

# Totally enclosed squirrel cage three phase motors, aluminium frame IP 55 IC 411 two-speed motors

400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J= <sup>1</sup> / <sub>4</sub> GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> T <sub>N</sub>	T <sub>max</sub> T <sub>N</sub>		
<b>3000/1500 r/min = 2/4 poles Fan drive, two separate windings</b>												
0.37/0.07	71 B	078 202-●	2810/1450	64/43	0.90/0.62	1.0/0.4	3.5/2.9	1.2/0.46	1.0/1.1	1.7/2.2	0.0005	6.5
0.65/0.10	80 A	088 201-●	2860/1460	68/40	0.86/0.62	1.6/0.6	4.1/2.8	2.1/0.65	1.2/1.1	2.0/2.2	0.0009	9
0.9/0.15	80 B	088 202-●	2870/1460	73/45	0.87/0.66	2.1/0.75	4.8/2.8	3.0/1.0	1.5/1.0	2.2/2.3	0.0011	10
1.4/0.22	90 S	098 201-●	2870/1470	77/48	0.89/0.63	3.0/1.1	5.3/3.3	4.6/1.4	1.7/1.0	2.4/2.7	0.0019	13
1.9/0.3	90 L	098 202-●	2880/1470	78/58	0.89/0.68	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	100 L	108 201-●	2900/1470	80/60	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	112 M	118 204-●	2895/1470	83.0/68.0	0.92/0.60	6.6/2.1	7.0/5.8	11.5/3.9	1.7/1.8	2.3/2.8	0.012	32
5.5/1.0	132 S	138 207-●	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	132 M	138 208-●	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	160 M	168 202-●	2940/1470	88.5/79.5	0.92/0.79	23.0/4.4	7.8/6.4	42/12	2.1/2.1	3.0/2.5	0.054	92
17.5/2.5	160 L	168 203-●	2925/1475	89.0/81.0	0.92/0.77	31.0/5.8	7.1/6.7	57/16	2.0/2.5	2.6/2.9	0.057	99
20/2.8	180 M	188 207-●	2930/1465	89.0/77.0	0.90/0.77	36.0/6.9	6.4/5.8	65/18	2.1/1.9	2.4/2.0	0.094	132
25/3.6	180 L	188 208-●	2940/1465	90.0/78.0	0.88/0.78	46.0/8.6	7.5/7.3	81/24	2.6/1.9	2.9/1.9	0.108	152
30/4.1	200 MLA	208 210-●	2945/1480	91.5/85.0	0.89/0.72	54/10	8.0/7.1	97/26	2.2/2.7	2.8/2.8	0.15	175
38/5.5	200 MLB	208 211-●	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	225 SMB	228 207-●	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	225 SMC	228 208-●	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	250 SMB	258 204-●	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 Fan drive, Dahlander-connection

0.55/0.11	71 B	078 102-●	2800/1440	68/50	0.85/0.62	1.4/0.5	4.0/3.0	1.8/0.73	1.5/1.4	2.0/2.4	0.0005	6.5
0.65/0.13	71 C	078 103-●	2800/1440	70/55	0.87/0.62	1.6/0.55	4.1/3.0	2.2/0.86	1.6/1.4	2.1/2.4	0.0006	7.5
0.75/0.15	80 A	088 101-●	2850/1460	73/57	0.80/0.57	1.9/0.67	4.5/3.5	2.5/0.98	1.8/1.4	2.4/2.4	0.0009	9
1.1/0.23	80 B	088 102-●	2860/1460	76/63	0.83/0.60	2.6/0.88	5.0/3.7	3.8/1.5	1.8/1.3	2.4/2.4	0.0011	10
1.4/0.3	80 C	088 103-●	2840/1450	75/67	0.86/0.64	3.1/1.0	5.0/3.7	4.7/2.0	1.8/1.2	2.4/2.5	0.0013	11
1.5/0.33	90 S	098 101-●	2860/1460	77/66	0.87/0.67	3.3/1.1	5.2/3.9	5.0/2.1	1.8/1.1	2.4/2.4	0.0019	13
2.2/0.45	90 L	098 102-●	2860/1460	80/73	0.88/0.65	4.6/1.4	5.9/4.4	7.3/2.9	2.1/1.2	2.6/2.6	0.0024	16
2.5/0.47	90 LB	098 103-●	2860/1460	78/75	0.88/0.62	5.2/1.5	6.1/4.5	8.3/3.1	2.2/1.4	2.7/2.8	0.0027	18
3.0/0.6	100 L	108 101-●	2880/1470	81/74	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
3.5/0.7	100 LB	108 102-●	2880/1470	80/77	0.91/0.65	7.0/2.0	6.2/4.8	12/4.6	2.1/1.2	2.8/3.0	0.005	25
4.5/1	112 M	118 104-●	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	132 S	138 127-●	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	132 M	138 108-●	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	160 MA	168 101-●	2910/1465	85.0/83.5	0.89/0.73	19.0/4.8	5.9/6.1	30/43	1.5/2.4	2.3/2.8	0.039	73
16/3.2	160 M	168 102-●	2915/1465	87.5/86.5	0.92/0.76	28.5/7.0	6.6/6.3	52/21	1.8/2.5	2.4/2.8	0.054	92
19.5/4.5	160 L	168 103-●	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	180 M	188 105-●	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	180 L	188 106-●	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	200 MLA	208 110-●	2940/1465	90.0/89.0	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	200 MLB	208 111-●	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	200 MLC	208 112-●	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	225 SMB	228 107-●	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	225 SMC	228 108-●	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	0.30	260
75/25	250 SMB	258 104-●	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

