

PRODUCT NOTE

# New high efficiency General performance motors

## Aluminum M2VAM motors in shaft heights 63-132



ABB's new General performance motors are engineered for reliability, energy and cost efficiency, offering a seamless user experience with fast delivery for diverse light industry applications.

— ABB IEC General performance aluminum motors are available in efficiency classes IE3 and IE2.

ABB's new IEC General performance aluminum M2VAM motors ensure continuous, trouble-free operation by minimizing downtime and maximizing productivity.

ABB offers unparalleled customer support. The extensive network of service centers and expert technicians ensures prompt assistance, minimizing any disruptions to customer operations, no matter where they are located.

The M2VAM motors are an ideal choice for light industries, offering a perfect fit for HVAC, food and beverage, data center and textile segments. Main applications include fan, pump and other general purpose applications.

### Key features

- **Available:** The motors are available for fast delivery.
- **Easy to use:** The reduced weight leads to easier handling and installation. The smooth aluminum surface is easy to keep clean. Removable feet offer installation flexibility and allow for quick mounting type change, which can be an advantage in customer stocks, buying profiles and managing different applications.
- **Built-in reliability:** The motors have straightforward, corrosion resistant design from high quality materials and they have 12/18 months warranty.
- **Fit-for-purpose:** The motors are a cost-effective choice to reduce footprint and weight of pumps, fans or other types of applications, both direct on-line (DOL) or with VSD.
- **Compliance:** Meeting local market requirements and regulations



### Motor scope

Output	0.12 kW- 7.5 kW, 2-6 poles
Motor type	M2VAM
Shaft heights	63 – 132
Efficiency classes	IE2, IE3
Voltage/ frequency	380 – 460 V, 50/60 Hz
Supply	Direct on-line and VSD
Mounting	B3, B5, B35, V1
Amb. temp.	-20 °C to +50 °C
Cooling	IC411, TEFC
Protection	IP55 as standard
Surface color	Munsell 8B 4.5/3.25
Certification	Morocco – safety certificate

## Technical data for standard design

IE3 Premium efficiency aluminum motors, 380 V and 400 V & 50 Hz

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE3 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cos $\varphi$	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>f</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
				380 V 50 Hz	BASIC design										
<b>3000 r/min = 2 poles</b>															
0.75	M2VAM 80MB 2	3GVA081320---S	2845	80.7	81.3	79.9	0.84	1.69	6.5	2.5	2.7	2.5	0.001	11	62
1.1	M2VAM 80MC 2	3GVA081330---S	2845	82.7	83.4	82.2	0.85	2.4	6.8	3.7	2.6	2.7	0.001	12	62
1.5	M2VAM 90SB 2	3GVA091120---S	2880	84.2	84.9	83.9	0.85	3.2	7.0	5.0	2.1	2.3	0.002	17	67
2.2	M2VAM 90LD 2	3GVA091540---S	2880	85.9	86.9	86.5	0.86	4.6	7.0	7.3	2.1	2.3	0.003	19	67
3	M2VAM 100LB 2	3GVA101520---S	2895	87.1	87.4	86.9	0.88	6.0	7.6	9.9	2.9	2.7	0.005	26	74
4	M2VAM 112MB 2	3GVA111320---S	2905	88.1	88.9	88.6	0.90	7.7	7.6	13.2	2.0	2.0	0.013	29	75
5.5	M2VAM 132SB 2	3GVA131120---S	2910	89.2	89.7	89.2	0.89	10.6	7.9	18.1	2.1	2.3	0.024	42	77
7.5	M2VAM 132MD 2	3GVA131340---S	2910	90.1	90.9	90.8	0.89	14.3	7.7	24.6	2.2	2.3	0.025	48	77
<b>1500 r/min = 4 poles</b>															
<b>380 V 50 Hz</b>															
<b>BASIC design</b>															
0.75	M2VAM 80MF 4	3GVA082360---S	1415	82.5	83.1	81.7	0.77	1.80	6.0	5.1	2.6	2.7	0.003	16	56
1.1	M2VAM 90SC 4	3GVA092130---S	1430	84.1	85.0	84.2	0.78	2.6	6.3	7.4	2.2	2.2	0.006	17	59
1.5	M2VAM 90LE 4	3GVA092550---S	1430	85.3	86.4	86.0	0.79	3.4	6.5	10.0	2.2	2.3	0.007	20	59
2.2	M2VAM 100LB 4	3GVA102520---S	1450	86.7	87.8	87.8	0.83	4.7	7.0	14.5	2.2	2.3	0.008	28	62
3	M2VAM 100LC 4	3GVA102530---S	1435	87.7	88.9	88.9	0.84	6.2	7.2	20.0	2.3	2.4	0.009	34	62
4	M2VAM 112MD 4	3GVA112340---S	1445	88.6	89.6	89.6	0.84	8.2	7.0	26.4	2.8	2.2	0.018	36	64
5.5	M2VAM 132SE 4	3GVA132150---S	1455	89.6	90.4	90.2	0.84	11.2	7.3	36.1	1.9	2.1	0.037	54	67
7.5	M2VAM 132LG 4	3GVA132570---S	1455	90.4	91.2	91.1	0.85	14.9	6.6	49.2	2.0	2.1	0.045	63	67
<b>1000 r/min = 6 poles</b>															
<b>380 V 50 Hz</b>															
<b>BASIC design</b>															
0.75	M2VAM 90SC 6	3GVA093130---S	960	78.9	78.8	75.9	0.72	2.0	5.5	7.5	1.9	2.0	0.005	16	63
3	M2VAM 132SC 6	3GVA133130---S	970	85.6	85.8	84.2	0.77	6.9	6.2	29.5	2.0	2.1	0.04	47	65
4	M2VAM 132SF 6	3GVA133160---S	970	86.8	86.9	85.2	0.77	9.1	6.0	39.4	2.0	2.1	0.05	57	65
5.5	M2VAM 132LG 6	3GVA133570---S	970	88.0	88.6	87.9	0.78	12.2	6.2	54.2	2.0	2.1	0.06	63	65

