	71
75	M2BAX 315 SMA 6	3GBA313210-●●C	992	94.0	94.0	93.0	0.81	142	7.0	721	2.1	2.7	3.20	705	75
90	M2BAX 315 SMB 6	3GBA313220-●●C	992	94.3	94.4	93.6	0.83	165	7.2	866	2.1	2.7	4.10	800	75
110	M2BAX 315 SMC 6	3GBA313230-●●C	992	94.7	94.8	94.2	0.83	201	7.0	1058	2.2	2.7	4.90	870	75
132	M2BAX 315 MLA 6	3GBA313410-●●C	992	94.9	95.0	94.4	0.83	241	7.2	1270	2.4	2.7	5.80	980	75
160	M2BAX 355 SMA 6	3GBA353210-●●C	992	94.9	95.0	94.4	0.83	293	6.2	1540	2.1	2.3	7.30	1290	77
200	M2BAX 355 SMB 6	3GBA353220-●●C	992	95.2	95.4	94.9	0.84	360	6.5	1925	2.1	2.3	9.70	1440	77
250 ¹⁾	M2BAX 355 SMC 6	3GBA353230-●●C	991	95.3	95.5	95.2	0.84	450	6.7	2409	2.3	2.3	11.3	1590	77

¹⁾Temperature rise class F

Variant codes

IE2 Cast iron motors

Variant codes specify additional options and features to the standard motor. The desired features are listed as three-digit variant codes in the motor order. Note also that there are variants that cannot be used together.

		Frame size													
Code/Variants, M2BAX		71	80	90	100	112	132	160	180	200	225	250	280	315	355
Bearings and Lubrication															
037	Roller bearing at D-end.	-	-	-	-	-	-	•	•	•	•	•	•	•	•
040	Heat-resistant grease	•	•	•	•	•	•	•	•	•	•	•	•	-	-
041	Bearings regreasable via grease nipples.	-	-	-	-	-	-	•	•	•	•	•	•	•	•
043	SPM compatible nipples for vibration measurement	•	•	•	•	•	•	•	•	•	•	•	•	•	•
188	63-series bearing in D-end	-	•	•	•	•	•	•	•	•	•	•	-	-	-
Branch standard designs															
178	Stainless steel / acid proof bolts.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
209	Non-standard voltage or frequency, (special winding).	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Cooling system															
068	Light alloy metal fan	•	•	•	•	•	•	•	•	•	•	•	•	•	•
075	Cooling method IC418 (without fan).	•	•	•	•	•	•	•	•	•	•	•	-	-	-
183	Separate motor cooling (fan axial, N-end).	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Documentation															
141	Binding dimension drawing.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Earthing Bolt															
067	External earthing bolt.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Heating elements															
450	Heating element, 100-120 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•
451	Heating element, 200 - 240 V	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Insulation system															
014	Winding insulation class H.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Mounting arrangements															
008	IM 2101 foot/flange mounted, IEC flange, from IM 1001 (B34 from B3).	•	•	•	•	•	•	-	-	-	-	-	-	-	-
009	IM 2001 foot/flange mounted, IEC flange, from IM 1001 (B35 from B3).	•	•	•	•	•	•	•	•	•	•	•	•	•	•
047	IM 3601 flange mounted, IEC flange, from IM 3001 (B14 from B5).	•	•	•	•	•	•	-	-	-	-	-	-	-	-
066	Modified for specified mounting position differing from IM B3 (1001), IM B5 (3001), B14 (3601), IM B35 (2001) & IM B34 (2101)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
320	IM2001 foot/flat bottom flange mounted, from IM1001 (B35 flat bottom flange from B3)	•	•	•	•	•	•	-	-	-	-	-	-	-	-
Painting															
114	Special paint color, standard grade	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Protection															
005	Protective roof, vertical motor, shaft down.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
072	Radial seal at D-end. Not possible for 2-pole , 280 and 315 frames	•	•	•	•	•	•	•	•	•	•	•	•	•	•
158	Degree of protection IP65.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
403	Degree of protection IP56.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
784	Gamma-seal at D-end.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Rating & instruction plates															
002	Restamping voltage, frequency and output, continuous duty.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
095	Restamping output (maintained voltage, frequency), intermittent duty.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
098	Stainless rating plate.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
135	Mounting of additional identification plate, stainless.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
159	Additional plate with text "Made in"	•	•	•	•	•	•	•	•	•	•	•	•	•	•
163	Frequency converter rating plate. Rating data according to quotation.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Shaft & rotor															
069	Two shaft extensions according to catalog drawings.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
070	Special shaft extension at D-End, standard shaft material	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Stator winding temperature sensors															
121	Bimetal detectors, break type (NCC), (3 in series), 130 °C, in stator winding	•	•	•	•	•	•	•	•	•	•	•	-	-	-
122	Bimetal detectors, break type (NCC), (3 in series), 150 °C, in stator winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•
435	PTC - thermistors (3 in series), 130 °C, in stator winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•
436	PTC - thermistors (3 in series), 150 °C, in stator winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•
439	PTC - thermistors (2x3 in series), 150 °C, in stator winding	-	-	-	-	-	-	•	•	•	•	•	-	-	-

