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 I_N A	Current $\frac{I_s}{I_N}$	Torque T_N Nm	Torque $\frac{T_s}{T_N}$	Torque $\frac{T_{max}}{T_N}$
3000 r/min = 2 poles		**Basic design**									
75		**280 SA**	281 110-•	2977	94.9	0.88	131	7.5	241	2.3	3.3
90		**280 SMA**	281 210-•	2975	95.1	0.90	152	7.6	289	2.3	3.1
110	1)	**280 MB**	281 320-•	2977	95.8	0.90	184	8.0	353	2.6	3.1
110		**315 SA**	311 110-•	2982	95.5	0.86	194	7.6	352	2.0	3.0
132		**315 SMA**	311 210-•	2982	95.7	0.88	228	7.4	423	2.2	3.0
160		**315 MB**	311 320-•	2981	96.1	0.89	269	7.5	513	2.3	3.0
200		**315 LA**	311 510-•	2978	96.4	0.90	334	7.8	641	2.6	3.0
200		**355 SA**	351 110-•	2977	95.5	0.92	330	6.6	641	1.3	2.8
250		**355 MA**	351 310-•	2980	96.1	0.92	410	6.6	801	1.3	3.0
280		**355 MB**	351 320-•	2978	96.1	0.92	470	5.7	897	1.1	2.7
315		**355 LA**	351 510-•	2980	96.6	0.93	510	7.7	1009	1.3	3.3
355		**355 LB**	351 520-•	2977	96.0	0.92	575	7.0	1138	1.0	3.1
400		**400 MLA**	401 410-•	2982	96.6	0.92	655	7.6	1281	0.8	3.0
450	2)	**400 MLB**	401 420-•	2980	96.6	0.92	730	7.4	1442	0.8	3.0
500	2)	**400 LKA**	401 510-•	2984	96.6	0.91	815	7.2	1600	0.7	3.4
560	2)	**400 LKB**	401 520-•	2983	96.7	0.92	910	7.3	1792	0.7	3.4
1500 r/min = 4 poles		**Basic design**									
75		**280 SA**	282 110-•	1483	95.0	0.84	137	6.8	483	2.4	2.8
90		**280 SMA**	282 210-•	1484	95.2	0.85	163	7.1	579	2.7	2.9
110	1)	**280 MB**	282 320-•	1483	95.3	0.86	195	7.5	708	2.7	2.8
110		**315 SA**	312 110-•	1487	95.4	0.85	198	6.5	706	2.1	2.6
132		**315 SMA**	312 210-•	1486	95.6	0.85	238	6.3	848	2.2	2.7
160		**315 MB**	312 320-•	1486	96.0	0.86	282	7.0	1028	2.4	2.7
200		**315 LA**	312 510-•	1486	96.2	0.86	350	6.9	1286	2.5	2.7
200		**355 SA**	352 110-•	1487	95.8	0.87	345	7.0	1284	2.1	2.7
250		**355 MA**	352 310-•	1487	96.5	0.87	430	7.2	1605	2.3	2.8
315		**355 LA**	352 510-•	1488	96.5	0.87	545	7.4	2021	2.4	2.8
355		**355 LB**	352 520-•	1489	96.5	0.88	605	7.2	2276	1.4	3.0
400		**355 LKD**	352 540-•	1489	96.7	0.88	680	7.5	2565	1.5	3.0
450		**400 MLA**	402 410-•	1489	96.7	0.90	740	6.9	2886	1.2	2.8
500		**400 MLB**	402 420-•	1489	96.8	0.89	830	7.3	3206	1.3	2.9
560		**400 LKA**	402 510-•	1489	96.9	0.90	925	6.6	3591	1.1	2.6
630	2)	**400 LKB**	402 520-•	1489	96.9	0.87	1080	6.9	4040	1.2	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

			380 V 50 Hz				415 V 50 Hz						
