

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		Torque		
						I _N A	I _S I _N	T _N Nm	T _S T _N	T _{max} T _N
3000 r/min = 2 poles										
Basic design										
0.25	63 B	061 001-●	2820	70.6	0.75	0.70	4.0	0.85	2.2	2.7
0.25	63 B ¹⁾	061 002-●	2820	70.6	0.75	0.70	4.0	0.85	2.2	2.7
0.37	71 A	071 001-●	2840	72.7	0.80	0.93	4.5	1.25	2.2	2.7
0.55	71 B	071 002-●	2850	76.1	0.80	1.33	5.0	1.9	2.2	2.7
0.75	80 A	081-001-●	2860	78.8	0.82	1.7	5.0	2.5	2.2	2.7
1.1	80 B	081 002-●	2870	80.1	0.85	2.4	5.5	3.7	2.4	3.0
1.5	90 S	091 001-●	2870	80.1	0.82	3.35	5.5	5.0	2.4	3.0
2.2	90 L	091 002-●	2870	82.8	0.86	4.55	7.0	7.5	2.7	3.4
3	100 L	101 001-●	2900	83.8	0.88	5.95	7.5	10.0	2.7	3.6
4	112 M	111 001-●	2850	86	0.91	7.4	7.5	13.4	2.8	3.0
5.5	132 SA	131 001-●	2855	86	0.88	10.5	7.8	18.4	3.2	3.4
7.5	132 SB	131 002-●	2855	87	0.90	13.9	8.5	25.1	3.4	3.6
11	160 MA	161 101-●	2930	91.2	0.88	20.0	6.3	36	1.9	2.5
15	160 M	161 102-●	2920	91.7	0.90	26.5	6.6	49	2.3	2.5
18.5	160 L	161 103-●	2920	92.4	0.91	32	7.3	60	2.6	2.7
22	180 M	181 101-●	2930	92.8	0.89	38.5	7.2	71	2.5	2.7
30	200 MLA	201 001-●	2955	93.2	0.88	53	7.3	97	2.4	3.1
37	200 MLB	201 002-●	2950	93.6	0.89	64	7.3	120	2.5	3.2
45	225 SMB	221 001-●	2960	93.9	0.88	79	7.3	145	2.5	2.8
55	250 SMA	251 001-●	2970	94.4	0.89	95	7.5	177	2.0	3.0

3000 r/min = 2 poles High-output design ²⁾

0.75 ³⁾	71 C	071 003-●	2820	77.1	0.80	1.75	5.0	2.5	2.2	2.7
1.5 ³⁾	80 C	081 003-●	2840	80.1	0.87	3.15	5.5	5.0	2.3	2.8
2.7 ³⁾⁴⁾	90 LB	091 003-●	2860	80.7	0.86	5.7	7.0	9.0	2.6	3.2
4 ³⁾	100 LB	101 002-●	2900	84.1	0.86	8.1	7.5	13.0	2.7	3.6
5.5 ³⁾	112 MB	111 002-●	2855	86.5	0.93	9.9	7.3	18.4	2.7	2.9
9.2 ³⁾	132 SBB	131 004-●	2840	85.9	0.93	16.6	7.8	31	2.7	3.0
11 ³⁾	132 SC	131 003-●	2835	87.0	0.93	19.6	8.0	37	3.2	3.3
22 ³⁾	160 LB	161 104-●	2920	92.1	0.91	38	7.1	72	2.6	2.6
30 ³⁾	180 LB	181 102-●	2945	93.7	0.89	53	8.3	97	3.1	3.4
45	200 MLC	201 003-●	2950	93.8	0.89	78	7.3	146	2.6	3.3
55	225 SMC	221 002-●	2960	94.3	0.89	95	7.0	177	2.5	2.9
75	250 SMB	251 002-●	2970	95.2	0.90	127	7.3	241	2.1	3.0

¹⁾ Shaft Ø14 mm, large flange F 130.

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.

⁴⁾ Lower than CENELEC +1.