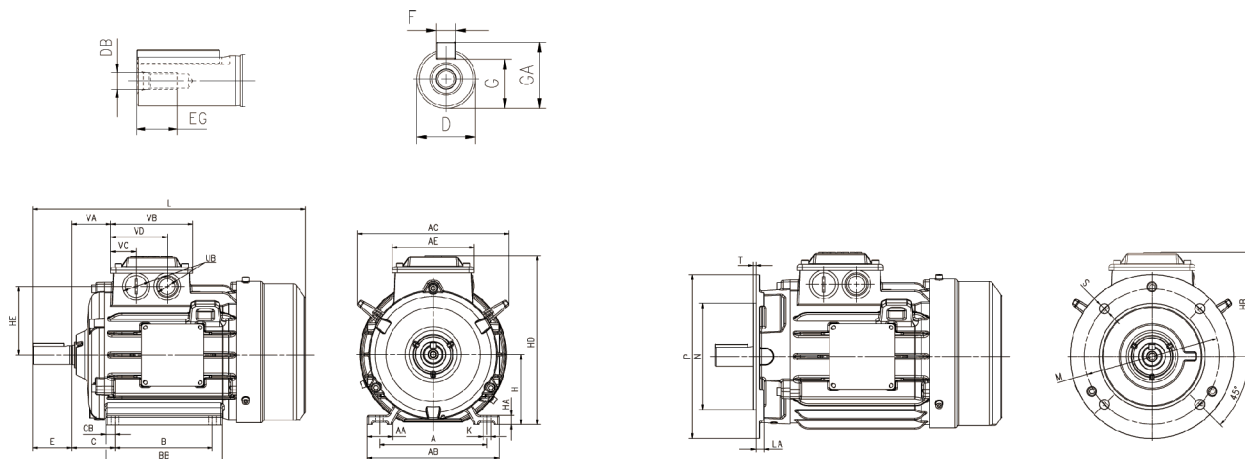
• = Included as standard | • = Available as option | - = Not applicable

		Frame size													
Code/Variants, M2BAX		71	80	90	100	112	132	160	180	200	225	250	280	315	355
441	PTC - thermistors (3 in series, 130 °C & 3 in series, 150 °C), in stator winding	•	•	•	•	•	•	•	•	•	•	•	•	•	•
445	Pt100 2-wire in stator winding, 1 per phase	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Terminal box															
020	Detached terminal box.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
021	Terminal box LHS (seen from D-end).	-	•	•	•	•	•	•	•	•	•	•	-	-	-
022	Cable entry LHS (seen from D-end).	•	•	•	•	•	•	•	•	•	•	•	-	-	-
180	Terminal box RHS (seen from D-end).	-	•	•	•	•	•	•	•	•	•	•	-	-	-
230	Standard metal cable glands.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
375	Standard plastic cable gland	•	•	•	•	•	•	•	•	•	•	•	-	-	-
376	Two standard plastic cable glands	•	•	•	•	•	•	•	•	•	•	•	-	-	-
400	4 x 90 deg turnable terminal box.	•	•	•	•	•	•	◊	◊	◊	◊	◊	◊	◊	◊
413	Extended cable connection, no terminal box.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
418	Separate terminal box for auxiliaries, standard material.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
447	Top mounted separate terminal box for monitoring equipment.	-	-	-	-	-	-	-	-	-	-	-	•	•	•
468	Cable entry from D-end.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
469	Cable entry from N-end.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
731	Two standard metal cable glands.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
Testing															
145	Type test report from a catalogue motor, 400V 50Hz.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
146	Type test with report for one motor from specific delivery batch.	•	•	•	•	•	•	•	•	•	•	•	-	-	-
148	Routine test report.	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Variable speed drives															
701	Insulated bearing at N-end.	-	-	-	-	-	-	-	-	-	-	-	•	•	•
704	EMC cable entry.	-	-	-	-	-	-	-	-	-	-	-	•	•	•

