General purpose aluminum motors

Technical data for totally enclosed squirrel cage three phase motors

EFFI

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

Output kW		Motor type		Product code		Speed r/min	Efficiency Full load 100%	Efficiency 3/4 load 75%	Power factor cos φ 100%	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						**400 V 50 Hz**				**Basic design**				
1.1		**M3VA**	**80 C**	3GVA	081 313-••B	2850	82.8	82.6	0.85	2.25	8.1	3.69	4.2	3.5
1.5		**M3AA**	**90 L**	3GAA	091 312-••E	2900	85.9	86.5	0.87	3.2	7.7	5	2.7	3.6
2.2		**M3AA**	**90 LB**	3GAA	091 313-••E	2880	85.8	87.1	0.87	4.4	7.4	7.3	3.0	3.6
3		**M3AA**	**100 LB**	3GAA	101 312-••E	2920	87.6	87.5	0.86	5.9	10.0	9.9	3.9	4.9
4		**M3AA**	**112 M**	3GAA	111 022-••C	2860	87.7	89.4	0.93	7.1	7.5	13.4	2.6	3.4
5.5		**M3AA**	**132 SA**	3GAA	131 023-••C	2900	88.6	88.9	0.88	10.1	9.2	18.1	3.8	4.5
7.5		**M3AA**	**132 SB**	3GAA	131 024-••C	2915	90.9	91.3	0.90	13.3	11.0	24.6	5.1	5.2
11		**M3AA**	**160 MA**	3GAA	161 101-••C	2930	91.0	91.2	0.88	20	6.2	36	2.1	2.8
15		**M3AA**	**160 M**	3GAA	161 102-••C	2920	91.3	91.7	0.90	26.5	6.4	49	2.3	2.7
18.5		**M3AA**	**160 L**	3GAA	161 103-••C	2920	92.4	93.1	0.91	32	7.2	61	2.6	2.9
22		**M3AA**	**180 M**	3GAA	181 101-••C	2930	92.8	93.3	0.89	38.5	7.2	71	2.7	3.0
30		**M3AA**	**200 MLA**	3GAA	201 001-••C	2955	93.2	93.2	0.88	53	8.5	97	2.9	3.1
37		**M3AA**	**200 MLB**	3GAA	201 002-••C	2950	93.6	93.7	0.89	64	7.2	120	2.3	2.9
45		**M3AA**	**225 SMB**	3GAA	221 001-••C	2960	94.1	93.9	0.88	79	7.7	145	2.5	2.9
55		**M3AA**	**250 SMA**	3GAA	251 001-••C	2970	94.2	93.8	0.89	95	7.9	177	2.4	3.0
75		**M3AA**	**280 SMA**	3GAA	281 001-••C	2970	94.7	94.4	0.90	127	8.2	241	2.7	3.2
90	[1]	**M3AA**	**280 SMB**	3GAA	281 002-••C	2970	95.4	94.8	0.90	152	8.3	290	2.7	3.4
3000 r/min = 2-poles						**400 V 50 Hz**				**High-output design**				
0.37		**M2VA**	**63 BB**	3GVA	061 003-••A	2800	73.6	73.1	0.81	0.9	3.5	1.29	2.3	2.2
0.68		**M2VA**	**71 BB**	3GVA	071 003-••C	2800	78.9	77.4	0.82	1.59	5.2	2.33	3.2	3.3
0.75		**M2VA**	**71 BC**	3GVA	071 004-••C	2800	78.5	77.9	0.85	1.7	5.1	2.57	3.1	3.2
1.5		**M2VA**	**80 C**	3GVA	081 003-••B	2840	82.4	82.2	0.83	3.16	5.5	5.13	2.8	3.1
2.7	[1]	**M3AA**	**90 LB**	3GAA	091 003-••E	2860	80.7	83.5	0.86	5.7	7.0	9	2.6	3.0
4	[1]	**M3AA**	**100 LB**	3GAA	101 002-••E	2900	85.0	84.3	0.86	8.1	7.5	13	2.7	3.6
5.5	[1]	**M3AA**	**112 MB**	3GAA	111 002-••C	2855	86.5	86.5	0.93	9.9	7.3	18.4	2.6	3.5
9.2	[1]	**M3AA**	**132 SBB**	3GAA	131 004-••C	2840	86.8	88.3	0.92	16.8	8.5	31	3.3	3.6
11	[1]	**M3AA**	**132 SC**	3GAA	131 003-••C	2835	87.0	87.0	0.93	19.6	8.0	37	3.2	3.3
22	[1]	**M3AA**	**160 LB**	3GAA	161 104-••C	2920	92.0	93.0	0.91	38	6.9	72	2.3	2.9
30		**M3AA**	**180 LB**	3GAA	181 102-••C	2945	93.7	94.0	0.89	53	7.8	97	2.7	3.0
45		**M3AA**	**200 MLC**	3GAA	201 003-••C	2950	94.1	94.5	0.89	78	8.2	146	3.0	3.2
55		**M3AA**	**225 SMC**	3GAA	221 002-••C	2960	94.5	94.6	0.89	95	7.3	177	2.8	3.0
55	[1]	**M3AA**	**200 MLD**	3GAA	201 004-••C	2940	94.0	94.4	0.89	95	7.9	179	3.1	3.1
75		**M3AA**	**250 SMB**	3GAA	251 002-••C	2970	94.7	94.4	0.90	127	8.2	241	2.7	3.2
80	[1]	**M3AA**	**225 SMD**	3GAA	221 003-••C	2960	94.7	94.7	0.86	143	7.5	258	2.9	3.1
95	[1]	**M3AA**	**250 SMC**	3GAA	251 003-••C	2965	95.4	95.6	0.90	160	8.0	306	2.6	3.1

