Process performance cast iron motors IE2

Technical data for totally enclosed squirrel cage three phase motors

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 Full load 100%	3/4 load 75%	1/2 load 50%	Power factor cos φ	Current I_N A	$\frac{I_s}{I_N}$	Torque T_N Nm	$\frac{T_l}{T_N}$	$\frac{T_b}{T_N}$	Moment of inertia J = 1/4 GD² kgm²	Weight kg	Sound pressure level L_{PA} dB
1500 r/min = 4-poles			400 V 50 Hz					CENELEC-design							
0.25	M3BP 71 MA	3GBP 072 321-••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	M3BP 71 MB	3GBP 072 322-••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	M3BP 80 MA	3GBP 082 321-••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	M3BP 80 MD	3GBP 082 324-••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	M3BP 90 SLC	3GBP 092 324-••B	1430	83.7	84.0	82.2	0.78	2.4	6.2	7.3	2.7	3.1	0.00491	26	56
1.1	M3BP 90 SLB	3GBP 092 322-••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	M3BP 90 SLD	3GBP 092 325-••B	1430	84.3	85.6	84.7	0.83	3	6.3	10	2.7	3.4	0.0053	27	56
2.2	M3BP 100 LC	3GBP 102 323-••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	M3BP 100 LD	3GBP 102 324-••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	M3BP 112 MB	3GBP 112 322-••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	M3BP 132 SMB	3GBP 132 322-••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	M3BP 132 SMC	3GBP 132 323-••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	M3BP 160 MLA	3GBP 162 031-••G	1466	90.4	91.6	91.3	0.84	20.9	6.8	71.6	2.2	2.8	0.081	135	62
15	M3BP 160 MLB	3GBP 162 032-••G	1470	91.4	92.4	92.2	0.83	28.5	7.1	97.4	2.6	3.0	0.099	165	62
18.5	M3BP 180 MLA	3GBP 182 031-••G	1477	91.9	92.9	92.7	0.84	34.5	7.2	119	2.6	2.9	0.166	205	62
22	M3BP 180 MLB	3GBP 182 032-••G	1475	92.4	93.3	93.2	0.84	40.9	7.3	142	2.6	3.0	0.195	222	62
30	M3BP 200 MLA	3GBP 202 031-••G	1480	93.2	94.0	93.7	0.84	55.3	7.4	193	2.8	3.0	0.309	291	63
37	M3BP 225 SMA	3GBP 222 031-••G	1479	93.4	93.9	93.4	0.84	68	7.1	238	2.6	2.9	0.356	324	66
45	M3BP 225 SMB	3GBP 222 032-••G	1480	93.9	94.3	93.9	0.85	81.3	7.5	290	2.8	3.2	0.44	356	66
55	M3BP 250 SMA	3GBP 252 031-••G	1480	94.4	95.0	94.7	0.85	98.9	7.0	354	2.6	2.9	0.765	414	67
75	M3BP 280 SMA	3GBP 282 210-••G	1484	94.5	94.5	93.9	0.85	134	6.9	482	2.5	2.8	1.25	625	68
90	M3BP 280 SMB	3GBP 282 220-••G	1483	94.7	94.8	94.4	0.86	159	7.2	579	2.5	2.7	1.5	665	68
110	M3BP 315 SMA	3GBP 312 210-••G	1487	95.1	95.1	94.3	0.86	194	7.2	706	2.0	2.5	2.3	900	70
132	M3BP 315 SMB	3GBP 312 220-••G	1487	95.4	95.4	94.7	0.86	232	7.1	847	2.3	2.7	2.6	960	70
160	M3BP 315 SMC	3GBP 312 230-••G	1487	95.6	95.6	95.1	0.85	284	7.2	1027	2.4	2.9	2.9	1000	70
200	M3BP 315 MLA	3GBP 312 410-••G	1486	95.6	95.6	95.3	0.86	351	7.2	1285	2.5	2.9	3.5	1160	70
250	M3BP 355 SMA	3GBP 352 210-••G	1488	95.9	95.9	95.5	0.86	437	7.1	1604	2.3	2.7	5.9	1610	74
315	M3BP 355 SMB	3GBP 352 220-••G	1488	95.9	95.9	95.6	0.86	551	7.3	2021	2.3	2.8	6.9	1780	74
355	M3BP 355 SMC	3GBP 352 230-••G	1487	95.9	95.9	95.7	0.86	621	6.8	2279	2.4	2.7	7.2	1820	78
400	M3BP 355 MLA	3GBP 352 410-••G	1489	96.3	96.3	95.9	0.85	705	6.8	2565	2.3	2.6	8.4	2140	78
450	M3BP 355 MLB	3GBP 352 420-••G	1490	96.8	96.8	96.3	0.86	780	6.9	2884	2.3	2.9	8.4	2140	78
500	M3BP 355 LKA	3GBP 352 810-••G	1490	97.0	97.0	96.5	0.86	865	6.8	3204	2.0	3.0	10	2500	78
560 [1)]	M3BP 355 LKB	3GBP 352 820-••G	1490	96.9	96.9	96.5	0.85	981	7.2	3588	2.6	2.7	10.6	2600	78
560	M3BP 400 LA	3GBP 402 510-••G	1491	96.8	96.8	96.3	0.85	982	7.4	3586	2.4	2.8	15	3200	78
560	M3BP 400 LKA	3GBP 402 810-••G	1491	96.8	96.8	96.3	0.85	982	7.4	3586	2.4	2.8	15	3200	78
630	M3BP 400 LB	3GBP 402 520-••G	1491	97.0	97.0	96.5	0.87	1077	7.6	4034	2.2	2.9	16	3300	78
630	M3BP 400 LKB	3GBP 402 820-••G	1491	97.0	97.0	96.5	0.87	1077	7.6	4034	2.2	2.9	16	3300	78
710 [1)]	M3BP 400 LC	3GBP 402 530-••G	1491	97.1	97.1	96.6	0.86	1227	7.6	4547	2.4	3.0	17	3400	78
710 [1)]	M3BP 400 LKC	3GBP 402 830-••G	1491	97.1	97.1	96.6	0.86	1227	7.6	4547	2.4	3.0	17	3400	78
800	M3BP 450 LA	3GBP 452 510-••G	1492	96.9	96.9	96.2	0.86	1385	7.0	5120	1.3	2.8	23	4050	85
900	M3BP 450 LB	3GBP 452 520-••G	1492	97.1	97.1	96.5	0.86	1555	7.0	5760	1.3	2.8	25	4350	85
1000 [1)]	M3BP 450 LC	3GBP 452 530-••G	1491	97.2	97.2	96.7	0.86	1726	6.8	6404	1.3	2.7	30	4700	85