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

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

¹⁾ On request.

380 V 50 Hz

415 V 50 Hz

Output kW	Speed r/min	Efficiency %	Power factor cos φ	Current I _N A	Speed r/min	Efficiency %	Power factor cos φ	Current I _N A	Moment of inertia J = 1/4 GD ² kgm ²	Weight Foot-mounted motor kg	Sound pressure level L _p dB(A)
3000 r/min = 2 poles					Basic design						
0.25	2790	70.7	0.79	0.70	2830	69.7	0.69	0.72	0.00018	4.5	48
0.25	2790	70.7	0.79	0.70	2830	69.7	0.69	0.72	0.00018	4.5	48
0.37	2830	72.5	0.84	0.93	2860	72.4	0.77	0.95	0.0004	5.5	55
0.55	2830	76	0.84	1.32	2870	75.3	0.75	1.37	0.0005	6.5	55
0.75	2840	77.9	0.85	1.73	2880	78.6	0.8	1.7	0.0009	9	58
1.1	2850	79.3	0.88	2.43	2890	80.1	0.81	2.42	0.0011	10	58
1.5	2850	79.7	0.88	3.40	2890	79.8	0.79	3.4	0.0019	13	63
2.2	2850	81.8	0.89	4.70	2890	82.9	0.82	4.57	0.0024	16	63
3	2890	82.9	0.90	6.2	2910	84.1	0.85	5.95	0.0041	21	68
4	2830	85.0	0.92	7.80	2865	86.5	0.90	7.2	0.010	25	63
5.5	2835	85.0	0.90	10.9	2870	86.5	0.87	10.2	0.014	37	69
7.5	2835	86.0	0.91	14.7	2870	87.5	0.88	13.6	0.016	42	69
11	2915	90.8	0.89	20.5	2935	91.3	0.86	19.4	0.039	73	69
15	2905	91.2	0.90	27.5	2925	92.0	0.89	25.5	0.047	84	69
18.5	2910	92.0	0.91	33.5	2930	92.6	0.90	31	0.053	94	69
22	2930	92.4	0.90	40.5	2945	93.0	0.88	37.5	0.077	119	69
30	2955	93.1	0.89	55	2960	93.3	0.86	52	0.15	175	72
37	2950	93.4	0.89	68	2955	93.7	0.87	63	0.18	200	72
45	2955	93.7	0.89	82	2965	93.9	0.87	77	0.26	235	74
55	2960	94.3	0.89	100	2970	94.5	0.88	92	0.49	285	75

3000 r/min = 2 poles **High-output design ²⁾**

0.75³⁾	2800	76.8	0.85	1.8	2840	77.7	0.77	1.8	0.0006	7.5	55
1.5³⁾	2820	78.6	0.88	3.3	2860	80.6	0.84	3.15	0.0013	11	58
2.7³⁾⁴⁾	2840	80.2	0.89	5.8	2870	80.6	0.83	5.7	0.0027	18	63
4³⁾	2890	83.9	0.88	8.3	2910	85.8	0.84	7.8	0.005	25	68
5.5³⁾	2835	85.5	0.93	10.5	2865	87.5	0.92	9.5	0.012	33	63
9.2³⁾									0.019	50	
11³⁾	2815	86.5	0.92	21	2845	88.0	0.92	18.9	0.022	56	69
22³⁾	2910	91.6	0.91	40	2925	92.4	0.90	37	0.058	100	69
30³⁾	2940	93.5	0.90	55	2950	93.8	0.87	52	0.092	137	70
45	2935	93.5	0.89	82	2955	93.8	0.88	76	0.19	205	72
55	2950	94.2	0.89	100	2965	94.3	0.88	92	0.29	260	74
75	2965	95.0	0.90	134	2970	95.3	0.89	123	0.57	330	75

³⁾ Temperature rise class F.

⁴⁾ Lower than CENELEC +1.

Recalculation factors

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

Rated voltage at 50 Hz and motor wound for

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