[1] Temperature rise class F.

[2] 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

EFFI

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

Output kW		Motor type		Product code		Speed r/min	Efficiency Full load 100%	Efficiency 3/4 load 75%	Power factor cos φ 100%	Current I_N A	Current $\frac{I_s}{I_N}$	Torque T_N Nm	Torque $\frac{T_s}{T_N}$	Torque $\frac{T_{max}}{T_N}$
1500 r/min = 4-poles						**400 V 50 Hz**				**Basic design**				
1.1		**M3AA**	**90 L**	3GAA	092 312-••E	1420	83.9	84.3	0.80	2.4	6.1	7.4	2.9	3.4
1.5		**M3AA**	**100 LA**	3GAA	102 311-••E	1440	85.6	85.5	0.82	3.2	6.9	10	2.8	3.4
2.2		**M3AA**	**100 LC**	3GAA	102 313-••E	1450	86.8	86.5	0.77	4.8	8.5	14.5	4.0	4.6
3		**M3AA**	**112 MA**	3GAA	112 021-••C	1455	87.5	87.8	0.81	6.2	7.9	19.7	2.7	3.7
4		**M3AA**	**112 M**	3GAA	112 022-••C	1455	88.3	88.6	0.76	8.6	8.5	26.3	3.3	4.3
5.5		**M3AA**	**132 S**	3GAA	132 023-••C	1460	89.3	90.5	0.84	10.6	7.0	36.2	2.2	2.8
7.5		**M3AA**	**132 M**	3GAA	132 024-••C	1450	90.3	91.0	0.87	14	7.8	49	2.2	3.1
11		**M3AA**	**160 M**	3GAA	162 101-••C	1460	92.0	92.7	0.81	21.5	7.8	72	3.3	3.2
15		**M3AA**	**160 L**	3GAA	162 102-••C	1460	91.8	92.5	0.82	29	8.1	98	3.0	3.6
18.5		**M3AA**	**180 M**	3GAA	182 101-••C	1470	92.3	92.9	0.84	35	7.0	120	2.9	2.9
22		**M3AA**	**180 L**	3GAA	182 102-••C	1470	93.1	93.9	0.85	40	7.1	143	3.1	3.3
30		**M3AA**	**200 MLB**	3GAA	202 001-••C	1475	93.4	94.0	0.84	55	7.5	194	2.5	2.8
37		**M3AA**	**225 SMA**	3GAA	222 001-••C	1480	93.6	93.8	0.84	68	7.6	239	3.1	3.3
45		**M3AA**	**225 SMB**	3GAA	222 002-••C	1480	94.2	94.4	0.83	83	7.6	291	3.4	3.0
55		**M3AA**	**250 SMA**	3GAA	252 001-••C	1480	94.6	94.9	0.86	98	7.6	355	3.1	3.0
75		**M3AA**	**280 SMA**	3GAA	282 001-••C	1480	94.8	95.3	0.86	132	7.1	486	3.2	3.0
