

Technical information

The big external rotors by ebm-papst Mulfingen

Powerful EC motors for an impressive complete range. With the motor series M3G ebm-papst Mulfingen complements the external rotor drive range in the power range up to 3 kW. Thanks to its high rotating rotor mass and an optimised stator/magnet design, these motors have extremely convincing features, e.g. excellent speed stability and controllability.

Data and facts

- 3-phase, electronically commutated external rotor motor in 5 different sizes
- Long service life
- Silent running
- Power range from 50 to 3000 watt
- Torque from 10 Ncm to 2000 Ncm
- Large ferrite magnet segments
- Commutation configured for excellent speed stability even at low speeds
- Determination of rotor position via 3 Hall sensors
- Precision ball bearings
- Operating electronics for nominal voltage 24 V DC, 48 V DC, 110 V DC, 230 V AC and 3~400 V AC on request
- Cost-favourable 1-phase motors are available especially for applications in air technology.

Torque

The EC external rotor motors can be used both in drive and air technology. Torques from 10 Ncm to 2000 Ncm are available. The torques stipulated for the motors apply to applications without special cooling.

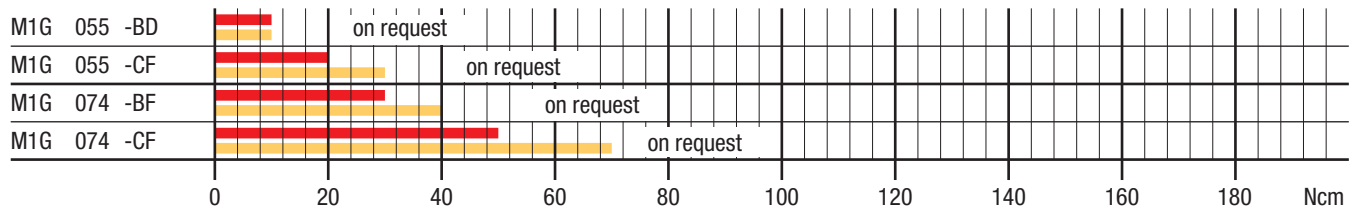
If these motors are part of a fan and thus additionally cooled by its airflow, higher torques can be achieved.

Alternative features

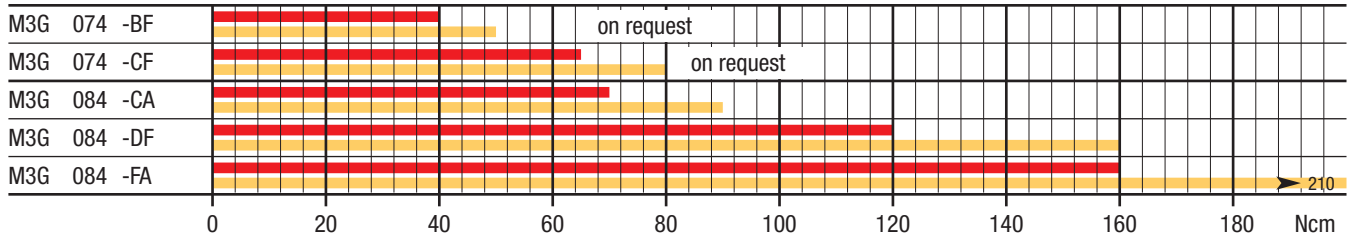
- Nominal voltage 24 V DC, 48 V DC, 110 V DC, 230 V AC and 3~400 V AC
- Integrated or external electronics
- PWM-input and linear input 0-10 V DC
- Actual speed output
- Soft start
- Reverse polarity protection
- Locked-rotor protection
- RS485-Interface (ebmBus) possible

M3G-Motors

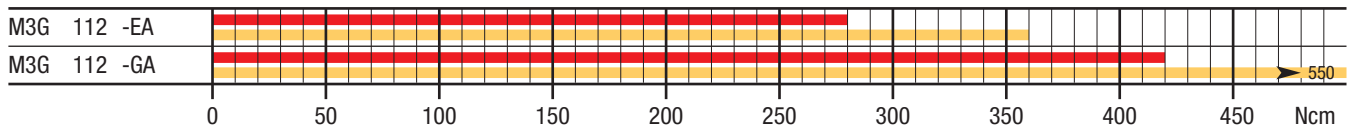
Torque with plastic-bonded magnets



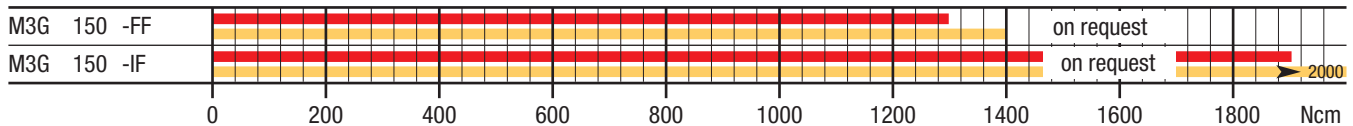
Torque with ferrite segments



Torque with ferrite segments



Torque with ferrite segments



■ Nominal torque M_N in N_{cm} with no special cooling.

■ Torque when motor is integral part of fan (self cooling through air-stream)

	a	b	c	d	e	f	g	h
M1G 055-BD	55.3	72	71	18.7	25.4	6	29.0	5.4
M1G 055-CF	67.0	72	71	18.7	25.2	6	29.0	5.4
M1G 074-BF	65.0	92	91	18.2	30.0	10	32.7	9.2
M1G 074-CF	75.0	92	91	18.2	30.0	10	32.7	9.2
M3G 074-BF	65.0	92	91	18.2	30.0	10	32.7	9.2
M3G 074-CF	79.0	92	91	18.2	30.0	10	32.7	9.2
M3G 150..	on request							
M3G 150..	on request							

