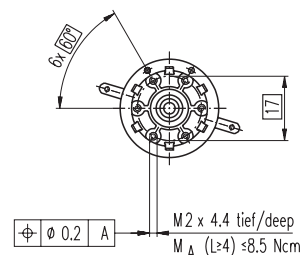
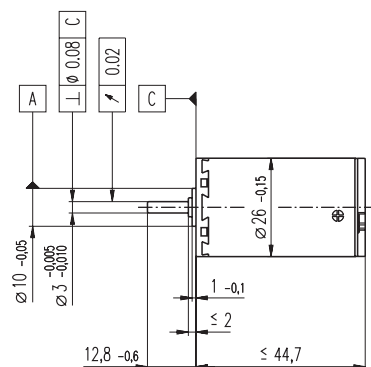
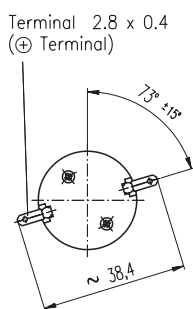


# A-max 26 Ø26 mm, Precious Metal Brushes CLL, 7 Watt, CE approved

HighPower



M 1:2

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

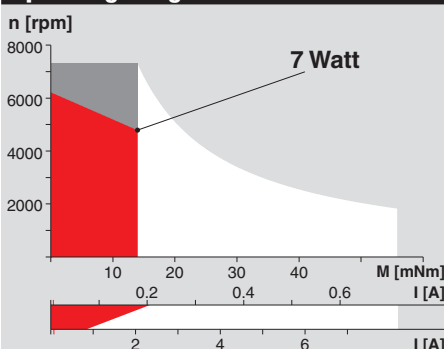
## Order Number

Motor Data		110181	110182	110183	110184	110185	110186	110187	110188	110189	110190	110191						
1 Assigned power rating	W	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0						
2 Nominal voltage	Volt	4.5	6.0	9.0	12.0	15.0	18.0	24.0	30.0	36.0	42.0	48.0						
3 No load speed	rpm	6960	8240	5860	6450	6400	6360	5390	5790	6450	6250	5760						
4 Stall torque	mNm	70.7	77.3	61.9	66.8	66.9	65.3	52.9	57.0	63.3	59.3	54.1						
5 Speed / torque gradient	rpm / mNm	99.0	107	95.3	97.2	96.2	98.1	103	102	103	106	107						
6 No load current	mA	73	72	28	24	19	16	9	8	8	7	5						
7 Starting current	mA	11500	11200	4250	3780	3010	2430	1250	1160	1200	931	684						
8 Terminal resistance	Ohm	0.390	0.536	2.12	3.17	4.99	7.41	19.2	25.8	30.1	45.1	70.2						
9 Max. permissible speed	rpm	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300	7300						
10 Max. continuous current	mA	840	840	840	840	772	633	393	339	314	256	206						
11 Max. continuous torque	mNm	5.16	5.80	12.2	14.8	17.2	17.0	16.6	16.6	16.6	16.3	16.2						
12 Max. power output at nominal voltage	mW	12800	16600	9460	11200	11200	10800	7430	8620	10700	9680	8120						
13 Max. efficiency	%	85	85	85	85	85	85	84	84	85	84	84						
14 Torque constant	mNm / A	6.14	6.91	14.6	17.6	22.3	26.9	42.2	49.1	52.9	63.7	79.0						
15 Speed constant	rpm / V	1560	1380	655	541	429	356	226	194	180	150	121						
16 Mechanical time constant	ms	14	14	13	13	13	13	13	13	13	13	13						
17 Rotor inertia	gcm <sup>2</sup>	13.9	12.4	12.9	12.6	12.7	12.4	11.8	11.9	11.8	11.4	11.3						
18 Terminal inductance	mH	0.04	0.05	0.23	0.33	0.53	0.77	1.90	2.57	2.99	4.33	6.67						
19 Thermal resistance housing-ambient	K / W	13	13	13	13	13	13	13	13	13	13	13						
20 Thermal resistance rotor-housing	K / W	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2						
21 Thermal time constant winding	s	13	12	12	12	12	12	11	11	11	11	11						

## Specifications

- Axial play 0.1 - 0.2 mm
- Max. **sleeve bearing** loads
  - axial (dynamic) 1.7 N
  - radial (5 mm from flange) 5.5 N
  - Force for press fits (static) 80 N
- Max. **ball bearing** loads
  - axial (dynamic) 5.0 N
  - radial (5 mm from flange) 20.5 N
  - Force for press fits (static) 75 N
- Radial play **sleeve bearing** 0.012 mm
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -30 ... +85°C
- Max. rotor temperature +85°C
- Number of commutator segments 13
- Weight of motor 117 g
- 2 pole permanent magnet
- Values listed in the table are nominal. For applicable tolerances see page 43. For additional details please use the maxon selection program on the enclosed CD-Rom.
- CLL = Capacitor Long Life

## Operating Range



## Comments

  Recommended operating range

  Continuous operation

In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.  
= Thermal limit.

  Short term operation

The motor may be briefly overloaded (recurring).

  110191 Motor with high resistance winding

  110181 Motor with low resistance winding

## maxon Modular System

### Planetary Gearhead

Ø26 mm  
0.2 - 2.0 Nm  
Details page 210

### Spur Gearhead

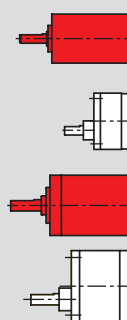
Ø30 mm  
0.07 - 0.2 Nm  
Details page 211

### Planetary Gearhead

Ø32 mm  
0.4 - 6.0 Nm  
Details page 212 / 215 / 216

### Spur Gearhead

Ø38 mm  
0.1 - 0.6 Nm  
Details page 217



### Recommended Electronics:

LSC 30/2 page 251  
EPOS 24/5 263  
MIP 10 265  
Notes 17

## Overview on page 17 - 21

**Digital Magnetic Encoder** Ø13 mm  
16 CPT, 2 channels  
Details page 245