General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type	Product code	Speed r/min	Effi-ciency %	Power factor cos φ	Current I_N A	Current I_s/I_N	Torque T_N Nm	Torque T_s/T_N	Torque T_{max}/T_N	Moment of inertia J=1/4 GD² kgm²	Weight kg
3000/1500 r/min = 2/4 poles			**400 V 50 Hz**								**Fan drive, two separate windings**	
0.65/0.14	**M3VA 80 A**	3GVA 087 121-••B	2860/1450	73.0/57.0	0.85/0.57	1.5/0.58	4.8/3.6	2.18/0.93	1.9/2.0	2.2/2.3	0.0008	9
0.95/0.2	**M3VA 80 B**	3GVA 087 122-••B	2850/1440	75.0/61.0	0.87/0.69	2.1/0.7	5/3.7	3.19/1.33	2.0/1.8	2.2/2.2	0.0009	11
1.1/0.25	**M3VA 80 C**	3GVA 087 123-••B	2860/1440	77.0/63.0	0.87/0.70	2.4/0.85	5.3/3.8	3.7/1.7	2.0/1.8	2.2/2.0	0.0012	12
1.4/0.22	**M3AA 90 S**	3GAA 098 201-••E	2870/1470	77.0/48.0	0.87/0.63	3.0/1.1	5.3/3.3	4.6/1.4	1.7/1.0	2.4/2.3	0.0019	13
1.9/0.3	**M3AA 90 L**	3GAA 098 202-••E	2880/1470	78.0/53.0	0.87/0.68	4.0/1.1	5.8/3.7	6.3/1.9	1.9/1.0	2.5/2.3	0.0024	16
2.5/0.4	**M3AA 100 L**	3GAA 108 201-••E	2900/1470	80.0/60.0	0.87/0.67	5.2/1.5	6.5/4.1	8.2/2.6	2.1/1.0	3.0/2.7	0.0041	21
3.5/0.6	**M3AA 112 M**	3GAA 118 204-••C	2895/1470	83.0/68.0	0.92/0.60	6.6/2.1	7/5.8	11.5/3.9	1.7/1.8	2.3/2.8	0.012	32
5.5/1	**M3AA 132 S**	3GAA 138 207-••C	2900/1470	84.0/64.0	0.88/0.65	10.8/3.5	7.8/5.7	18.1/6.5	2.4/2.0	2.9/2.8	0.016	42
7.4/1.2	**M3AA 132 M**	3GAA 138 208-••C	2875/1475	85.0/67.0	0.93/0.64	13.5/4.1	7.5/5.9	24.6/7.8	2.1/2.0	2.6/2.8	0.022	56
13/1.9	**M3AA 160 M**	3GAA 168 352-••C	2940/1470	88.5/79.5	0.92/0.79	23/4.4	7.8/6.4	42/12	2.1/2.1	3.0/2.5	0.054	92
17.5/2.5	**M3AA 160 L**	3GAA 168 353-••C	2925/1475	89.0/81.0	0.92/0.77	31/5.8	7.1/6.7	57/16	2.0/2.5	2.6/2.9	0.057	99
20/2.8	**M3AA 180 M**	3GAA 188 357-••C	2930/1465	89.0/77.0	0.90/0.77	36/6.9	6.4/5.8	65/18	2.1/1.9	2.4/2.0	0.094	132
25/3.6	**M3AA 180 L**	3GAA 188 358-••C	2940/1465	90.0/78.0	0.88/0.78	46/8.6	7.5/7.3	81/24	2.6/1.9	2.9/1.9	0.108	152
30/4.1	**M3AA 200 MLA**	3GAA 208 210-••C	2945/1480	91.5/85.0	0.89/0.72	54/10	8/7.1	97/26	2.2/2.7	2.8/2.8	0.15	175
38/5.5	**M3AA 200 MLB**	3GAA 208 211-••C	2945/1480	92.5/86.5	0.91/0.74	67/13	7.7/6.8	123/35	2.2/2.6	2.6/2.6	0.19	205
43/6	**M3AA 225 SMB**	3GAA 228 207-••C	2950/1475	92.5/86.5	0.90/0.78	75/13	7.1/5.8	139/39	2.3/2.7	2.4/2.0	0.26	235
50/7	**M3AA 225 SMC**	3GAA 228 208-••C	2955/1480	93.0/87.5	0.91/0.78	86/15	7.3/6.1	162/45	2.4/2.9	2.4/2.1	0.29	260
70/10	**M3AA 250 SMB**	3GAA 258 204-••C	2965/1485	94.0/89.5	0.90/0.76	119/22	9.3/7.1	225/64	2.3/2.5	3.1/2.3	0.57	330
3000/1500 r/min = 2-4 poles			**400 V 50 Hz**								**Fan drive, Dahlander-Connection**	
0.22/0.044	**M3VA 63 A**	3GVA 068 121-••A	2770/1420	65.0/50.0	0.76/0.65	0.65/0.2	3.6/3.5	0.75/0.29	2.1/2.4	2.2/2.5	0.00019	4
0.33/0.07	**M3VA 63 B**	3GVA 068 122-••A	2700/1380	53.0/45.0	0.82/0.77	1.1/0.3	2.7/2.7	1.17/0.49	1.6/2.0	1.7/2.1	0.00026	4.5
0.37/0.08	**M3VA 71 A**	3GVA 078 121-••C	2690/1460	64.0/42.0	0.92/0.47	0.9/0.6	3.3/4.3	1.31/0.52	1.8/2.1	1.9/2.2	0.00066	5.5
0.55/0.12	**M3VA 71 B**	3GVA 078 122-••C	2700/1470	67.0/55.0	0.91/0.42	1.3/0.75	3.8/3.4	1.94/0.78	1.4/2.2	1.5/2.2	0.00089	6.5
0.65/0.13	**M3VA 71 C**	3GVA 078 123-••C	2800/1400	69.0/50.0	0.85/0.44	1.6/0.85	4.1/3.5	2.2/0.88	1.5/2.3	1.6/2.4	0.0011	7
0.85/0.2	**M3VA 80 A**	3GVA 088 121-••B	2850/1440	77.0/65.0	0.85/0.64	1.9/0.7	5.0/4.1	2.86/1.33	2.1/2.3	2.3/2.6	0.0008	9
1.1/0.25	**M3VA 80 B**	3GVA 088 122-••B	2855/1450	79.0/68.0	0.84/0.63	2.4/0.85	5.3/4.2	3.7/1.65	2.3/2.5	2.5/2.7	0.0009	11
1.4/0.35	**M3VA 80 C**	3GVA 088 123-••B	2845/1440	79.0/70.0	0.85/0.67	3.0/1.1	5.4/4.4	4.7/2.32	2.3/2.4	2.4/2.6	0.0012	11
1.5/0.33	**M3AA 90 S**	3GAA 098 101-••E	2860/1460	77.0/66.0	0.87/0.67	3.3/1.1	5.2/3.9	5.0/2.1	1.8/1.1	2.4/2.1	0.0019	13
2.2/0.45	**M3AA 90 L**	3GAA 098 102-••E	2860/1460	80.0/73.0	0.88/0.65	4.6/1.4	5.9/4.4	7.3/2.9	2.1/1.2	2.6/2.3	0.0024	16
2.5/0.47	**M3AA 90 LB**	3GAA 098 103-••E	2860/1460	78.0/75.0	0.88/0.62	5.2/1.5	6.1/4.5	8.3/3.1	2.2/1.4	2.5/2.3	0.0027	18
3/0.6	**M3AA 100 L**	3GAA 108 101-••E	2880/1470	81.0/74.0	0.89/0.61	6.2/1.9	6.3/4.8	9.9/3.9	2.2/1.4	2.8/2.8	0.0041	21
4.5/1	**M3AA 112 M**	3GAA 118 104-••C	2875/1450	83.0/80.0	0.93/0.76	8.4/2.4	7.0/6.0	14.9/6.6	1.8/1.9	2.3/2.8	0.012	32
6.2/1.3	**M3AA 132 S**	3GAA 138 127-••C	2880/1455	84.0/80.0	0.91/0.67	11.8/3.5	7.0/6.5	20.6/8.5	2.0/2.6	2.6/3.3	0.016	42
8.3/1.7	**M3AA 132 M**	3GAA 138 108-••C	2875/1455	84.0/82.0	0.93/0.71	15.4/4.2	7.4/6.6	27.6/11.2	2.5/2.7	2.7/3.3	0.022	56
10/2	**M3AA 160 MA**	3GAA 168 301-••C	2910/1465	85.0/83.5	0.89/0.73	19/4.8	5.9/6.1	30/43	1.5/2.4	2.3/2.8	0.039	73
16/3.2	**M3AA 160 M**	3GAA 168 302-••C	2915/1465	87.5/86.5	0.92/0.76	28.5/7	6.6/6.3	52/21	1.8/2.5	2.4/2.8	0.054	92
19.5/4.5	**M3AA 160 L**	3GAA 168 303-••C	2930/1465	89.0/88.0	0.89/0.77	36/9.7	7.6/6.4	64/29	2.3/2.5	2.9/2.8	0.057	99
21.5/4.7	**M3AA 180 M**	3GAA 188 305-••C	2935/1465	90.0/88.0	0.91/0.77	38/10	7.0/5.3	70/28	2.1/2.1	2.6/2.3	0.094	132
26/5.2	**M3AA 180 L**	3GAA 188 306-••C	2940/1470	90.5/89.5	0.89/0.75	47/11	6.9/5.8	85/34	2.3/2.4	2.6/2.4	0.108	152
32/8	**M3AA 200 MLA**	3GAA 208 110-••C	2940/1465	90.0/89.5	0.89/0.85	58/16	7.1/6.2	104/52	2.0/2.0	2.5/2.2	0.28	180
39/10	**M3AA 200 MLB**	3GAA 208 111-••C	2950/1475	91.5/91.0	0.89/0.85	69/19	7.4/6.2	126/65	2.0/2.0	2.6/2.3	0.34	205
42/11	**M3AA 200 MLC**	3GAA 208 112-••C	2950/1470	92.5/91.0	0.89/0.77	75/23	7.7/5.6	136/71	2.2/2.1	3.0/2.5	0.19	205
45/13	**M3AA 225 SMB**	3GAA 228 107-••C	2955/1475	93.0/91.5	0.92/0.82	76/25	7.4/5.3	145/84	2.0/2.0	2.6/2.1	0.27	235
55/15	**M3AA 225 SMC**	3GAA 228 108-••C	2955/1475	93.5/92.5	0.91/0.82	94/29	7.3/5.4	178/97	2.0/2.0	2.6/2.2	0.3	260
75/25	**M3AA 250 SMB**	3GAA 258 104-••C	2965/1475	94.5/93.0	0.92/0.82	125/48	8.9/5.5	241/162	2.3/2.0	3.1/2.2	0.36	330

