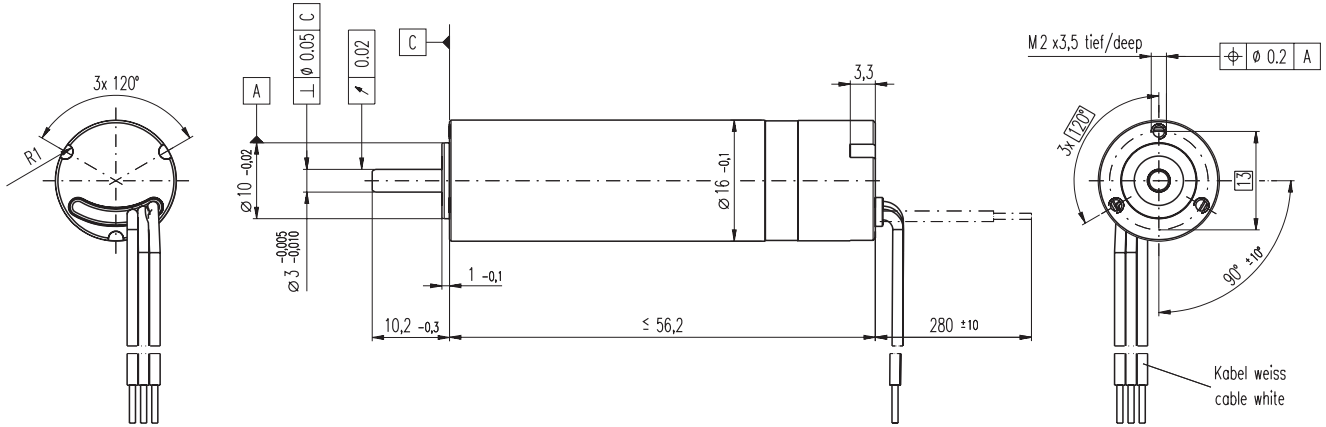


EC 16 \varnothing 16 mm, brushless, 40 Watt, sterilisable



M 1:1

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

Order Number

235823 235821

Motor Data (provisional)

Values at nominal voltage		235823	235821	
1	Nominal voltage	V	12.0	24.0
2	No load speed	rpm	42100	48700
3	No load current	mA	572	342
4	Nominal speed	rpm	38100	44900
5	Nominal torque (max. continuous torque)	mNm	10.3	10.7
6	Nominal current (max. continuous current)	A	4.36	2.61
7	Stall torque	mNm	120	156
8	Starting current	A	44.5	33.5
9	Max. efficiency	%	79	81
Characteristics				
10	Terminal resistance phase to phase	Ω	0.269	0.716
11	Terminal inductance phase to phase	mH	0.0140	0.0420
12	Torque constant	mNm / A	2.68	4.65
13	Speed constant	rpm / V	3560	2050
14	Speed / torque gradient	rpm / mNm	357	316
15	Mechanical time constant	ms	5.12	4.54
16	Rotor inertia	gcm ²	1.37	1.37

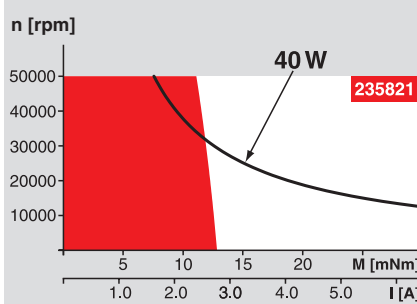
Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 10.3 K / W
 - 18 Thermal resistance winding-housing 1.2 K / W
 - 19 Thermal time constant winding 2.08 s
 - 20 Thermal time constant motor 299 s
 - 21 Ambient temperature -40 ... +135°C
 - 22 Max. permissible winding temperature +155°C
- Mechanical data (preloaded ball bearings)**
- 23 Max. permissible speed 50000 rpm
 - 24 Axial play at axial load < 3.5 N 0 mm
 - > 3.5 N max. 0.14 mm preloaded
 - 25 Radial play 3 N
 - 26 Max. axial load (dynamic) 40 N
 - 27 Max. force for press fits (static) (static, shaft supported) 250 N
 - 28 Max. radial loading, 5 mm from flange 10 N
- Other specifications**
- 29 Number of pole pairs 1
 - 30 Number of phases 3
 - 31 Weight of motor 58 g

Values listed in the table are nominal.

- Connection** (Cable AWG 22)
- red Motor winding 1
 - black Motor winding 2
 - white Motor winding 3

Operating Range



Comments

- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

Application

Medicine / surgery / chemicals

Sterilisation information

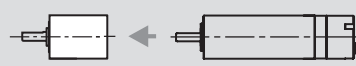
The motor can be sterilised at least 100 times in autoclave. No need to dismantle.

Hand tools that can be sterilised, such as bone saw, bone drilling and grinding machine	Sterilisation with steam
Dermatological and dental tools	Temperature +134°C ± 4°C
Infusion pumps	Compression pressure up to 2.3 bar
ECG	Rel. humidity 100 %
Therapy aid, analysis and dialysis equipment	Cycle length 20 minutes

maxon-Baukastensystem

Overview on page 16 - 21

Planetary Gearhead
sterilisable
 \varnothing 16 mm
0.1 - 0.3 Nm
Page 225



Recommended Electronics:
DECS 50/5 Page 284
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