Output		**Motor type**	Speed	Effi-ciency	Power factor	Current I_N	Speed	Effi-ciency	Power factor	Current I_N	Moment of inertia $J = ¼ GD^2$	Weight	Sound pressure level L_P
kW		**M2CA**	r/min	%	cos φ	A	r/min	%	cos φ	A	kgm²	kg	dB(A)
3000 r/min = 2 poles						**Basic design**							
75		**280 SA**	2974	94.8	0.89	137	2980	94.8	0.87	127	0.8	480	77
90		**280 SMA**	2970	95.1	0.90	159	2978	95.1	0.89	147	0.9	545	77
110	1)	**280 MB**	2974	95.7	0.91	193	2979	95.8	0.90	179	1.15	580	77
110		**315 SA**	2980	95.5	0.87	202	2983	95.5	0.85	190	1.2	695	80
132		**315 SMA**	2980	95.7	0.89	238	2983	95.7	0.87	222	1.4	770	80
160		**315 MB**	2979	96.1	0.90	282	2982	96.1	0.89	262	1.7	840	80
200		**315 LA**	2977	96.4	0.90	350	2981	96.4	0.90	321	2.1	975	80
200		**355 SA**	2975	95.4	0.92	350	2979	95.5	0.91	325	3.2	1220	83
250		**355 MA**	2978	96.0	0.92	430	2982	96.1	0.92	395	3.8	1320	83
280		**355 MB**	2975	96.0	0.92	495	2980	96.1	0.92	450	3.8	1320	83
315		**355 LA**	2976	96.5	0.93	540	2982	96.6	0.92	495	4.8	1530	83
355		**355 LB**	2972	96.0	0.92	605	2974	96.1	0.92	550	4.8	1550	83
400		**400 MLA**	2980	96.5	0.92	680	2983	96.5	0.92	630	7.2	2300	85
450	2)	**400 MLB**	2978	96.6	0.92	770	2982	96.6	0.92	700	7.2	2300	85
500	2)	**400 LKA**	2982	96.6	0.92	850	2985	96.6	0.91	790	8.5	2700	85
560	2)	**400 LKB**	2981	96.7	0.92	965	2984	96.8	0.91	885	8.5	2700	85
1500 r/min = 4 poles						**Basic design**							
75		**280 SA**	1481	94.6	0.86	142	1485	95.0	0.82	134	1.15	445	68
90		**280 SMA**	1482	95.1	0.86	169	1486	95.2	0.83	159	1.4	490	68
110	1)2)	**280 MB**	1481	95.2	0.87	204	1486	95.5	0.84	193	1.7	550	68
110		**315 SA**	1486	95.3	0.86	204	1488	95.4	0.83	198	2.0	675	71
132		**315 SMA**	1485	95.5	0.86	245	1487	95.7	0.84	232	2.3	730	71
160		**315 MB**	1485	95.9	0.87	294	1487	96.0	0.85	277	2.9	850	71
200		**315 LA**	1485	96.1	0.87	366	1487	96.2	0.85	343	3.5	970	71
200		**355 SA**	1485	95.7	0.87	360	1488	95.8	0.86	340	5.5	1220	80
250		**355 MA**	1486	96.4	0.87	455	1488	96.5	0.86	420	6.5	1350	80
315		**355 LA**	1486	96.4	0.87	570	1489	96.5	0.86	530	7.8	1550	80
355		**355 LB**	1487	96.4	0.89	630	1490	96.5	0.87	590	7.8	1550	80
400		**355 LKD**	1487	96.6	0.89	710	1490	96.7	0.87	660	10	1900	85
450		**400 MLA**	1487	96.6	0.90	770	1490	96.7	0.90	720	12.5	2400	85
500		**400 MLB**	1488	96.7	0.90	870	1490	96.8	0.89	800	12.5	2400	85
560		**400 LKA**	1487	96.8	0.91	965	1490	96.9	0.90	890	14	2700	85
630	2)	**400 LKB**	1488	96.8	0.88	1125	1490	96.9	0.87	1040	15	2800	85