

Process 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	M3BP 71 MA	3GBP 073 321-••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	M3BP 71 MB	3GBP 073 322-••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	M3BP 80 MA	3GBP 083 321-••B	915	71	71.1	67.0	0.69	1.09	3.6	3.8	1.8	2.2	0.00187	15	47
0.55	M3BP 80 MB	3GBP 083 322-••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	M3BP 90 SLC	3GBP 093 323-••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	M3BP 90 SLE	3GBP 093 324-••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	M3BP 100 L	3GBP 103 322-••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	M3BP 112 MB	3GBP 113 322-••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	M3BP 132 SMB	3GBP 133 321-••B	975	85.3	84.5	81.3	0.63	8	5.5	29.3	1.8	2.9	0.03336	69	57
4	M3BP 132 SMB	3GBP 133 322-••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	M3BP 132 SMF	3GBP 133 324-••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	M3BP 160 MLA	3GBP 163 031-••G	975	88.6	89.9	89.7	0.79	15.4	7.4	73.4	1.7	3.2	0.087	134	59
11	M3BP 160 MLB	3GBP 163 032-••G	972	89.3	90.7	90.6	0.79	22.5	7.5	108	1.9	2.9	0.114	172	59
15	M3BP 180 MLA	3GBP 183 031-••G	981	90.5	91.4	91.0	0.77	31	6.5	146	1.8	2.8	0.192	221	59
18.5	M3BP 200 MLA	3GBP 203 031-••G	988	91.6	92.3	91.7	0.80	36.4	6.7	178	2.3	2.9	0.382	269	63
22	M3BP 200 MLB	3GBP 203 032-••G	987	92.0	93.0	92.8	0.82	42	6.6	212	2.2	2.8	0.448	291	63
30	M3BP 225 SMA	3GBP 223 031-••G	986	92.7	93.3	92.9	0.83	56.2	7.0	290	2.6	2.9	0.663	349	63
37	M3BP 250 SMA	3GBP 253 031-••G	989	93.1	93.8	93.4	0.82	69.9	6.8	357	2.4	2.7	1.13	395	63
45	M3BP 280 SMA	3GBP 283 210-••G	990	93.4	93.6	93.1	0.84	82.7	7.0	434	2.5	2.5	1.85	605	66
55	M3BP 280 SMB	3GBP 283 220-••G	990	93.8	94.0	93.3	0.84	100	7.0	530	2.7	2.6	2.2	645	66
75	M3BP 315 SMA	3GBP 313 210-••G	992	94.4	94.4	93.5	0.82	139	7.4	721	2.4	2.8	3.2	830	70
90	M3BP 315 SMB	3GBP 313 220-••G	992	94.8	94.8	94.2	0.84	163	7.5	866	2.4	2.8	4.1	930	70
110	M3BP 315 SMC	3GBP 313 230-••G	991	95.0	95.0	94.6	0.83	201	7.4	1059	2.5	2.9	4.9	1000	70
132	M3BP 315 MLA	3GBP 313 410-••G	991	95.3	95.4	94.9	0.83	240	7.5	1271	2.7	3.0	5.8	1150	68
160	M3BP 355 SMA	3GBP 353 210-••G	993	95.4	95.4	94.8	0.83	291	7.0	1538	2.0	2.6	7.9	1520	75
200	M3BP 355 SMB	3GBP 353 220-••G	993	95.7	95.7	95.1	0.84	359	7.2	1923	2.2	2.7	9.7	1680	75
250	M3BP 355 SMC	3GBP 353 230-••G	993	95.7	95.7	95.1	0.83	454	7.4	2404	2.6	2.9	11.3	1820	75
315	M3BP 355 MLB	3GBP 353 420-••G	992	95.7	95.7	95.2	0.83	572	7.0	3032	2.5	2.7	13.5	2180	75
355	M3BP 355 LKA	3GBP 353 810-••G	992	95.7	95.7	95.1	0.83	645	7.6	3417	2.7	2.9	15.5	2500	75
400 ¹⁾	M3BP 355 LKB	3GBP 353 820-••G	992	96.0	96.0	95.5	0.83	724	7.2	3850	2.6	2.6	16.5	2600	75
400	M3BP 400 LA	3GBP 403 510-••G	993	96.2	96.3	95.8	0.82	731	7.1	3846	2.3	2.7	17	2900	76
400	M3BP 400 LKA	3GBP 403 810-••G	993	96.2	96.3	95.8	0.82	731	7.1	3846	2.3	2.7	17	2900	76
450	M3BP 400 LB	3GBP 403 520-••G	994	96.6	96.6	96.1	0.82	819	7.4	4323	2.4	2.8	20.5	3150	76
450	M3BP 400 LKB	3GBP 403 820-••G	994	96.6	96.6	96.1	0.82	819	7.4	4323	2.4	2.8	20.5	3150	76
500	M3BP 400 LC	3GBP 403 530-••G	993	96.6	96.7	96.2	0.83	900	7.2	4808	2.5	2.7	22	3300	76
500	M3BP 400 LKC	3GBP 403 830-••G	993	96.6	96.7	96.2	0.83	900	7.2	4808	2.5	2.7	22	3300	76
560	M3BP 400 LD	3GBP 403 540-••G	993	96.9	96.9	96.4	0.85	981	7.4	5385	2.4	2.8	24	3400	77
560	M3BP 400 LKD	3GBP 403 840-••G	993	96.9	96.9	96.4	0.85	981	7.4	5385	2.4	2.8	24	3400	77
630	M3BP 450 LA	3GBP 453 510-••G	994	96.7	96.8	96.4	0.84	1119	6.5	6052	1.1	2.5	31	4150	81
710	M3BP 450 LB	3GBP 453 520-••G	995	96.9	96.9	96.5	0.85	1244	7.0	6814	1.3	2.5	37	4500	81
800 ¹⁾	M3BP 450 LC	3GBP 453 530-••G	995	96.9	97.0	96.6	0.84	1418	7.2	7677	1.3	2.7	41	4800	81

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.

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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			High-output design									
30	¹⁾ M3BP 200 MLC	3GBP 203 033-••G	985	92.0	93.1	92.9	0.83	56.7	6.9	290	2.3	2.8	0.531	318	63
37	M3BP 225 SMB	3GBP 223 034-••G	985	93.1	94.0	94.0	0.83	69.1	6.6	358	2.3	2.6	0.821	393	63
45	M3BP 250 SMB	3GBP 253 032-••G	989	93.4	94.1	93.9	0.83	83.7	7.0	434	2.5	2.7	1.369	441	63
45	¹⁾ M3BP 225 SMC	3GBP 223 033-••G	984	92.7	93.9	94.0	0.83	84.4	6.4	436	2.3	2.6	0.821	393	63
55	¹⁾ M3BP 250 SMC	3GBP 253 033-••G	988	93.2	94.1	94.0	0.84	101	7.1	531	2.6	2.8	1.5	468	63
75	M3BP 280 SMC	3GBP 283 230-••G	990	94.2	94.5	94.1	0.84	136	7.3	723	2.8	2.7	2.85	725	66
160	M3BP 315 LKA	3GBP 313 810-••G	992	95.3	95.3	94.7	0.83	291	7.5	1540	2.6	2.8	7.3	1410	74
180	M3BP 315 LKB	3GBP 313 820-••G	992	95.3	95.4	94.8	0.83	328	7.4	1732	2.6	2.8	8.3	1520	74
200	M3BP 315 LKC	3GBP 313 830-••G	989	95.4	95.6	95.3	0.85	355	6.8	1931	2.5	2.6	9.2	1600	74

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