IP 55 – IC 411 – Insulation class F, temperature rise class B – Brake IP 23 S

Output kW	Motor type	Product code	Torque Rated Speed r/min	T_N Nm	T_S/T_N	T_B braking Nm	K[1]	Efficiency 100 %	75 %	Power factor cos φ	Current I_N A	I_S/I_N	c/h[2]	Moment of inertia J=1/4GD kgm²	Weight foot mounted kg
1500 r/min = 4 pole 400 V 50 Hz Basic design															
0.12	M3VRS 63 A	3GVR 062 451-BSC	1400	0.82	2.6	7.5	9.37	63.7	58.4	0.59	0.46	3.1	7100	0.00029	5
0.12	M3VRS 63 A	3GVR 062 451-CSC	14	0.82	2.6	7.5	9.37	63.7	58.4	0.59	0.46	3.1	7100	0.00029	5
0.18	M3VRS 63 B	3GVR 062 452-BSC	13	1.25	2.5	7.5	5.76	65.6	62.1	0.64	0.63	3.1	7100	0.00036	5.5
0.18	M3VRS 63 B	3GVR 062 452-CSC	13	1.25	2.5	7.5	5.76	65.6	62.1	0.64	0.63	3.1	7100	0.00036	5.5
0.25	M3VRS 71 A	3GVR 072 451-BSE	1410	1.71	2.7	10	5.88	70.4	69.1	0.71	0.74	4.3	6500	0.00081	7
0.25	M3VRS 71 A	3GVR 072 451-CSE	1410	1.71	2.7	10	5.88	70.4	69.1	0.71	0.74	4.3	6500	0.00081	7
0.37	M3VRS 71 B	3GVR 072 452-ASE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.37	M3VRS 71 B	3GVR 072 452-BSE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.37	M3VRS 71 B	3GVR 072 452-CSE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.55	M3VRS 80 A	3GVR 082 451-ASE	1390	3.75	2.6	24	6.31	75.3	73.1	0.76	1.4	4.6	5000	0.00128	11
0.55	M3VRS 80 A	3GVR 082 451-BSE	1390	3.75	2.6	24	6.31	75.3	73.1	0.76	1.4	4.6	5000	0.00128	11
0.55	M3VRS 80 A	3GVR 082 451-CSE	1390	3.75	2.6	24	6.31	75.3	73.1	0.76	1.4	4.6	5000	0.00128	11
0.75	M3VRS 80 B	3GVR 082 452-ASE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75	M3VRS 80 B	3GVR 082 452-BSE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75	M3VRS 80 B	3GVR 082 452-CSE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75	M3VRS 80 B	3GVR 082 452-BFE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
1.1 [3]	M3AR 90S 4	3GAR 092100-••E	1420	7.3	2.0	35	4.66	77.20	78.10	0.77	2.6	4.8	3200	0.0032	19
1.5 [3]	M3AR 90L 4	3GAR 092500-••E	1420	10.0	2.8	35	3.5	81.30	81.90	0.75	3.5	5.8	3200	0.0043	22
2.2 [3]	M3AR 100LA 4	3GAR 102510-••E	1430	14.6	2.2	44	2.93	82.30	83.40	0.78	4.9	5.6	2700	0.0069	32
3 [3]	M3AR 100LB 4	3GAR 102520-••E	1430	20.0	2.5	44	2.2	84.60	85.70	0.78	6.5	6.4	2700	0.0082	35
4 [3]	M3AR 112M 4	3GAR 112300-••E	1435	26.6	2.9	86	3.23	84.50	83.90	0.80	8.5	7.0	2500	0.0158	40
5.5 [3]	M3AR 132S 4	3GAR 132100-••E	1450	36.2	2.2	130	3.59	87.00	87.70	0.83	10.9	7.3	1800	0.0336	60
7.5 [3]	M3AR 132M 4	3GAR 132300-••E	1450	49.3	2.5	130	2.63	88.00	88.60	0.83	14.8	7.9	1400	0.0406	68
1500 r/min = 4 pole 400 V 50 Hz High-output design															
0.25	M3VRS 63 BB	3GVR 062 453-BSC	1370	1.75	2.5	7.5	4.28	70.3	67.4	0.67	0.78	3.2	7100	0.0004	6
0.55	M3VRS 71 C	3GVR 072 454-BSE	1410	3.74	2.7	10	2.7	77.3	76.9	0.73	1.45	4.8	6500	0.00125	9
0.95	M3VRS 80 C	3GVR 082 453-BSE	1410	6.44	2.9	24	3.75	78.9	77.9	0.75	2.35	4.3	500	0.00197	13
1.85 [3]	M3AR 90LE 4	3GAR 092550-••E	1410	12.5	2.6	35	2.69	79.70	82.00	0.76	4.4	5.3	3200	0.0043	22
2.2 [3]	M3AR 90LF 4	3GAR 092560-••E	1390	15.1	2.3	35	2.33	80.00	83.10	0.83	4.7	5.3	3200	0.0048	23
4 [3]	M3AR 100LG 4	3GAR 102570-••E	1415	26.9	2.1	44	1.62	83.20	85.80	0.76	9.1	5.5	2700	0.009	36
5.5 [3]	M3AR 112MF 4	3GAR 112360-••E	1425	36.8	2.8	86	2.33	84.50	83.50	0.83	11.3	7.1	2500	0.018	47
9.2 [3]	M3AR 132MF 4	3GAR 132360-••E	1450	60.5	2.0	130	2.14	88.00	88.60	0.85	17.7	7.3	1400	0.05	83
11 [3]	M3AR 132MG 4	3GAR 132370-••E	1450	72.4	2.5	130	1.79	88.00	89.40	0.86	20.9	8.3	500	0.05	83