90		**M3AA**	**280 SMB**	3GAA	282 002-••C	1475	95.0	95.3	0.87	157	7.7	583	3.3	3.2
1500 r/min = 4-poles						**400 V 50 Hz**				**High-output design**				
0.25		**M2VA**	**63 BB**	3GVA	062 003-••A	1370	70.3	67.4	0.67	0.78	3.2	1.75	2.5	2.1
0.45		**M2VA**	**71 BB**	3GVA	072 003-••C	1390	75.5	75.3	0.76	1.15	4.1	3.11	2.1	2.3
0.55		**M2VA**	**71 C**	3GVA	072 004-••C	1410	77.3	76.9	0.73	1.45	4.8	3.74	2.7	2.9
0.95		**M2VA**	**80 C**	3GVA	082 003-••B	1410	78.9	77.9	0.75	2.35	4.3	6.44	2.9	3.3
1.1		**M2VA**	**80 C**	3GVA	082 004-••B	1390	74.7	76.6	0.77	2.8	4.3	7.8	3.1	2.3
1.85	[1]	**M3AA**	**90 L**	3GAA	092 003-••E	1390	79.5	78.1	0.80	4.4	4.5	13	2.2	2.4
2.2	[1]	**M3AA**	**90 LB**	3GAA	092 004-••E	1390	80.3	81.0	0.83	4.85	4.5	15	2.2	2.4
4	[1]	**M3AA**	**100 LC**	3GAA	102 003-••E	1420	81.0	81.7	0.82	8.65	5.5	27	2.5	2.8
5.5	[1]	**M3AA**	**112 MB**	3GAA	112 002-••C	1425	84.5	85.5	0.83	11.4	7.1	37	2.8	3.1
9.2	[1]	**M3AA**	**132 MBA**	3GAA	132 004-••C	1445	87.8	89.2	0.87	17.5	7.2	61	2.7	2.7
11	[1]	**M3AA**	**132 MB**	3GAA	132 003-••C	1450	88.8	89.9	0.86	21	7.7	72	2.5	2.5
18.5	[1]	**M3AA**	**160 LB**	3GAA	162 103-••C	1450	90.5	92.0	0.84	36	6.6	122	2.6	3.0
30	[1]	**M3AA**	**180 LB**	3GAA	182 103-••C	1465	92.5	93.3	0.84	56	6.8	196	2.5	2.8
37		**M3AA**	**200 MLB**	3GAA	202 002-••C	1475	93.4	94.0	0.84	68	7.9	240	3.8	3.2
48	[1]	**M3AA**	**200 MLC**	3GAA	202 003-••C	1470	93.6	94.1	0.84	89	8.1	311	4.4	3.2
55		**M3AA**	**225 SMC**	3GAA	222 003-••C	1480	94.6	95.0	0.84	100	7.5	356	3.5	3.0
73	[1]	**M3AA**	**225 SMD**	3GAA	222 004-••C	1475	94.2	94.5	0.85	132	8.1	473	3.9	3.2
75		**M3AA**	**250 SMB**	3GAA	252 002-••C	1480	94.8	95.3	0.86	132	7.1	486	3.2	3.0
95	[1]	**M3AA**	**250 SMC**	3GAA	252 003-••C	1475	94.8	95.5	0.88	165	7.3	616	2.7	3.1

[1] Temperature rise class F.