<sup>1)</sup> Sizes 63 to 100 voltage code H.  
Sizes 112 to 250 voltage code D.

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						
	A	S	B	D	H	E	X
63-100	-	220-230 V	-	380-400 V <sup>1)</sup>	400-415 V	500 V	Other rated voltage or frequency, 690 V maximum
112-132	-	220-230 V	-	380-400 V	400-415 V	500 V	
160-250	220 V	230 V	380 V	400 V	415 V	500 V	

<sup>1)</sup> Restamping from code H. Note that this results in a certain reduction of output. Rated output on request.

400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J= $\frac{1}{4}$ GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	$\frac{I_s}{I_N}$	T <sub>N</sub> Nm	$\frac{T_s}{T_N}$	$\frac{T_{max}}{T_N}$		
<b>1500/1000 r/min = 4/6 poles</b>												
<b>Fan drive, two separate windings</b>												
0.30/0.10	71 B	078 205-●	1400/950	64/41	0.78/0.66	0.9/0.56	3.3/2.3	2.0/1.1	1.5/1.4	2.0/2.1	0.0009	6.5
0.45/0.15	80 A	088 204-●	1400/960	66/46	0.78/0.65	1.3/0.73	3.7/2.6	3.0/1.5	1.7/1.3	2.1/2.2	0.0017	8.5
0.65/0.22	80 B	088 205-●	1400/960	70/53	0.82/0.64	1.7/0.94	3.9/2.9	4.4/2.2	1.7/1.4	2.1/2.2	0.0021	9.5
1.0/0.3	90 S	098 204-●	1400/940	73/53	0.83/0.75	2.5/1.2	4.2/2.6	6.8/3.0	1.8/1.0	2.2/1.7	0.0032	13
1.5/0.45	90 L	098 205-●	1400/940	75/58	0.84/0.73	3.5/1.6	4.3/2.9	10.0/4.5	1.7/1.0	2.1/1.8	0.0043	16
2.0/0.6	100 LA	108 203-●	1430/960	77/62	0.85/0.72	4.5/2.0	5.0/3.3	13.0/5.9	1.8/1.0	2.4/1.9	0.0069	20
2.5/0.8	100 LB	108 204-●	1430/960	79/68	0.84/0.71	5.5/2.5	5.6/3.5	16.0/7.9	2.0/1.1	2.5/2.0	0.0082	23
3.0/1.0	112 M	118 205-●	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	132 S	138 229-●	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
6.0/2.0	132 M	138 230-●	1460/980	84.0/71.0	0.86/0.73	12.0/5.6	7.1/4.5	39.2/19.5	1.8/1.3	2.5/2.0	0.048	59
10.5/3.5	160 M	168 204-●	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	160 L	168 205-●	1460/970	88.5/77.0	0.85/0.76	28/11.0	6.9/4.6	95/44	2.2/1.5	2.6/1.9	0.119	117
16/5	180 M	188 209-●	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	180 L	188 210-●	1470/980	90.0/79.5	0.83/0.74	39/16.0	7.2/5.0	130/63	2.4/1.8	2.7/2.0	0.224	159
23/7.2	200 MLA	208 213-●	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	200 MLB	208 214-●	1470/985	90.0/83.5	0.90/0.89	54/18	7.7/7.9	195/87	1.6/1.7	2.7/2.5	0.53	200
34/11	225 SMB	228 209-●	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	225 SMC	228 210-●	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	250 SMB	258 205-●	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

<sup>1)</sup> Sizes 63 to 100 voltage code H.  
<sup>2)</sup> Sizes 112 to 250 voltage code D.