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE3 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cos $\varphi$	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>f</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
				400 V 50 Hz	BASIC design										
<b>3000 r/min = 2 poles</b>															
0.75	M2VAM 80MB 2	3GVA081320---S	2855	80.7	80.8	78.8	0.80	1.68	7.0	2.5	3.0	2.9	0.001	11	62
1.1	M2VAM 80MC 2	3GVA081330---S	2855	82.7	82.8	80.9	0.83	2.3	7.3	3.7	3.0	3.1	0.001	12	62
1.5	M2VAM 90SB 2	3GVA091120---S	2890	84.2	84.5	83.2	0.84	3.1	7.6	5.0	2.4	2.5	0.002	17	67
2.2	M2VAM 90LD 2	3GVA091540---S	2890	85.9	86.5	85.6	0.85	4.4	7.6	7.3	2.4	2.5	0.003	19	67
3	M2VAM 100LB 2	3GVA101520---S	2900	87.1	87.4	86.6	0.87	5.7	7.8	9.9	3.6	3.1	0.005	26	74
4	M2VAM 112MB 2	3GVA111320---S	2910	88.1	88.5	87.9	0.88	7.5	8.3	13.1	2.1	2.1	0.013	29	75
5.5	M2VAM 132SB 2	3GVA131120---S	2920	89.2	89.4	88.6	0.88	10.1	8.6	18.0	2.3	2.5	0.024	42	77
7.5	M2VAM 132MD 2	3GVA131340---S	2920	90.1	90.5	90.2	0.88	13.7	8.1	24.5	2.5	2.5	0.025	48	77
<b>1500 r/min = 4 poles</b>															
<b>400 V 50 Hz</b>															
<b>BASIC design</b>															
0.75	M2VAM 80MF 4	3GVA082360---S	1420	82.5	82.6	80.5	0.74	1.77	6.6	5.0	2.9	3.0	0.003	16	56
1.1	M2VAM 90SC 4	3GVA092130---S	1435	84.1	84.5	83.3	0.76	2.5	6.8	7.3	2.5	2.5	0.006	17	59
1.5	M2VAM 90LE 4	3GVA092550---S	1435	85.3	85.9	85.0	0.77	3.3	7.0	10.0	2.3	2.4	0.007	20	59
2.2	M2VAM 100LB 4	3GVA102520---S	1455	86.7	87.6	87.3	0.81	4.5	7.6	14.4	2.5	2.6	0.008	28	62
3	M2VAM 100LC 4	3GVA102530---S	1440	87.7	88.6	88.4	0.82	6.0	7.6	19.9	2.6	2.7	0.009	34	62
4	M2VAM 112MD 4	3GVA112340---S	1450	88.6	89.2	88.7	0.82	8.0	7.8	26.3	3.1	2.5	0.018	36	64
5.5	M2VAM 132SE 4	3GVA132150---S	1460	89.6	90.0	89.6	0.83	10.7	7.9	36.0	2.0	2.3	0.037	54	67
7.5	M2VAM 132LG 4	3GVA132570---S	1460	90.4	90.9	90.6	0.84	14.3	7.5	49.1	2.2	2.3	0.045	63	67
<b>1000 r/min = 6 poles</b>															
<b>400 V 50 Hz</b>															
<b>BASIC design</b>															
0.75	M2VAM 90SC 6	3GVA093130---S	965	78.9	78.8	75.8	0.71	1.93	6.0	7.4	2.0	2.1	0.005	16	63
3	M2VAM 132SC 6	3GVA133130---S	975	85.6	85.4	83.1	0.74	6.8	6.8	29.4	2.1	2.2	0.04	47	65
4	M2VAM 132SF 6	3GVA133160---S	975	86.8	86.5	84.3	0.74	9.0	6.8	39.2	2.1	2.2	0.05	57	65
5.5	M2VAM 132LG 6	3GVA133570---S	975	88.0	88.1	86.9	0.75	12.0	7.0	53.9	2.2	2.3	0.06	63	65