[2] 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

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

Output kW		Motor type		Product code		Speed r/min	Efficiency Full load 100%	Efficiency 3/4 load 75%	Power factor cos φ 100%	Current I_N A	Current $\frac{I_s}{I_N}$	Torque T_N Nm	Torque $\frac{T_s}{T_N}$	Torque $\frac{T_{max}}{T_N}$
1000 r/min = 6-poles						**400 V 50 Hz**				**Basic design**				
0.09		**M2VA**	**63 A**	3GVA	063 001-••A	910	47.1	42.5	0.56	0.51	2.1	0.95	2.1	2.1
0.12		**M2VA**	**63 B**	3GVA	063 002-••A	910	57.5	54.0	0.58	0.54	2.1	1.27	2.1	2.1
0.18		**M2VA**	**71 A**	3GVA	073 001-••C	920	61.1	57.7	0.69	0.64	2.9	1.88	2.1	2.2
0.25		**M2VA**	**71 B**	3GVA	073 002-••C	920	64.9	62.3	0.65	0.86	3.2	2.61	2.5	2.7
0.37		**M2VA**	**80 A**	3GVA	083 001-••B	925	72.9	70.8	0.72	1.04	3.8	3.82	3.1	3.4
0.55		**M2VA**	**80 B**	3GVA	083 002-••B	925	73.3	71.9	0.71	1.55	3.4	5.68	2.9	3.1
0.75		**M3AA**	**90 S**	3GAA	093 001-••E	930	71.5	70.7	0.67	2.36	4.0	7.5	1.9	2.3
1.1		**M3AA**	**90 L**	3GAA	093 002-••E	930	74.4	72.5	0.69	3.25	4.0	11	2.1	2.4
1.5		**M3AA**	**100 L**	3GAA	103 001-••E	950	80.0	77.0	0.71	3.92	4.5	15	1.9	2.3
2.2		**M3AA**	**112 M**	3GAA	113 001-••C	940	80.5	81.0	0.74	5.4	5.6	22	2.1	2.7
3		**M3AA**	**132 S**	3GAA	133 001-••C	960	84.5	84.8	0.75	6.9	6.5	30	2.1	3.0
4		**M3AA**	**132 MA**	3GAA	133 002-••C	960	85.5	86.1	0.78	8.7	7.1	40	2.6	2.8
5.5		**M3AA**	**132 MB**	3GAA	133 003-••C	955	86.0	87.0	0.78	11.9	7.0	55	2.8	2.8
7.5		**M3AA**	**160 M**	3GAA	163 101-••C	970	89.3	90.4	0.79	15.4	6.6	74	1.9	2.6
11		**M3AA**	**160 L**	3GAA	163 102-••C	970	89.8	90.5	0.78	23	6.9	109	2.1	3.4
15		**M3AA**	**180 L**	3GAA	183 101-••C	970	90.8	91.5	0.78	31	6.8	147	2.0	3.3
18.5		**M3AA**	**200 MLA**	3GAA	203 001-••C	985	91.1	91.7	0.81	36	7.0	180	2.7	2.5
22		**M3AA**	**200 MLB**	3GAA	203 002-••C	980	91.7	92.2	0.81	43	6.8	214	2.9	3.0
30		**M3AA**	**225 SMB**	3GAA	223 001-••C	985	92.8	93.0	0.83	56	7.4	290	3.2	2.8
37		**M3AA**	**250 SMA**	3GAA	253 001-••C	985	93.4	93.7	0.83	69	7.2	358	3.2	2.9
45	[1]	**M3AA**	**280 SMA**	3GAA	283 001-••C	985	93.4	93.7	0.84	83	7.2	436	3.2	2.8
1000 r/min = 6-poles						**400 V 50 Hz**				**High-output design**				
0.15		**M2VA**	**63 BB**	3GVA	063 003-••A	900	56.9	52.1	0.54	0.74	2.2	1.61	2.2	2.3
0.32		**M2VA**	**71 C**	3GVA	073 003-••C	920	64.8	61.6	0.63	1.15	3.2	3.33	2.6	2.8
0.37		**M2VA**	**71 C**	3GVA	073 004-••C	900	60.1	60.4	0.70	1.2	2.6	4.1	2.2	2.0
0.75		**M2VA**	**80 C**	3GVA	083 003-••B	920	67.9	70.5	0.76	2.1	3.4	8.1	2.4	2.2
1.3	[1]	**M3AA**	**90 LB**	3GAA	093 003-••E	910	69.0	69.0	0.71	3.85	4.0	13.5	1.9	2.2
2.2	[1]	**M3AA**	**100 LC**	3GAA	103 002-••E	940	77.0	72.8	0.71	5.9	4.5	22	1.9	2.3
3	[1]	**M3AA**	**112 MB**	3GAA	113 002-••C	935	80.0	81.2	0.76	7.2	5.5	31	2.5	2.7
6.3	[1]	**M3AA**	**132 MC**	3GAA	133 004-••C	960	84.9	85.0	0.75	14.5	7.3	63	2.3	3.1
14	[1]	**M3AA**	**160 LB**	3GAA	163 103-••C	960	89.8	90.1	0.77	29.5	7.0	138	2.5	3.1
18.5	[1]	**M3AA**	**180 LB**	3GAA	183 102-••C	965	90.7	91.7	0.79	37.5	6.1	183	2.1	2.5
30	[1]	**M3AA**	**200 MLC**	3GAA	203 003-••C	980	91.7	92.4	0.81	56	7.3	296	3.6	2.9
37		**M3AA**	**225 SMC**	3GAA	223 002-••C	985	93.0	93.6	0.83	69	7.3	360	3.6	2.8
45	[1]	**M3AA**	**250 SMB**	3GAA	253 002-••C	985	93.4	93.7	0.84	83	7.2	436	3.2	2.8

[1] Temperature rise class F.

