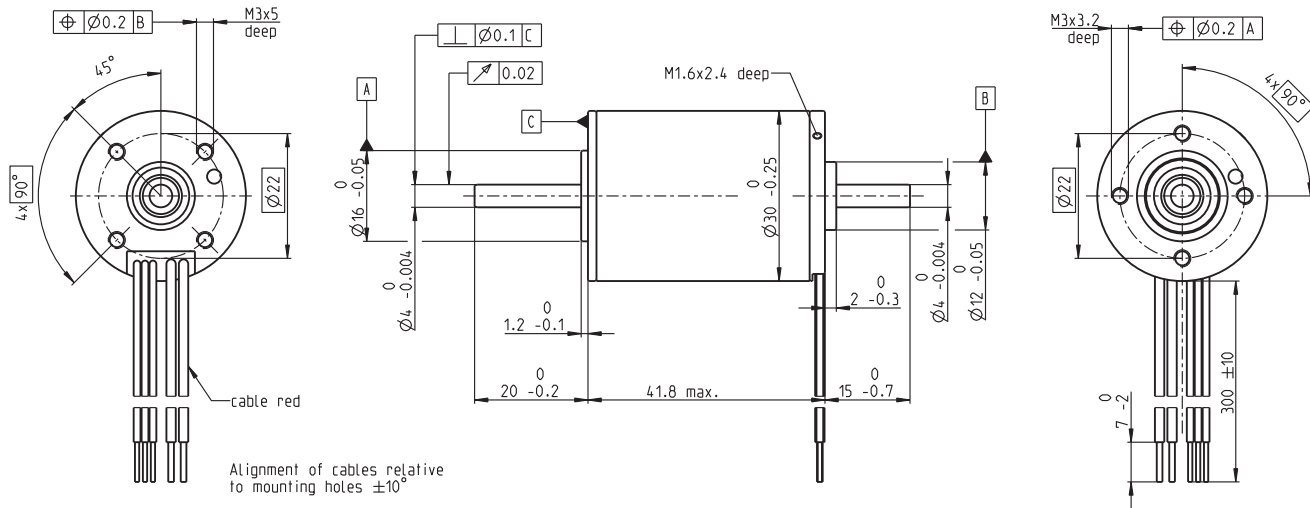


EC-i 30 Ø30 mm brushless, 20 Watt, with integrated electronics

4-Q-Speed Controller

NEW

maxon EC-i



M 3:4

- Stock program
- Standard program
- Special program (on request)

Part Numbers

5 wire version	
Enable	Direction
618864	619301

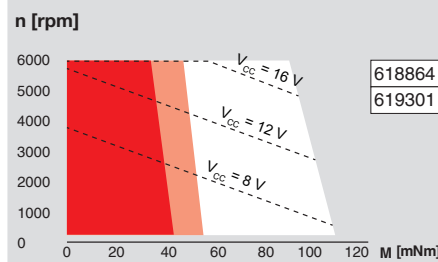
Motor Data (provisional)

Values at nominal voltage				
1 Nominal voltage	V	24	24	
2 No load speed	rpm	6000	6000	
3 No load current	mA	107	107	
4 Nominal speed	rpm	6000	6000	
5 Nominal torque (max. continuous torque)	mNm	32.6	32.6	
6 Nominal current (max. continuous current)	A	1.19	1.19	
33 Max. torque	mNm	105	105	
34 Max. current	A	6.5	6.5	
9 Max. efficiency	%	75.4	75.4	
Characteristics				
35 Type of control				
36 Supply voltage +V _{CC}	V	8...28	8...28	
37 Speed set value input	V	0.42...10.1	0.42...10.1	
38 Scale speed set value input	rpm/V	600	600	
39 Speed range	rpm	250...6060	250...6060	
40 Max. acceleration	rpm/s	6000	6000	

Specifications

Thermal data	
17 Thermal resistance housing-ambient	13.0 K/W
18 Thermal resistance winding-housing	5.9 K/W
19 Thermal time constant winding	34.1 s
20 Thermal time constant motor	1030 s
21 Ambient temperature	-40...+85°C
22 Max. winding temperature	+155°C
41 Max. temperature of electronics	100°C
Mechanical data (preloaded ball bearings)	
16 Rotor inertia	6.69 gcm ²
24 Axial play at axial load < 9.0 N	0 mm
	> 9.0 N
	0.14 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	9 N
27 Max. force for press fits (static) (static, shaft supported)	48.8 N
28 Max. radial load, 10 mm from flange	30 N

Operating Range



Comments

- Continuous operation
- Continuous operation with reduced thermal resistance R_{th2} 50%
- Intermittent operation

Other specifications	
31 Weight of motor	160 g
32 Direction of rotation	Clockwise (CW)

Values listed in the table are nominal.

Protective functions

Overload protection, blockage protection, inverse-polarity protection, thermal overload protection, low/high voltage cut-off

Connection 5 wire version (Cable AWG 20/24)

red	+V _{CC} 8...28 VDC
black	GND
white	Speed set value input
green	Monitor n (6 pulses per revolution)
grey	Disable (Type Enable) or sense of direction (Type Direction)

maxon Modular System

Overview on page 28-36

Planetary Gearhead

Ø32 mm
1.0 - 6.0 Nm
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