Data for motor size 280 on request.

The bullets in the product code indicate choice of mounting arrangement, voltage and frequency, generation code (see ordering information page).

General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type		Product code		Speed r/min	Efficiency %	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 $\frac{T_{max}}{T_N}$	Moment of inertia J=1/4 GD² kgm²	Weight kg
1500/750 r/min = 4/8 poles					**400 V 50 Hz**									**Fan drive, two separate windings**
0.18/0.025	**M3VA**	**71 A**	3GVA	077 241-••C	1420/710	50.0/26.0	0.76/0.60	0.7/0.35	2.7/2.1	1.22/0.34	1.5/3.9	1.9/3.9	0.00066	5.5
0.3/0.05	**M3VA**	**71 B**	3GVA	077 242-••C	1400/700	54.0/34.0	0.80/0.60	1/0.45	2.7/2.1	2.1/0.69	1.5/2.8	1.7/2.8	0.00089	6.5
0.48/0.075	**M3VA**	**80 A**	3GVA	087 241-••B	1400/710	64.0/35.0	0.79/0.51	1.4/0.55	3.4/2.4	3.3/1	1.7/2.2	1.7/2.6	0.0013	9
0.63/0.1	**M3VA**	**80 B**	3GVA	087 242-••B	1400/710	68.0/40.0	0.81/0.50	1.65/0.75	3.7/2.5	4.4/1.35	1.8/2.3	1.8/2.6	0.0016	11
0.73/0.12	**M3VA**	**80 C**	3GVA	087 243-••B	1400/710	70.0/42.0	0.80/0.50	1.9/0.85	4.1/2.6	5/1.7	2.0/2.3	2.0/2.5	0.002	12
1/0.13	**M3AA**	**90 S**	3GAA	098 207-••E	1400/700	71.0/38.0	0.83/0.70	2.6/0.72	3.9/2.1	6.8/1.8	1.5/1.0	2.0/1.7	0.0032	13
1.4/0.18	**M3AA**	**90 L**	3GAA	098 208-••E	1420/710	74.0/41.0	0.81/0.60	3.5/1.1	4.5/2.3	9.4/2.4	1.7/1.1	2.3/2.1	0.0043	16
1.85/0.25	**M3AA**	**100 LA**	3GAA	108 206-••E	1430/720	78.0/45.0	0.84/0.60	4.2/1.4	4.9/2.5	12/3.3	1.7/1.1	2.3/2.1	0.0069	20
2.3/0.33	**M3AA**	**100 LB**	3GAA	108 207-••E	1430/720	80.0/49.0	0.86/0.60	5/1.6	5.2/2.6	15/4.3	1.8/1.1	2.4/2.2	0.0082	23
3/0.4	**M3AA**	**112 M**	3GAA	118 206-••C	1440/730	81.0/51.0	0.87/0.58	6.2/2	6.8/3.8	19.9/5.2	1.5/1.6	2.4/2.6	0.018	32
4/0.6	**M3AA**	**132 S**	3GAA	138 231-••C	1465/740	84.0/51.0	0.84/0.53	8.2/3.2	6.5/3.5	26.1/7.7	1.5/1.1	2.4/2.5	0.038	48
5.5/0.9	**M3AA**	**132 M**	3GAA	138 232-••C	1455/735	84.0/53.0	0.87/0.64	10.9/3.9	6.2/3.1	36.1/11.7	1.5/1.1	2.2/2.0	0.048	59
9/1.3	**M3AA**	**160 M**	3GAA	168 356-••C	1460/735	87.0/60.0	0.84/0.53	18/5.9	6.6/4	59/17	2.0/2.2	2.5/2.7	0.089	92
13/1.8	**M3AA**	**160 L**	3GAA	168 357-••C	1455/735	88.0/64.0	0.85/0.53	26/8.2	6/4.1	89/26	1.9/2.2	2.3/2.6	0.119	117
16/2.3	**M3AA**	**180 M**	3GAA	188 361-••C	1475/740	88.5/64.0	0.82/0.53	32/9.7	6.8/4.1	104/30	2.2/2.2	2.7/2.6	0.176	130
19/2.7	**M3AA**	**180 L**	3GAA	188 362-••C	1475/740	89.5/68.0	0.83/0.54	37/10.5	7.5/7.2	123/35	2.6/2.6	2.9/2.6	0.224	159
26/3.3	**M3AA**	**200 MLA**	3GAA	208 216-••C	1475/740	91.0/73.0	0.85/0.59	49/11	6.9/4.6	168/46	2.1/2.2	2.5/2.3	0.28	180
30/3.8	**M3AA**	**200 MLB**	3GAA	208 217-••C	1470/740	91.5/75.5	0.86/0.59	55/12.5	6.7/4.6	195/49	2.1/2.2	2.4/2.2	0.34	205
38/5.2	**M3AA**	**225 SMB**	3GAA	228 211-••C	1480/740	91.5/80.5	0.84/0.63	72/15	7.3/5.2	245/67	2.1/2.3	2.6/2.3	0.41	230
46/7	**M3AA**	**225 SMC**	3GAA	228 212-••C	1480/740	92.5/82.0	0.86/0.66	85/19	7.7/4.9	297/90	2.3/2.1	2.7/2.1	0.49	265
63/10	**M3AA**	**250 SMB**	3GAA	258 206-••C	1475/740	93.5/83.0	0.89/0.65	110/27	7.5/6	408/129	2.4/3.0	2.7/2.7	0.89	335
1500/750 r/min = 4-8 poles					**400 V 50 Hz**									**Fan drive, Dahlander-Connection**
0.18/0.037	**M3VA**	**71 A**	3GVA	078 241-••C	1380/720	58.0/17.0	0.74/0.50	0.6/0.7	3.5/1.7	1.24/0.49	1.7/1.7	1.8/1.8	0.00066	5.5
0.37/0.09	**M3VA**	**71 B**	3GVA	078 242-••C	1360/700	58.0/19.0	0.84/0.52	1.1/1.2	3.1/1.7	2.6/1.2	1.3/1.8	1.4/1.9	0.00089	6.5
0.45/0.1	**M3VA**	**71 C**	3GVA	078 243-••C	1390/685	60.0/24.0	0.78/0.51	1.4/1.2	3.5/2.6	3.1/1.4	1.7/1.3	1.8/1.4	0.0011	7
0.55/0.13	**M3VA**	**80 A**	3GVA	088 241-••B	1410/680	64.0/50.0	0.70/0.60	1.8/0.65	3.8/2.4	3.74/1.83	2.2/1.6	2.2/1.6	0.0013	9
0.75/0.17	**M3VA**	**80 B**	3GVA	088 242-••B	1400/675	67.0/53.0	0.75/0.62	2.15/0.75	4.0/2.4	5.13/2.41	2.0/1.4	2.0/1.4	0.0016	10
0.9/0.2	**M3VA**	**80 C**	3GVA	088 243-••B	1400/680	70.0/56.0	0.76/0.62	2.45/0.85	4.3/2.5	6.15/2.82	2.3/1.5	2.3/2.5	0.002	11
1.1/0.26	**M3AA**	**90 S**	3GAA	098 104-••E	1410/700	73.0/53.0	0.80/0.63	2.8/1.2	4.2/2.4	7.4/3.6	1.8/1.2	2.3/1.9	0.0032	13
1.7/0.35	**M3AA**	**90 L**	3GAA	098 105-••E	1390/700	74.0/57.0	0.82/0.57	4/1.6	4.5/2.5	10.3/4.7	2.2/1.5	2.6/2.1	0.0043	16
1.8/0.35	**M3AA**	**90 LB**	3GAA	098 106-••E	1400/710	76.0/60.0	0.83/0.56	4.2/1.5	4.3/2.7	12/4.8	1.9/1.6	2.3/2.3	0.0048	18
2.3/0.5	**M3AA**	**100 LA**	3GAA	108 103-••E	1415/715	76.0/63.0	0.84/0.60	5.2/1.9	4.6/2.7	15.5/6.7	1.8/1.2	2.4/1.9	0.0069	20
2.8/0.6	**M3AA**	**100 LB**	3GAA	108 104-••E	1430/720	81.0/68.0	0.82/0.58	6.4/2.2	5.2/3.0	18/8	2.0/1.2	2.6/2.2	0.0082	23
3/0.65	**M3AA**	**100 LC**	3GAA	108 105-••E	1430/720	81.0/67.0	0.81/0.56	6.8/2.5	5.6/3.0	20/8.7	2.2/1.3	2.8/2.3	0.009	26
3.5/0.7	**M3AA**	**112 M**	3GAA	118 126-••C	1430/720	81.0/71.0	0.89/0.58	7/2.5	6.8/4.4	23.4/9.3	1.6/1.7	2.5/2.7	0.018	32
5/1	**M3AA**	**132 S**	3GAA	138 131-••C	1450/725	83.0/74.0	0.87/0.59	9.9/3.3	6.4/3.6	32.9/13.2	1.5/1.0	2.3/2.0	0.038	48
6.8/1.4	**M3AA**	**132 M**	3GAA	138 132-••C	1460/730	85.0/73.0	0.84/0.55	13.7/5.1	7.6/3.6	44.5/18.3	2.0/1.4	2.8/2.7	0.048	59
10.5/2.2	**M3AA**	**160 M**	3GAA	168 304-••C	1460/735	87.5/79.0	0.84/0.54	21/7.4	6.9/3.7	69/29	2.2/1.5	2.7/2.3	0.089	94
15.5/2.7	**M3AA**	**160 L**	3GAA	168 305-••C	1460/735	88.5/79.5	0.85/0.51	30/9.5	6.9/3.9	101/35	2.2/1.7	2.6/2.6	0.119	117
17/3.4	**M3AA**	**180 M**	3GAA	188 307-••C	1470/730	88.5/78.0	0.85/0.56	33/11	5.8/4.3	111/44	1.7/1.2	2.3/1.9	0.176	137
22/4.4	**M3AA**	**180 L**	3GAA	188 308-••C	1475/735	89.5/79.0	0.83/0.53	43/15	6.7/3.9	143/57	2.0/1.7	2.6/2.3	0.224	161
29/6.5	**M3AA**	**200 MLA**	3GAA	208 116-••C	1470/730	90.5/86.0	0.86/0.64	54/17	6.9/4.2	188/81	2.2/1.9	2.4/1.9	0.28	180
33/8	**M3AA**	**200 MLB**	3GAA	208 117-••C	1475/730	91.5/86.5	0.86/0.64	61/21	7.8/4.2	214/105	2.6/1.9	2.6/1.8	0.34	205
42/10	**M3AA**	**225 SMB**	3GAA	228 111-••C	1480/740	92.0/89.5	0.86/0.64	85/27	7.8/5.0	271/129	2.5/2.2	3.0/2.3	0.49	265
50/11	**M3AA**	**225 SMC**	3GAA	228 112-••C	1465/735	92.5/89.5	0.87/0.65	91/28	7.3/4.7	324/143	2.3/2.0	2.5/2.0	0.49	265
60/15	**M3AA**	**250 SMB**	3GAA	258 106-••C	1475/735	93.0/90.0	0.86/0.70	104/34	7.9/4.7	388/195	2.6/2.1	2.7/2.0	0.89	335

