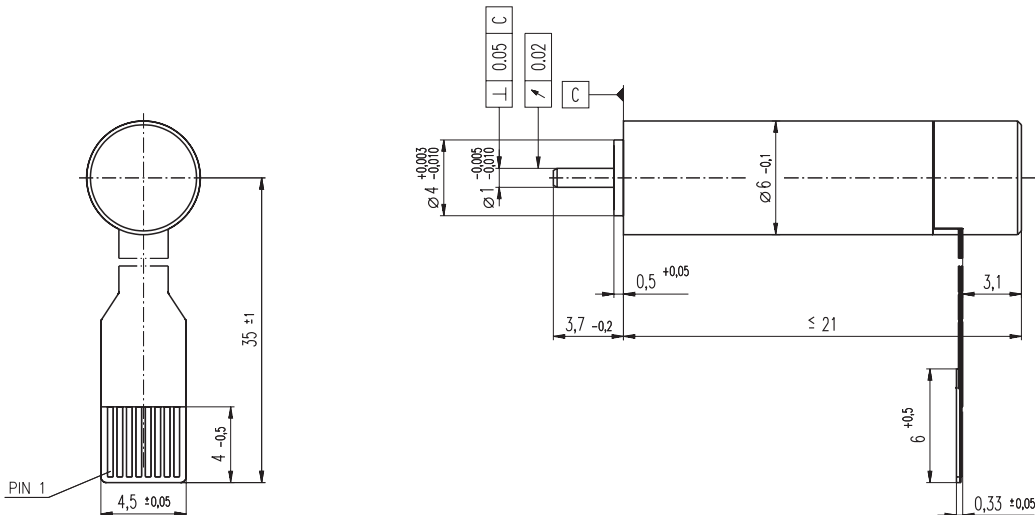


EC 6 Ø6 mm, brushless, 1.2 Watt



M 2.5:1

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

Order Number

310599 250101

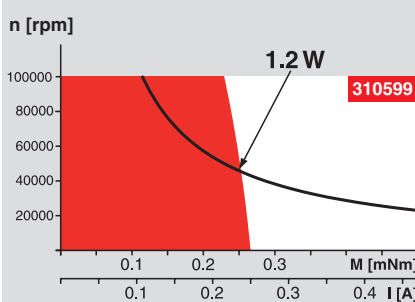
Motor Data (provisional)

Values at nominal voltage		310599	250101	
1	Nominal voltage	V	6.0	12.0
2	No load speed	rpm	47500	36100
3	No load current	mA	57.4	20.5
4	Nominal speed	rpm	23800	11900
5	Nominal torque (max. continuous torque)	mNm	0.232	0.241
6	Nominal current (max. continuous current)	A	0.265	0.105
7	Stall torque	mNm	0.509	0.402
8	Starting current	A	0.480	0.147
9	Max. efficiency	%	43	39
Characteristics				
10	Terminal resistance phase to phase	Ω	12.5	81.5
11	Terminal inductance phase to phase	mH	0.0911	0.602
12	Torque constant	mNm / A	1.06	2.73
13	Speed constant	rpm / V	9010	3500
14	Speed / torque gradient	rpm / mNm	106000	105000
15	Mechanical time constant	ms	5.56	5.48
16	Rotor inertia	gcm ²	0.00500	0.00500

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 75 K / W
 - 18 Thermal resistance winding-housing 5.0 K / W
 - 19 Thermal time constant winding 0.464 s
 - 20 Thermal time constant motor 80.2 s
 - 21 Ambient temperature -20 ... +100°C
 - 22 Max. permissible winding temperature +125°C
- Mechanical data (preloaded ball bearings)**
- 23 Max. permissible speed 100000 rpm
 - 24 Axial play at axial load < 0.15 N 0 mm
 - > 0.15 N max. 0.06 mm
 - 25 Radial play preloaded 0.1 N
 - 26 Max. axial load (dynamic) 10 N
 - 27 Max. force for press fits (static) 8 N
 - 28 Max. radial loading, 2 mm from flange

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

Other specifications

- 29 Number of pole pairs 1
- 30 Number of phases 3
- 31 Weight of motor 2.8 g

Values listed in the table are nominal.

Connection

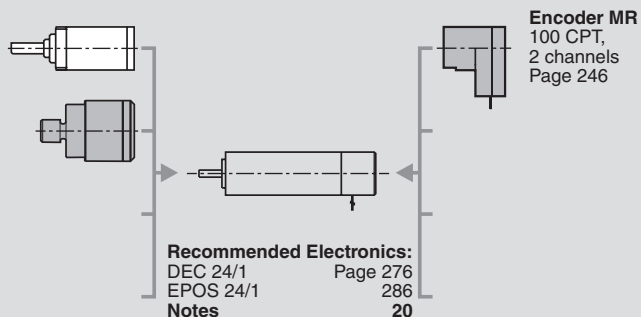
- Pin 1 Motor winding 3
 - Pin 2 Motor winding 2
 - Pin 3 Hall sensor 3
 - Pin 4 V_{Hall} 4.5 ... 12 VDC
 - Pin 5 GND
 - Pin 6 Hall sensor 1
 - Pin 7 Hall sensor 2
 - Pin 8 Motor winding 1
- Connector for Flexprint, MOLEX 52745-0896, FPC, 8 pole, pitch 0.5 mm, top contact style.
Wiring diagram for Hall sensors see page 26

Option

Sterilisable version

maxon Modular System

- 1 Planetary Gearhead
- 3 Ø6 mm
- 0.002 - 0.03 Nm
- Page 203
- Micro Harmonic Drive®
- Ø8 mm
- 0.006 - 0.016 Nm
- Page 204



Overview on page 16 - 21

Recommended Electronics:
DEC 24/1 Page 276
EPOS 24/1 Page 286
Notes 20