

General performance cast iron motors

Technical data for totally enclosed squirrel cage three phase motors

IE2

IP 55 - IC 411 - Insulation class F, temperature rise class B
IE2 efficiency class according to IEC 60034-30; 2008

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-2-1; 2007			Power factor cos φ	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	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 _l /T _N	T _b /T _N			
1500 r/min = 4 poles			400 V 50 Hz			CENELEC-design									
0.25	M2BA 71 MA	3GBA 072 211-••B	1365	68.3	70.8	69.7	0.81	0.65	3.5	1.74	1.9	2.0	0.00074	10	45
0.37	M2BA 71 MB	3GBA 072 212-••B	1380	72.4	74.5	74.6	0.83	0.88	4.0	2.5	1.6	2.1	0.00088	11	45
0.55	M2BA 80 MA	3GBA 082 211-••B	1415	74.5	73.8	70.0	0.73	1.45	5.0	3.7	2.0	2.8	0.00144	15	45
0.75	M2BA 80 MD	3GBA 082 214-••B	1430	81.0	80.7	77.3	0.73	1.83	5.3	5	2.7	3.2	0.00205	17	50
1.1	M2BA 90 SLB	3GBA 092 212-••B	1435	83.6	84.5	83.2	0.80	2.3	6.1	7.3	2.7	3.4	0.0044	25	50
1.5	M2BA 90 SLD	3GBA 092 215-••B	1430	84.3	85.6	84.7	0.83	3	6.3	10	2.7	3.4	0.0053	27	56
2.2	M2BA 100 LC	3GBA 102 213-••B	1450	85.9	85.1	83.4	0.78	4.7	6.4	14.4	2.9	3.6	0.00948	36	56
3	M2BA 100 LD	3GBA 102 214-••B	1450	86.8	87.0	85.4	0.79	6.3	7.7	19.7	2.9	3.4	0.011	38	58
4	M2BA 112 MB	3GBA 112 212-••B	1440	86.8	87.7	87.3	0.81	8.2	7.0	26.5	2.5	2.9	0.0125	44	59
5.5	M2BA 132 SMB	3GBA 132 212-••B	1460	89.0	89.8	88.9	0.80	11.1	5.9	35.9	1.7	2.4	0.03282	70	67
7.5	M2BA 132 SMC	3GBA 132 213-••B	1450	89.3	90.1	90.0	0.81	14.9	5.6	49.3	1.6	2.4	0.03659	73	64
11	M2BA 160 MLA	3GBA 162 043-••G	1463	90.2	91.4	91.2	0.85	20.7	7.1	71.7	2.6	3.0	0.084	134	65
15	M2BA 160 MLB	3GBA 162 044-••G	1463	90.6	91.8	91.6	0.84	28.4	7.2	97.9	2.7	3.6	0.095	141	65
18.5	M2BA 180 MLA	3GBA 182 043-••G	1464	91.2	92.3	92.1	0.84	34.8	7.9	120	3.1	3.6	0.112	175	62
22	M2BA 180 MLB	3GBA 182 044-••G	1465	91.6	92.5	92.1	0.83	41.7	8.0	143	3.0	3.8	0.13	187	65
30	¹⁾ M2BA 200 MLA	3GBA 202 042-••G	1474	92.3	93.4	93.5	0.83	56.5	7.3	194	2.7	2.9	0.217	241	62
37	M2BA 225 SMA	3GBA 222 043-••G	1479	93.0	93.9	93.8	0.84	68.3	7.2	238	2.6	2.9	0.309	293	68
45	M2BA 225 SMB	3GBA 222 044-••G	1479	93.2	94.0	93.7	0.83	83.9	7.4	290	2.4	3.1	0.368	318	68
55	M2BA 250 SMA	3GBA 252 042-••G	1478	93.5	94.2	93.7	0.85	99.8	7.3	355	2.8	3.0	0.476	342	70
75	M2BAT 280 SMA	3GBA 282 210-••E	1484	94.2	94.2	93.5	0.85	135	6.9	482	2.5	2.8	1.25	590	71
90	M2BAT 280 SMB	3GBA 282 220-••E	1483	94.4	94.6	94.1	0.86	160	7.2	579	2.5	2.7	1.5	630	71
110	M2BAT 315 SMA	3GBA 312 210-••E	1487	94.7	94.6	93.8	0.86	194	7.2	706	2.0	2.5	2.3	870	78
132	M2BAT 315 SMB	3GBA 312 220-••E	1487	95.0	95.0	94.3	0.86	233	7.1	847	2.3	2.7	2.6	925	78
160	M2BAT 315 SMC	3GBA 312 230-••E	1487	95.2	95.3	94.6	0.85	285	7.2	1027	2.4	2.9	2.9	970	78
200	M2BAT 315 MLA	3GBA 312 410-••E	1486	95.3	95.4	94.9	0.86	352	7.0	1285	2.3	2.8	3.5	1080	78
250	M2BAT 355 S	3GBA 352 100-••E	1488	95.2	95.2	94.4	0.85	445	6.7	1604	2.0	2.6	5.4	1500	82
1500 r/min = 4 poles			400 V 50 Hz			High-output design									
110	M2BAT 280 SMC	3GBA 282 230-••E	1485	94.9	95.1	94.6	0.86	194	7.6	707	3.0	3.0	1.85	690	71

¹⁾ Temperature rise class F

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

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

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-class concerns motors from 0.75 kW to 375 kW.