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

400 V 50 Hz

Output kW	Motor type M2AA	Product code 3GAA	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 $\frac{T_{max}}{T_N}$
750 r/min = 8 poles			**Basic design**							
0.055	**63 B**	064 002-●	650	32.2	0.62	0.44	1.5	0.8	1.6	2.0
0.09	**71 A**	074 001-●	680	43.4	0.63	0.53	2.0	1.3	1.7	2.0
0.12	**71 B**	074 002-●	680	48.6	0.59	0.63	2.0	1.8	1.7	2.0
0.18	**80 A**	084 001-●	700	54.4	0.56	0.90	2.5	2.5	1.8	2.3
0.25	**80 B**	084 002-●	700	58.6	0.55	1.18	2.5	3.4	1.9	2.4
0.37	**90 S**	094 001-●	700	61.5	0.56	1.60	3.0	5.0	1.9	2.4
0.55	**90 L**	094 002-●	700	62.9	0.57	2.35	3.0	7.5	1.9	2.4
0.75	**100 LA**	104 001-●	700	72.9	0.59	2.67	3.5	10.0	2.1	2.7
1.1	**100 LB**	104 002-●	700	74	0.64	3.42	3.5	15.0	2.1	2.7
1.5	**112M**	114 001-●	695	74.5	0.65	4.5	4.1	20.6	1.9	2.4
2.2	**132S**	134 001-●	720	80.5	0.67	5.9	5.3	29.2	1.9	2.5
3	**132M**	134 002-●	720	82.0	0.68	7.8	5.5	39.8	2.4	2.6
4	**160 MA**	164 101-●	715	84.1	0.69	10.0	5.2	54	2.1	2.4
5.5	**160 M**	164 102-●	710	84.7	0.70	13.4	5.4	74	2.4	2.6
7.5	**160 L**	164 103-●	715	86.3	0.70	18.1	5.4	100	2.4	2.8
11	**180 L**	184 101-●	720	88.7	0.76	23.5	5.9	146	2.4	2.6
15	**200 MLA**	204 001-●	740	91.1	0.82	29	7.4	194	1.8	3.0
18.5	**225 SMA**	224 001-●	730	91.1	0.79	37	6.2	242	1.9	2.7
22	**225 SMB**	224 002-●	730	91.5	0.77	45	6.0	288	1.9	2.7
30	**250 SMA**	254 001-●	735	92.8	0.79	59	6.9	390	1.9	2.9
750 r/min = 8 poles			**High-output design** [2]							
0.18[3]	**71 C**	074 003-●	660	51.3	0.64	0.85	2.0	2.5	1.6	1.9
0.37[3]	**80 C**	084 003-●	680	58.2	0.60	1.60	3.0	5.0	1.7	1.9
0.75[3]	**90 LB**	094 003-●	680	66.9	0.65	2.6	3.0	10.0	1.8	2.1
1.5[3]	**100 LC**	104 003-●	700	74	0.66	4.6	3.5	21.0	1.8	2.2
2[1) 3)]	**112 MB**	114 002-●	685	73.5	0.67	5.9	4.4	27.9	1.9	2.2
3.8[1) 3)]	**132 MB**	134 003-●	710	80.5	0.69	9.9	5.2	51.1	2.0	2.3
8.5[1) 3)]	**160 LB**	164 104-●	700	83.5	0.70	21.0	5.1	115	2.4	2.5
15[3]	**180 LB**	184 102-●	720	88.0	0.76	32.5	6.0	199	2.5	2.6
18.5	**200 MLB**	204 002-●	745	91.4	0.81	36	6.7	237	1.7	2.8
30	**225 SMC**	224 003-●	735	91.8	0.79	60	7.2	390	2.1	3.3
37	**250 SMB**	254 002-●	735	93.2	0.81	71	7.2	481	2.0	2.9

[1]) Lower than CENELEC +1.
[2]) **High-output design**
The output of these motors is one step higher than the basic design with rated outputs in accordance with CENELEC. Motor sizes 112 to 132 are somewhat longer than the basic design.
[3]) Temperature rise 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 letters for supplementing the product code

Code letter for voltage and frequency
Direct start or, with Δ–connection, also Y/Δ-start