## Technical data for standard design

IE3 Premium efficiency aluminum motors, 415 V 50 Hz and 460 V & 60 Hz

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE3 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>r</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
<b>3000 r/min = 2 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 80MB 2	3GVA081320---S	2865	80.7	80.5	77.9	0.79	1.63	7.4	2.5	3.2	3.1	0.001	11	62
1.1	M2VAM 80MC 2	3GVA081330---S	2865	82.7	82.4	79.6	0.79	2.4	7.6	3.7	3.2	3.3	0.001	12	62
1.5	M2VAM 90SB 2	3GVA091120---S	2900	84.2	84.3	82.6	0.83	3.0	8.2	4.9	2.5	3.0	0.002	17	67
2.2	M2VAM 90LD 2	3GVA091540---S	2900	85.9	86.2	85.0	0.84	4.2	8.2	7.2	2.5	3.0	0.003	19	67
3	M2VAM 100LB 2	3GVA101520---S	2910	87.1	87.3	86.1	0.86	5.6	8.5	9.9	3.8	3.3	0.005	26	74
4	M2VAM 112MB 2	3GVA111320---S	2920	88.1	88.4	87.4	0.86	7.3	8.4	13.1	2.3	2.6	0.013	29	75
5.5	M2VAM 132SB 2	3GVA131120---S	2930	89.2	89.2	88.1	0.87	9.9	8.8	17.9	2.4	2.7	0.024	42	77
7.5	M2VAM 132MD 2	3GVA131340---S	2930	90.1	90.4	89.9	0.87	13.3	8.6	24.5	2.6	2.8	0.025	48	77
<b>1500 r/min = 4 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 80MF 4	3GVA082360---S	1430	82.5	82.2	79.5	0.72	1.76	7.0	5.0	3.1	3.2	0.003	16	56
1.1	M2VAM 90SC 4	3GVA092130---S	1440	84.1	84.2	82.4	0.74	2.5	7.2	7.3	2.6	2.6	0.006	17	59
1.5	M2VAM 90LE 4	3GVA092550---S	1440	85.3	85.6	84.1	0.74	3.3	7.2	10.0	2.5	2.7	0.007	20	59
2.2	M2VAM 100LB 4	3GVA102520---S	1458	86.7	87.3	86.5	0.79	4.5	7.8	14.4	2.7	2.8	0.008	28	62
3	M2VAM 100LC 4	3GVA102530---S	1445	87.7	88.3	87.7	0.81	5.9	8.0	19.8	2.7	2.8	0.009	34	62
4	M2VAM 112MD 4	3GVA112340---S	1455	88.6	88.9	88.2	0.80	7.8	8.2	26.3	3.2	2.8	0.018	36	64
5.5	M2VAM 132SE 4	3GVA132150---S	1465	89.6	90.0	89.3	0.82	10.4	8.6	35.9	2.2	2.4	0.037	54	67
7.5	M2VAM 132LG 4	3GVA132570---S	1465	90.4	90.8	90.2	0.83	13.9	8.2	48.9	2.3	2.5	0.045	63	67
<b>1000 r/min = 6 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 90SC 6	3GVA093130---S	967	78.9	78.8	75.9	0.70	1.87	6.2	7.4	2.1	2.2	0.005	16	63
3	M2VAM 132SC 6	3GVA133130---S	980	85.6	85.0	82.1	0.71	6.9	7.4	29.2	2.4	2.5	0.04	47	65
4	M2VAM 132SF 6	3GVA133160---S	980	86.8	86.2	83.6	0.72	8.9	7.4	39.0	2.4	2.5	0.05	57	65
5.5	M2VAM 132LG 6	3GVA133570---S	980	88.0	88.2	87.1	0.72	12.0	7.5	53.6	2.4	2.6	0.06	63	65