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

[1] Braking-torque ratio

[2] No-load (shaft-free) operations/hour

[3] Frame sizes 90-132: mandatory variant code 284 for AC brake

Brake motors in frame sizes 160-180, please select from Low voltage Process performance motors catalog, aluminum motors with variant code 412.

Code letters for supplementing product code for mounting arrangement:
Foot-mounted A
Flange-mounted, 1 flange B for frame sizes 63-100 E for frame sizes 112-132.
Flange-mounted, 2 flanges N for frame sizes 90-132
Flange-mounted, small flange C for frame sizes 63-100

Code letters for supplementing product code for voltage and frequency (pos 13):

Motor size	S Motor 50 Hz	S Motor 60 Hz	S Brake 50 Hz	S Brake 60 Hz	D Motor 50 Hz	D Motor 60 Hz	D Brake 50 Hz	D Brake 60 Hz	G Motor 50 Hz	G Brake 50 Hz	H Motor 50 Hz	H Brake 50 Hz	X
63-132	220-240 VΔ 380-420 VY	250-280 VΔ 440-480 VY	230 VΔ 400 VY	265 VΔ 460 VY	380-420 VΔ 660-690 VY	440-480 VΔ –	400 VΔ 690 VY	460 VΔ –	–	–	–	–	Any other rated voltage or frequency, 690V maximum

