

**Totally enclosed squirrel cage
three phase motors, cast iron frame
IP 55 IC 411**

400 V 50 Hz

Output kW	Motortype	Product code	Speed r/min	Effi- ciency %	Power factor cos φ	Current		Torque				
						I _N A	I _s I _N	T _N Nm	T _s T _N	T _{max} T _N		
1500 r/min = 4 poles Basic design												
0.25 ²⁾	QU	71 M4 AT	GST 072 310-••C	1390	66.0	0.74	0.74	3.5	1.72	2.0	2.3	
0.37 ²⁾		71 M4 BT	072 320-••C	1380	68.0	0.74	1.06	3.7	2.55	2.1	2.3	
0.55 ³⁾	80 M4 AT	80 M4 AT	082 310-••C	1420	75.0	0.77	1.37	4.7	3.7	2.5	2.2	
0.75 ³⁾		80 M4 BT	082 320-••C	1410	76.0	0.77	1.85	4.8	5.0	2.5	2.3	
1.1 ⁴⁾	90 S4 AT	90 S4 AT	092 110-••C	1410	78.5	0.77	2.65	4.8	7.45	2.2	2.3	
1.5 ⁴⁾		90 L4 AT	092 510-••C	1410	80.5	0.78	3.45	4.9	10.1	2.4	2.5	
2.2 ⁴⁾	100 L4 AT	100 L4 AT	102 510-••C	1425	82.5	0.84	4.6	5.6	14.7	2.6	2.8	
3 ⁴⁾		100 L4 BT	102 520-••C	1415	84.5	0.84	6.1	6.2	20.2	3.0	3.1	
4 ⁴⁾	112 M4 AT	112 310-••C	1435	85.5	0.84	8.0	6.7	26.6	2.8	3.2		
5.5 ⁴⁾	132 S4 AT	132 S4 AT	132 110-••C	1430	87.0	0.84	10.9	6.6	36.7	2.4	3.0	
7.5 ⁴⁾		132 M4 AT	132 310-••C	1430	88.5	0.86	14.2	6.9	50	2.7	3.1	
11	M2BA	160 M	3GBA 162 300-••D	1460	90.3	0.81	21.5	6.7	72	2.9	2.8	
15		160 L		1455	91.1	0.84	28.5	6.8	98	3.0	2.8	
18.5	180 M	180 M	182 300-••D	1470	92.3	0.84	35	7.0	120	3.1	2.7	
22		180 L	182 500-••D	1470	92.4	0.83	41	7.0	143	2.9	2.8	
30	200 MLA	202 410-••D	1475	92.9	0.83	56	6.7	194	2.6	2.8		
37	225 SMA	225 SMA	222 210-••D	1480	93.6	0.84	68	6.6	239	2.4	2.5	
45		225 SMB	222 220-••D	1480	94.2	0.83	83	6.7	290	2.7	2.6	
55	250 SMA	252 210-••D	1480	94.6	0.86	98	7.5	355	2.3	2.8		
75	280 SMA	280 SMA	282 210-••A	1484	95.0	0.86	135	6.9	483	2.6	2.8	
90		280 SMB	282 220-••A	1483	95.2	0.87	158	7.2	580	2.6	2.7	
110	315 SMA	315 SMA	312 210-••A	1487	95.6	0.87	192	7.2	706	2.0	2.5	
132		315 SMB	312 220-••A	1487	95.8	0.87	232	7.1	848	2.3	2.7	
160	315 SMC	315 SMC	312 230-••A	1486	96.0	0.86	282	7.2	1028	2.4	2.9	
200		315 MLA	312 410-••A	1486	96.2	0.86	351	7.2	1285	2.5	2.9	
250	355 S	352 100-••A	1487	96.5	0.87	430	7.2	1606	2.3	2.7		
315	355 SMA	352 210-••A	1488	96.7	0.87	545	7.6	2022	2.5	2.9		
355	355 SMB	352 220-••A	1486	96.7	0.87	610	6.8	2281	2.2	2.6		
400	355 MLA	352 410-••A	1489	96.8	0.87	685	6.9	2565	1.6	2.8		
450	355 MLB	352 420-••A	1489	96.8	0.87	770	7.6	2886	1.5	3.0		
500	355 MLC	352 430-••A	1489	96.8	0.88	845	7.6	3207	1.3	2.9		
400	400 M	400 M	402 300-••A	1489	96.8	0.87	685	6.9	2565	1.6	2.8	
450		400 MA	402 310-••A	1489	96.8	0.87	770	7.6	2886	1.5	3.0	
500	400 MB	402 320-••A	1489	96.8	0.88	845	7.6	3207	1.3	2.9		
560	400 LKA	402 510-••A	1489	96.9	0.90	925	6.6	3591	1.1	2.6		
630	400 LKB	402 520-••A	1489	96.9	0.87	1080	6.9	4040	1.2	2.8		
710 ¹⁾	400 LKC	402 530-••A	1489	96.9	0.87	1220	6.8	4556	1.2	2.7		

