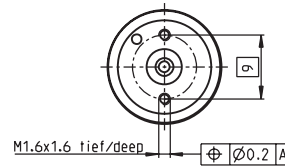
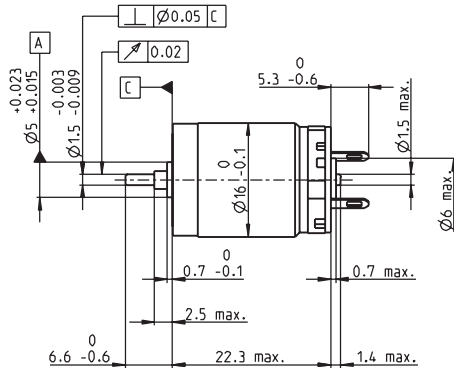
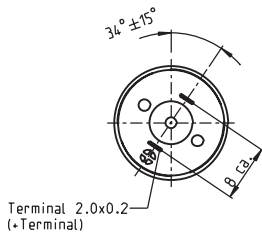


RE 16 Ø16 mm, Precious Metal Brushes CLL, 2 Watt



M 1:1

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

Article Numbers

320173 320174 320175 **320176** 320177 **320178** 320179

Motor Data

		320173	320174	320175	320176	320177	320178	320179
Values at nominal voltage								
1 Nominal voltage	V	1,8	3	6	9	12	18	24
2 No load speed	rpm	8240	8340	8490	8230	8090	7940	7760
3 No load current	mA	35,1	21,4	11	7,02	5,81	3,35	2,44
4 Nominal speed	rpm	6250	4830	4850	4590	4350	4140	3850
5 Nominal torque (max. continuous torque)	mNm	1,42	2,38	2,38	2,38	2,29	2,28	2,22
6 Nominal current (max. continuous current)	A	0,72	0,72	0,366	0,237	0,169	0,11	0,0783
7 Stall torque	mNm	5,46	5,55	5,55	5,4	5,01	4,81	4,45
8 Starting current	A	2,65	1,64	0,833	0,524	0,359	0,226	0,153
9 Max. efficiency	%	79	79	79	79	77	77	77
Characteristics								
10 Terminal resistance	Ω	0,679	1,83	7,2	17,2	33,4	79,8	157
11 Terminal inductance	mH	0,0168	0,0456	0,176	0,421	0,77	1,8	3,35
12 Torque constant	mNm/A	2,06	3,39	6,66	10,3	13,9	21,3	29,1
13 Speed constant	rpm/V	4640	2810	1430	927	685	448	328
14 Speed / torque gradient	rpm/mNm	1530	1520	1550	1550	1640	1680	1770
15 Mechanical time constant	ms	10,4	9,97	9,87	9,87	9,98	9,92	10,1
16 Rotor inertia	gcm ²	0,65	0,626	0,609	0,61	0,58	0,565	0,546

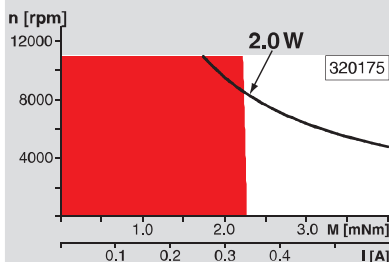
Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 40.6 K/W
 - 18 Thermal resistance winding-housing 9,5 K/W
 - 19 Thermal time constant winding 5,33 s
 - 20 Thermal time constant motor 268 s
 - 21 Ambient temperature -20...+65°C
 - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible speed 11000 rpm
 - 24 Axial play 0,05 - 0,15 mm
 - 25 Radial play 0,014 mm
 - 26 Max. axial load (dynamic) 0,8 N
 - 27 Max. force for press fits (static) 15 N
 - 28 Max. radial loading, 5 mm from flange 1,5 N

- Other specifications**
- 29 Number of pole pairs 1
 - 30 Number of commutator segments 7
 - 31 Weight of motor 21 g
- CLL = Capacitor Long Life

Values listed in the table are nominal.
Explanation of the figures on page 49.

Operating Range

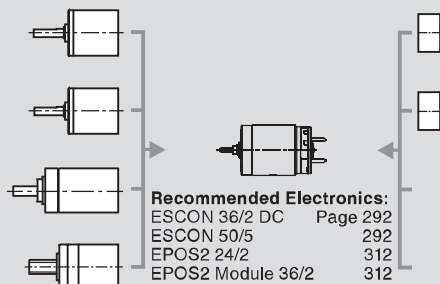


Comments

- 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**

maxon Modular System

- Planetary Gearhead**
Ø16 mm
0,06 - 0,18 Nm
Page 216
- Planetary Gearhead**
Ø16 mm
0,1 - 0,3 Nm
Page 217
- Planetary Gearhead**
Ø16 mm
0,2 - 0,6 Nm
Page 218
- Spindle Drive**
Ø16 mm
Page 251/252



Overview on page 16 - 21

- Encoder MR**
32 CPT,
2 / 3 channels
Page 268
- Encoder MR**
128 / 256 / 512 CPT,
2 / 3 channels
Page 270

- Recommended Electronics:**
- ESCON 36/2 DC Page 292
 - ESCON 50/5 292
 - EPOS2 24/2 312
 - EPOS2 Module 36/2 312
 - EPOS3 70/10 EtherCAT 319
- Notes 18**