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE3 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>r</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
<b>3600 r/min = 2 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 80MB 2	3GVA081320---S	3470	77.0	75.8	71.2	0.80	1.47	8.0	2.1	3.3	3.3	0.001	11	62
1.1	M2VAM 80MC 2	3GVA081330---S	3475	84.0	83.3	80.4	0.79	2.1	8.1	3.0	3.8	3.9	0.001	12	62
1.5	M2VAM 90SB 2	3GVA091120---S	3510	85.5	85.0	82.4	0.83	2.7	8.5	4.1	2.6	3.0	0.002	17	67
2.2	M2VAM 90LD 2	3GVA091540---S	3510	86.5	86.2	84.0	0.84	3.8	8.7	6.0	2.6	3.0	0.003	19	67
3	M2VAM 100LB 2	3GVA101520---S	3515	88.5	88.3	86.9	0.87	4.9	9.6	8.2	3.9	3.4	0.005	26	74
4	M2VAM 112MB 2	3GVA111320---S	3520	88.5	88.2	86.3	0.89	6.4	8.5	10.9	2.5	2.6	0.013	29	75
5.5	M2VAM 132SB 2	3GVA131120---S	3530	89.5	89.0	87.1	0.88	8.8	8.8	14.9	2.2	2.6	0.024	42	77
7.5	M2VAM 132MD 2	3GVA131340---S	3530	90.2	90.0	88.5	0.88	11.9	8.9	20.3	2.3	2.6	0.025	48	77
<b>1800 r/min = 4 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 80MF 4	3GVA082360---S	1745	83.5	82.7	79.6	0.72	1.57	7.5	4.1	3.2	3.3	0.003	16	56
1.1	M2VAM 90SC 4	3GVA092130---S	1745	86.5	86.2	84.0	0.76	2.1	7.5	6.0	2.7	2.8	0.006	17	59
1.5	M2VAM 90LE 4	3GVA092550---S	1745	86.5	86.3	84.4	0.77	2.8	7.6	8.2	2.7	2.8	0.007	20	59
2.2	M2VAM 100LB 4	3GVA102520---S	1762	89.5	89.8	89.1	0.78	4.0	8.7	11.9	3.0	3.1	0.008	28	62
3	M2VAM 100LC 4	3GVA102530---S	1750	89.5	89.7	88.7	0.80	5.3	8.5	16.4	3.1	3.2	0.009	34	62
4	M2VAM 112MD 4	3GVA112340---S	1755	89.5	89.5	88.4	0.79	7.1	9.0	21.8	3.3	2.8	0.018	36	64
5.5	M2VAM 132SE 4	3GVA132150---S	1765	91.7	91.8	90.9	0.82	9.2	7.8	29.8	2.3	2.4	0.037	54	67
7.5	M2VAM 132LG 4	3GVA132570---S	1765	91.7	91.7	90.8	0.83	12.4	9.1	40.6	2.4	2.6	0.045	63	67
<b>1200 r/min = 6 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.75	M2VAM 90SC 6	3GVA093130---S	1170	82.5	81.5	78.2	0.67	1.70	7.0	6.1	2.2	2.3	0.005	16	63
3	M2VAM 132SC 6	3GVA133130---S	1180	89.5	89.3	87.7	0.72	5.8	7.8	24.3	2.3	2.5	0.04	47	65
4	M2VAM 132SF 6	3GVA133160---S	1180	89.5	89.1	87.1	0.72	7.8	7.8	32.4	2.3	2.5	0.05	57	65
5.5	M2VAM 132LG 6	3GVA133570---S	1180	91.0	90.9	89.8	0.73	10.4	7.9	44.5	2.5	2.6	0.06	63	65