General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type	Product code	Speed r/min	Effi-ciency %	Power factor cos φ	Current I_N A	Current I_s/I_N	Torque T_N Nm	Torque T_s/T_N	Torque T_{max}/T_N	Moment of inertia J=1/4 GD² kgm²	Weight kg
1500/1000 r/min = 4/6 poles			**400 V 50 Hz**								**Fan drive, two separate windings**	
0.18/0.05	**M3VA 71 A**	3GVA 077 231-••C	1400/900	56.0/27.0	0.76/0.79	0.6/0.4	3.0/2.1	1.22/0.53	1.1/1.1	1.2/1.2	0.00066	5.5
0.3/0.1	**M3VA 71 B**	3GVA 077 232-••C	1350/900	54.0/30.0	0.86/0.79	0.9/0.6	2.8/2.0	2.1/1.06	1.0/1.1	1.1/1.1	0.00089	6.5
0.5/0.19	**M3VA 80 A**	3GVA 087 231-••B	1370/930	60.0/53.0	0.84/0.77	1.4/0.7	2.9/3.1	3.5/1.96	1.4/1.5	1.4/1.5	0.0019	9
0.66/0.25	**M3VA 80 B**	3GVA 087 232-••B	1390/935	63.0/59.0	0.85/0.78	1.75/0.8	3.3/3.3	4.55/2.56	1.6/1.5	1.6/1.6	0.0022	10
0.78/0.3	**M3VA 80 C**	3GVA 087 233-••B	1400/940	66.0/60.0	0.84/0.73	2/1	3.6/3.8	5.33/3.06	1.8/1.9	1.8/2.1	0.0025	10
1/0.3	**M3AA 90 S**	3GAA 098 204-••E	1400/940	73.0/53.0	0.83/0.70	2.5/1.2	4.2/2.6	6.8/3	1.8/1.0	2.2/1.7	0.0032	13
1.5/0.45	**M3AA 90 L**	3GAA 098 205-••E	1400/930	72.0/52.0	0.84/0.73	3.5/1.6	4.3/2.9	10/4.5	1.7/1.0	2.1/1.8	0.0043	16
2/0.6	**M3AA 100 LA**	3GAA 108 203-••E	1430/960	77.0/62.0	0.85/0.72	4.5/2	5.0/3.3	13/5.9	1.8/1.0	2.4/1.9	0.0069	20
2.5/0.8	**M3AA 100 LB**	3GAA 108 204-••E	1430/960	79.0/68.0	0.84/0.71	5.5/2.5	5.6/3.5	16/7.9	2.0/1.1	2.5/2.0	0.0082	23
3/1	**M3AA 112 M**	3GAA 118 205-••C	1445/975	82.0/67.0	0.84/0.68	6.3/3.1	6.0/4.0	19.8/9.8	1.3/1.0	2.3/2.2	0.018	33
4.5/1.5	**M3AA 132 S**	3GAA 138 229-••C	1460/985	83.0/67.0	0.85/0.64	9.2/5.1	6.5/4.2	29.4/14.5	1.5/1.0	2.3/2.2	0.038	48
6/2	**M3AA 132 M**	3GAA 138 230-••C	1460/980	84.0/71.0	0.86/0.73	12/5.6	7.1/4.5	39.2/19.5	1.8/1.3	2.5/2.0	0.048	59
10.5/3.5	**M3AA 160 M**	3GAA 168 354-••C	1460/965	87.0/75.5	0.84/0.78	21/8.6	6.4/4.1	69/35	2.0/1.3	2.5/1.7	0.089	93
14.5/4.5	**M3AA 160 L**	3GAA 168 355-••C	1460/970	88.5/77.0	0.85/0.76	28/11	6.9/4.6	95/44	2.2/1.5	2.6/1.9	0.119	117
16/5	**M3AA 180 M**	3GAA 188 359-••C	1470/980	89.0/78.0	0.83/0.73	31/12.5	6.3/4.6	104/49	1.9/1.5	2.5/2.0	0.176	131
20/6.5	**M3AA 180 L**	3GAA 188 360-••C	1470/980	90.0/79.5	0.83/0.74	39/16	7.2/5.0	130/63	2.4/1.8	2.7/2.0	0.224	159
23/7.2	**M3AA 200 MLA**	3GAA 208 213-••C	1475/985	89.5/84.0	0.88/0.87	43/15	7.7/7.8	149/70	1.6/1.9	2.8/2.9	0.44	175
30/9	**M3AA 200 MLB**	3GAA 208 214-••C	1470/990	90.0/86.6	0.90/0.84	54/18.2	7.7/9.5	195/87	1.6/1.7	2.7/2.9	0.53	200
34/11	**M3AA 225 SMB**	3GAA 228 209-••C	1470/985	91.0/85.0	0.91/0.89	60/21	7.7/6.7	221/107	1.5/1.3	2.7/2.3	0.67	225
42/14	**M3AA 225 SMC**	3GAA 228 210-••C	1475/985	91.5/89.0	0.89/0.89	75/27	8.4/6.8	272/136	1.7/1.4	3.0/2.3	0.78	255
63/18.5	**M3AA 250 SMB**	3GAA 258 205-••C	1475/985	93.5/87.0	0.89/0.79	110/40	7.5/7.3	408/179	2.4/3.0	2.7/2.6	0.89	335
1000/750 r/min = 6/8 poles			**400 V 50 Hz**								**Fan drive, two separate windings**	
0.25/0.1	**M3VA 80 A**	3GVA 087 341-••B	945/725	57.0/41.0	0.68/0.55	0.95/0.65	3.2/2.8	2.6/1.32	2.0/2.4	2.2/2.9	0.0019	9
0.33/0.14	**M3VA 80 B**	3GVA 087 342-••B	940/720	62.0/46.0	0.74/0.56	1.05/0.8	3.4/3.1	3.36/1.86	1.9/2.5	1.9/3.0	0.0022	10
0.45/0.2	**M3AA 90 S**	3GAA 098 210-••E	940/700	59.0/44.0	0.72/0.67	1.6/1	3.1/2.2	4.6/2.7	1.4/1.0	2.0/1.7	0.0032	13
0.7/0.3	**M3AA 90 L**	3GAA 098 211-••E	930/690	63.0/45.0	0.75/0.64	2.2/1.5	3.1/2.3	7.2/4.1	1.3/1.1	1.8/1.8	0.0043	16
0.9/0.4	**M3AA 100 LA**	3GAA 108 209-••E	950/720	68.0/55.0	0.77/0.61	2.5/1.8	3.4/2.7	9.1/5.3	1.2/1.1	1.8/1.8	0.0069	20
1.2/0.5	**M3AA 100 LB**	3GAA 108 210-••E	950/710	71.0/57.0	0.71/0.61	3.5/2.1	3.7/2.9	12/6.6	1.3/1.2	2.0/2.0	0.0082	23
17/7.5	**M3AA 200 MLB**	3GAA 208 221-••C	985/740	88.0/81.5	0.85/0.77	33/17	7.1/6.4	165/97	2.2/2.2	2.5/2.5	0.42	185
20/9	**M3AA 200 MLC**	3GAA 208 222-••C	985/740	88.5/82.5	0.84/0.74	39/21	7.6/7.0	194/116	2.4/2.6	2.7/2.9	0.48	200
26/12	**M3AA 225 SMB**	3GAA 228 215-••C	985/740	89.5/84.5	0.85/0.76	49/27	7.4/7.1	252/155	2.2/2.4	2.5/2.7	0.63	225
32/14	**M3AA 225 SMC**	3GAA 228 216-••C	985/740	90.5/85.5	0.83/0.76	62/31	7.0/7.2	310/180	2.4/2.5	2.4/2.5	0.74	250
43/15	**M3AA 250 SMB**	3GAA 258 208-••C	990/745	91.0/86.0	0.84/0.75	81/34	7.3/7.4	415/198	2.2/2.7	2.5/2.8	1.41	320
1000/500 r/min = 6-12 poles			**400 V 50 Hz**								**Fan drive, Dahlander-Connection**	
0.4/0.08	**M3VA 80 A**	3GVA 088 361-••B	900/460	62.0/30.0	0.78/0.56	1.2/0.7	3.1/1.9	4.26/1.67	1.6/1.6	1.6/1.7	0.0019	9
0.5/0.105	**M3VA 80 B**	3GVA 088 362-••B	915/465	66.0/31.0	0.75/0.52	1.45/0.95	3.7/2.0	5.23/2.16	1.9/1.9	2.0/2.0	0.0022	10
0.5/0.08	**M3AA 90 S**	3GAA 098 107-••E	920/440	60.0/31.0	0.74/0.59	1.7/0.63	2.9/1.7	5.2/1.7	1.2/1.4	1.8/2.0	0.0032	13
0.6/0.12	**M3VA 80 C**	3GVA 088 363-••B	920/470	68.0/32.0	0.74/0.50	1.75/1.05	3.8/2.1	6.24/2.45	2.0/2.0	2.0/2.0	0.0025	11
0.75/0.12	**M3AA 90 L**	3GAA 098 108-••E	930/450	64.0/36.0	0.73/0.54	2.4/0.9	3.0/1.8	7.7/2.5	1.3/1.6	1.9/1.9	0.0043	16
0.9/0.16	**M3AA 100 LA**	3GAA 108 106-••E	940/470	69.0/45.0	0.73/0.49	2.6/0.96	3.6/2.1	9/3.2	1.3/1.2	2.0/1.8	0.0069	20
1.3/0.2	**M3AA 100 LB**	3GAA 108 107-••E	940/460	71.0/52.0	0.76/0.47	3.5/1.2	3.4/2.2	13/4	1.2/1.0	1.8/1.5	0.0082	23