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

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

Output kW		Motor type		Product code		Speed r/min	Efficiency Full load 100%	Efficiency 3/4 load 75%	Power factor cos φ 100%	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						**400 V 50 Hz**				**Basic design**				
0.055		**M2VA**	**63 B**	3GVA	064 002-••A	680	38.3	31.8	0.48	0.45	1.8	0.78	2.1	2.1
0.09		**M2VA**	**71 A**	3GVA	074 001-••C	690	45.8	37.5	0.57	0.52	2.2	1.25	2.3	2.3
0.12		**M2VA**	**71 B**	3GVA	074 002-••C	690	46.4	38.1	0.55	0.69	2.2	1.67	2.5	2.5
0.18		**M2VA**	**80 A**	3GVA	084 001-••B	700	59.9	54.5	0.60	0.75	3.1	2.46	3.2	3.6
0.25		**M2VA**	**80 B**	3GVA	084 002-••B	700	70.7	67.4	0.62	0.85	3.1	3.52	2.9	3.1
0.37		**M3AA**	**90 S**	3GAA	094 001-••E	700	61.5	43.4	0.56	1.6	3.0	5	1.9	2.4
0.55		**M3AA**	**90 L**	3GAA	094 002-••E	690	62.9	56.4	0.57	2.35	3.0	7.5	1.7	2.1
0.75		**M3AA**	**100 LA**	3GAA	104 001-••E	700	72.0	63.6	0.59	2.55	3.5	10	2.1	2.7
1.1		**M3AA**	**100 LB**	3GAA	104 002-••E	700	73.0	68.8	0.64	3.35	3.5	15	2.1	2.7
1.5		**M3AA**	**112 M**	3GAA	114 001-••C	695	74.5	74.6	0.65	4.5	4.1	21	1.9	2.5
2.2		**M3AA**	**132 S**	3GAA	134 001-••C	720	80.5	80.2	0.67	5.9	5.3	29	1.9	2.5
3		**M3AA**	**132 M**	3GAA	134 002-••C	720	82.0	82.0	0.68	7.8	5.5	40	2.4	2.6
4		**M3AA**	**160 MA**	3GAA	164 101-••C	715	84.1	84.7	0.69	10	5.1	53	2.1	2.6
5.5		**M3AA**	**160 M**	3GAA	164 102-••C	710	84.7	85.6	0.70	13.4	5.5	74	2.4	2.6
7.5		**M3AA**	**160 L**	3GAA	164 103-••C	715	86.3	87.3	0.70	18.1	5.4	100	2.4	2.7
11		**M3AA**	**180 L**	3GAA	184 101-••C	720	89.6	90.3	0.76	23.5	5.7	146	2.1	2.5
15		**M3AA**	**200 MLA**	3GAA	204 001-••C	740	91.1	91.6	0.82	29	7.5	196	3.0	3.2
18.5		**M3AA**	**225 SMA**	3GAA	224 001-••C	730	91.1	91.6	0.79	37	6.8	242	2.8	3.1
22		**M3AA**	**225 SMB**	3GAA	224 002-••C	730	91.5	92.2	0.77	45	6.4	287	2.4	2.6
30		**M3AA**	**250 SMA**	3GAA	254 001-••C	735	92.8	93.1	0.79	59	7.3	389	2.2	2.6
37		**M3AA**	**280 SMA**	3GAA	284 001-••C	735	93.0	93.3	0.81	74	7.4	478	2.9	3.1
750 r/min = 8-poles						**400 V 50 Hz**				**High-output design**				
0.18		**M2VA**	**71 C**	3GVA	074 003-••C	680	51.3	49.9	0.61	0.8	2.2	2.6	2.5	2.2
0.37		**M2VA**	**80 C**	3GVA	084 003-••B	690	64.6	65.3	0.69	1.2	3.0	5.3	2.3	2.1
0.75	[1]	**M3AA**	**90 LB**	3GAA	094 003-••E	680	64.0	60.0	0.65	2.65	3.0	10	1.8	2.0
1.5	[1]	**M3AA**	**100 LC**	3GAA	104 003-••E	670	71.0	65.9	0.70	4.4	3.3	21	1.8	2.2
1.9	[1]	**M3AA**	**112 MB**	3GAA	114 002-••C	690	74.0	74.8	0.67	5.6	4.3	26.5	2.0	2.6
3.8	[1]	**M3AA**	**132 MB**	3GAA	134 003-••C	710	80.5	80.7	0.69	9.9	5.2	51	2.3	2.6
8.5	[1]	**M3AA**	**160 LB**	3GAA	164 104-••C	700	85.1	85.7	0.70	21	5.3	114	2.3	2.6
15	[1]	**M3AA**	**180 LB**	3GAA	184 102-••C	720	88.7	89.6	0.76	32.5	6.0	199	2.4	2.6
18.5		**M3AA**	**200 MLB**	3GAA	204 002-••C	735	91.4	91.8	0.81	36	7.3	241	2.6	3.1
30	[1]	**M3AA**	**225 SMC**	3GAA	224 003-••C	735	91.7	92.3	0.79	64	6.7	391	2.8	3.0
37		**M3AA**	**250 SMB**	3GAA	254 002-••C	735	93.0	93.3	0.81	74	7.4	478	2.9	3.1