◊ = Included as standard | • = Available as option | - = Not applicable

Dimension drawings

IE2 General performance cast iron M2BAX motors, 71-132



Foot-mounted motor IM1001, B3 and Flange-mounted motor IM 3001, B5

General performance M2BAX 71-132, IE2

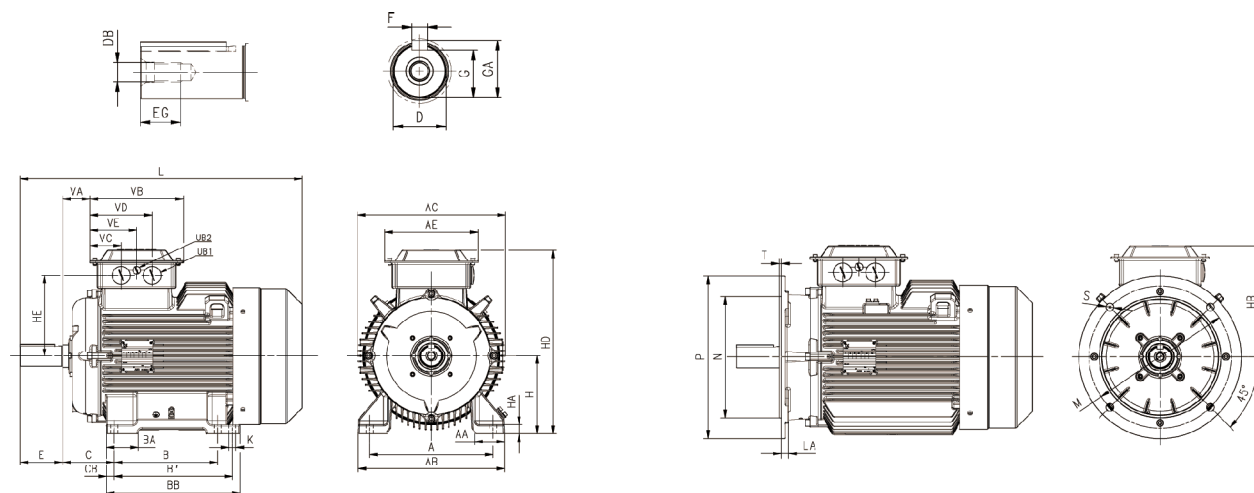
Motor size	AE	D	DB	E	EG	F	G	GA	H	HA	HE	L	UB	VA	VB	VC	VD
71	96	14	M5	30	12,5	5	11	16	71	9	65	257	M16X1,5	40	96	32	64
80	106	19	M6	40	16	6	15,5	21,5	80	12	72	309	M25X1,5	43	106	33	73
90S	106	24	M8	50	19	8	20	27	90	12	88	335	M25X1,5	50	106	33	73
90L	106	24	M8	50	19	8	20	27	90	12	88	351	M25X1,5	50	106	33	73
100	122	28	M10	60	22	8	24	31	100	15	100	376	M32X1,5	55	122	37	84
112	122	28	M10	60	22	8	24	31	112	15	100	411	M32X1,5	55	122	37	84
132S	122	38	M12	80	28	10	33	41	132	18	129	479	M32X1,5	65	122	37	84
132M	122	38	M12	90	28	10	33	41	132	18	129	521	M32X1,5	65	122	37	84

IM B3 (IM 1001)											IM B5 (IM 3001)						
Motor size	A	AA	AB	AC	B	BB	C	CB	HD	K	HB	LA	M	N	P	S	T
71	112	30	136	147	90	110	45	10	175	7	104	9	130	110	160	10	3,5
80	125	33	154	161	100	125	50	12,5	192	10	112	10	165	130	200	12	3,5
90S	140	33	170	195	100	124	56	12	217	10	127	10	165	130	200	12	3,5
90L	140	33	170	195	125	150	56	12	217	10	127	10	165	130	200	12	3,5
100	160	38	200	218	140	170	63	15	240	12	141	11	215	180	250	14,5	4
112	190	48	230	218	140	170	70	15	252	12	141	11	215	180	250	14,5	4
132S	216	53	262	270	140	170	89	16	301	12	170	12	265	230	300	14,5	4
132M	216	53	262	270	178	210	89	16	301	12	170	12	265	230	300	14,5	4