## Recalculation factors

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

Motor sizes 63-100 Rated voltage at 50 Hz and motor wound for	Recalculation factor	Motor sizes 112-250 Rated voltage at 50 Hz and motor wound for	Recalculation factor
220 V	<sup>1)</sup>	220 V	1.82
230 V	1.74	230 V	1.74
380 V	<sup>2)</sup>	380 V	1.05
		415 V	0.96
500 V	0.80	500 V	0.80
660 V	0.61	660 V	0.61
690 V	0.58	690 V	0.58

<sup>1)</sup> Code S.

<sup>2)</sup> Restamping of code H. Note that this results in a certain reduction of output. Rated output on request.

# Totally enclosed squirrel cage three phase motors, aluminium frame IP 55, IC 411, two-speed motors

400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	I <sub>s</sub> I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> T <sub>N</sub>	T <sub>max</sub> T <sub>N</sub>		
<b>1500/750 r/min = 4/8-poles</b>												
<b>Fan drive, two separate windings</b>												
0.45/0.07	80 A	088 207-●	1380/710	66/34	0.83/0.65	1.3/0.47	3.3/2.0	3.0/0.94	1.3/1.2	1.8/1.8	0.0017	8.5
0.65/0.09	80 B	088 208-●	1380/710	69/34	0.84/0.67	1.7/0.56	3.6/2.0	4.4/1.2	1.6/1.0	1.9/1.8	0.0021	9.5
1.0/0.13	90 S	098 207-●	1400/700	71/38	0.83/0.70	2.6/0.72	3.9/2.1	6.8/1.8	1.5/1.0	2.0/1.8	0.0032	13
1.4/0.18	90 L	098 208-●	1420/710	74/41	0.81/0.62	3.5/1.0	4.5/2.3	9.4/2.4	1.7/1.1	2.3/2.1	0.0043	16
1.85/0.25	100 LA	108 206-●	1430/720	78/45	0.84/0.60	4.2/1.4	4.9/2.5	12.0/3.3	1.7/1.1	2.3/2.2	0.0069	20
2.3/0.33	100 LB	108 207-●	1430/720	80/49	0.86/0.60	5.0/1.6	5.2/2.6	15.0/4.3	1.8/1.1	2.4/2.2	0.0082	23
3.0/0.4	112 M	118 206-●	1440/730	81.0/51.0	0.87/0.58	6.2/2.0	6.8/3.8	19.9/5.2	1.5/1.6	2.4/2.6	0.018	32
4.0/0.6	132 S	138 231-●	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	132 M	138 232-●	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	160 M	168 206-●	1460/735	87.0/60.0	0.84/0.53	18/5.9	6.6/4.0	59/17	2.0/2.2	2.5/2.7	0.089	94
13.5/2.0	160 L	168 207-●	1455/735	88.0/64.0	0.86/0.54	26/8.4	6.0/4.1	89/26	1.9/2.2	2.3/2.6	0.119	117
16/2.3	180 M	188 211-●	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	137
19/2.7	180 L	188 212-●	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	161
26/3.3	200 MLA	208 216-●	1475/740	91.0/73.0	0.85/0.59	49.0/11.0	6.9/4.6	168/46	2.1/2.2	2.5/2.3	0.28	180
30/3.8	200 MLB	208 217-●	1470/740	91.5/75.5	0.86/0.59	55.0/12.5	6.7/4.6	195/49	2.1/2.2	2.4/2.2	0.34	205
38/5.2	225 SMB	228 211-●	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	225 SMC	228 212-●	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	250 SMB	258 206-●	1475/740	93.5/83.0	0.89/0.65	110/27	7.5/6.0	408/129	2.4/3.0	2.7/2.7	0.89	335