## Technical data for standard design

IE2 High efficiency aluminum motors, 380 V and 400 V & 50 Hz

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE2 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>r</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
<b>3000 r/min = 2 poles</b>			<b>380 V 50 Hz</b>				<b>BASIC design</b>								
0.18	M2VAM 63MB 2	3GVA061320---R	2670	60.4	60.5	57.4	0.77	0.58	4.1	0.64	2.8	2.9	0.0002	3.9	64
0.25	M2VAM 63MC 2	3GVA061330---R	2700	64.8	65.0	61.8	0.78	0.75	4.7	0.88	2.6	2.6	0.00026	4.4	64
0.37	M2VAM 71MB 2	3GVA071320---R	2700	69.5	69.7	66.5	0.82	0.99	4.0	1.31	2.1	2.2	0.0005	5.8	67
0.55	M2VAM 71MD 2	3GVA071340---R	2720	74.1	74.5	70.8	0.81	1.40	4.7	1.93	2.6	2.6	0.00063	6.3	67
<b>3000 r/min = 2 poles</b>			<b>380 V 50 Hz</b>				<b>COMPACT design</b>								
0.37	M2VAM 63MD 2	3GVA061340---R	2700	69.5	69.7	66.5	0.77	1.05	4.8	1.31	3.4	2.9	<b>0.00028</b>	5.0	67
<b>1500 r/min = 4 poles</b>			<b>380 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63MB 4	3GVA062320---R	1350	59.1	59.3	56.0	0.68	0.46	2.8	0.85	2.3	2.3	0.00029	4.5	57
0.18	M2VAM 63MD 4	3GVA062340---R	1340	64.7	64.9	61.8	0.67	0.63	3.1	1.28	2.6	2.5	0.00043	5.0	57
0.25	M2VAM 71MB 4	3GVA072320---R	1360	68.5	68.7	65.5	0.69	0.80	3.5	1.76	2.0	2.0	0.0011	6.1	60
0.37	M2VAM 71MD 4	3GVA072340---R	1360	72.7	72.8	69.7	0.70	1.11	3.7	2.60	2.1	2.3	0.0012	6.7	60
0.55	M2VAM 80MD 4	3GVA082340---R	1410	77.1	77.0	74.0	0.73	1.48	6.0	3.7	2.6	2.7	0.0022	11	58
<b>1500 r/min = 4 poles</b>			<b>380 V 50 Hz</b>				<b>COMPACT design</b>								
0.25	M2VAM 63MF 4	3GVA062360---R	1360	68.5	68.6	65.3	0.69	0.81	3.7	1.76	2.4	2.3	0.00058	5.7	60
<b>1000 r/min = 6 poles</b>			<b>380 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63ME 6	3GVA063350---R	900	50.6	50.7	47.0	0.55	0.65	2.1	1.36	1.8	2.1	0.00054	5.6	57
0.18	M2VAM 71MC 6	3GVA073330---R	905	56.6	56.7	53.6	0.66	0.73	3.0	1.90	2.6	2.5	0.0011	6.4	57
0.25	M2VAM 71ME 6	3GVA073350---R	880	61.6	61.7	58.6	0.69	0.90	3.0	2.7	2.4	2.2	0.0012	6.5	57
0.37	M2VAM 80ME 6	3GVA083350---R	930	67.6	67.4	63.0	0.70	1.19	4.2	3.8	2.1	2.2	0.001	11	58
0.55	M2VAM 80MG 6	3GVA083370---R	900	73.1	74.5	72.6	0.74	1.56	4.6	5.8	2.1	2.2	0.001	14	54

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE2 efficiency class according to IEC 60034-30-1; 2014

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque			Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>r</sub> /T <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>			
<b>3000 r/min = 2 poles</b>			<b>400 V 50 Hz</b>				<b>BASIC design</b>								
0.18	M2VAM 63MB 2	3GVA061320---R	2700	60.4	60.5	57.4	0.75	0.57	4.4	0.64	3.1	3.2	0.0002	3.9	64
0.25	M2VAM 63MC 2	3GVA061330---R	2730	64.8	65.0	61.7	0.76	0.73	5.1	0.87	2.8	2.8	0.00026	4.4	64
0.37	M2VAM 71MB 2	3GVA071320---R	2720	69.5	69.6	66.4	0.81	0.94	4.4	1.30	2.4	2.5	0.0005	5.8	67
0.55	M2VAM 71MD 2	3GVA071340---R	2740	74.1	74.3	71.3	0.79	1.36	5.1	1.92	3.0	2.9	0.00063	6.3	67
<b>3000 r/min = 2 poles</b>			<b>400 V 50 Hz</b>				<b>COMPACT design</b>								
0.37	M2VAM 63MD 2	3GVA061340---R	2730	69.5	69.7	66.5	0.74	1.04	5.1	1.29	3.8	3.1	0.00028	5.0	67
<b>1500 r/min = 4 poles</b>			<b>400 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63MB 4	3GVA062320---R	1360	59.1	59.3	56.0	0.65	0.45	3.0	0.84	2.6	2.5	0.00029	4.5	57
0.18	M2VAM 63MD 4	3GVA062340---R	1360	64.7	64.9	61.5	0.64	0.63	3.3	1.26	2.9	2.7	0.00043	5.0	57
0.25	M2VAM 71MB 4	3GVA072320---R	1375	68.5	68.8	65.5	0.68	0.77	3.7	1.74	2.2	2.2	0.0011	6.1	60
0.37	M2VAM 71MD 4	3GVA072340---R	1375	72.7	72.9	69.7	0.69	1.06	4.0	2.6	2.5	2.6	0.0012	6.7	60
0.55	M2VAM 80MD 4	3GVA082340---R	1420	77.1	76.3	73.0	0.71	1.45	6.6	3.7	3.0	3.1	0.0022	11	58
<b>1500 r/min = 4 poles</b>			<b>400 V 50 Hz</b>				<b>COMPACT design</b>								
0.25	M2VAM 63MF 4	3GVA062360---R	1370	68.5	68.7	65.5	0.66	0.80	3.9	1.74	2.8	2.6	0.00058	5.7	60
<b>1000 r/min = 6 poles</b>			<b>400 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63ME 6	3GVA063350---R	915	50.6	50.7	47.0	0.52	0.66	2.1	1.33	2.0	2.4	0.00054	5.6	57
0.18	M2VAM 71MC 6	3GVA073330---R	915	56.6	56.7	53.6	0.63	0.73	3.2	1.88	2.9	2.8	0.0011	6.4	57
0.25	M2VAM 71ME 6	3GVA073350---R	890	61.6	61.8	58.5	0.66	0.89	3.1	2.7	2.7	2.5	0.0012	6.5	57
0.37	M2VAM 80ME 6	3GVA083350---R	935	67.6	66.5	61.4	0.66	1.20	4.7	3.8	2.4	2.5	0.001	11	58
0.55	M2VAM 80MG 6	3GVA083370---R	910	73.1	73.5	70.8	0.71	1.53	5.1	5.8	2.4	2.5	0.001	14	54

