

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			
1000 r/min = 6 poles			400 V 50 Hz			CENELEC-design									
0.18	M2BA 71 MA	3GBA 073 211-••B	900	63.7	63.8	59.0	0.71	0.57	3.1	1.9	2.0	2.1	0.00089	10	42
0.25	M2BA 71 MB	3GBA 073 212-••B	895	67.2	67.2	62.6	0.69	0.77	3.4	2.6	2.2	2.3	0.0011	12	42
0.37	M2BA 80 MA	3GBA 083 211-••B	915	71.0	71.1	67.0	0.69	1.09	3.6	3.8	1.8	2.2	0.00187	15	47
0.55	M2BA 80 MB	3GBA 083 212-••B	920	73.9	75.0	72.8	0.71	1.51	3.8	5.7	1.8	2.2	0.00239	17	47
0.75	M2BA 90 SLC	3GBA 093 213-••B	960	78.7	77.3	72.5	0.58	2.3	4.5	7.4	2.3	3.1	0.00491	25	44
1.1	M2BA 90 SLE	3GBA 093 214-••B	930	78.2	78.6	76.4	0.66	3	4.0	11.2	1.9	2.3	0.0054	28	44
1.5	M2BA 100 L	3GBA 103 212-••B	950	82.2	82.9	81.6	0.69	3.8	4.0	15	1.5	1.1	0.00873	37	49
2.2	M2BA 112 MB	3GBA 113 212-••B	950	82.5	83.8	81.7	0.69	5.5	4.4	22.1	1.7	2.3	0.0125	44	66
3	M2BA 132 SMB	3GBA 133 211-••B	975	85.3	84.5	81.3	0.63	8	5.5	29.3	1.8	2.9	0.03336	69	57
4	M2BA 132 SMB	3GBA 133 212-••B	960	84.9	85.3	83.9	0.68	10	4.6	39.7	1.5	2.2	0.03336	69	57
5.5	M2BA 132 SMF	3GBA 133 214-••B	965	86.1	86.6	85.5	0.71	12.9	5.1	54.4	2.0	2.3	0.0487	86	57
7.5	M2BA 160 MLA	3GBA 163 043-••G	971	87.6	89.1	89.0	0.79	15.6	7.1	73.7	1.9	3.3	0.089	141	61
11	M2BA 160 MLB	3GBA 163 044-••G	970	88.7	90.1	89.9	0.79	22.6	7.6	108	2.1	3.3	0.119	157	61
15	M2BA 180 MLA	3GBA 183 042-••G	971	89.7	90.8	90.5	0.76	31.7	7.8	147	2.5	4.1	0.137	187	61
18.5	M2BA 200 MLA	3GBA 203 043-••G	975	90.7	92.0	91.9	0.79	37.2	6.2	161	1.7	3.2	0.198	228	65
22	M2BA 200 MLB	3GBA 203 044-••G	974	91.0	92.4	92.5	0.79	44.1	5.8	215	1.8	3.0	0.222	241	65
30	M2BA 225 SMA	3GBA 223 042-••G	985	92.2	93.1	93.1	0.83	56.5	6.9	290	2.4	2.8	0.532	318	65
37	M2BA 250 SMA	3GBA 253 042-••G	985	92.4	93.2	93.0	0.83	69.6	6.6	358	2.4	2.8	0.718	336	66
45	M2BAT 280 SMA	3GBA 283 210-••E	990	92.8	93.0	92.1	0.84	83.3	7.0	434	2.5	2.5	1.85	570	71
55	M2BAT 280 SMB	3GBA 283 220-••E	990	93.3	93.5	92.9	0.84	101	7.0	530	2.7	2.6	2.2	610	71
75	M2BAT 315 SMA	3GBA 313 210-••E	992	94.0	94.0	93.0	0.81	142	7.0	721	2.1	2.7	3.2	820	75
90	M2BAT 315 SMB	3GBA 313 220-••E	992	94.3	94.4	93.6	0.83	165	7.2	866	2.1	2.7	4.1	910	75
110	M2BAT 315 SMC	3GBA 313 230-••E	992	94.7	94.8	94.2	0.83	201	7.0	1058	2.2	2.7	4.9	980	75
132	M2BAT 315 MLA	3GBA 313 410-••E	992	94.9	95.0	94.4	0.83	241	7.2	1270	2.4	2.7	5.8	1100	75
160	M2BAT 355 S	3GBA 353 100-••E	992	94.9	95.0	94.4	0.83	293	6.2	1540	2.1	2.3	7.3	1500	77
1000 r/min = 6 poles			400 V 50 Hz			High-output design									
75	M2BAT 280 SMC	3GBA 283 230-••E	990	93.8	93.9	93.3	0.84	137	7.3	723	2.8	2.7	2.85	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.