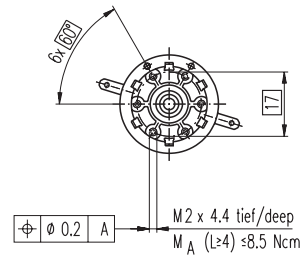
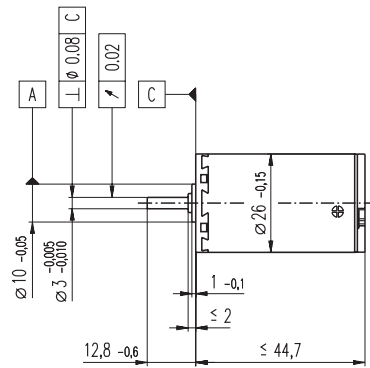
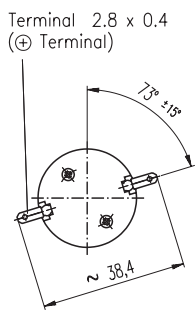


A-max 26 Ø26 mm, Precious Metal Brushes CLL, 4 Watt, CE approved



M 1:2

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

Order Number

110169 **110170** 110171 110172 **110173** 110174 110175 110176 110177 **110178** 110179 110180

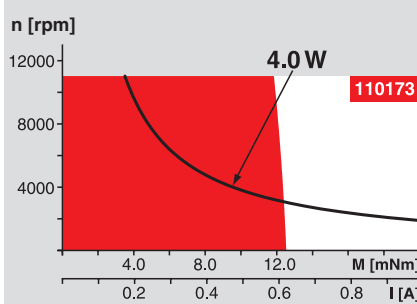
Motor Data

Values at nominal voltage		110169	110170	110171	110172	110173	110174	110175	110176	110177	110178	110179	110180	
1	Nominal voltage	V	4.5	4.5	4.5	7.2	12.0	12.0	15.0	18.0	18.0	24.0	30.0	42.0
2	No load speed	rpm	6110	5230	3860	5110	5590	5020	5430	5980	5340	5670	5890	5520
3	No load current	mA	60.0	47.4	30.3	28.5	19.6	16.7	15.0	14.5	12.2	10.0	8.49	5.51
4	Nominal speed	rpm	5090	3860	2360	3260	3470	2880	3180	3690	3160	3500	3680	3270
5	Nominal torque (max. continuous torque)	mNm	5.45	6.47	8.95	10.9	12.4	12.4	11.7	11.4	12.1	12.1	11.9	11.7
6	Nominal current (max. continuous current)	A	0.840	0.840	0.840	0.840	0.629	0.564	0.463	0.414	0.391	0.312	0.254	0.168
7	Stall torque	mNm	32.6	24.9	23.3	30.2	32.8	29.3	28.6	29.9	29.9	31.8	31.9	28.9
8	Starting current	A	4.70	3.08	2.12	2.27	1.62	1.30	1.10	1.05	0.940	0.797	0.665	0.403
9	Max. efficiency	%	79	77	78	79	80	79	78	78	79	79	79	78
Characteristics														
10	Terminal resistance	Ω	0.958	1.46	2.12	3.17	7.41	9.24	13.7	17.1	19.2	30.1	45.1	104
11	Terminal inductance	mH	0.101	0.138	0.254	0.372	0.862	1.07	1.42	1.69	2.13	3.35	4.85	10.8
12	Torque constant	mNm / A	6.94	8.09	11.0	13.3	20.2	22.5	26.0	28.3	31.8	39.9	48.0	71.6
13	Speed constant	rpm / V	1380	1180	869	718	472	423	367	337	300	239	199	133
14	Speed / torque gradient	rpm / mNm	190	213	168	171	173	173	193	203	181	181	187	194
15	Mechanical time constant	ms	24.4	24.2	23.7	23.5	23.5	23.4	23.6	23.8	23.6	23.6	23.7	23.8
16	Rotor inertia	gcm ²	12.3	10.9	13.5	13.1	13.0	12.9	11.7	11.2	12.5	12.4	12.1	11.7

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 13.2 K / W
 - 18 Thermal resistance winding-housing 3.2 K / W
 - 19 Thermal time constant winding 12.4 s
 - 20 Thermal time constant motor 660 s
 - 21 Ambient temperature -30 ... +65°C
 - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible speed 11000 rpm
 - 24 Axial play 0.1 - 0.2 mm
 - 25 Radial play 0.012 mm
 - 26 Max. axial load (dynamic) 1.7 N
 - 27 Max. force for press fits (static) 80 N
 - 28 Max. radial loading, 5 mm from flange 5.5 N

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**

Mechanical data (ball bearings)

- 23 Max. permissible speed 11000 rpm
- 24 Axial play 0.1 - 0.2 mm
- 25 Radial play 0.025 mm
- 26 Max. axial load (dynamic) 5.0 N
- 27 Max. force for press fits (static) 75 N
- 28 Max. radial loading, 5 mm from flange 20.5 N

Other specifications

- 29 Number of pole pairs 1
 - 30 Number of commutator segments 13
 - 31 Weight of motor 100 g
- CLL = Capacitor Long Life

Values listed in the table are nominal.
Explanation of the figures on page 47.

Option

- Ball bearings in place of sleeve bearings
- Pigtails in place of terminals
- Without CLL

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead

Ø26 mm
0.5 - 2.0 Nm
Page 226

Spur Gearhead

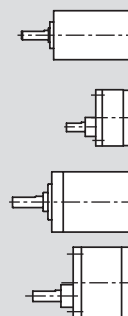
Ø30 mm
0.07 - 0.2 Nm
Page 227

Planetary Gearhead

Ø32 mm
0.4 - 6.0 Nm
Page 228 / 229 / 232

Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
Page 234



Recommended Electronics:

- LSC 30/2 Page 268
- EPOS 24/5 286
- EPOS P 24/5 287
- MIP 10 289
- Notes 18

Encoder MEnc

Ø13 mm
16 CPT, 2 channels
Page 262