1500 r/min = 4 poles High-output design

18.5 ¹⁾	M2BA	160 LB	3GBA 162 520-••D	1450	90.5	0.84	36	6.9	122	2.9	2.9
30 ¹⁾		180 LB		1465	92.5	0.84	56	6.9	195	3.2	2.8
37	200 MLB	200 MLB	202 420-••D	1475	93.4	0.84	68	7.8	236	3.6	3.2
55		225 SMC	222 230-••D	1480	94.6	0.84	100	7.3	355	3.1	2.8
75	250 SMB	252 220-••D	1480	95.0	0.86	132	7.0	484	2.4	3.0	
110	280 SMC	282 230-••A	1484	95.6	0.87	194	7.7	708	3.0	3.0	

The two bullets in the product code indicate choice of mounting arrangement (page 15, pos 12), voltage and frequency (below).

Code letters for supplementing the product code for voltage and frequency:

A	B	D	E	F	H
380 VY 50 Hz	380 VΔ 50 Hz	380-420 VΔ 50 Hz 660-690 VY 50 Hz 440-480 VΔ 60 Hz	500 VΔ 50 Hz 575 VΔ 60 Hz	500 VY 50 Hz 575 VY 60 Hz	415 VΔ 50 Hz
S	T	U	X	Other rated voltage, connection or frequency, max. 690 V	
220-240 VΔ 50 Hz 380-420 VY 50 Hz 440-480 VY 60 Hz	660 VΔ 50 Hz	690 VΔ 50 Hz			