IM B14 (IM 3601)						Tolerances	
Motor size	M	N	P	S	T		
71	85	70	105	M6	2,5	A, B	±0,4
80	100	80	120	M6	3	D	ISO k6 < Ø 50 mm
90S	115	95	140	M8	3		ISO m6 > Ø 50 mm
90L	115	95	140	M8	3	F	ISO h9
100	130	110	160	M8	3,5	H	-0,5
112	130	110	160	M8	3,5	N	ISO j6
132S	165	130	200	M10	3,5	C	±0,8
132M	165	130	200	M10	3,5		

Dimension drawings

IE2 General performance cast iron M2BAX motors, 160-250



Foot-mounted motor IM 1001, B3 and Flange-mounted motor IM 3001, B5

General performance M2BAX 160-250, IE2

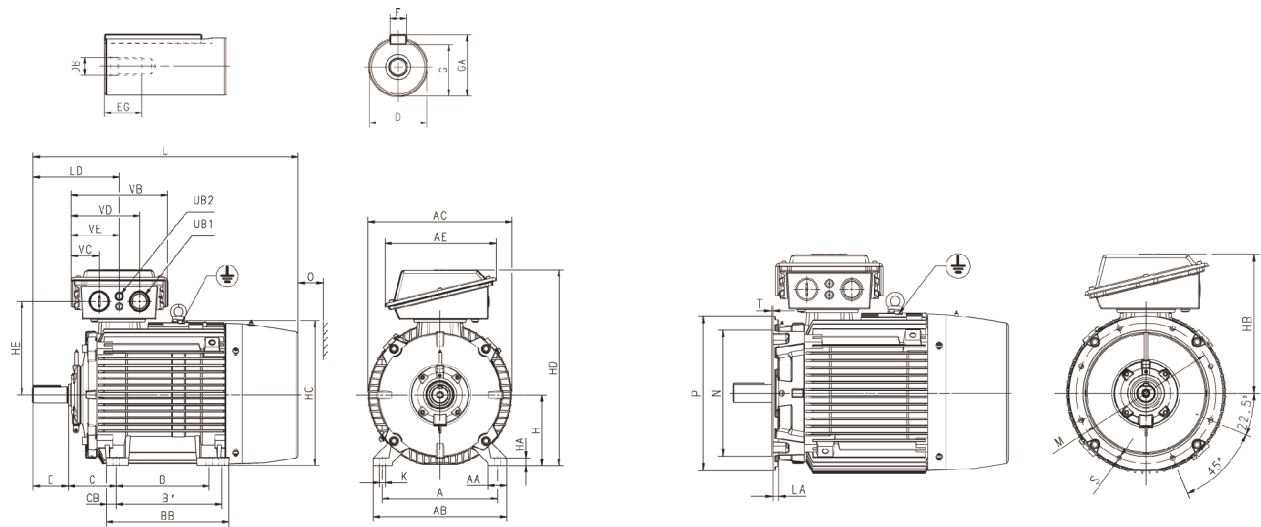
Motor size	AE	D	DB	E	EG	F	G	GA	H	HA	HE	L	UB	VA	VB	VC	VD	VE
160 ¹⁾	241	42	M16	110	36	12	37	45	160	23	188	586,5	M40X1,5	59	241	81	161	121
180	241	48	M16	110	36	14	42,5	51,5	180	23	188	683	M40X1,5	59	241	81	161	121
200	241	55	M20	110	42	16	49	59	200	23	208	728	M40X1,5	70	241	81	161	121
225 2p	262	55	M20	110	42	16	49	59	225	23	228	824	M63X1,5	79	262	83	179	131
225 4-6 p	262	60	M20	140	42	18	53	64	225	23	228	854	M63X1,5	79	262	83	179	131
250 2 p	262	60	M20	140	42	18	53	64	250	23	248	882	M63X1,5	72	262	83	179	131
250 4-6 p	262	65	M20	140	42	18	58	69	250	23	248	882	M63X1,5	72	262	83	179	131