[1] Temperature rise class F.

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

General purpose aluminum motors, premium efficiency

Data acc. to IEC 60034-2, determination of efficiency

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

Output kW	Motor type		Product code		Speed r/min	Efficiency Full load 100%	Efficiency 3/4 load 75%	Power factor cos φ 100%	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	Sound pressure level L_p dB(A)
3000 r/min = 2 poles					**400 V 50 Hz**										**Basic design**	
1.5	**M3AA**	**90 L**	3GAA	091 312-••C	2900	85.9	86.5	0.87	3	7.7	5	2.7	3.6	0.002	16	63
2.2	**M3AA**	**90 LB**	3GAA	091 313-••C	2880	85.8	87.1	0.87	4.4	7.4	7.3	3.0	3.6	0.002	18	63
3	**M3AA**	**100 LB**	3GAA	101 312-••C	2920	87.6	87.5	0.86	5.9	10.0	9.9	3.9	4.9	0.005	25	62
4	**M3AA**	**112 M**	3GAA	111 022-••C	2860	87.7	89.4	0.93	7.1	7.5	13.4	2.6	3.4	0.012	33	63
5.5	**M3AA**	**132 SA**	3GAA	131 023-••C	2900	88.6	88.9	0.88	10.3	9.9	18.1	4.0	4.5	0.016	42	69
7.5	**M3AA**	**132 SB**	3GAA	131 024-••C	2915	90.9	91.3	0.90	13.3	11.0	24.6	5.1	5.2	0.022	56	69
11	**M3AA**	**160 MA**	3GAA	161 121-••C	2935	91.5	91.9	0.90	19.2	7.4	36	2.7	2.9	0.047	84	69
15	**M3AA**	**160 M**	3GAA	161 122-••C	2940	92.3	92.7	0.90	26	8.0	49	3.0	3.3	0.053	94	69
18.5	**M3AA**	**160 L**	3GAA	161 123-••C	2935	93.1	93.6	0.89	32.5	8.3	60	3.1	3.3	0.058	100	69
22	**M3AA**	**180 M**	3GAA	181 121-••C	2945	93.2	93.8	0.91	37.5	7.1	71	2.7	2.9	0.092	137	70
30	**M3AA**	**200 MLB**	3GAA	201 021-••C	2950	93.0	93.3	0.90	52	7.9	97	3.0	2.9	0.18	200	72
37	**M3AA**	**200 MLC**	3GAA	201 022-••C	2960	93.9	94.1	0.89	64	8.8	120	3.6	3.3	0.19	205	72
45	**M3AA**	**225 SMC**	3GAA	221 021-••C	2970	94.4	94.4	0.88	78	6.9	145	2.3	2.9	0.29	260	74
55	**M3AA**	**250 SMB**	3GAA	251 021-••C	2970	94.1	94.1	0.91	93	7.5	177	2.5	3.0	0.57	330	75
75	**M3AA**	**250 SMC**	3GAA	251 022-••C	2965	94.8	95.0	0.93	124	7.7	242	2.3	2.8	0.6	345	75
1500 r/min = 4 poles					**400 V 50 Hz**										**Basic design**	
1.1	**M3AA**	**90 L**	3GAA	092 312-••C	1420	83.9	84.3	0.80	2.4	6.1	7.4	2.9	3.4	0.004	16	50
1.5	**M3AA**	**100 LA**	3GAA	102 311-••C	1440	85.6	85.5	0.82	3.2	6.9	10	2.8	3.4	0.006	21	54
2.2	**M3AA**	**100 LC**	3GAA	102 313-••C	1450	86.8	86.5	0.77	4.8	8.5	14.5	4.0	4.6	0.009	25	54
3	**M3AA**	**112 MA**	3GAA	112 021-••C	1455	87.5	87.8	0.81	6.2	7.9	19.7	2.7	3.7	0.018	34	56
4	**M3AA**	**112 M**	3GAA	112 022-••C	1455	88.3	88.6	0.76	8.6	8.5	26.3	3.3	4.3	0.018	34	56
5.5	**M3AA**	**132 S**	3GAA	132 023-••C	1460	89.3	90.5	0.84	10.6	7.0	36.2	2.2	2.8	0.038	48	59
7.5	**M3AA**	**132 M**	3GAA	132 024-••C	1450	90.3	91.0	0.87	14	7.8	49	2.2	3.1	0.048	59	59
11	**M3AA**	**160 M**	3GAA	162 121-••C	1470	91.5	92.1	0.83	21	8.1	72	3.4	3.3	0.091	94	62
15	**M3AA**	**160 L**	3GAA	162 122-••C	1460	91.3	92.1	0.83	28.5	7.6	98	3.3	3.1	0.102	103	62
18.5	**M3AA**	**180 M**	3GAA	182 121-••C	1470	92.5	93.4	0.84	34	6.6	121	2.7	2.8	0.191	141	62
22	**M3AA**	**180 L**	3GAA	182 122-••C	1475	93.2	93.9	0.84	41	7.8	143	3.1	3.4	0.225	161	62
30	**M3AA**	**200 MLB**	3GAA	202 021-••C	1475	93.7	94.3	0.84	55	8.0	194	4.0	3.1	0.34	205	63
37	**M3AA**	**225 SMB**	3GAA	222 021-••C	1480	93.7	94.0	0.85	68	8.1	239	3.9	2.9	0.42	230	66
45	**M3AA**	**225 SMC**	3GAA	222 022-••C	1480	94.4	94.8	0.86	80	8.0	291	3.8	3.2	0.49	265	66
55	**M3AA**	**250 SMB**	3GAA	252 021-••C	1480	94.5	94.9	0.87	96	7.4	356	3.0	3.1	0.88	335	67
55	**M3AA**	**225 SMD**	3GAA	222 023-••C	1480	94.5	94.8	0.86	98	8.5	355	4.3	3.8	0.56	290	66
75	**M3AA**	**250 SMC**	3GAA	252 022-••C	1480	95.2	95.6	0.85	135	8.4	484	3.4	5.1	0.95	360	66