Data for other sizes on request.

The bullets in the product code indicate choice of mounting arrangement, voltage and frequency, generation code (see ordering information page).

General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type		Product code	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 $\frac{T_{max}}{T_N}$	Moment of inertia J=1/4 GD² kgm²	Weight kg
3000/1500 r/min = 2/4 poles				**400 V 50 Hz**								**Constant torque, two separate windings**	
0.58/0.28	**M3VA**	**80 A**	3GVA 089 121-••B	2850/1400	70.0/60.0	0.88/0.78	1.35/0.85	4.4/3.1	1.95/1.92	1.6/1.5	1.9/1.5	0.0008	9
0.7/0.36	**M3VA**	**80 B**	3GVA 089 122-••B	2860/1400	74.0/64.0	0.88/0.78	1.55/1.05	5.0/3.4	2.35/2.46	1.8/1.6	2.2/1.8	0.0009	11
0.85/0.42	**M3VA**	**80 C**	3GVA 089 123-••B	2890/1410	76.0/66.0	0.87/0.76	1.85/1.25	5.6/3.5	2.82/2.85	1.9/1.7	2.5/1.7	0.0012	12
1.1/0.55	**M3AA**	**90 S**	3GAA 098 213-••E	2900/1450	74.0/62.0	0.85/0.64	2.5/2	5.1/3.6	3.6/3.6	1.4/1.5	2.3/2.3	0.0019	13
1.5/0.75	**M3AA**	**90 L**	3GAA 098 214-••E	2900/1450	77.0/70.0	0.87/0.67	3.3/2.4	5.7/4.1	4.9/4.9	1.5/1.5	2.5/2.3	0.0024	16
2/1	**M3AA**	**100 L**	3GAA 108 212-••E	2900/1460	76.0/67.0	0.89/0.66	4.3/3.3	6.2/4.0	6.5/6.5	1.9/1.4	2.8/2.6	0.0041	21
2.6/1.3	**M3AA**	**112 M**	3GAA 118 201-••C	2900/1460	80.0/75.0	0.92/0.72	5.1/3.5	6.4/5.0	8.6/8.5	1.6/1.6	2.3/2.3	0.012	32
4.4/2.2	**M3AA**	**132 SB**	3GAA 138 201-••C	2925/1450	81.0/74.0	0.86/0.73	9.1/5.9	7.3/4.4	14.4/14.5	2.0/1.3	2.3/2.2	0.016	42
5.6/2.8	**M3AA**	**132 M**	3GAA 138 202-••C	2885/1440	82.0/77.0	0.93/0.75	10.6/7	6.7/5.0	18.5/18.6	1.8/1.4	2.1/2.2	0.022	56
12/6	**M3AA**	**160 M**	3GAA 168 359-••C	2835/1460	87.5/84.5	0.92/0.80	22/13	7.7/6.0	39/39	2.1/2.3	2.8/2.4	0.054	92
15/7.5	**M3AA**	**160 L**	3GAA 168 360-••C	2940/1460	88.5/84.5	0.93/0.78	27/16.5	7.9/6.0	49/49	2.2/2.4	2.9/2.4	0.057	99
18/9	**M3AA**	**180 L**	3GAA 188 352-••C	2945/1460	89.0/84.0	0.90/0.77	32/20	7.7/5.2	58/59	2.5/2.3	2.8/2.1	0.108	152
23/12	**M3AA**	**200 MLA**	3GAA 208 201-••C	2960/1475	90.0/89.0	0.89/0.85	42/23	7.8/7.4	74/77	1.7/2.2	2.8/2.5	0.28	178
30/16	**M3AA**	**200 MLB**	3GAA 208 202-••C	2960/1475	91.0/90.0	0.90/0.87	53/30	8.2/7.3	97/104	1.8/2.2	2.9/2.5	0.34	204
36/18	**M3AA**	**225 SMB**	3GAA 228 201-••C	2960/1480	91.5/91.5	0.91/0.76	63/38	8.0/7.2	116/116	2.5/3.8	2.7/2.5	0.26	236
40/20	**M3AA**	**225 SMC**	3GAA 228 202-••C	2960/1475	92.0/91.5	0.91/0.79	69/41	8.5/6.5	129/129	2.8/3.3	2.8/2.2	0.29	261
50/25	**M3AA**	**250 SMB**	3GAA 258 201-••C	2965/1485	93.0/93.0	0.91/0.76	86/52	8.9/8.5	161/161	2.1/3.5	2.9/2.9	0.57	333
3000/1500 r/min = 2-4 poles				**400 V 50 Hz**								**Constant torque, Dahlander-Connection**	
0.11/0.07	**M3VA**	**56 B**	3GVA 050 122-••A	2730/1370	53.0/44.0	0.75/0.58	0.4/0.4	3.4/2.6	0.38/0.48	2.5/2.7	2.6/2.8	0.00018	3.5
0.2/0.15	**M3VA**	**63 A**	3GVA 060 121-••A	2800/1400	63.0/54.0	0.70/0.63	0.65/0.65	3.6/2.8	0.68/1.02	2.1/2.0	2.2/2.1	0.00019	4
0.3/0.2	**M3VA**	**63 B**	3GVA 060 122-••A	2740/1370	59.0/55.0	0.78/0.63	0.95/0.85	2.8/2.8	1.05/1.4	1.7/2.1	1.8/2.2	0.00026	4.5
0.37/0.25	**M3VA**	**71 A**	3GVA 070 121-••C	2700/1390	64.0/60.0	0.89/0.79	0.95/0.7	3.3/3.1	1.3/1.72	1.9/1.5	2.0/1.6	0.00066	5.5
0.48/0.31	**M3VA**	**71 B**	3GVA 070 122-••C	2780/1400	68.0/68.0	0.91/0.76	1.2/0.9	3.6/4.0	1.66/2.15	1.4/2.0	1.5/2.1	0.00089	6.5
0.55/0.37	**M3VA**	**71 C**	3GVA 070 123-••C	2800/1400	66.0/64.0	0.80/0.65	1.5/1.2	4.7/4.3	1.87/2.52	1.8/1.9	1.9/2.0	0.0011	7
0.63/0.5	**M3VA**	**80 A**	3GVA 080 121-••B	2690/1400	66.0/67.0	0.87/0.79	1.6/1.35	3.6/4.2	2.25/3.42	1.8/1.9	1.9/2.1	0.0013	9
0.85/0.65	**M3VA**	**80 B**	3GVA 080 122-••B	2725/1405	70.0/70.0	0.88/0.80	2/1.7	4.0/4.4	2.99/4.43	1.9/2.0	1.9/2.2	0.0016	10
1.1/0.8	**M3VA**	**80 C**	3GVA 080 123-••B	2730/1410	72.0/71.0	0.88/0.79	2.55/2.05	4.2/4.7	3.8/5.38	2.0/2.0	2.1/2.4	0.002	11
1.3/1	**M3AA**	**90 S**	3GAA 098 110-••E	2730/1400	71.0/71.0	0.88/0.80	3.1/2.6	3.9/3.8	4.5/6.8	2.0/1.5	2.2/2.0	0.0032	13
1.9/1.5	**M3AA**	**90 L**	3GAA 098 111-••E	2820/1420	74.0/75.0	0.82/0.76	4.4/3.9	5.1/4.4	6.4/10	2.8/2.0	3.0/2.5	0.0043	16
2.5/2.1	**M3AA**	**100 LA**	3GAA 108 109-••E	2800/1430	68.0/76.0	0.88/0.81	6/5	4.8/4.4	8.5/14	2.2/1.6	2.5/2.2	0.0069	20
3.4/2.7	**M3AA**	**100 LB**	3GAA 108 110-••E	2810/1430	78.0/80.0	0.88/0.85	7.2/5.9	5.3/5.4	11.5/18	2.2/1.9	2.5/2.5	0.0082	23
4/2.6	**M3AA**	**112 M**	3GAA 118 101-••C	2865/1430	82.0/77.0	0.94/0.76	7.6/6.5	6.3/6.2	13.3/17.4	1.8/2.3	2.1/2.6	0.012	32
4.7/3.1	**M3AA**	**132 SB**	3GAA 138 101-••C	2820/1420	79.0/77.0	0.93/0.76	9.2/7.7	5.5/5.7	15.9/20.8	1.8/2.2	2.1/2.4	0.016	42
7.2/4.8	**M3AA**	**132 M**	3GAA 138 102-••C	2870/1435	84.0/81.0	0.93/0.76	13.3/11.5	7.1/6.2	24/31.9	2.4/2.5	2.6/2.7	0.022	56
9/6.5	**M3AA**	**160 MA**	3GAA 168 306-••C	2885/1440	83.0/82.0	0.92/0.74	17.1/15.6	4.6/4.3	40/43	1.3/1.7	1.9/1.9	0.039	73
12.5/9	**M3AA**	**160 M**	3GAA 168 307-••C	2890/1440	85.5/85.5	0.93/0.80	22.5/19	5.2/4.6	41/60	1.4/1.8	1.9/1.9	0.054	92
15/10.5	**M3AA**	**160 L**	3GAA 168 308-••C	2900/1445	87.0/86.0	0.93/0.77	27/23	5.8/4.9	49/69	1.6/2.1	2.1/2.1	0.057	99
18/12	**M3AA**	**180 M**	3GAA 188 301-••C	2940/1455	89.0/89.0	0.88/0.79	33/25	6.8/5.3	59/79	2.1/2.4	2.6/2.2	0.094	132
24/17	**M3AA**	**180 L**	3GAA 188 302-••C	2945/1455	90.0/90.0	0.89/0.80	43/34	7.4/5.2	78/111	2.4/2.4	2.8/2.1	0.108	152
32/24	**M3AA**	**200 MLA**	3GAA 208 101-••C	2940/1470	89.0/90.5	0.89/0.86	58/45	6.8/5.9	104/156	1.8/2.1	2.4/2.1	0.28	180
39/29	**M3AA**	**200 MLB**	3GAA 208 102-••C	2950/1470	90.5/91.0	0.84/0.86	75/53	6.8/7.0	126/188	1.7/2.2	2.6/2.4	0.34	205
42/32	**M3AA**	**225 SMB**	3GAA 228 101-••C	2955/1475	92.5/93.0	0.92/0.88	71/57	7.1/6.5	136/207	1.5/1.9	2.5/2.3	0.49	230
50/40	**M3AA**	**225 SMC**	3GAA 228 102-••C	2965/1480	92.5/93.0	0.84/0.87	87/72	7.4/7.1	161/259	2.4/2.8	3.3/3.0	0.49	265
68/50	**M3AA**	**250 SMB**	3GAA 258 101-••C	2940/1475	93.0/93.5	0.93/0.88	113/87	6.6/6.9	220/324	1.5/2.1	2.4/2.5	0.89	335