## Technical data for standard design

IE2 High efficiency aluminum motors, 415 V & 50 Hz and 460 V & 60 Hz

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE2 efficiency class according to IEC 60034-30-1; 2014

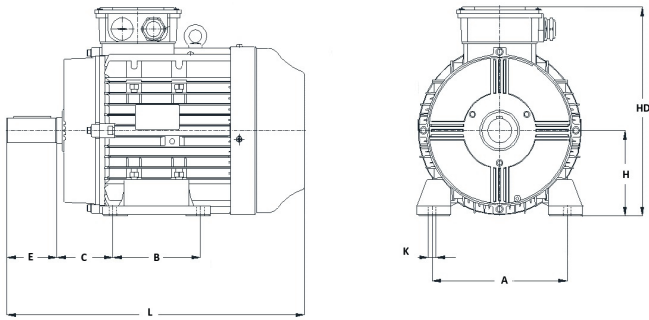
Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque		Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB	
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>i</sub> /T <sub>N</sub>				T <sub>b</sub> /T <sub>N</sub>
<b>3000 r/min = 2 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.18	M2VAM 63MB 2	3GVA061320---R	2725	60.4	60.5	57.3	0.72	0.57	4.7	0.63	3.4	3.5	0.0002	3.9	64
0.25	M2VAM 63MC 2	3GVA061330---R	2750	64.8	65.0	61.7	0.73	0.73	5.4	0.87	3.0	3.0	0.00026	4.4	64
0.37	M2VAM 71MB 2	3GVA071320---R	2745	69.5	69.6	66.4	0.79	0.92	4.7	1.29	2.7	2.7	0.0005	5.8	67
0.55	M2VAM 71MD 2	3GVA071340---R	2765	74.1	74.3	71.3	0.77	1.34	5.5	1.90	3.3	3.2	0.00063	6.3	67
<b>3000 r/min = 2 poles</b>			<b>415 V 50 Hz</b>				<b>COMPACT design</b>								
0.37	M2VAM 63MD 2	3GVA061340---R	2750	69.5	69.7	66.6	0.69	1.08	5.2	1.28	4.3	3.3	0.00028	5.0	67
<b>1500 r/min = 4 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63MB 4	3GVA062320---R	1370	59.1	59.3	56.0	0.62	0.46	3.2	0.84	2.9	2.8	0.00029	4.5	57
0.18	M2VAM 63MD 4	3GVA062340---R	1375	64.7	64.9	61.5	0.61	0.63	3.5	1.25	3.3	3.0	0.00043	5.0	57
0.25	M2VAM 71MB 4	3GVA072320---R	1385	68.5	68.8	65.5	0.65	0.78	3.9	1.72	2.6	2.6	0.0011	6.1	60
0.37	M2VAM 71MD 4	3GVA072340---R	1385	72.7	72.9	69.7	0.66	1.07	4.3	2.6	2.9	2.9	0.0012	6.7	60
0.55	M2VAM 80MD 4	3GVA082340---R	1425	77.1	75.7	71.2	0.69	1.45	7.0	3.7	3.2	3.3	0.0022	11	58
<b>1500 r/min = 4 poles</b>			<b>415 V 50 Hz</b>				<b>COMPACT design</b>								
0.25	M2VAM 63MF 4	3GVA062360---R	1380	68.5	68.7	65.5	0.63	0.80	4.1	1.73	3.1	2.8	0.00058	5.7	60
<b>1000 r/min = 6 poles</b>			<b>415 V 50 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63ME 6	3GVA063350---R	925	50.6	50.7	47.7	0.49	0.69	2.2	1.32	2.3	2.6	0.00054	5.6	57
0.18	M2VAM 71MC 6	3GVA073330---R	920	56.6	56.7	53.7	0.61	0.73	3.3	1.87	3.3	3.2	0.0011	6.4	57
0.25	M2VAM 71ME 6	3GVA073350---R	895	61.6	61.7	58.6	0.64	0.89	3.3	2.7	2.9	2.8	0.0012	6.5	57
0.37	M2VAM 80ME 6	3GVA083350---R	940	67.6	65.6	59.8	0.63	1.22	5.0	3.8	2.5	2.6	0.001	11	58
0.55	M2VAM 80MG 6	3GVA083370---R	915	73.1	72.9	69.3	0.68	1.54	5.3	5.7	2.5	2.6	0.001	14	54