## 1500/750 r/min = 4/8-poles Fan drive, Dahlander-connection

0.37/0.09	71 B	078 104-●	1390/680	65/42	0.73/0.63	1.2/0.49	3.3/2.0	2.5/1.2	1.8/1.4	1.8/1.8	0.009	6.5
0.45/0.1	71 C	078 105-●	1390/690	64/62	0.73/0.59	1.4/0.57	3.4/2.1	3.1/1.4	1.9/1.6	2.3/2.1	0.0012	7.5
0.55/0.11	80 A	088 104-●	1380/700	67/48	0.80/0.61	1.6/0.54	3.1/2.3	3.8/1.5	1.5/1.4	1.8/1.8	0.0017	8.5
0.75/0.16	80 B	088 105-●	1390/700	71/51	0.80/0.62	2.0/0.70	3.4/2.4	5.1/1.2	1.5/1.2	1.9/1.9	0.0021	9.5
0.9/0.2	80 C	088 106-●	1390/700	70/57	0.80/0.62	2.4/0.83	3.6/2.4	6.2/2.8	1.7/1.3	2.1/1.9	0.0024	11
1.1/0.26	90 S	098 104-●	1410/700	73/53	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
1.5/0.31	90 L	098 105-●	1420/710	77/57	0.78/0.54	3.7/1.5	4.8/2.8	10/4.2	2.2/1.7	2.7/2.5	0.0043	16
1.8/0.35	90 LB	098 106-●	1410/710	76/60	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
2.2/0.48	100 LA	108 103-●	1430/720	79/65	0.82/0.59	5.1/1.8	5.1/3.0	14/6.4	1.9/1.2	2.5/2.1	0.0069	20
2.8/0.6	100 LB	108 104-●	1430/720	81/68	0.82/0.58	6.4/2.2	5.2/3.0	18/8.0	2.0/1.2	2.6/2.2	0.0082	23
3.0/0.65	100 LC	108 105-●	1430/720	81/67	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	112 M	118 126-●	1430/720	81.0/71.0	0.89/0.58	7.0/2.5	6.8/4.4	23.4/9.3	1.6/1.7	2.5/2.7	0.018	32
5.0/1.0	132 S	138 131-●	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	132 M	138 132-●	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	160M	168 104-●	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	92
15.5/2.7	160 L	168 105-●	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	180 M	188 107-●	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	130
22/4.4	180 L	188 108-●	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	159
29/6.5	200 MLA	208 116-●	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	200 MLB	208 117-●	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	225 SMB	228 111-●	1480/740	92.0/89.5	0.78/0.61	85/27	7.8/5.0	271/129	2.5/2.2	3.0/2.3	0.49	265
50/11	225 SMC	228 112-●	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	250 SMB	258 106-●	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

<sup>1)</sup> Sizes 63 - 100 voltage code H.  
Sizes 112 - 250 voltage code D.

The bullets 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. 4).

### Code letters for supplementing the product code

Motor size	Code letters for voltage and frequency						
	A	S	B	D	H	E	X
63-100	-	220-230 V	-	380-400 V <sup>1)</sup>	400-415 V	500 V	Other rated voltage or frequency, 690 V maximum
112-132	-	220-230 V	-	380-400 V	400-415 V	500 V	
160-250	220 V	230 V	380 V	400 V	415 V	500 V	

<sup>1)</sup> Restamping from code H. Note that this results in a certain reduction of output. Rated output on request.