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

Data at voltage ranges

Rated data at voltage codes S and D

Single-speed motors of size 112 to 132 can be produced with voltage codes S and D, i.e., voltage range at both 50 and 60 Hz. The current rating for each voltage range is specified on the rating plate. It represents the highest current that can exist within the voltage range at the rated output. The power factor and speed specified on the rating plate apply at the average voltage within the range.

Output in kW					Product code	Current in A[1] at		Speed in r/min		Power factor cos φ	
50 Hz	60 Hz		Design [3]	Motor type	3GAA	380-420 V 50 Hz	440-480 V 60 Hz	380-420 V 50 Hz	440-480 V 60 Hz	380-420 V 50 Hz	440-480 V 60 Hz
3000/3600 r/min = 2 poles											
4	**4.6**	[4]		**M2AA 112 M**	**111 001-••A**	7.8	7.7	2850	3450	0.91	0.91
4	**4.6**			**M3AA 112 M**	**111 022-••C**	7.6	7.4	2860	3460	0.93	0.93
5.5	**6.4**	[2]	**HO**	**M3AA 112 MB**	**111 002-••C**	10.5	10.4	2855	3455	0.93	0.93
5.5	**6.4**	[4]		**M2AA 132 SA**	**131 001-••A**	10.9	11	2855	3455	0.88	0.88
5.5	**6.4**			**M3AA 132 SA**	**131 023-••C**	10.7	10.7	2900	3500	0.88	0.87
7.5	**8.6**	[4]		**M2AA 132 SB**	**131 002-••A**	14.7	14.4	2855	3455	0.90	0.90
7.5	**8.6**			**M3AA 132 SB**	**131 024-••C**	13.9	13.8	2915	3515	0.90	0.89
9.2	**10.6**	[2]	**HO**	**M3AA 132 SBB**	**131 004-••C**	17.6	17.3	2840	3440	0.92	0.92
11	**12.6**	[2]	**HO**	**M3AA 132 SC**	**131 003-••C**	21	20	2835	3445	0.93	0.93
1500/1800 r/min = 4 poles											
3	**3.5**			**M3AA 112 MA**	**112 021-••C**	6.5	6.4	1450	1750	0.81	0.8
4	**4.6**	[4]		**M2AA 112 M**	**112 001-••A**	8.9	8.6	1435	1735	0.80	0.81
4	**4.6**			**M3AA 112 M**	**112 022-••C**	9	8.6	1455	1755	0.76	0.76
5.5	**6.4**	[2]	**HO**	**M3AA 112 MB**	**112 002-••C**	11.7	11.6	1425	1725	0.83	0.83
5.5	**6.4**	[4]		**M2AA 132 S**	**132 001-••A**	11.5	11.5	1450	1750	0.83	0.83
5.5	**6.4**			**M3AA 132 S**	**132 023-••C**	11.1	11.1	1460	1760	0.84	0.84
7.5	**8.6**	[4]		**M2AA 132 M**	**132 002-••A**	15.3	15.1	1450	1750	0.83	0.83
7.5	**8.6**			**M3AA 132 M**	**132 024-••C**	14.6	14.3	1450	1750	0.87	0.86