IP 55 - IC 411 - Insulation class F, temperature rise class B, IE2 efficiency class according to IEC 60034-30-1; 2014

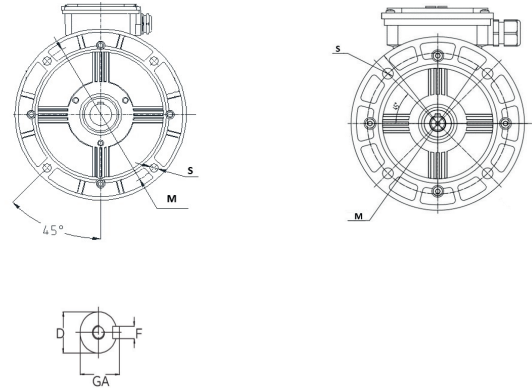
Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-30-1; 2014			Power factor Cosφ	Current		Torque		Moment of inertia J = 1/4 GD <sup>2</sup> kgm <sup>2</sup>	Weight kg	Sound pressure Level L <sub>PA</sub> dB	
				Full load 100%	3/4 load 75%	1/2 load 50%		I <sub>N</sub> A	I <sub>s</sub> /I <sub>N</sub>	T <sub>N</sub> Nm	T <sub>i</sub> /T <sub>N</sub>				T <sub>b</sub> /T <sub>N</sub>
<b>3600 r/min = 2 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.18	M2VAM 63MB 2	3GVA061320---R	3350	64.0	64.3	61.0	0.71	0.50	5.6	0.51	4.0	4.2	0.0002	3.9	64
0.25	M2VAM 63MC 2	3GVA061330---R	3365	68.0	68.2	65.0	0.73	0.63	6.4	0.71	3.6	4.2	0.00026	4.4	64
0.37	M2VAM 71MB 2	3GVA071320---R	3350	72.0	72.5	68.8	0.78	0.83	5.5	1.05	3.9	3.0	0.0005	5.8	67
0.55	M2VAM 71MD 2	3GVA071340---R	3400	74.0	74.3	70.8	0.77	1.19	6.4	1.54	3.6	3.5	0.00063	6.3	67
<b>3600 r/min = 2 poles</b>			<b>460 V 60 Hz</b>				<b>COMPACT design</b>								
0.37	M2VAM 63MD 2	3GVA061340---R	3365	72.0	72.3	69.0	0.71	0.91	6.4	1.05	4.0	4.0	0.00028	5.0	67
<b>1800 r/min = 4 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63MB 4	3GVA062320---R	1700	64.0	64.2	61.2	0.60	0.40	3.6	0.67	2.9	2.9	0.00029	4.5	57
0.18	M2VAM 63MD 4	3GVA062340---R	1690	68.0	68.2	64.5	0.59	0.57	4.0	1.02	3.8	3.1	0.00043	5.0	57
0.25	M2VAM 71MB 4	3GVA072320---R	1695	70.0	70.1	67.0	0.64	0.70	4.4	1.41	2.6	2.9	0.0011	6.1	60
0.37	M2VAM 71MD 4	3GVA072340---R	1695	72.0	72.1	69.3	0.66	0.95	4.7	2.1	3.5	3.1	0.0012	6.7	60
0.55	M2VAM 80MD 4	3GVA082340---R	1730	75.5	73.4	67.7	0.67	1.34	7.5	3.0	3.4	3.5	0.0022	11	58
<b>1800 r/min = 4 poles</b>			<b>460 V 60 Hz</b>				<b>COMPACT design</b>								
0.25	M2VAM 63MF 4	3GVA062360---R	1700	70.0	70.1	66.9	0.61	0.72	4.7	1.40	3.7	2.9	0.00058	5.7	60
<b>1200 r/min = 6 poles</b>			<b>460 V 60 Hz</b>				<b>BASIC design</b>								
0.12	M2VAM 63ME 6	3GVA063350---R	1130	50.5	50.6	47.3	0.45	0.64	2.5	1.09	2.4	2.9	0.00054	5.6	57
0.18	M2VAM 71MC 6	3GVA073330---R	1135	55.0	55.1	51.8	0.58	0.67	3.8	1.51	3.0	3.3	0.0011	6.4	57
0.25	M2VAM 71ME 6	3GVA073350---R	1130	59.5	59.6	56.2	0.61	0.82	3.8	2.1	2.6	3.0	0.0012	6.5	57
0.37	M2VAM 80ME 6	3GVA083350---R	1150	64.0	61.0	53.9	0.63	1.09	5.0	3.1	2.7	2.8	0.001	11	58
0.55	M2VAM 80MG 6	3GVA083370---R	1120	68.0	68.8	65.9	0.70	1.39	5.1	4.7	2.7	2.8	0.001	14	54