Motor size	S 50 Hz	S 60 Hz	D 50 Hz	D 60 Hz	H 50 Hz	E 50 Hz	F 50 Hz	T 50 Hz	U 50 Hz	X
63-100	220-240 VΔ 380-420 VY	 440-480 VY	380-420 VΔ 660-690 VY	440-480 VΔ -	-	500 VΔ	500 VY	660 VΔ[1)]	690 VΔ[1)]	Other rated voltage,
112-132	220-240 VΔ 380-420 VY	- 440-480 VY	380-420 VΔ 660-690 VY	440-480 VΔ -	415 VΔ	500 VΔ		660 VΔ	690 VΔ	connection or frequency,
160-250	220, 230 VΔ 380,400,415 VY	- 440 VY	380,400,415VΔ 660, 690 VY	440 VΔ –	415 VΔ	500 VΔ		660 VΔ	690 VΔ	690 V maximum

[1]) On request.

	380 V 50 Hz				415 V 50 Hz						
Output kW	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 = 1/4 GD² kgm²	Weight Foot-mounted motor kg	Sound pressure level Lp dB(A)
750 r/min = 8 poles Basic design											
0.055	650	33.6	0.65	0.43	660	30.8	0.61	0.46	0.00028	4.5	32
0.09	670	44.7	0.66	0.50	690	42	0.60	0.55	0.0007	5.5	39
0.12	670	49.9	0.64	0.60	690	47.2	0.57	0.65	0.0009	6.5	39
0.18	690	55.4	0.59	0.85	700	53.5	0.53	0.95	0.0017	8.5	44
0.25	690	60	0.58	1.15	700	57.3	0.51	1.22	0.0021	9.5	44
0.37	690	62.7	0.59	1.57	700	60.5	0.54	1.7	0.0032	13	43
0.55	690	64.9	0.59	2.27	700	61.5	0.55	2.43	0.0043	16	43
0.75	690	72.9	0.61	2.59	700	71.1	0.55	2.78	0.0069	20	46
1.1	700	73.8	0.68	3.38	710	73.1	0.60	3.5	0.0082	23	46
1.5	685	74.0	0.69	4.5	700	74.0	0.62	4.6	0.016	28	52
2.2	715	80.0	0.71	5.9	725	80.0	0.65	5.9	0.038	46	56
3	715	82.0	0.72	7.8	720	82.0	0.66	7.8	0.045	53	56
4	710	83.8	0.71	10.2	720	84.5	0.66	9.9	0.072	75	59
5.5	705	84.0	0.72	13.8	715	85.0	0.68	13.3	0.091	88	59
7.5	710	85.7	0.72	18.6	715	86.6	0.68	17.8	0.131	118	59
11	715	88.2	0.77	24.5	720	89.0	0.75	23.0	0.224	147	59
15	735	91.0	0.83	30	740	91.2	0.79	29	0.45	175	60
18.5	730	91.0	0.79	39	735	91.3	0.76	36	0.61	210	63
22	730	91.4	0.81	45	735	91.5	0.76	44	0.68	225	63
30	735	92.6	0.81	61	740	92.9	0.77	58	1.25	280	63
750 r/min = 8 poles High-output design [2]											
0.18[3]	650	51.4	0.68	0.85	670	50.4	0.61	0.87	0.0012	7.5	39
0.37[3]	670	59.6	0.64	1.55	690	57.3	0.57	1.65	0.0024	11	44
0.75[3]	670	66.8	0.69	2.55	690	66.5	0.61	2.65	0.0048	18	43
1.5[3]	690	73.8	0.70	4.52	700	73.6	0.62	4.7	0.009	26	46
2[1) 3)]	675	73.0	0.71	5.9	690	73.5	0.64	6.0	0.018	33	52
3.8[1)3)]	705	80.0	0.72	10	715	80.5	0.67	9.9	0.049	59	56
8.5[1)3)]	695	81.7	0.73	21.5	705	83.8	0.68	21.0	0.131	118	62
15[3]	715	87.6	0.78	33.5	720	88.3	0.74	32.0	0.240	155	62
18.5	735	91.2	0.83	37	735	91.6	0.79	35	0.54	200	60
30	730	91.7	0.80	62	735	91.9	0.77	61	0.80	255	63
37	735	92.5	0.82	74	735	93.2	0.81	71	1.52	320	63

[1]) Lower than CENELEC +1.
[3]) Temperature rise class F.

Recalculation factors

Recalculation factors for current at rated voltages other than 400 V 50 Hz

Rated voltage at 50 Hz and motor wound for	Recalculation factor
220 V	1.82
230 V	1.74
415 V	0.96
500 V	0.80
660 V	0.61
690 V	0.58