General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type		Product code		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 $\frac{T_{max}}{T_N}$	Moment of inertia J=1/4 GD² kgm²	Weight kg
3000/750 r/min = 2/8 poles					**400 V 50 Hz**							**Constant torque, two separate windings**		
0.25/0.06	**M3VA**	**71 A**	3GVA	079 141-••C	2760/660	52.0/36.0	0.94/0.70	0.75/0.35	2.9/1.9	0.86/0.86	1.0/1.3	1.1/1.4	0.00066	5.5
0.37/0.09	**M3VA**	**71 B**	3GVA	079 142-••C	2800/660	68.0/41.0	0.87/0.65	0.9/0.5	2.8/2.0	1.26/1.3	1.0/1.6	1.1/1.7	0.00089	6.5
0.5/0.12	**M3VA**	**80 A**	3GVA	089 141-••B	2730/700	60.0/38.0	0.87/0.58	1.4/0.8	3.2/2.3	1.78/1.64	1.3/2.0	1.6/2.0	0.0013	9
0.66/0.15	**M3VA**	**80 B**	3GVA	089 142-••B	2780/700	65.0/40.0	0.87/0.58	1.65/0.95	3.8/2.5	2.55/2.45	1.4/2.2	1.8/2.2	0.0016	10
0.78/0.18	**M3VA**	**80 C**	3GVA	089 143-••B	2800/700	68.0/43.0	0.87/0.57	1.9/1.15	4.0/2.6	2.67/2.46	1.5/2.4	2.2/2.4	0.0020	11
0.75/0.18	**M3AA**	**90 LA**	3GAA	098 700-••E	2875/720	71.2/46.3	0.80/0.51	1.9/1.1	5.7/2.4	2.5/2.4	2.3/1.3	2.7/1.9	0.0043	16
1.3/0.33	**M3AA**	**90 LB**	3GAA	098 701-••E	2780/690	71.0/52.0	0.92/0.62	2.9/1.5	4.5/2.3	4.4/4.5	1.8/1.2	2.0/1.7	0.0043	16
1.8/0.5	**M3AA**	**100 LB**	3GAA	108 700-••E	2860/705	80.0/54.0	0.93/0.64	3.5/2.1	5.3/2.6	6/6.7	1.7/1.3	2.2/1.9	0.0082	24
1500/1000 r/min = 4/6 poles					**400 V 50 Hz**							**Constant torque, two separate windings**		
0.11/0.08	**M3VA**	**63 B**	3GVA	069 232-••A	1390/860	40.0/25.0	0.70/0.72	0.55/0.62	2.5/1.8	0.75/0.88	1.4/1.8	1.9/1.9	0.00026	4.5
0.3/0.2	**M3VA**	**71 A**	3GVA	079 231-••C	1390/900	51.0/40.0	0.82/0.72	0.7/0.5	2.8/2.0	1.37/0.79	1.1/1.1	1.1/1.1	0.00066	5.5
0.37/0.22	**M3VA**	**71 B**	3GVA	079 232-••C	1380/900	58.0/40.0	0.83/0.80	0.9/0.8	2.7/1.9	2.07/1.91	1.0/1.1	1.1/1.1	0.00089	6.5
0.43/0.28	**M3VA**	**80 A**	3GVA	089 231-••B	1380/910	60.0/54.0	0.85/0.81	1.4/1.2	3.1/2.9	2.54/3.02	1.5/1.4	1.5/1.4	0.0019	9
0.58/0.37	**M3VA**	**80 B**	3GVA	089 232-••B	1390/920	63.0/58.0	0.85/0.80	1.6/1.15	3.3/3.2	4/3.85	1.5/1.5	1.6/1.6	0.0022	10
0.7/0.45	**M3VA**	**80 C**	3GVA	089 233-••B	1390/925	65.0/60.0	0.85/0.78	1.85/1.4	3.4/3.4	4.82/4.66	1.6/1.7	1.7/1.8	0.0025	10
0.8/0.5	**M3AA**	**90 S**	3GAA	098 216-••E	1430/940	68.0/57.0	0.80/0.66	2.2/2	3.9/2.8	5.3/5	1.5/1.4	2.1/2.1	0.0032	13
1.2/0.75	**M3AA**	**90 L**	3GAA	098 217-••E	1430/940	73.0/63.0	0.81/0.67	3/2.6	4.4/3.1	8/7.6	1.7/1.5	2.3/2.1	0.0043	16
1.5/0.9	**M3AA**	**100 LA**	3GAA	108 214-••E	1440/960	75.0/69.0	0.84/0.65	3.5/3	4.7/3.8	9.9/8.9	1.5/1.5	2.2/2.4	0.0069	20
1.8/1.1	**M3AA**	**100 LB**	3GAA	108 215-••E	1460/960	77.0/70.0	0.78/0.64	4.4/3.6	5.8/3.9	11/11	2.1/1.6	3.0/2.5	0.0082	23
2.6/1.7	**M3AA**	**112 M**	3GAA	118 202-••C	1445/960	80.0/73.0	0.86/0.76	5.5/4.4	5.9/5.2	17.2/16.9	1.5/1.5	2.2/2.4	0.018	33
3.3/2.2	**M3AA**	**132 S**	3GAA	138 223-••C	1470/980	82.0/76.0	0.82/0.65	7.1/6.4	6.8/4.6	21.4/21.4	1.4/1.2	2.5/2.4	0.038	48
4.5/3	**M3AA**	**132 M**	3GAA	138 224-••C	1470/980	82.0/77.0	0.85/0.70	9.3/8	7.2/5.6	29.2/29.2	1.4/1.5	2.3/2.6	0.048	59
7.5/5.5	**M3AA**	**160 M**	3GAA	168 361-••C	1465/965	85.5/80.5	0.83/0.77	15.5/13	7.1/4.7	49/54	2.1/1.8	2.7/1.9	0.089	93
11.5/8.5	**M3AA**	**160 L**	3GAA	168 362-••C	1465/965	86.5/82.5	0.84/0.76	23/19.5	7.0/4.9	75/84	2.1/1.8	2.8/2.0	0.119	117
13/8	**M3AA**	**180 M**	3GAA	188 353-••C	1475/975	88.0/82.5	0.82/0.75	26/19	6.5/4.3	84/78	1.9/1.4	2.6/1.8	0.176	131
15/10	**M3AA**	**180 L**	3GAA	188 354-••C	1475/975	88.5/84.0	0.83/0.74	30/23	7.1/4.4	97/98	2.3/1.5	2.7/1.9	0.224	159
18/12	**M3AA**	**200 MLA**	3GAA	208 204-••C	1475/985	88.5/86.0	0.91/0.86	33/24	7.6/7.8	117/116	2.1/2.6	2.5/2.6	0.42	185
22/14.7	**M3AA**	**200 MLB**	3GAA	208 205-••C	1480/985	89.5/86.5	0.89/0.87	40/29	8.2/7.6	142/143	2.4/2.6	2.8/2.5	0.48	200
25/16.7	**M3AA**	**200 MLC**	3GAA	208 206-••C	1475/980	89.0/85.5	0.87/0.88	47/32	7.7/6.7	162/162	2.3/2.3	2.6/2.2	0.48	200
32/21	**M3AA**	**225 SMB**	3GAA	228 203-••C	1480/985	90.0/89.5	0.88/0.86	58/40	8.6/8.0	206/204	2.3/2.4	2.8/2.7	0.63	225
36/24	**M3AA**	**225 SMC**	3GAA	228 204-••C	1480/985	90.5/90.0	0.88/0.87	66/45	8.4/7.4	232/233	2.2/2.2	2.8/2.5	0.74	250
50/32	**M3AA**	**250 SMB**	3GAA	258 202-••C	1475/985	92.5/90.5	0.89/0.80	89/65	7.5/7.1	324/310	2.3/3.1	2.6/2.6	0.89	335

Data for other sizes on request.