**400 V 50 Hz<sup>1)</sup>**

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power-factor cos φ	Current		Torque			Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>n</sub> A	I <sub>s</sub> I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>S</sub> T <sub>N</sub>	T <sub>max</sub> T <sub>N</sub>		
<b>1000/750 r/min = 6/8-poles</b>						<b>Fan drive, two separate windings</b>						
0.25/0.10	80 A	088 210-●	930/700	52/39	0.74/0.67	0.95/0.56	2.6/2.0	2.6/1.3	1.2/1.1	1.8/1.8	0.0017	8.5
0.33/0.14	80 B	088 211-●	940/700	57/44	0.71/0.67	1.2/0.70	3.0/2.1	3.3/1.9	1.4/1.1	2.0/1.7	0.0021	9.5
0.45/0.2	90 S	098 210-●	940/700	59/44	0.72/0.67	1.6/1.0	3.1/2.2	4.6/2.7	1.4/1.0	2.0/1.7	0.0032	13
0.7/0.3	90 L	098 211-●	930/700	63/49	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
0.9/0.37	100 LA	108 209-●	940/710	69/55	0.79/0.63	2.4/1.55	3.3/2.7	9.2/5.0	1.2/1.1	1.8/1.8	0.0069	20
1.2/0.5	100 LB	108 210-●	940/710	73/58	0.75/0.67	3.2/1.9	3.4/2.6	12.0/6.7	1.2/1.1	1.9/1.9	0.0082	23
1.6/0.8	112 M	118 207-●	965/720	73.0/57.0	0.70/0.66	4.5/3.1	5.8/4.0	15.8/10.6	2.0/1.6	2.6/2.2	0.018	33
2.6/1.3	132 S	138 213-●	975/730	77.0/64.0	0.72/0.64	6.8/4.6	6.5/4.3	25.5/17.0	1.6/1.4	2.8/2.5	0.031	48
3.5/1.6	132 M	138 214-●	975/730	79.0/66.0	0.72/0.66	8.9/5.2	7.0/4.9	34.3/20.9	1.8/1.5	3.0/2.5	0.049	59
	160 M	On request										
	160 L	On request										
	180 M	On request										
	180 L	On request										
17/7.5	200 MLB	208 221-●	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	200 MLC	208 222-●	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	225 SMB	228 215-●	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	225 SMC	228 216-●	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	250 SMB	258 208-●	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
<b>1000/500 r/min = 6/12-poles</b>						<b>Fan drive, Dahlander-connection</b>						
0.28/0.05	80 A	088 107-●	920/440	54/31	0.72/0.60	1.1/0.40	2.6/1.7	2.9/1.1	1.3/1.4	1.8/1.8	0.0017	8.5
0.42/0.07	80 B	088 108-●	920/440	57/34	0.74/0.57	1.5/0.54	2.7/1.7	4.4/1.5	1.2/1.5	1.7/1.9	0.00212	9.5
0.5/0.08	90 S	098 107-●	920/440	60/31	0.74/0.59	1.7/0.63	2.9/1.7	5.2/1.7	1.2/1.5	1.8/2.0	0.0032	13
0.75/0.12	90 L	098 108-●	930/450	64/36	0.73/0.54	2.4/0.90	3.0/1.8	7.7/2.5	1.3/1.6	1.9/2.1	0.0043	16
0.9/0.16	100 LA	108 106-●	940/470	69/50	0.73/0.49	2.6/0.96	3.6/2.1	9.0/3.2	1.3/1.2	2.0/2.1	0.0069	20
1.3/0.2	100 LB	108 107-●	940/470	71/52	0.76/0.47	3.5/1.2	3.4/2.2	13.0/4.0	1.2/1.2	1.8/2.2	0.0082	23

<sup>1)</sup> Sizes 63 -100 voltage code H.  
Sizes 112 - 250 voltage code D.

### Recalculation factors

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

Motor sizes 63-100 Rated voltage at 50 Hz and motor wound for	Recalculation factor	Motor sizes 112-250 Rated voltage at 50 Hz and motor wound for	Recalculation factor
220 V	<sup>1)</sup>	220 V	1.82
230 V	1.74	230 V	1.74
380 V	<sup>2)</sup>	380 V	1.05
500 V	0.80	500 V	0.80
660 V	0.61	660 V	0.61
690 V	0.58	690 V	0.58

<sup>1)</sup> Code S. <sup>2)</sup> Restamping from code H. Note that this results in a certain reduction of output. Rated output on request.

# Totally enclosed squirrel cage three phase motors, aluminium frame IP 55 IC 411 two-speed motors

400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	I <sub>S</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>S</sub> /T <sub>N</sub>	T <sub>max</sub> /T <sub>N</sub>		
<b>3000/1500 r/min = 2/4 poles Highest output at both speeds, two separate windings</b>												
0.45/0.22	80 A	088 213-●	2890/1440	65/55	0.82/0.62	1.25/0.95	3.8/3.0	1.5/1.5	1.1/1.4	2.1/2.4	0.0009	9
0.65/0.33	80 B	088 214-●	2880/1440	69/61	0.88/0.68	1.6/1.2	4.2/3.4	2.2/2.2	1.2/1.2	2.1/2.1	0.0011	10
1.1/0.55	90 S	098 213-●	2900/1450	74/62	0.87/0.64	2.5/2.0	5.1/3.6	3.6/3.6	1.4/1.5	2.3/2.5	0.0019	13
1.5/0.75	90 L	098 214-●	2900/1450	77/70	0.87/0.67	3.3/2.4	5.7/4.1	4.9/4.9	1.5/1.5	2.5/2.5	0.0024	16
2.0/1.0	100 L	108 212-●	2890/1450	76/68	0.91/0.75	4.2/2.9	5.8/3.7	6.6/6.6	1.7/1.1	2.5/2.0	0.0041	21
2.6/1.3	112 M	118 201-●	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	132 SB	138 201-●	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	132 M	138 202-●	2885/1440	82.0/77.0	0.93/0.75	10.6/7.0	6.7/5.0	18.5/18.6	1.8/1.4	2.1/2.2	0.022	56
12/6	160 M	168 209-●	2835/1460	87.5/84.5	0.92/0.80	22/13.0	7.7/6.0	39/39	2.1/2.3	2.8/2.4	0.054	92
15/7.5	160 L	168 210-●	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	180 L	188 202-●	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	200 MLA	208 201-●	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	200 MLB	208 202-●	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	225 SMB	228 201-●	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	225 SMC	228 202-●	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	250 SMB	258 201-●	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 Highest output at both speeds, Dahlander-connection

