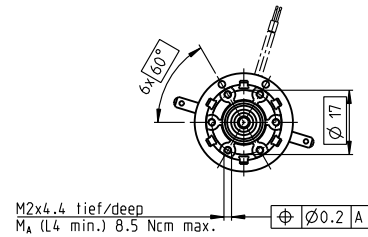
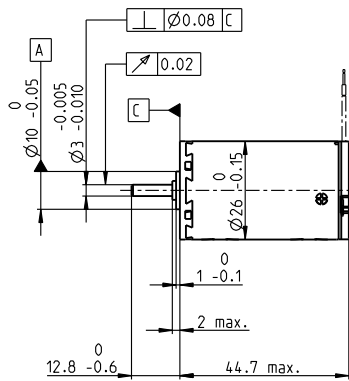
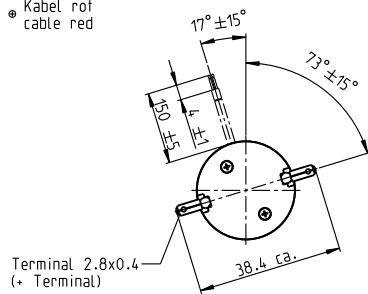


# A-max 26 Ø26 mm, Precious Metal Brushes CLL, 4 Watt

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	5900	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	Stall 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			0.958	1.46	2.12	3.17	7.41	9.24	13.7	17.1	19.2	30.1	45.1	104
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 <sup>2</sup>	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			13.2 K/W
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. winding temperature		+85°C
Mechanical data (sleeve bearings)			
23	Max. 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 load, 5 mm from flange		5.5 N

Mechanical data (ball bearings)			
23	Max. speed		11000 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

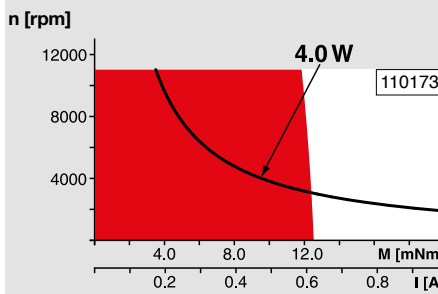
CLL = Capacitor Long Life

Values listed in the table are nominal.  
Explanation of the figures on page 64.

#### 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 28-36

#### Planetary Gearhead

Ø26 mm  
0.75 - 4.5 Nm  
Page 340

#### Spur Gearhead

Ø30 mm  
0.07 - 0.2 Nm  
Page 341

#### Planetary Gearhead

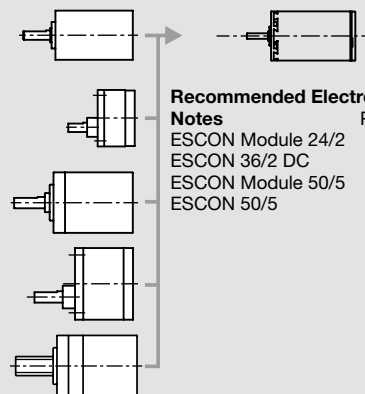
Ø32 mm  
0.75 - 6.0 Nm  
Page 342/343/346

#### Spur Gearhead

Ø38 mm  
0.1 - 0.6 Nm  
Page 353

#### Screw Drive

Ø32 mm  
Page 374-379



#### Recommended Electronics:

Notes	Page 30
ESCON Module 24/2	444
ESCON 36/2 DC	444
ESCON Module 50/5	445
ESCON 50/5	447