The bullets in the product code indicate choice of mounting arrangement, voltage and frequency, generation code (see ordering information page).

General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors, two-speed

IP 55 – IC 411 – Insulation class F, temperature rise class F

Output kW	Motor type		Product code	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 $\frac{T_{max}}{T_N}$	Moment of inertia J=1/4 GD² kgm²	Weight kg
1500/750 r/min = 4/8 poles				**400 V 50 Hz**								**Constant torque, two separate windings**	
0.28/0.14	**M3VA**	**80 A**	3GVA 089 241-••B	1425/700	60.0/50.0	0.77/0.68	0.9/0.6	4.0/3.0	1.88/1.92	1.9/1.9	2.2/2.0	0.0019	9
0.38/0.19	**M3VA**	**80 B**	3GVA 089 242-••B	1430/705	64.0/52.0	0.77/0.68	1.1/0.8	4.2/3.1	2.55/2.58	2.0/2.0	2.4/2.0	0.0022	10
0.46/0.23	**M3VA**	**80 C**	3GVA 089 243-••B	1430/710	66.0/55.0	0.78/0.65	1.3/0.95	4.3/3.3	3.1/3.1	2.0/2.1	2.4/2.2	0.0025	11
0.55/0.25	**M3AA**	**90 S**	3GAA 098 219-••E	1450/700	62.0/51.0	0.78/0.59	1.9/1.2	4.2/2.3	3.6/3.4	1.3/1.4	2.2/2.1	0.0032	13
0.75/0.37	**M3AA**	**90 L**	3GAA 098 220-••E	1450/700	66.0/57.0	0.75/0.57	2.2/1.7	4.1/2.5	4.9/5	1.4/1.5	2.4/2.2	0.0043	16
1.1/0.55	**M3AA**	**100 LA**	3GAA 108 217-••E	1460/710	68.0/62.0	0.77/0.61	3.1/2.2	4.2/2.6	7.2/7.4	1.2/1.2	2.3/1.9	0.0069	20
1.5/0.75	**M3AA**	**100 LB**	3GAA 108 218-••E	1440/700	72.0/60.0	0.82/0.60	3.7/2.9	4.6/2.7	9.8/10	1.3/1.2	2.2/1.9	0.0082	23
1.8/0.9	**M3AA**	**112 M**	3GAA 118 203-••C	1470/715	77.0/65.0	0.76/0.66	4.4/3	6.5/4.0	11.7/12	1.2/1.6	2.2/2.4	0.018	32
2.5/1.3	**M3AA**	**132 S**	3GAA 138 225-••C	1470/730	80.0/69.0	0.79/0.58	5.7/4.7	6.7/4.4	16.2/17	1.6/1.4	2.6/2.7	0.038	48
3.3/1.7	**M3AA**	**132 M**	3GAA 138 226-••C	1470/725	81.0/71.0	0.83/0.67	7.1/5.2	8.0/4.8	21.4/22.4	1.8/1.8	2.7/2.2	0.048	59
5.5/2.7	**M3AA**	**160 M**	3GAA 168 363-••C	1465/730	85.0/71.0	0.83/0.57	11.5/9.6	5.6/4.0	36/35	1.7/2.0	2.2/2.3	0.089	92
9/4.5	**M3AA**	**160 L**	3GAA 168 364-••C	1465/730	86.5/73.5	0.83/0.56	18/16	7.0/4.1	59/59	2.1/2.1	2.7/2.5	0.119	117
14/7	**M3AA**	**180 L**	3GAA 188 356-••C	1475/735	88.0/76.0	0.83/0.56	28/24	7.7/4.2	91/91	2.6/2.3	2.9/2.3	0.225	159
18.5/9.4	**M3AA**	**200 MLA**	3GAA 208 207-••C	1475/730	89.5/82.5	0.85/0.65	35/26	7.3/4.3	120/123	2.2/1.9	2.5/1.8	0.28	180
22/11	**M3AA**	**200 MLB**	3GAA 208 208-••C	1480/735	90.5/83.0	0.84/0.60	42/32	8.4/4.7	142/143	2.6/2.4	2.9/2.2	0.34	205
28/14	**M3AA**	**225 SMB**	3GAA 228 205-••C	1480/735	90.0/85.5	0.85/0.61	53/39	7.7/4.9	181/182	2.1/2.4	2.7/2.2	0.41	230
34/17	**M3AA**	**225 SMC**	3GAA 228 206-••C	1480/735	92.0/87.0	0.86/0.66	63/43	7.9/4.8	219/221	2.2/2.2	2.7/2.0	0.49	265
50/25	**M3AA**	**250 SMB**	3GAA 258 203-••C	1480/740	92.5/88.0	0.87/0.60	90/68	8.6/6.0	323/323	2.6/3.5	3.0/2.9	0.89	335
1500/750 r/min = 4-8 poles				**400 V 50 Hz**								**Constant torque, Dahlander-Connection**	
0.11/0.06	**M3VA**	**63 B**	3GVA 060 242-••A	1390/660	54.0/33.0	0.60/0.49	0.5/0.55	3.0/1.7	0.75/0.87	1.6/2.5	1.7/2.6	0.00026	4.5
0.18/0.11	**M3VA**	**71 A**	3GVA 070 241-••C	1380/680	54.0/37.0	0.70/0.53	0.7/0.8	3.2/2.5	1.24/1.54	1.9/2.2	2.0/2.3	0.00066	5.5
0.3/0.15	**M3VA**	**71 B**	3GVA 070 242-••C	1400/700	60.0/47.0	0.74/0.51	0.9/0.9	3.2/2.6	2.05/2.05	2.0/2.5	2.1/2.6	0.00089	6.5
0.45/0.25	**M3VA**	**80 A**	3GVA 080 241-••B	1380/700	65.0/48.0	0.87/0.58	1.15/1.3	3.5/2.7	3.12/3.42	1.7/2.1	1.7/2.1	0.0019	9
