

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

400 V 50 Hz

Output kW	Motor type M2CA	Product code 3GCA	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
1000 r/min = 6 poles										
Basic design										
45	280 SA	283 110-•	990	94.1	0.82	85	6.6	434	2.6	2.5
55	280 SMA	283 210-•	989	94.4	0.83	102	6.6	531	2.5	2.5
75	¹⁾²⁾ 280 MB	283 320-•	990	94.5	0.83	139	7.3	723	2.9	2.7
75	315 SA	313 110-•	992	94.9	0.80	143	7.1	722	2.3	2.7
90	315 SMA	313 210-•	991	95.3	0.83	165	7.1	867	2.3	2.7
110	315 MB	313 320-•	991	95.3	0.83	201	7.3	1060	2.5	2.8
132	315 LA	313 510-•	990	95.4	0.84	241	6.7	1273	2.4	2.7
132	355 SA	353 110-•	992	95.3	0.85	235	6.8	1270	1.7	2.6
160	355 SB	353 120-•	992	95.9	0.85	280	6.8	1540	1.8	2.7
200	355 MA	353 310-•	993	95.9	0.85	350	7.5	1923	2.0	2.8
250	²⁾ 355 MB	353 320-•	991	95.9	0.80	475	7.3	2409	2.2	3.0
315	355 LKD	353 540-•	991	96.2	0.84	565	7.3	3035	2.0	3.0
355	400 MLA	403 410-•	992	96.4	0.85	625	6.4	3417	1.2	2.7
400	²⁾ 400 MLB	403 420-•	992	96.5	0.85	700	6.4	3850	1.2	2.7
450	400 LKA	403 510-•	993	96.5	0.85	790	6.8	4327	1.3	2.8
500	²⁾ 400 LKB	403 520-•	992	96.5	0.85	880	6.8	4813	1.3	2.8

750 r/min = 8 poles

Basic design

37	280 SA	284 110-•	741	93.4	0.78	74	7.3	477	1.8	3.1
45	280 SMA	284 210-•	741	94.0	0.78	90	7.6	580	1.9	3.2
55	¹⁾ 280 MB	284 320-•	741	94.4	0.79	108	7.8	709	1.9	3.2
55	315 SA	314 110-•	741	94.0	0.80	107	7.1	710	1.8	2.8
75	315 SMA	314 210-•	740	94.5	0.81	142	7.1	968	1.8	2.8
90	315 MB	314 320-•	740	94.7	0.82	169	7.3	1161	1.9	2.8
110	315 LA	314 510-•	740	94.9	0.83	202	7.0	1420	1.9	2.7
110	355 SA	354 110-•	742	94.6	0.80	215	5.6	1415	1.4	2.2
132	355 MA	354 310-•	743	95.0	0.77	265	5.8	1696	1.5	2.3
160	355 MB	354 320-•	742	95.2	0.79	310	6.4	2059	1.8	2.5
200	355 LKD	354 540-•	743	95.5	0.77	395	6.6	2570	1.8	2.7
250	400 MLA	404 410-•	744	96.0	0.77	490	7.2	3209	1.6	2.9
315	400 LKA	404 510-•	744	96.2	0.79	605	6.9	4043	1.5	2.8

¹⁾ **High-output design**

The output of the motors is one step higher than the basic design with rated outputs in accordance with CENELEC.

²⁾ Temperature rise acc. to class F.

The bullet indicates a 3-letter product code supplement for choice of mounting arrangement (page 11, pos. 12), voltage and frequency (below) and generation code (page 11, pos. 14).

Code letter 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		
220-240 VΔ 50 Hz 380-420 VY 50 Hz 440-480 VY 60 Hz	660 VΔ 50 Hz	690 VΔ 50 Hz	Other rated voltage, connection or frequency, max. 690 V		

Insulation class F
Temperature rise class B

380 V 50 Hz

415 V 50 Hz

Output kW	Motor type M2CA	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)
45	280 SA	988	94.0	0.83	89	991	94.2	0.81	82	1.65	440	66
55	280 SMA	988	94.3	0.84	106	991	94.4	0.82	99	2.0	475	66
75	¹⁾²⁾ 280 MB	988	94.5	0.84	144	991	94.5	0.81	137	2.6	545	67
75	315 SA	991	94.8	0.82	146	993	94.9	0.77	143	2.9	630	68
90	315 SMA	990	95.2	0.84	173	992	95.3	0.82	162	3.8	720	68
110	315 MB	990	95.1	0.84	212	992	95.3	0.82	198	4.5	805	72
132	315 LA	988	95.3	0.84	252	991	95.5	0.83	234	5.4	910	72
132	355 SA	991	95.2	0.86	245	993	95.3	0.84	230	8.7	1200	75
160	355 SB	991	95.8	0.86	295	993	95.9	0.84	275	10.4	1320	75
200	355 MA	992	95.8	0.86	370	993	95.9	0.84	350	12.5	1550	75
250	²⁾ 355 MB	990	95.8	0.82	485	992	95.9	0.78	470	12.5	1550	75
315	355 LKD	990	96.2	0.85	590	992	96.2	0.82	560	14.6	1900	82
355	400 MLA	991	96.3	0.86	650	993	96.4	0.84	610	16.5	2400	82
400	²⁾ 400 MLB	991	96.3	0.86	730	992	96.4	0.84	680	16.5	2400	82
450	400 LKA	992	96.5	0.86	825	993	96.5	0.83	790	19	2700	82
500	²⁾ 400 LKB	991	96.5	0.86	920	993	96.5	0.83	870	19	2700	82
750 r/min = 8 poles						Basic design						
37	280 SA	740	93.2	0.80	75	742	93.4	0.76	73	1.85	460	65
45	280 SMA	740	93.8	0.80	92	742	94.0	0.75	90	2.20	500	65
55	¹⁾ 280 MB	740	94.2	0.81	110	742	94.4	0.77	106	2.85	575	62
55	315 SA	740	93.9	0.82	108	742	94.1	0.78	105	2.9	630	66
75	315 SMA	739	94.3	0.83	149	741	94.6	0.80	137	3.8	715	66
90	315 MB	739	94.6	0.83	175	741	94.8	0.80	166	4.5	800	66
110	315 LA	738	94.7	0.84	213	740	95.0	0.81	198	5.4	900	66
110	355 SA	740	94.5	0.80	220	742	94.7	0.79	205	8.7	1200	75
132	355 MA	742	94.8	0.78	270	744	95.0	0.75	260	10.4	1350	75
160	355 MB	741	95.1	0.80	320	743	95.2	0.78	300	12.5	1550	75
200	355 LKD	742	95.5	0.79	410	744	95.5	0.75	390	14.6	1900	80
250	400 MLA	743	96.0	0.79	500	745	96.0	0.75	480	16.5	2400	80
315	400 LKA	743	96.1	0.80	620	745	96.2	0.76	600	19	2700	80