0.45/0.3	71 B	078 111-●	2700/1390	60/61	0.87/0.77	1.3/1.0	3.0/3.2	1.6/2.0	1.6/1.6	1.8/2.0	0.0009	6.5
0.6/0.45	80 A	088 110-●	2770/1400	63/66	0.83/0.80	1.7/1.3	3.4/3.4	2.0/3.0	1.6/1.4	2.0/1.9	0.0017	9
0.85/0.65	80 B	088 111-●	2770/1400	68/68	0.86/0.84	2.1/1.7	3.8/3.5	2.9/4.4	1.7/1.4	2.1/1.8	0.0021	10
1.3/1.0	90 S	098 110-●	2730/1400	71/71	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	90 L	098 111-●	2820/1420	76/75	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	100 LA	108 109-●	2800/1430	68/76	0.89/0.81	6.0/5.0	4.8/4.4	8.5/14	2.4/1.6	2.7/2.2	0.0069	20
3.1/2.5	100 LB	108 110-●	2820/1440	72/79	0.90/0.80	7.0/5.7	5.5/5.1	10/16	2.6/1.8	2.9/2.5	0.0082	23
4/2.6	112 M	118 101-●	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	132 SB	138 101-●	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	132 M	138 102-●	2870/1435	84.0/81.0	0.93/0.76	13.3/11.5	7.1/6.2	24.0/31.9	2.4/2.5	2.6/2.7	0.022	56
9/6.5	160 MA	168 106-●	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	160 M	168 107-●	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	160 L	168 108-●	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	180 M	188 101-●	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	180 L	188 102-●	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	200 MLA	208 101-●	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	200 MLB	208 102-●	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	225 SMB	228 101-●	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	225 SMC	228 102-●	2960/1475	92.5/93.0	0.84/0.87	94/71	7.4/7.1	161/259	1.8/2.0	2.8/2.5	0.49	265
68/50	250 SMB	258 101-●	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

<sup>1)</sup> Sizes 63 to 100 voltage code H.  
Sizes 112 to 250 voltage code D.

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						
	A	S	B	D	H	E	X
63-100	-	220-230 V	-	380-400 V <sup>1)</sup>	400-415 V	500 V	Other rated voltage or frequency, 690 V maximum
112-132	-	220-230 V	-	380-400 V	400-415 V	500 V	
160-250	220 V	230 V	380 V	400 V	415 V	500 V	

<sup>1)</sup> Restamping from code H. Note that this results in a certain reduction of output. Rated output on request.



400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>s</sub> /T <sub>N</sub>	T <sub>max</sub> /T <sub>N</sub>		
<b>1500/1000 r/min = 4/6 poles</b>												
<b>Highest output at both speeds, two separate windings</b>												
0.28/0.18	71 B	078 217-●	1410/930	57/45	0.75/0.67	1.0/0.90	3.0/2.2	1.8/1.8	1.5/1.3	2.0/1.9	0.0009	6.5
0.35/0.30	80 A	088 216-●	1430/930	59/52	0.65/0.69	1.4/1.2	3.5/2.4	2.3/3.0	1.8/1.3	2.4/1.9	0.0017	8.5
0.5/0.37	80 B	088 217-●	1430/940	64/59	0.71/0.67	1.6/1.4	3.7/2.8	3.3/3.7	1.8/1.4	2.4/2.0	0.0021	9.5
0.8/0.5	90 S	098 216-●	1430/940	68/57	0.80/0.66	2.2/2.0	3.9/2.8	5.3/5.0	1.5/1.4	2.1/2.1	0.0032	13
1.2/0.75	90 L	098 217-●	1430/940	73/63	0.81/0.67	3.0/2.6	4.4/3.1	8.0/7.6	1.7/1.5	2.3/2.1	0.0043	16
1.5/0.9	100 LA	108 214-●	1440/960	75/69	0.84/0.65	3.5/3.0	4.7/3.8	9.9/8.9	1.5/1.5	2.2/2.4	0.0069	20
1.8/1.1	100 LB	108 215-●	1460/960	77/70	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	112 M	118 202-●	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	132 S	138 223-●	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	132 M	138 224-●	1470/980	82.0/77.0	0.85/0.70	9.3/8.0	7.2/5.6	29.2/29.2	1.4/1.5	2.3/2.6	0.048	59
7.5/5.5	160 M	168 211-●	1465/965	85.5/80.5	0.83/0.77	15.5/13.0	7.1/4.7	49/54	2.1/1.8	2.7/1.9	0.089	93
11.5/8.5	160 L	168 212-●	1465/965	86.5/82.5	0.84/0.76	23.0/19.5	7.0/4.9	75/84	2.1/1.8	2.8/2.0	0.119	117
13/8	180 M	188 203-●	1475/975	88.0/82.5	0.82/0.75	26.0/19.0	6.5/4.3	84/78	1.9/1.4	2.6/1.8	0.176	131
15/10	180 L	188 204-●	1475/975	88.5/84.0	0.83/0.74	30.0/23.0	7.1/4.4	97/98	2.3/1.5	2.7/1.9	0.224	159
18/12	200 MLA	208 204-●	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	200 MLB	208 205-●	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	200 MLC	208 206-●	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	225 SMB	228 203-●	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	225 SMC	228 204-●	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	250 SMB	258 202-●	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