9.2	**10.6**	[2]	**HO**	**M3AA 132 MBA**	**132 004-••C**	18.4	18.2	1445	1745	0.87	0.87
11	**12.6**	[2]	**HO**	**M3AA 132 MB**	**132 003-••C**	22	22	1450	1750	0.86	0.86

[2]) Recalculation factors
Multiple by 1.73 when recalculating:
from 380-420 V to 220-240 V 50 Hz
from 440-480 V to 250-280 V 50 Hz

[3]) Class F temperature rise

[4]) High-output design.

[5]) Efficiency class eff2.

Data at voltage ranges

Rated data at voltage codes S and D

Single-speed motors of size 112 to 132 can be produced with voltage codes S and D, i.e., voltage range at both 50 and 60 Hz. The current rating for each voltage range is specified on the rating plate. It represents the highest current that can exist within the voltage range at the rated output. The power factor and speed specified on the rating plate apply at the average voltage within the range.

Output in kW				Product code	Current in A[1] at		Speed in r/min		Power factor cos φ	
50 Hz	60 Hz	Design [3]	Motor type	3GAA	380-420 V 50 Hz	440-480 V 60 Hz	380-420 V 50 Hz	440-480 V 60 Hz	380-420 V 50 Hz	440-480 V 60 Hz
1000/1200 r/min = 6 poles										
2.2	**2.5**		**M3AA 112 M**	113 001-••C	5.4	5.3	940	1140	0.74	0.74
3.0	**3.5**	**HO**	**M3AA 112 MB**	113 002-••C	7.3	7.3	935	1135	0.76	0.75
3.0	**3.5**		**M3AA 132 S**	133 001-••C	7.1	7.0	960	1160	0.75	0.75
4.0	**4.6**		**M3AA 132 MA**	133 002-••C	8.9	8.9	960	1160	0.78	0.78
5.5	**6.4**		**M3AA 132 MB**	133 003-••C	12.2	12.2	955	1155	0.78	0.78
6.5	**7.5**	**HO**	**M3AA 132 MC**	133 004-••C	15.2	14.9	960	1160	0.75	0.76
750/900 r/min = 8 poles										
1.5	**1.7**		**M3AA 112 M**	114 001-••C	4.6	4.4	695	845	0.65	0.65
2.0	**2.3**	**HO**	**M3AA 112 MB**	114 002-••C	6	6	685	835	0.67	0.66
2.2	**2.5**		**M3AA 132 S**	134 001-••C	5.9	5.9	720	870	0.67	0.66
3.0	**3.5**		**M3AA 132 M**	134 002-••C	7.8	7.8	720	870	0.68	0.68
3.8	**4.4**	**HO**	**M3AA 132 MB**	134 003-••C	10	10	710	860	0.69	0.69

[1]) Recalculation factors.
Multiply by 1.73 when recalculating:
from 380-420 V to 220-240 V 50 Hz
from 440-480 V to 250-280 V 60 Hz

[2]) Class F temperature rise.

[3]) High-output design.

[4]) Efficiency class EFF2.