## Dimensions

### Foot-mounted B3



### Flange-mounted B5



Motor size	IM 1001, IM B3 and IM 3001, IM B5										IM 1001, IM B3				IM 3001, IM B5					
	D poles		GA poles		F poles		E poles		L max poles		A	B	C	HD	K	H	M	N	P	S
	2	4-6	2	4-6	2	4-6	2	4-6	2	4-6										
63	11	11	12.5	12.5	4	4	23	23	220	220	100	80	40	162	10x7	63	115	95	140	9
71	14	14	16	16	5	5	30	30	243	243	112	90	45	179	10x7	71	130	110	160	10
80	19	19	21.5	21.5	6	6	40	40	295	295	125	100	50	204	13x10	80	165	130	200	12
80	19	19	21.5	21.5	6	6	40	40	330	330	125	100	50	204	13x10	80	165	130	200	12
90	24	24	27	27	8	8	50	50	324	324	140	100	56	232	13x10	90	165	130	200	12
90	24	24	27	27	8	8	50	50	349	349	140	125	56	232	13x10	90	165	130	200	12
100	24	24	31	31	8	8	60	60	373	373	160	140	63	259	15x12	100	215	180	250	14.5
100	28	28	31	31	8	8	60	60	418	418	160	140	63	259	15x12	100	215	180	250	14.5
112	28	28	31	31	8	8	60	60	380	380	190	140	70	281	15x12	112	215	180	250	14.5
132	38	38	41	41	10	10	80	80	475	475	216	140	89	325	15x12	132	265	230	300	14.5
132	38	38	41	41	10	10	80	80	513	513	216	178	89	325	15x12	132	265	230	300	14.5

### Tolerances

A, B	± 0.8
D, DA	ISO k6 < Ø 48mm ISO m6 > Ø 48mm
F, FA	ISO h9
H	-0.5
N	ISO j6
C, CA	± 0.8

The tables give the main dimensions in mm.

For detailed drawings please see our web-pages [new.abb.com/motors-generators](http://new.abb.com/motors-generators) or contact ABB.

## Motors in brief

		63	71	80	90	100	112	132	
<b>Stator</b>	Material	Die-cast aluminum alloy							
	Paint colour shade	Munsell blue 8B 4.5/3.25/NCS 4822 B05G							
	Surface treatment	C3 medium according ISO/EN 12944-5							
<b>Feet</b>	Integrated with stator	Removable feet							
	Material	Die-cast aluminum alloy							
<b>Bearing end shields</b>	Material	Die-cast aluminum alloy							
	Paint colour shade	Munsell blue 8B 4.5/3.25/NCS 4822 B05G							
	Surface treatment	C3 medium according ISO/EN 12944-5							
<b>Bearings</b>	D-end	6201-2Z/C3	6202-2Z/C3	6204-2Z/C3	6205-2Z/C3	6306-2Z/C3	6306-2Z/C3	6208-2Z/C3	
	N-end	6201-2Z/C3	6202-2Z/C3	6203-2Z/C3	6204-2Z/C3	6205-2Z/C3	6205-2Z/C3	6206-2Z/C3	
<b>Axially-locked</b>	As standard, locked at D-end	Retaining ring			With bearing cover				
<b>Bearing seals</b>		Radial seal		Axial seal(V ring)					
<b>Lubrication</b>		Permanently lubricated shielded bearings							
<b>Rating plate</b>	Material	Aluminum							
<b>Terminal box</b>	Frame material	Die-cast aluminum alloy							
	Cover material	Die-cast aluminum alloy							
	Cover screws material	M4*10			Self tapping screws 8.8				
<b>Connections</b>	Cable entries	1*M18	1*M18	2*M20	2*M25	2*M25	2*M25	2*M32	
	Cable sizes	0.5 mm <sup>2</sup>	0.5 mm <sup>2</sup>	1.0 mm <sup>2</sup>	1.0 mm <sup>2</sup>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	
	Terminal stud size	M4			M5				
	Terminals	6 leads							
<b>Fan</b>	Material	Glass fiber reinforced polypropylene							
<b>Fan cover</b>	Material	Steel plate							
	Paint color shade	Munsell blue 8B 4.5/3.25/NCS 4822 B05G							
<b>Stator winding</b>	Material	Copper							
	Insulation	Class F, Temperature rise class B							
	Winding protection	NA							
<b>Rotor winding</b>	Material	Pressure diecast aluminum							
<b>Balancing</b>		Half key balancing as standard							
<b>Key ways</b>		Closed key way							
<b>Enclosure</b>		IP55							
<b>Cooling method</b>		IC411							
<b>Drain holes</b>		-	-	Drain holes with closable plastic plugs					
<b>Lifting lugs</b>		-	-	-	M8	M10	M10	M12	

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