<sup>1)</sup> Sizes 63 to 100 voltage code H.  
Sizes 112 to 250 voltage code D.

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## Recalculation factors

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

Motor sizes 63-100 Rated voltage at 50 Hz and motor wound for	Recalculation factor	Motor sizes 112-250 Rated voltage at 50 Hz and motor wound for	Recalculation factor
220 V	<sup>1)</sup>	220 V	1.82
230 V	1.74	230 V	1.74
380 V	<sup>2)</sup>	380 V	1.05
		415 V	0.96
500 V	0.80	500 V	0.80
660 V	0.61	660 V	0.61
690 V	0.58	690 V	0.58

<sup>1)</sup> Code S.

<sup>2)</sup> Restamping of code H. Note that this results in a certain reduction of output. Rated output on request.

# Totally enclosed squirrel cage three phase motors, aluminium frame

## IP 55 IC 411 two-speed motors

## Insulation class F Temperature rise class F

400 V 50 Hz<sup>1)</sup>

Output kW	Motor type M2AA	Product code 3GAA	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Moment of inertia J=1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg
						I <sub>N</sub> A	I <sub>S</sub> / I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>S</sub> / T <sub>N</sub>	T <sub>max</sub> / T <sub>N</sub>		
<b>1500/750 r/min = 4/8 poles Highest output at both speeds, two separate windings</b>												
0.22/0.11	80 A	088 219-●	1420/700	61/45	0.80/0.58	0.7/0.65	3.4/2.2	1.5/1.5	1.2/1.4	2.0/2.2	0.0017	8.5
0.33/0.16	80 B	088 220-●	1420/690	63/49	0.83/0.60	0.95/0.80	3.2/2.3	2.2/2.2	1.2/1.3	1.9/2.0	0.0021	9.5
0.5/0.25	90 S	098 219-●	1440/690	64/51	0.78/0.65	1.5/1.1	3.6/2.3	3.3/3.4	1.3/1.2	2.2/1.9	0.0032	13
0.7/0.33	90 L	098 220-●	1440/690	69/57	0.80/0.61	1.9/1.4	4.2/2.4	4.6/4.6	1.3/1.2	2.2/1.9	0.0043	16
1.0/0.5	100 LA	108 217-●	1440/700	71/61	0.86/0.63	2.4/1.95	4.2/2.5	6.6/6.8	1.2/1.1	2.0/1.9	0.0069	20
1.4/0.7	100 LB	108 218-●	1440/700	73/62	0.87/0.62	3.2/2.7	4.3/2.6	9.3/9.5	1.2/1.1	2.0/1.9	0.0082	23
1.8/0.9	112 M	118 203-●	1470/715	77.0/65.0	0.76/0.66	4.4/3.0	6.5/4.0	11.7/12.0	1.2/1.6	2.2/2.4	0.018	32
2.5/1.3	132 S	138 225-●	1470/730	80.0/69.0	0.79/0.58	5.7/4.7	6.7/4.4	16.2/17.0	1.6/1.4	2.6/2.7	0.038	48
3.3/1.7	132 M	138 226-●	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	160 M	168 213-●	1465/730	85.0/71.0	0.83/0.57	11.5/9.6	6.8/4.0	36/35	2.1/2.0	2.6/2.3	0.089	92
9/4.5	160 L	168 214-●	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	180 L	188 206-	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	200 MLA	208 207-●	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	200 MLB	208 208-●	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	225 SMB	228 205-●	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	225 SMC	228 206-●	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	250 SMB	258 203-●	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 Highest output at both speeds, Dahlander-connection

