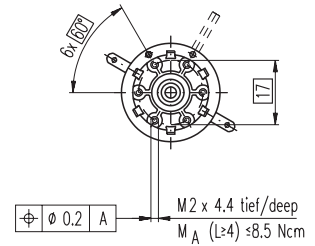
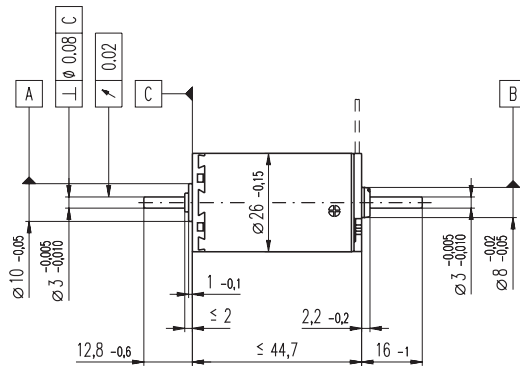
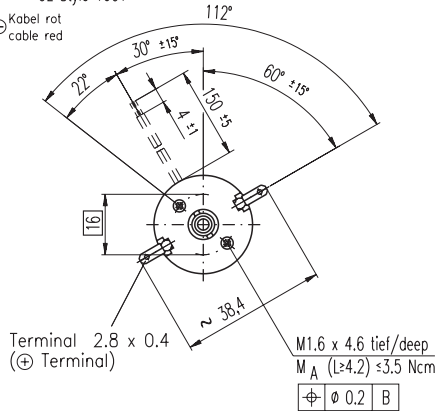


# A-max 26 Ø26 mm, Precious Metal Brushes CLL, 4 Watt, CE approved

maxon A-max

Kabel AWG 24/7  
cable UL Style 1061

⊕ Kabel rot  
cable red



M 1:2

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

## Order Number

with terminals	110192	110193	110194	110195	110196	110197	110198	110199	110200	110201	110202	110203
with cables	353064	353065	353066	353067	205635	353068	353069	353070	353071	353072	353073	353074

## Motor Data

Values at nominal voltage																	
1	Nominal voltage	V	3.6	4.5	6.0	7.2	9.0	9.0	12.0	15.0	18.0	21.0	24.0	30.0			
2	No load speed	rpm	4870	5210	5140	5090	4180	3740	4320	4960	5320	4950	4690	3920			
3	No load current	mA	63.8	56.8	41.5	34.1	20.2	17.2	16.0	15.8	14.6	11.2	9.04	5.54			
4	Nominal speed	rpm	3850	3860	3670	3260	2040	1600	2080	2670	3160	2780	2480	1660			
5	Nominal torque (max. continuous torque)	mNm	5.44	6.41	8.84	10.8	12.5	12.5	11.8	11.4	12.1	12.1	11.9	11.8			
6	Nominal current (max. continuous current)	A	0.840	0.840	0.840	0.840	0.630	0.565	0.464	0.415	0.391	0.312	0.255	0.168			
7	Stall torque	mNm	26.1	24.9	31.1	30.2	24.6	22.0	22.8	24.9	29.9	27.8	25.5	20.6			
8	Starting current	A	3.76	3.08	2.83	2.27	1.22	0.974	0.878	0.879	0.940	0.697	0.532	0.288			
9	Max. efficiency	%	76	75	78	78	76	76	75	76	77	77	76	75			
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	24.5	24.3	23.7	23.6	23.5	23.5	23.7	23.8	23.6	23.6	23.7	23.9			
16	Rotor inertia	gcm <sup>2</sup>	12.3	10.9	13.5	13.2	13.0	12.9	11.7	11.2	12.5	12.5	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 6700 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 (static, shaft supported)
  - 28 Max. radial loading, 5 mm from flange 1200 N

- Mechanical data (ball bearings)**
- 23 Max. permissible speed 6700 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 (static, shaft supported)
  - 28 Max. radial loading, 5 mm from flange 20.5 N

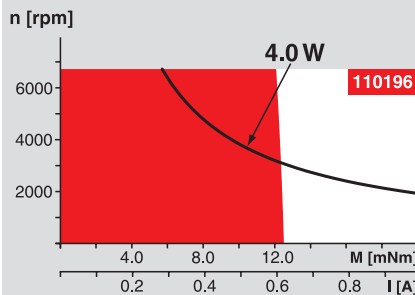
- Other specifications**
- 29 Number of pole pairs 1
  - 30 Number of commutator segments 13
  - 31 Weight of motor 100 g
- CLL = Capacitor Long Life

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

## Option

- Ball bearings in place of sleeve bearings
- Without CLL

## Operating Range



## Comments

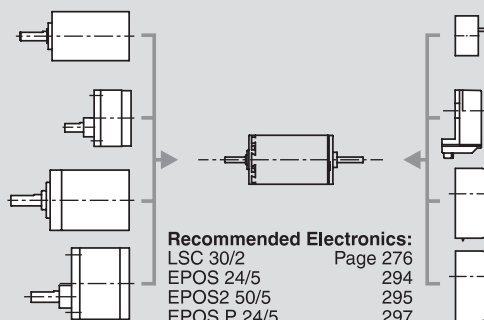
**Continuous operation**  
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.  
= Thermal limit.

**Short term operation**  
The motor may be briefly overloaded (recurring).

— Assigned power rating

## maxon Modular System

- Planetary Gearhead**  
Ø26 mm  
0.5 - 2.0 Nm  
Page 235
- Spur Gearhead**  
Ø30 mm  
0.07 - 0.2 Nm  
Page 236
- Planetary Gearhead**  
Ø32 mm  
0.4 - 6.0 Nm  
Page 237 / 238 / 241
- Spur Gearhead**  
Ø38 mm  
0.1 - 0.6 Nm  
Page 243



- Recommended Electronics:**
- LSC 30/2 Page 276
  - EPOS 24/5 294
  - EPOS2 50/5 295
  - EPOS P 24/5 297
- Notes 18

## Overview on page 16 - 21

- Encoder MR**  
128 - 1000 CPT,  
3 channels  
Page 258
- Encoder Enc**  
22 mm  
100 CPT, 2 channels  
Page 261
- Encoder HEDS 5540**  
500 CPT,  
3 channels  
Page 263
- Encoder HDL 5540**  
500 CPT,  
3 channels  
Page 265