0.63/0.33	**M3VA**	**80 B**	3GVA 080 242-••B	1380/705	67.0/50.0	0.88/0.56	1.55/1.7	3.5/2.8	4.37/4.48	1.7/2.2	1.7/2.2	0.0022	10
0.7/0.37	**M3AA**	**90 S**	3GAA 098 113-••E	1420/700	72.0/50.0	0.80/0.57	1.8/1.9	4.4/2.3	4.7/5.1	1.6/1.6	2.3/2.2	0.0032	13
0.75/0.37	**M3VA**	**80 C**	3GVA 080 243-••B	1390/710	70.0/52.0	0.86/0.51	1.8/2	3.9/2.9	5.16/4.98	1.9/2.5	1.9/2.5	0.0025	10
1.1/0.55	**M3AA**	**90 L**	3GAA 098 114-••E	1390/685	70.0/55.0	0.84/0.58	2.6/2.6	4.1/2.3	7.4/7.5	1.4/1.5	2.0/2.1	0.0043	16
1.5/0.75	**M3AA**	**100 LA**	3GAA 108 112-••E	1440/710	76.0/62.0	0.85/0.57	3.4/3.2	4.6/2.8	10/10	1.4/1.5	2.2/2.2	0.0069	20
2/0.95	**M3AA**	**100 LB**	3GAA 108 113-••E	1440/710	78.0/64.0	0.86/0.55	4.4/4	4.8/2.9	13/12	1.4/1.6	2.2/2.3	0.0082	23
2.5/1.5	**M3AA**	**112 M**	3GAA 118 103-••C	1410/705	78.0/67.0	0.90/0.66	5.1/4.9	5.5/4.1	16.9/20.3	1.4/1.5	2.1/2.4	0.018	32
3.8/1.9	**M3AA**	**132 S**	3GAA 138 125-••C	1450/730	82.0/70.0	0.86/0.52	7.7/7.6	5.6/3.7	25/24.9	1.4/1.3	2.1/2.7	0.038	48
5/2.5	**M3AA**	**132 M**	3GAA 138 126-••C	1455/730	85.0/73.0	0.88/0.52	9.6/9.6	6.9/4.8	32.8/32.7	1.7/2.0	2.4/2.8	0.048	59
8/4.5	**M3AA**	**160 M**	3GAA 168 309-••C	1440/730	84.5/79.5	0.86/0.60	16/13.5	4.5/3.4	53/59	1.3/1.4	1.8/1.9	0.089	92
12/7	**M3AA**	**160 L**	3GAA 168 310-••C	1445/730	86.5/81.0	0.87/0.59	23/21	5.0/3.5	79/92	1.5/1.4	1.9/1.9	0.119	117
16/8	**M3AA**	**180 L**	3GAA 188 304-••C	1460/730	88.0/78.5	0.86/0.53	31/28	1.9/3.4	105/104	1.4/1.6	1.9/2.1	0.224	159
22/13	**M3AA**	**200 MLA**	3GAA 208 107-••C	1475/735	87.5/86.0	0.81/0.69	45/32	6.5/5.9	142/169	2.0/2.5	2.6/2.7	0.36	165
25/15	**M3AA**	**200 MLB**	3GAA 208 108-••C	1475/735	89.0/86.0	0.86/0.67	47/38	7.6/6.0	162/195	2.2/2.6	2.7/2.7	0.42	185
29/17	**M3AA**	**200 MLC**	3GAA 208 109-••C	1475/735	90.0/88.0	0.91/0.75	52/38	7.2/6.1	188/221	2.2/2.6	2.4/2.4	0.48	200
35/21	**M3AA**	**225 SMB**	3GAA 228 105-••C	1475/735	90.0/89.0	0.90/0.74	63/47	6.7/5.8	227/273	1.7/2.1	2.2/2.3	0.63	225
42/25	**M3AA**	**225 SMC**	3GAA 228 106-••C	1475/735	91.0/89.5	0.91/0.75	74/54	6.8/5.9	272/325	1.8/2.1	2.2/2.2	0.74	250
55/33	**M3AA**	**250 SMB**	3GAA 258 103-••C	1480/740	92.0/90.5	0.90/0.75	97/71	7.3/6.4	355/426	2.1/2.5	2.5/2.5	1.5	320
1000/750 r/min = 6/8 poles				**400 V 50 Hz**								**Constant torque, two separate windings**	
1.6/0.8	**M3AA**	**112 M**	3GAA 118 207-••C	965/725	72.9/60.0	0.70/0.64	4.5/3	5.6/4.4	15.8/10.6	2.3/2.3	2.6/2.4	0.015	35
2.3/1.3	**M3AA**	**132 S**	3GAA 138 213-••C	975/730	77.2/63.5	0.72/0.64	6.8/4.6	6.4/4.2	25.4/17	1.6/1.5	2.8/2.3	0.04	48
3.5/1.6	**M3AA**	**132 M**	3GAA 138 214-••C	975/730	78.8/65.8	0.72/0.66	9/5.2	7.1/5.1	34.2/20.9	2.0/1.9	2.9/2.4	0.041	48
16/12	**M3AA**	**200 MLB**	3GAA 208 219-••C	985/740	86.5/82.5	0.85/0.73	31/29	7.0/6.3	155/155	2.1/2.4	2.4/2.6	0.42	185
18/13.5	**M3AA**	**200 MLC**	3GAA 208 220-••C	985/740	87.5/83.5	0.83/0.72	36/32	7.9/6.6	174/174	2.5/2.6	2.8/2.8	0.48	200
23/17	**M3AA**	**225 SMB**	3GAA 228 213-••C	985/740	89.0/85.5	0.84/0.78	46/37	7.9/6.3	222/220	2.3/2.2	2.7/2.3	0.63	225
28/20	**M3AA**	**225 SMC**	3GAA 228 214-••C	985/740	89.0/86.5	0.86/0.77	57/43	7.1/6.5	272/259	2.0/2.3	2.4/2.4	0.74	250
37/27	**M3AA**	**250 SMB**	3GAA 258 207-••C	990/740	90.0/87.5	0.83/0.75	71/59	7.8/6.7	357/348	2.3/2.5	2.7/2.5	1.41	320