0.22/0.12	71 B	078 114-●	1410/680	61/36	0.73/0.62	0.75/0.80	3.4/1.8	1.4/1.6	1.6/1.5	1.9/1.9	0.0009	6.5
0.4/0.2	80 A	088 113-●	1410/700	63/45	0.78/0.60	1.2/1.1	3.1/2.1	2.7/2.7	1.3/1.4	1.9/2.0	0.0017	8.5
0.6/0.28	80 B	088 114-●	1410/700	67/50	0.78/0.56	1.7/1.5	3.5/2.2	4.0/3.8	1.5/1.7	2.0/2.2	0.0021	9.5
0.7/0.37	90 S	098 113-●	1420/700	72/50	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
1.1/0.55	90 L	098 114-●	1420/700	73/55	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	100 LA	108 112-●	1440/710	76/62	0.85/0.57	3.4/3.2	4.6/2.8	10.0/10.0	1.4/1.5	2.2/2.2	0.0069	20
2.0/0.95	100 LB	108 113-●	1440/710	78/64	0.86/0.55	4.4/4.0	4.8/2.9	13.0/12.0	1.4/1.6	2.2/2.3	0.0082	23
2.5/1.5	112 M	118 103-●	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	132 S	138 125-●	1450/730	82.0/70.0	0.86/0.52	7.7/7.6	5.6/3.7	25.0/24.9	1.4/1.3	2.1/2.7	0.038	48
5/2.5	132 M	138 126-●	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	160 M	168 109-●	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	160 L	168 110-●	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	180 L	188 104-●	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	200 MLA	208 107-●	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	200 MLB	208 108-●	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	200 MLC	208 109-●	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	225 SMB	228 105-●	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	225 SMC	228 106-●	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	250 SMB	258 103-●	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	1.50	320

## 1000/750 r/min = 6/8 poles Highest output at both speeds, two separate windings

16/12	200 MLB	208 219-●	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	200 MLC	208 220-●	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	225 SMB	228 213-●	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	225 SMC	228 214-●	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	250 SMB	258 207-●	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

<sup>1)</sup> Sizes 63 to 100 voltage code H. Sizes 112 to 250 voltage code D.

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						
	A	S	B	D	H	E	X
63-100	-	220-230 V	-	380-400 V <sup>1)</sup>	400-415 V	500 V	Other rated voltage or frequency, 690 V maximum
112-132	-	220-230 V	-	380-400 V	400-415 V	500 V	
160-250	220 V	230 V	380 V	400 V	415 V	500 V	

<sup>1)</sup> Restamping from code H. Note that this results in a certain reduction of output. Rated output on request.

## Motors with other number of poles

Data on these, and on bigger frame size, on request. IP 55 IC 411

### Single-speed motors

No. of poles	Speed r/min	Motor type M2AA
10	600	90-100
12	500	80-100
14	430	90-100
16	375	90-100
18	330	90-100

### Two-speed motors for fan drives

No. of poles	Type of winding	Speed r/min	Motor type M2AA
4/6	PAM	1500/1000	71-100
6/8	PAM	1000/750	71-100
6/12	Dahlander	1000/500	71-100
8/16	Dahlander	750/375	90-100
2/6	2 windings	3000/1000	71-100
4/12	2 windings	1500/500	80-100
4/16	2 windings	1500/375	90-100
6/12	2 windings	1000/500	80-100
8/12	2 windings	750/500	80-100
8/16	2 windings	750/375	90-100

### Two-speed motors with highest output at both speeds

No. of poles	Type of winding	Speed r/min	Motor type M2AA
4/6	PAM	1500/1000	71-100
6/8	PAM	1000/750	71-100
6/12	Dahlander	1000/500	80-100
2/6	2 windings	3000/1000	71-100
2/8	2 windings	3000/750	71-100
2/12	2 windings	3000/500	80-100
2/16	2 windings	3000/375	90-100
4/12	2 windings	1500/500	80-100

### Three-speed motors for fan drives

No. of poles	Type of winding	Speed r/min	Motor type M2AA
2/4/6	Dahlander + 1 winding	3000/1500/1000	80-100
2/4/8	Dahlander + 1 winding	3000/1500/750	80-100
4/6/8	Dahlander + 1 winding	1500/1000/750	71-100
4/6/12	Dahlander + 1 winding	1500/1000/500	80-100

### Three-speed motors with highest output at all speeds

No. of poles	Type of winding	Speed r/min	Motor type M2AA
2/4/6	Dahlander + 1 winding	3000/1500/1000	90-100
4/6/8	Dahlander + 1 winding	1500/1000/750	90-100