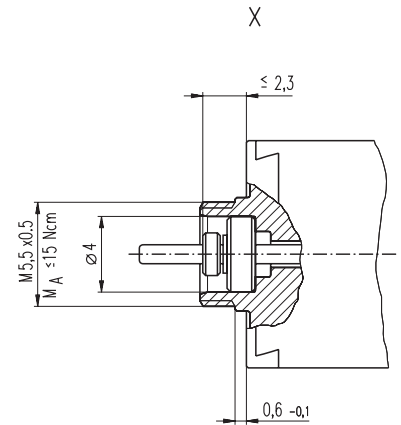
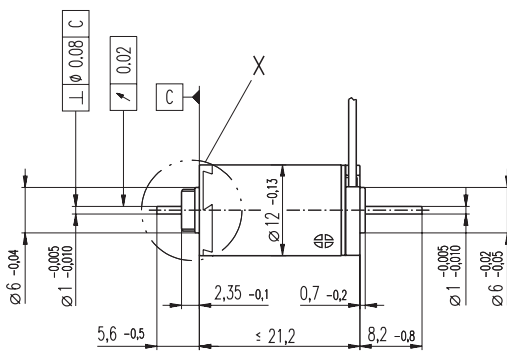
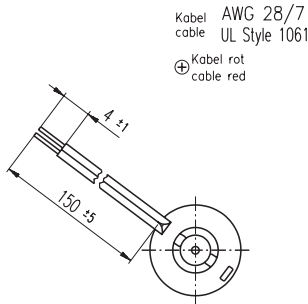


# A-max 12 Ø12 mm, Precious Metal Brushes CLL, 0.5 Watt, CE approved



M 1:1

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

### Order Number

200938 265389 265390 265391 265392 265393

### Motor Data

		200938	265389	265390	265391	265392	265393	
<b>Values at nominal voltage</b>								
1	Nominal voltage	V	3.0	4.5	6.0	9.0	12.0	15.0
2	No load speed	rpm	13700	11700	12600	11900	12100	13500
3	No load current	mA	34.5	18.8	15.5	9.63	7.38	6.88
4	Nominal speed	rpm	5950	4370	5260	4470	4620	5050
5	Nominal torque (max. continuous torque)	mNm	0.866	0.935	0.921	0.917	0.907	0.78
6	Nominal current (max. continuous current)	A	0.461	0.281	0.225	0.141	0.106	0.0835
7	Stall torque	mNm	1.58	1.55	1.63	1.52	1.52	1.29
8	Starting current	A	0.789	0.438	0.374	0.220	0.168	0.129
9	Max. efficiency	%	63	63	64	63	63	60
<b>Characteristics</b>								
10	Terminal resistance	Ω	3.80	10.3	16.0	40.9	71.6	116
11	Terminal inductance	mH	0.0851	0.263	0.402	1.01	1.74	2.13
12	Torque constant	mNm / A	2.01	3.53	4.36	6.92	9.06	10.0
13	Speed constant	rpm / V	4760	2710	2190	1380	1050	952
14	Speed / torque gradient	rpm / mNm	9030	7880	8060	8170	8330	11000
15	Mechanical time constant	ms	20.5	20.2	20.3	20.3	20.4	21.0
16	Rotor inertia	gcm <sup>2</sup>	0.217	0.245	0.240	0.237	0.233	0.182

### Specifications

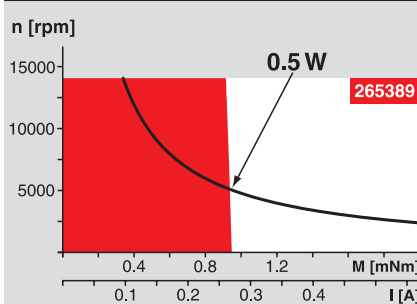
- Thermal data**
- 17 Thermal resistance housing-ambient 44.5 K / W
  - 18 Thermal resistance winding-housing 15 K / W
  - 19 Thermal time constant winding 4.99 s
  - 20 Thermal time constant motor 267 s
  - 21 Ambient temperature -30 ... +65°C
  - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible speed 14000 rpm
  - 24 Axial play 0.05 - 0.15 mm
  - 25 Radial play 0.012 mm
  - 26 Max. axial load (dynamic) 0.15 N
  - 27 Max. force for press fits (static) (static, shaft supported) 15 N / 70 N
  - 28 Max. radial loading, 4 mm from flange 0.4 N

### Other specifications

- 29 Number of pole pairs 1
  - 30 Number of commutator segments 7
  - 31 Weight of motor 12 g
- CLL = Capacitor Long Life  
Alignment of the electronic connections not specified.

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

### Operating Range

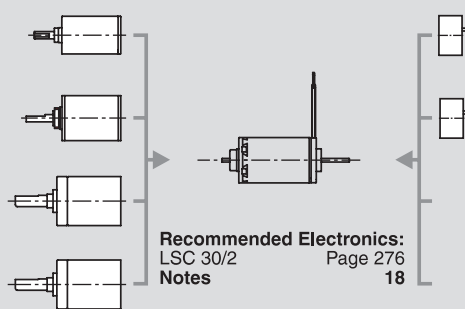


### Comments

- 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**  
Ø10 mm  
0.005 - 0.15 Nm  
Page 214 / 215
- Spur Gearhead**  
Ø12 mm  
0.008 - 0.025 Nm  
Page 216
- Planetary Gearhead**  
Ø13 mm  
0.05 - 0.15 Nm  
Page 217
- Planetary Gearhead**  
Ø13 mm  
0.2 - 0.35 Nm  
Page 218



### Overview on page 16 - 21