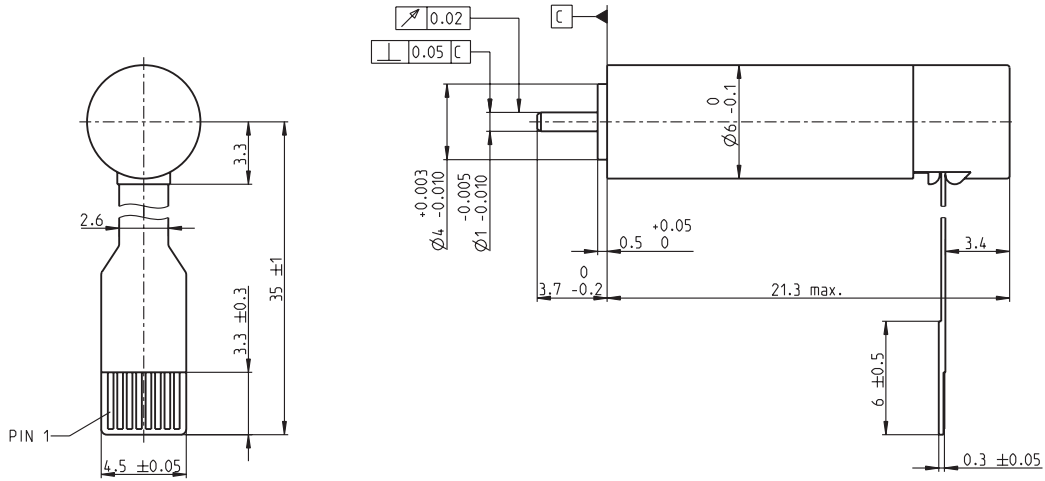


EC 6 Ø6 mm, brushless, 1.2 Watt



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

Part Numbers	
310599	250101

Motor Data (provisional)				
Values at nominal voltage				
1 Nominal voltage	V	6	12	
2 No load speed	rpm	45100	34400	
3 No load current	mA	53.1	19	
4 Nominal speed	rpm	22400	11200	
5 Nominal torque (max. continuous torque)	mNm	0.251	0.26	
6 Nominal current (max. continuous current)	A	0.265	0.105	
7 Stall torque	mNm	0.542	0.427	
8 Starting current	A	0.48	0.147	
9 Max. efficiency	%	45	41	
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	1.13	2.9	
13 Speed constant	rpm/V	8470	3290	
14 Speed/torque gradient	rpm/mNm	93800	92500	
15 Mechanical time constant	ms	4.91	4.84	
16 Rotor inertia	gcm ²	0.005	0.005	

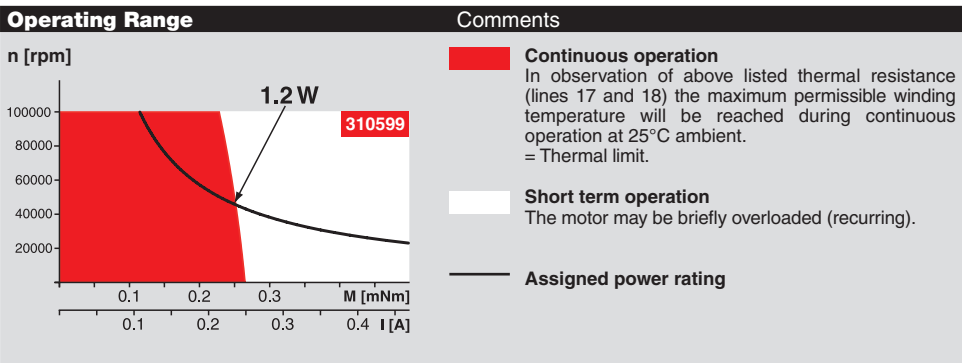
- | Specifications | |
|--|--------------|
| Thermal data | |
| 17 Thermal resistance housing-ambient | 75 K/W |
| 18 Thermal resistance winding-housing | 5.0 K/W |
| 19 Thermal time constant winding | 0.467 s |
| 20 Thermal time constant motor | 80.2 s |
| 21 Ambient temperature | -20...+100°C |
| 22 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 |
| 26 Max. axial load (dynamic) | 0.1 N |
| 27 Max. force for press fits (static) | 10 N |
| 28 Max. radial loading, 2 mm from flange | 8 N |

- | 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...18 VDC
 - Pin 5 GND
 - Pin 6 Hall sensor 1
 - Pin 7 Hall sensor 2
 - Pin 8 Motor winding 1
- Connector for Flexprint, Molex 52745-0897, FPC, 8 pole, pitch 0.5 mm, top contact style.
Wiring diagram for Hall sensors see page 35



maxon Modular System	Overview on page 20 - 25
Planetary Gearhead Ø6 mm 0.002 - 0.03 Nm Page 230	
Recommended Electronics: ESCON 36/3 EC Page 320 DEC Module 24/2 325 EPOS2 24/2 330 EPOS2 Module 36/2 330 Notes 24	Encoder MILE 64 CPT, 3 channels Page 292