General purpose aluminum motors - Variant codes

Code [1]	Variant	Motor size 56-63	71-80	90-100	M2AA 112-132	M2AA 160-200	M2AA 225-250	M3AA 112-132	M3AA 160-180	M3AA 200-250	M3AA 280
	Balancing										
052	Vibration acc. to Grade A (IEC 60034-14).	P	P	P	P	P	P	P	P	P	P
417	Vibration acc. to Grade B (IEC 60034-14).	NA	NA	NA	R	R	R	R	R	R	R
423	Balancing without key.	P	P	P	R	R	R	R	R	R	R
424	Full key balancing.	P	P	P	P	P	P	P	P	P	P
	Bearings and lubrication										
036	Transport lock for bearings.	NA	NA	M	M	M	M	M	M	M	M
037	Roller bearing at D-end. Transport lock included.	NA	NA	M	NA	M	M	NA	M	M	M
039	Cold resistant grease. For ambient temperatures -40 - +100° C.	M	M	M	M	M	M	M	M	M	M
040	Heat resistant grease. For bearing temperatures -40 - +160° C. Mandatory for ambient temperatures >50° C.	M	M	M	S	S	S	S	S	S	S
041	Bearings regreasable via grease nipples.	NA	NA	M	M	M	S	M	M	S	S
042	Locked drive-end. Standard for sizes 90-132, flanged versions.	NA	M	S	M	S	S	M	S	S	S
043	SPM nipples.	NA	NA	R	M	M	M	M	M	M	M
057	2RS bearings at both ends. Grease for bearing temperatures -20 - +110° C.	M	M	M	M	R	R	M	M	M	M
058	Angular contact ball bearing at D-end, shaft force away from bearing. Transport lock included.	NA	NA	M	M	R	R	M	M	M	M
059	Angular contact ball bearing at N-end, shaft force towards bearing. Transport lock included.	NA	NA	M	M	R	R	M	M	M	M
107	Bearing mounted PT100 resistance elements.	NA	NA	NA	NA	NA	NA	NA	R	R	R
188	63-series bearings. Standard for frame size 100.	NA	NA	M	M	S	S	M	S	S	S
796	Grease nipples JIS B 1575 PT 1/8 Type A. Stainless steel.	NA	NA	NA	M	M	M	M	M	M	M
797	Stainless steel SMP nipples.	NA	NA	NA	M	M	M	M	M	M	M
798	Stainless steel grease nipples.	NA	NA	NA	M	M	M	M	M	M	M
	Branch standard designs										
071	Cooling tower duty. Only motors with shaft extensions downwards.	NA	NA	NA	P	P	P	P	P	P	P
079	Silumin-alloy rotor cage.	NA	P	P	R	R	R	R	R	R	R
142	”Manilla” winding connection. (440 VD series, 220 VD parallel, 60Hz) Single speed motors only.	NA	NA	P	P	P	P	P	P	P	P
178	Stainless steel/acid proof bolts.	M	M	M	M	M	M	M	M	M	M
199	Extreme heavy duty design. Type designation M2AP or M3AP.	NA	NA	NA	M	NA	NA	M	M	M	M
209	Non-standard voltage or frequency (special winding).	P	P	P	P	P	P	P	P	P	P
416	High speed design.	NA	NA	NA	R	R	R	R	R	R	R
425	Corrosion protected stator and rotor core.	P	P	P	P	R	R	P	P	P	P
785	Reinforced tropicalisation.	NA	NA	NA	R	R	R	R	R	R	R
	Cooling system										
053	Metal fan cover. The dimension L1 and L2 respectively is increased by 7.5 mm for the frame size 112 and 5.5 mm for the frame size 132.	S	S	S	M	S	S	M	S	S	S
068	Metal fan. Mandatory for ambient temperatures: For sizes 71-100, > 80 °C; sizes 112-132, > 50 °C; sizes 160-250, > 80 °C	NA	M	M	M	M	M	M	M	M	M
075	Cooling method IC418 (without fan).	P	P	P	R	R	R	R	R	R	R
183	Separate motor cooling (fan axial, N-end).	NA	M	M	NA	R	R	NA	M	M	M
189	Separate motor cooling, IP44, 400V, 50Hz (fan axial, N-end)	NA	NA	NA	M	M	M	M	M	M	M

[1] Certain variant codes cannot be used simultaneously.

S = Included as standard.
M = On modification of a stocked motor, or on new manufacture, the number per order may be limited.
P = New manufacture only.
R = On request.
NA = Not applicable.