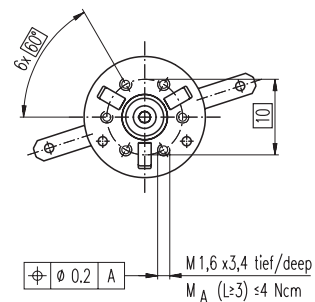
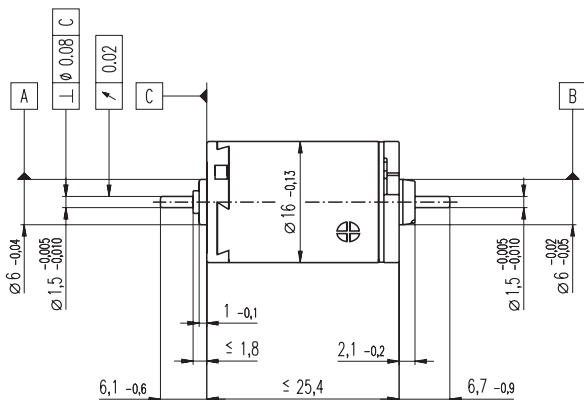
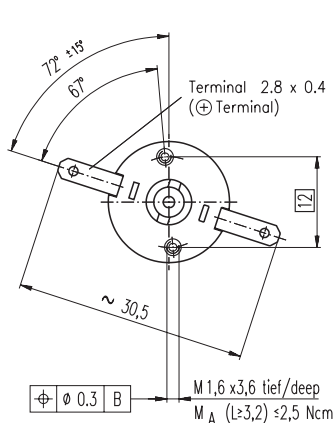


A-max 16 $\varnothing 16$ mm, Graphite Brushes, 2 Watt



M 1:1

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

Order Number

110071 110072 **110073** 110074 110075 110076 110077 110078 **110079** 110080

Motor Data

Values at nominal voltage		110071	110072	110073	110074	110075	110076	110077	110078	110079	110080
1	Nominal voltage	V	1.5	3.0	6.0	9.0	12.0	14.0	15.0	18.0	30.0
2	No load speed	rpm	10200	11700	9620	11800	11800	11800	11200	11200	10800
3	No load current	mA	201	117	46.7	39.1	29.3	25.1	22.2	18.5	16.5
4	Nominal speed	rpm	8670	7860	3240	5460	5410	5450	4820	4780	4160
5	Nominal torque (max. continuous torque)	mNm	0.686	1.40	2.51	2.47	2.45	2.46	2.46	2.44	2.39
6	Nominal current (max. continuous current)	A	0.720	0.720	0.494	0.394	0.294	0.253	0.225	0.186	0.162
7	Stall torque	mNm	4.93	4.51	4.02	4.82	4.76	4.81	4.53	4.47	4.48
8	Starting current	A	3.76	1.97	0.721	0.700	0.519	0.45	0.377	0.31	0.275
9	Max. efficiency	%	58	57	56	58	58	58	58	57	55
Characteristics											
10	Terminal resistance	Ω	0.399	1.52	8.32	12.8	23.1	31.1	39.8	58.0	183
11	Terminal inductance	mH	0.0170	0.0519	0.306	0.467	0.831	1.13	1.42	2.05	6.01
12	Torque constant	mNm / A	1.31	2.29	5.57	6.88	9.17	10.7	12.0	14.4	24.7
13	Speed constant	rpm / V	7290	4170	1720	1390	1040	893	795	663	387
14	Speed / torque gradient	rpm / mNm	2220	2770	2560	2600	2630	2600	2630	2670	2880
15	Mechanical time constant	ms	24.5	23.7	23.2	23.2	23.2	23.2	23.4	23.3	23.8
16	Rotor inertia	gcm ²	1.05	0.816	0.864	0.854	0.844	0.854	0.848	0.834	0.811

Specifications

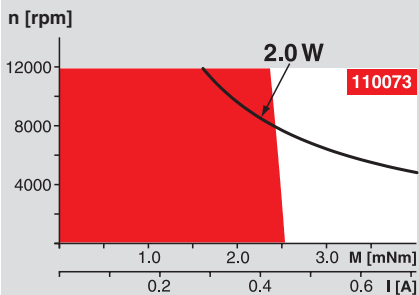
Thermal data		
17	Thermal resistance housing-ambient	29.8 K / W
18	Thermal resistance winding-housing	5.5 K / W
19	Thermal time constant winding	3.53 s
20	Thermal time constant motor	328 s
21	Ambient temperature	-30 ... +85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (sleeve bearings)		
23	Max. permissible speed	11900 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.012 mm
26	Max. axial load (dynamic)	0.8 N
27	Max. force for press fits (static) (static, shaft supported)	35 N / 280 N
28	Max. radial loading, 5 mm from flange	1.4 N
Mechanical data (ball bearing)		
23	Max. permissible speed	11900 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	2.2 N
27	Max. force for press fits (static) (static, shaft supported)	30 N / 280 N
28	Max. radial loading, 5 mm from flange	7.8 N
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	7
31	Weight of motor	22 g

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

Option

Ball bearings in place of sleeve bearings
Pigtails in place of terminals

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).

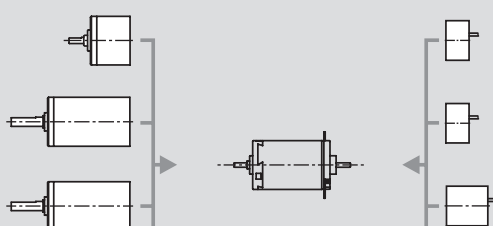
— Assigned power rating

maxon Modular System

Spur Gearhead
 $\varnothing 16$ mm
0.01 - 0.1 Nm
Page 209 / 210 / 211

Planetary Gearhead
 $\varnothing 16$ mm
0.06 - 0.18 Nm
Page 212

Planetary Gearhead
 $\varnothing 16$ mm
0.1 - 0.3 Nm
Page 213



Recommended Electronics:
LSC 30/2 Page 264
EPOS 24/1 278
MIP 10 281
Notes 17

Overview on page 17 - 21

Encoder MR
32 CPT,
2 / 3 channels
Page 243

Encoder MR
128 / 256 / 512 CPT,
2 / 3 channels
Page 244

Encoder MEnc
 $\varnothing 13$ mm
16 CPT, 2 channels
Page 258