Insulation class F Temperature rise class B

380 V 50 Hz

415 V 50 Hz

Output kW	Motor type	Speed r/min	Effi- ciency %	Power factor cos φ	Current I _N A	Speed r/min	Effi- ciency %	Power factor cos φ	Current I _N A	Moment of inertia J = ¼ GD ² kgm ²	Weight kg	Sound pressure level L _p dB(A)	
													1500 r/min = 4 poles
0.25 ²⁾	QU	71 M4 AT	1370	63.2	0.78	0.77	1400	63.0	0.71	0.78	0.0006	11	45
0.37 ²⁾		71 M4 BT	1360	65.3	0.78	1.1	1390	65.3	0.71	1.11	0.00077	11	45
0.55 ³⁾		80 M4 AT	1400	72.4	0.81	1.42	1430	72.6	0.74	1.42	0.0018	17	46
0.75 ³⁾		80 M4 BT	1390	73.5	0.80	1.94	1420	73.9	0.74	1.91	0.0021	18	46
1.1 ⁴⁾		90 S4 AT	1395	76.1	0.80	2.75	1415	76.7	0.75	2.65	0.0029	25	52
1.5 ⁴⁾		90 L4 AT	1395	78.2	0.81	3.6	1415	79.0	0.76	3.5	0.0037	26	52
2.2 ⁴⁾		100 L4 AT	1410	80.3	0.86	4.85	1430	81.3	0.82	4.6	0.0075	34	53
3 ⁴⁾		100 L4 BT	1400	82.4	0.86	6.4	1420	83.6	0.82	6.1	0.0098	35	53
4 ⁴⁾		112 M4 AT	1420	83.5	0.86	8.5	1440	84.9	0.83	7.9	0.014	44	56
5.5 ⁴⁾		132 S4 AT	1415	85.1	0.85	11.6	1435	86.7	0.83	10.6	0.031	65	60
7.5 ⁴⁾		132 M4 AT	1415	86.7	0.87	15.1	1435	88.4	0.85	13.9	0.04	79	60
11	M2BA	160 M	1450	89.9	0.83	22.5	1465	90.5	0.79	21.5	0.066	115	66
15		160 L	1445	90.6	0.84	30	1460	91.4	0.83	28	0.09	127	66
18.5		180 M	1465	91.7	0.85	36	1470	92.2	0.83	34	0.161	175	66
22		180 L	1465	92.1	0.85	42.5	1475	92.6	0.85	49	0.191	185	66
30		200 MLA	1470	92.6	0.83	59	1475	93.0	0.83	54	0.29	255	66
37		225 SMA	1475	93.4	0.84	72	1480	93.7	0.81	68	0.37	310	68
45		225 SMB	1475	94.0	0.85	86	1480	94.2	0.81	82	0.42	330	68
55		250 SMA	1475	94.3	0.86	103	1480	94.7	0.84	96	0.72	420	68
75		280 SMA	1481	95.0	0.87	140	1485	95.0	0.84	131	1.25	590	68
90		280 SMB	1481	95.2	0.88	165	1485	95.2	0.86	153	1.5	630	68
110		315 SMA	1486	95.5	0.88	200	1488	95.6	0.86	189	2.3	870	70
132		315 SMB	1486	95.7	0.88	242	1488	95.8	0.86	227	2.6	925	70
160		315 SMC	1485	95.9	0.87	294	1487	96.0	0.85	277	2.9	970	70
200 ¹⁾		315 MLA	1484	96.1	0.87	365	1487	96.3	0.85	342	3.5	1080	70
250		355 S	1486	96.4	0.87	455	1488	96.5	0.86	420	6.5	1550	80
315		355 SMA	1487	96.7	0.87	570	1489	96.7	0.86	525	8.2	1800	80
355		355 SMB	1485	96.7	0.88	635	1487	96.7	0.86	595	8.2	1800	80
400		355 MLA	1488	96.8	0.88	710	1490	96.8	0.86	670	10	2100	80
450		355 MLB	1488	96.8	0.88	805	1490	96.8	0.86	750	10	2100	80
500		355 MLC	1488	96.8	0.89	880	1490	96.8	0.87	830	10.5	2100	83
400		400 M	1488	96.8	0.88	710	1490	96.8	0.86	670	10	2150	80
450		400 MA	1488	96.8	0.88	805	1490	96.8	0.86	750	10	2150	80
500		400 MB	1488	96.8	0.89	880	1490	96.8	0.87	830	10.5	2150	83
560		400 LKA	1487	96.8	0.91	965	1490	96.9	0.90	890	14	3050	85
630		400 LKB	1488	96.8	0.88	1125	1490	96.9	0.87	1040	15	3150	85
710 ¹⁾		400 LKC	1487	96.8	0.88	1270	1490	96.9	0.86	1180	15	3150	85

1500 r/min = 4 poles		High-output design											
18.5 ¹⁾	M2BA	160 LB	1440	89.8	0.85	37	1450	90.8	0.83	34	0.101	135	66
30 ¹⁾		180 LB	1465	92.2	0.85	58	1470	92.7	0.82	55	0.225	203	66
37		200 MLB	1475	93.3	0.85	71	1475	93.3	0.82	67	0.34	275	66
55		225 SMC	1475	94.5	0.84	105	1480	94.6	0.82	99	0.49	355	68
75		250 SMB	1475	94.5	0.87	139	1480	95.1	0.86	128	0.88	465	68
110		280 SMC	1482	95.6	0.88	201	1486	95.7	0.86	189	1.85	690	68

- 1) Temperature rise class F.
2) Voltage code letters E, S only.
3) Voltage code lettersn E, S only .
Motors with terminal box on top, code letter E on request.
4) Voltage code letters D, E, S only.
Motors with terminal box on top, code letter E on request.

Further details or special designs on request.

Please note that the frequency converter application in critical conditions may require special rotor design within 355 and 400 frame motors. We therefore recommend a separate checking.