	IM B3 (IM 1001)											IM B5 (IM 3001)							
Motor size	A	AA	AB	AC	B	B'	BA	BB	C	CB	HD	K	HB	LA	M	N	P	S	T
160	254	67	310	338	210	254	69	294	108	20	413	14,5	253	16	300	250	350	18,5	5
180	279	72	340	338	241	279	68	318	121	19	134	14,5	253	16	300	250	350	18,5	5
200	318	77	378	382	267	305	82	345	133	20	173	18,5	273	18	350	300	400	18,5	5
225 2p	356	91	435	414	286	311	69	351	149	20	539	18,5	314	20	400	350	450	18,5	5
225 4-6 p	356	91	435	414	286	311	69	351	149	20	539	18,5	314	20	400	350	450	18,5	5
250 2 p	406	98	480	462	311	349	72	392	168	22	585	24	334	22	500	450	550	18,5	5
250 4-6 p	406	98	480	462	311	349	72	392	168	22	585	24	334	22	500	450	550	18,5	5

Tolerances	Footnotes
A, B	±0,4
D	ISO k6 < Ø 50 mm
	ISO m6 > Ø 50 mm
F	ISO h9
H	-0,5
N	ISO j6
C	±0,8

Dimension drawings

IE2 General performance cast iron M2BAX motors, 280-355



Foot-mounted motor IM 1001, B3 and Flange-mounted motor IM 3001, B5

General performance M2BAX 280-355, IE2

Motor size	AE	D	DB	E	EG	F	G	GA	H	HA	HC	L	LD	O	UB1	UB2	VB	VC	VD	VE
280S 2p	442	65	M20	140	42	18	58	69	280	30	573	982	342	100	M63X1,5	M20X1,5	383	111	271	191
280S 4-6 p	442	75	M20	140	42	20	67,5	79,5	280	30	573	982	342	100	M63X1,5	M20X1,5	383	111	271	191
280SM 2p	442	65	M20	140	42	18	58	69	280	30	573	1052	342	100	M63X1,5	M20X1,5	383	111	271	191
280SM 4-6p	442	75	M20	140	42	20	67,5	79,5	280	30	573	1052	342	100	M63X1,5	M20X1,5	383	111	271	191
315SM 2p	442	65	M20	140	42	18	58	69	315	38	638	1216	348	115	M63X1,5	M20X1,5	383	111	271	191
315SM 4-6p	442	80	M20	170	42	22	71	85	315	38	638	1246	378	115	M63X1,5	M20X1,5	383	111	271	191
315ML 2p	442	65	M20	140	42	18	58	69	315	38	638	1326	347	115	M63X1,5	M20X1,5	383	111	271	191
315ML 4-6p	442	90	M24	170	50	25	81	95	315	38	638	1356	378	115	M63X1,5	M20X1,5	383	111	271	191
355SM 2p	493	70	M20	140	42	20	62,5	74,5	355	41	725	1399	399	130	M75X1,5	M20X1,5	383	111	271	191
355SM 4-6p	493	100	M24	210	50	28	90	106	355	41	725	1469	469	130	M75X1,5	M20X1,5	383	111	271	191

	IM B3 (IM 1001)										IM B5 (IM 3001)								
Motor size	A	AA	AB	AC	B	B'	BB	C	CB	HD	K	HB	LA	M	N	P	S	T	
280S 2p	457	75	530	571	368	-	431	190	38	775	24	495	21	500	450	550	18,5	5	
280S 4-6 p	457	75	530	571	368	-	431	190	38	775	24	495	21	500	450	550	18,5	5	
280SM 2p	457	75	530	571	368	419	485	190	38		24	495	21	500	450	550	18,5	5	
280SM 4-6p	457	75	530	571	368	419	485	190	38	775	24	495	21	500	450	550	18,5	5	
315SM 2p	508	100	590	644	406	457	563	216	52	849	28	534	27	600	550	660	24	6	
315SM 4-6p	508	100	590	644	406	457	563	216	52	849	28	534	27	600	550	660	24	6	
315ML 2p	508	100	590	644	457	508	612	216	52	849	28	534	27	600	550	660	24	6	
315ML 4-6p	508	100	700	644	457	508	612	216	52	849	28	534	27	600	550	660	24	6	
355SM 2p	610	120	700	739	500	560	698	254	72	933	35	578	22	740	680	800	24	6	
355SM 4-6p	610	120	700	739	500	560	698	254	72	933	35	578	22	740	680	800	24	6	

Tolerances

A, B	±0,4
D	ISO k6 < Ø 50 mm
	ISO m6 > Ø 50 mm
F	ISO h9
H	-0,5
N	ISO j6
C	±0,8

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9AKK106473 EN 02-2015