[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).

$\frac{I_s}{I_N}$ = Starting current
$\frac{T_l}{T_N}$ = Locked rotor torque
$\frac{T_b}{T_N}$ = 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.

Process performance cast iron motors IE2

Technical data for totally enclosed squirrel cage three phase motors

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 Full load 100%	3/4 load 75%	1/2 load 50%	Power factor cos φ	Current I_N A	$\frac{I_s}{I_N}$	Torque T_N Nm	$\frac{T_l}{T_N}$	$\frac{T_b}{T_N}$	Moment of inertia J = 1/4 GD² kgm²	Weight kg	Sound pressure level L_{PA} dB
1500 r/min = 4-poles				400 V 50 Hz										High-output design		
18.5		**M3BP 160 MLC**	3GBP 162 033-••G	1469	91.4	92.5	92.3	0.84	34.7	7.6	120	3.0	3.2	0.11	173	62
22		**M3BP 160 MLD**	3GBP 162 034-••G	1463	91.6	93.0	93.2	0.85	40.7	6.9	143	2.5	2.9	0.125	187	62
30	1)	**M3BP 180 MLC**	3GBP 182 033-••G	1474	92.3	93.5	93.5	0.83	56.5	7.3	194	2.7	2.9	0.217	235	62
37		**M3BP 200 MLB**	3GBP 202 032-••G	1479	93.4	94.4	94.4	0.85	67.2	7.1	238	2.6	2.9	0.343	307	63
45	1)	**M3BP 200 MLC**	3GBP 202 033-••G	1479	93.6	94.4	94.2	0.83	83.6	7.5	290	2.9	3.2	0.366	319	63
55		**M3BP 225 SMC**	3GBP 222 033-••G	1478	94.0	94.7	94.5	0.85	99.3	7.4	355	2.9	3.1	0.474	370	66
75	1)	**M3BP 250 SMB**	3GBP 252 032-••G	1478	94.4	95.1	94.9	0.85	134	7.3	484	2.8	3.1	0.866	450	67
90	1)	**M3BP 250 SMC**	3GBP 252 033-••G	1478	94.7	95.3	95.0	0.84	163	7.4	581	3.1	3.3	0.941	478	67
110		**M3BP 280 SMC**	3GBP 282 230-••G	1485	95.1	95.2	94.7	0.86	194	7.6	707	3.0	3.0	1.85	725	68
250		**M3BP 315 LKA**	3GBP 312 810-••G	1487	95.7	95.8	95.3	0.86	438	7.4	1605	2.5	2.9	4.4	1410	78
280		**M3BP 315 LKB**	3GBP 312 820-••G	1487	95.8	95.9	95.4	0.87	484	7.6	1798	2.6	3.0	5	1520	78
315		**M3BP 315 LKC**	3GBP 312 830-••G	1488	95.8	95.9	95.3	0.86	551	7.8	2021	2.6	3.2	5.5	1600	78

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.
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