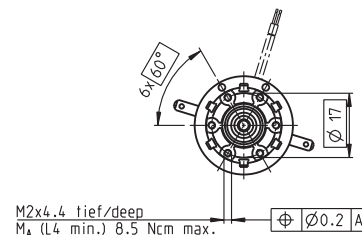
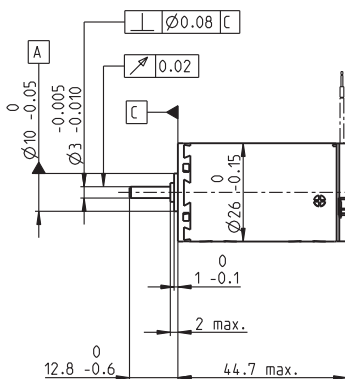
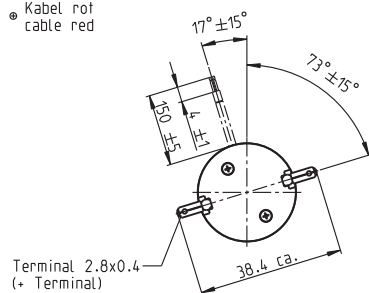


A-max 26 Ø26 mm, Precious Metal Brushes CLL, 4 Watt

Kabel AWG 24/7
cable UL Style 1061

⊗ Kabel rot
cable red



M 1:2

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

Part Numbers

with terminals	110169	110170	110171	110172	110173	110174	110175	110176	110177	110178	110179	110180
with cables	353039	353040	353041	353042	220031	353043	353044	353045	353046	353047	353048	353049

Motor Data

Values at nominal voltage			4.5	4.5	4.5	7.2	12	12	15	18	18	24	30	42
1	Nominal voltage	V	4.5	4.5	4.5	7.2	12	12	15	18	18	24	30	42
2	No load speed	rpm	6120	5230	3860	5110	5590	5020	5430	5980	5340	5670	5890	5520
3	No load current	mA	60	47.4	30.4	28.5	19.6	16.7	15	14.5	12.2	10	8.5	5.51
4	Nominal speed	rpm	5140	3910	2400	3290	3470	2880	3190	3690	3160	3500	3680	3270
5	Nominal torque (max. continuous torque)	mNm	5.45	6.46	8.95	10.9	12.4	12.4	11.8	11.4	12.1	12.1	11.9	11.7
6	Nominal current (max. continuous current)	A	0.84	0.84	0.84	0.84	0.631	0.565	0.464	0.414	0.392	0.312	0.255	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	4.7	3.08	2.12	2.27	1.62	1.3	1.1	1.05	0.94	0.797	0.665	0.403
9	Max. efficiency	%	79	77	78	79	80	79	78	78	79	79	79	79
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	13.3	20.2	22.5	26	28.3	31.8	39.9	48	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	24.6	24.4	23.8	23.7	23.6	23.6	23.8	23.9	23.7	23.7	23.8	24
16	Rotor inertia	gcm ²	12.3	10.9	13.6	13.2	13.1	13	11.8	11.2	12.5	12.5	12.2	11.8

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	12.5 s
20	Thermal time constant motor	423 s
21	Ambient temperature	-30...+65°C
22	Max. permissible winding temperature	+85°C
Mechanical data (sleeve bearings)		
23	Max. permissible speed	11 000 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 load, 5 mm from flange	5.5 N

Mechanical data (ball bearings)		
23	Max. permissible speed	11 000 rpm
24	Axial play	0.1 - 0.2 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	5 N
27	Max. force for press fits (static)	75 N
28	Max. radial load, 5 mm from flange	20.5 N

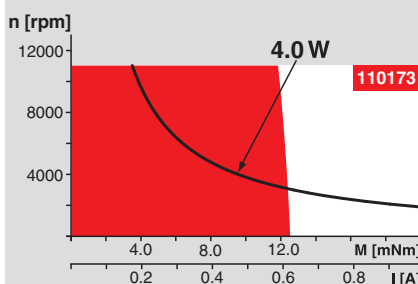
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	100 g
CLL = Capacitor Long Life		

Values listed in the table are nominal.
Explanation of the figures on page 79.

Option

Ball bearings in place of sleeve bearings
Without CLL

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

Overview on page 20–25

Planetary Gearhead

Ø26 mm
0.75 - 4.5 Nm
Page 270

Spur Gearhead

Ø30 mm
0.07 - 0.2 Nm
Page 271

Planetary Gearhead

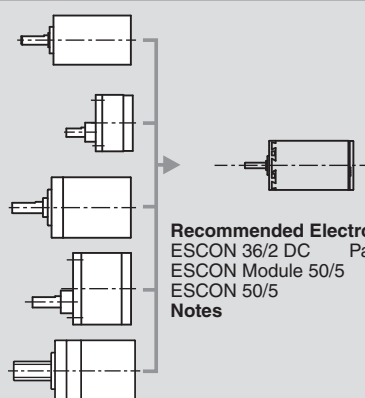
Ø32 mm
0.75 - 6.0 Nm
Page 272/273/276

Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
Page 282

Spindle Drive

Ø32 mm
Page 301–303



Recommended Electronics:

ESCON 36/2 DC	Page 342
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