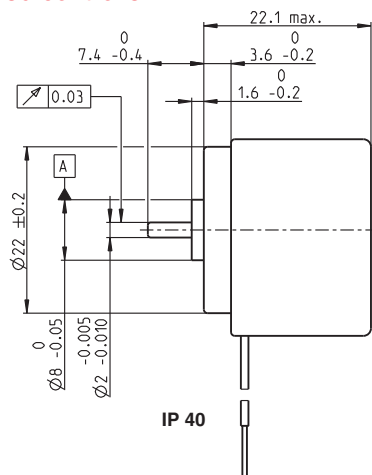
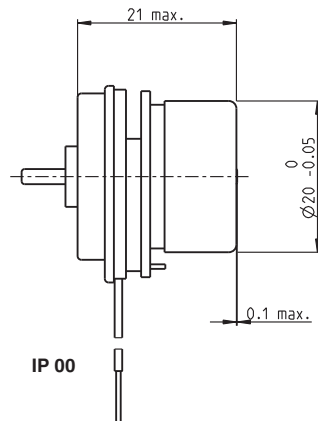


EC 20 flat brushless, 5 Watt, with integrated electronics

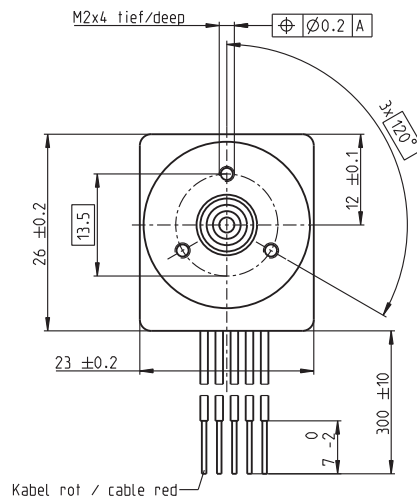
1-Q-speed controller



IP 40



IP 00



Kabel rot / cable red

M 1:1

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

Order Number

		5 wire version	
2 wire version		Enable	Direction
350834	350835	350806	370416
350804	350805	349731	370415

Motor Data

Values at nominal voltage					
1 Nominal voltage	V	24.0	24.0	24.0	24.0
2 No load speed	rpm	3000	6000	6000	6000
3 No load current	mA	16.8	23.1	23.1	23.1
4 Nominal speed	rpm	3000	6000	6000	6000
5 Nominal torque (max. continuous torque)	mNm	7.5	7.5	7.5	7.5
6 Nominal current (max. continuous current)	A	0.258	0.394	0.394	0.394
33 Max. torque	mNm	10.3	10.3	10.3	10.3
34 Max. current	A	0.458	0.58	0.58	0.58
9 Max. efficiency	%	42	55	55	55
Characteristics					
35 Control variable	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	13 K / W
18 Thermal resistance winding-housing	7.5 K / W
19 Thermal time constant winding	10.3 s
20 Thermal time constant motor	72.6 s
21 Ambient temperature	-40 ... +85°C
22 Max. permissible winding temperature	+125°C
41 Max. temperature of electronics	+105°C

Mechanical data (preloaded ball bearings)	
16 Rotor inertia	5.1 gcm ²
24 Axial play at axial load < 2.0 N	0 mm
	> 2.0 N 0.14 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	1.8 N
27 Max. force for press fits (static)	20 N
(static, shaft supported)	200 N
28 Max. radial loading, 5 mm from flange	12 N

Other specifications

31 Weight of motor	37 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

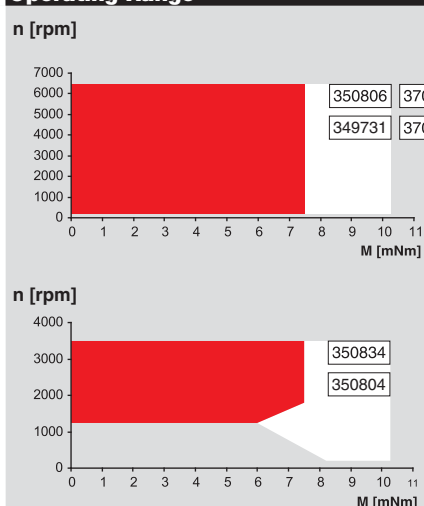
Connection 2 wire version (Cable AWG 28)

red	+V _{cc} 10 ... 28 VDC
black	GND

Connection 5 wire version (Cable AWG 28)

red	+V _{cc} 10 ... 28 VDC
black	GND
white	Speed set value input
green	Monitor n (6 pulses per revolution)
grey	Disable (Enable) or sense of direction change over (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

Overview on page 16 - 21

Spur Gearhead

Ø20.3 mm

0.06 - 0.25 Nm

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Planetary Gearhead

Ø22 mm

0.5 - 2.0 Nm

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