IP 55 – IC 411 – Insulation class F, temperature rise class B – Brake IP 23 S

Out-put kW		Motor type		Product code	Speed T_N r/min	Torque rated T_S/T_N	Torque braking T_B Nm	Torque braking K [1]	Efficiency 100 %	Efficiency 75 %	Power factor cos φ	Current I_N A	Current I_S/I_N	Current c/h [2]	Moment of inertia J=1/4GD² kgm²	Weight foot mounted kg
1500 r/min = 4 pole										400 V 50 Hz						Basic design
0.18		M3VRF	63 B	3GVR 062 402-BSC	1380	1.25	2.5	7.5	5.76	65.6	62.1	0.64	0.63	3.1	7100	0.00036	5.5
0.25		M3VRF	71 A	3GVR 072 401-CSE	1410	1.71	2.7	10	5.88	70.4	69.1	0.71	0.74	4.3	6500	0.00081	7
0.37		M3VRF	71 B	3GVR 072 402-ASE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.37		M3VRF	71 B	3GVR 072 402-BSE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.37		M3VRF	71 B	3GVR 072 402-CSE	1420	2.51	2.6	10	4	74.6	72.1	0.69	1.05	4.4	6500	0.00104	8
0.55		M3VRF	80 A	3GVR 082 401-ASE	1390	3.75	2.6	24	6.31	75.3	73.1	0.76	1.4	4.6	5000	0.00128	11
0.55		M3VRF	80 A	3GVR 082 401-BSE	1390	3.75	2.6	24	6.31	75.3	73.1	0.76	1.4	4.6	5000	0.00128	11
0.75		M3VRF	80 B	3GVR 082 402-ASE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75		M3VRF	80 B	3GVR 082 402-BSE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75		M3VRF	80 B	3GVR 082 402-CSE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
0.75		M3VRF	80 B	3GVR 082 402-CFE	1410	5.08	3.5	24	4.7	78.2	75.6	0.74	1.9	4.7	5000	0.00159	12
1.1	[3]	M3AR	90S 4	3GAR 092100-••E	1420	7.3	2.0	35	4.66	77.20	78.10	0.77	2.6	4.8	3200	0.0032	19
1.5	[3]	M3AR	90L 4	3GAR 092500-••E	1420	10.0	2.8	35	3.5	81.30	81.90	0.75	3.5	5.8	3200	0.0043	22
2.2	[3]	M3AR	100LA 4	3GAR 102510-••E	1430	14.6	2.2	44	2.93	82.30	83.40	0.78	4.9	5.6	2700	0.0069	32
3	[3]	M3AR	100LB 4	3GAR 102520-••E	1430	20.0	2.5	44	2.2	84.60	85.70	0.78	6.5	6.4	2700	0.0082	35
4	[3]	M3AR	112M 4	3GAR 112300-••E	1435	26.6	2.9	86	3.23	84.50	83.90	0.80	8.5	7.0	2500	0.0158	40
5.5	[3]	M3AR	132S 4	3GAR 132100-••E	1450	36.2	2.2	130	3.59	87.00	87.70	0.83	10.9	7.3	1800	0.0336	60
7.5	[3]	M3AR	132M 4	3GAR 132300-••E	1450	49.3	2.5	130	2.63	88.00	88.60	0.83	14.8	7.9	1400	0.0406	68
1500 r/min = 4 pole										400 V 50 Hz						High-output design
0.55		M3VRF	71 C	3GVR 072 404-BSE	1410	3.74	2.7	10	2.7	77.3	76.9	0.73	1.45	4.8	6500	0.00125	9
1.85	[3]	M3AR	90LE 4	3GAR 092550-••E	1410	12.5	2.6	35	2.69	79.70	82.00	0.76	4.4	5.3	3200	0.0043	22
2.2	[3]	M3AR	90LF 4	3GAR 092560-••E	1390	15.1	2.3	35	2.33	80.00	83.10	0.83	4.7	5.3	3200	0.0048	23
4	[3]	M3AR	100LG 4	3GAR 102570-••E	1415	26.9	2.1	44	1.62	83.20	85.80	0.76	9.1	5.5	2700	0.009	36
5.5	[3]	M3AR	112MF 4	3GAR 112360-••E	1425	36.8	2.8	86	2.33	84.50	83.50	0.83	11.3	7.1	2500	0.018	47
9.2	[3]	M3AR	132MF 4	3GAR 132360-••E	1450	60.5	2.0	130	2.14	88.00	88.60	0.85	17.7	7.3	1400	0.05	83
11	[3]	M3AR	132MG 4	3GAR 132370-••E	1450	72.4	2.5	130	1.79	88.00	89.40	0.86	20.9	8.3	500	0.05	83

[1] Braking-torque ratio
[2] No-load (shaft-free) operations/hour
[3] Frame sizes 90-132: mandatory variant code 283 for DC brake
Code letters for supplementing product code for mounting arrangement:
Foot-mounted A
Flange-mounted, 1 flange B for frame sizes 63-100 E for frame sizes 112-132.
Flange-mounted, 2 flanges N for frame sizes 90-132
Flange-mounted, small flange C for frame sizes 63-100

Code letters for supplementing product code for voltage and frequency (pos 13):

	S			D			X
Motor size	Motor 50 Hz	60 Hz	Brake (input rectifier voltage/brake voltage)	Motor 50 Hz	60 Hz	Brake (input rectifier voltage/brake voltage)	
63-132	220-240 VΔ 380-420 VY	250-280 VΔ	220-240 V/205 V d.c.	380-420 VΔ 660-690 VY	440-480 VΔ –	380-420 V/178 V d.c.	Any other rated voltage or frequency, 690 V maximum connection for motor and 500 V for brake (input rectifier)
	E			F			
Motor size	Motor 50 Hz		Brake (input rectifier voltage/brake voltage)	Motor 50 Hz		Brake (input rectifier voltage/brake voltage)	
63-80	–		–	500 VY		500 V/223 V d.c.	
90-132	500 VΔ		500 V/223 V d.c.	500 VY		500 V/223 V d.c.	