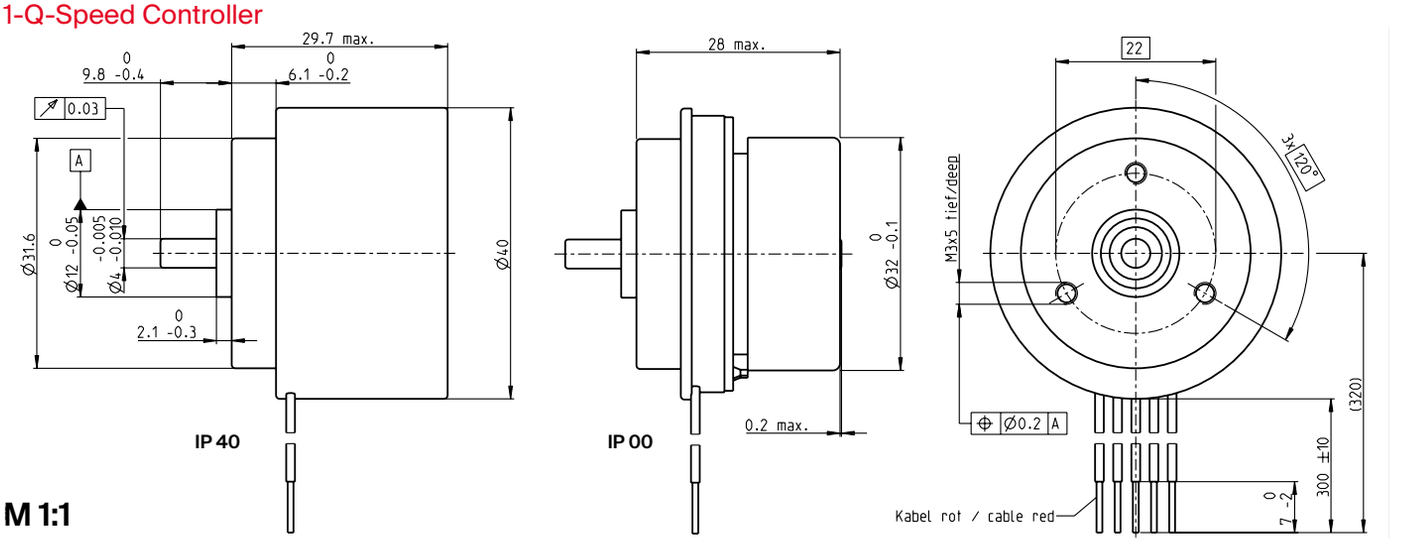
EC 32 flat brushless, 15 watt, with integrated electronics

1-Q-Speed Controller



M 1:1

Stock program
Standard program
Special program (on request)

Part Numbers

	2 wire version		5 wire version	
			Enable	Direction
IP 40 (with cover)	353400	353401	353399	**370418**
IP 00 (without cover)	353324	353325	349801	370417

Motor Data						
	Values at nominal voltage					
1	Nominal voltage	V	24	24	24	24
2	No load speed	rpm	3000	6000	6000	6000
3	No load current	mA	44.8	84.6	84.6	84.6
4	Nominal speed	rpm	3000	6000	6000	6000
5	Nominal torque (max. continuous torque)	mNm	18.8	18.6	18.6	18.6
6	Nominal current (max. continuous current)	A	0.44	0.741	0.741	0.741
33	Max. torque	mNm	35.8	35.8	35.8	35.8
34	Max. current	A	1.6	1.6	1.6	1.6
9	Max. efficiency	%	58	66	66	66
	Characteristics					
35	Type of control		Speed	Speed	Speed	Speed
36	Supply voltage $+V_{CC}$	V	10...28	10...28	10...28	10...28
37	Speed set value input	V	= V_{CC}	= V_{CC}	0.33...10.8	0.33...10.8
38	Scale speed set value input	rpm/V	125	250	600	600
39	Speed range	rpm	1250...3500	2500...7000	200...6480	200...6480
40	Max. acceleration	rpm/s	3000	6000	6000	6000

Specifications

Thermal data

17	Thermal resistance housing-ambient	7.24 K/W
18	Thermal resistance winding-housing	4.99 K/W
19	Thermal time constant winding	8.69 s
20	Thermal time constant motor	80.5 s
21	Ambient temperature	-40...+85°C
22	Max. winding temperature	+125°C
41	Max. temperature of electronics	+105°C

Mechanical data (preloaded ball bearings)

16	Rotor inertia		35 gcm²
24	Axial play at axial load	< 7.0 N	0 mm
		> 7.0 N	0.14 mm
25	Radial play		preloaded
26	Max. axial load (dynamic)		6.8 N
27	Max. force for press fits (static)		95 N
	(static, shaft supported)		1000 N
28	Max. radial load, 5 mm from flange		37 N

Other specifications

31	Weight of motor	91 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

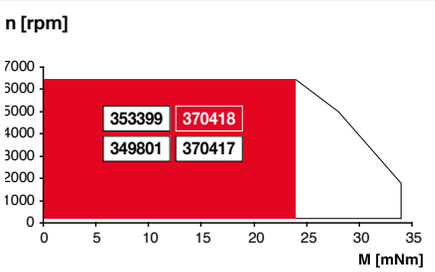
Connection 2 wire version (Cable AWG 24)

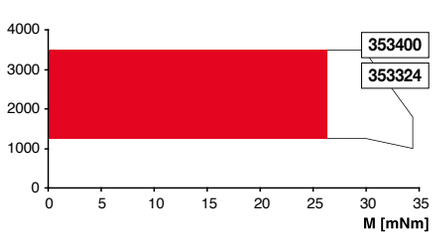
red	$+V_{CC}$ 10...28 VDC
black	GND

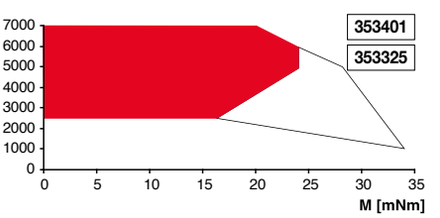
Connection 5 wire version (Cable AWG 24)

red	$+V_{CC}$ 10...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)

Operating Range







Comments

Continuous operation
The drive can be operated with a speed controller and, taking account of the given thermal resistance (fig. 17 and 18) at an ambient temperature of 25°C, does not exceed the maximum permissible operating temperatures.

Overload range
The drive reaches these operating points. Speed may vary from the set value. The overload protection shuts down the drive in the event of sustained overload.

maxon Modular System

Details on catalog page 46

Planetary Gearhead
∅32 mm
0.75 - 6 Nm
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Spur Gearhead
∅38 mm
0.1 - 0.6 Nm
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