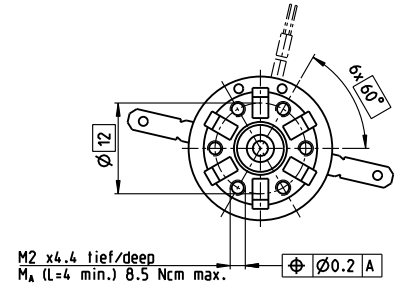
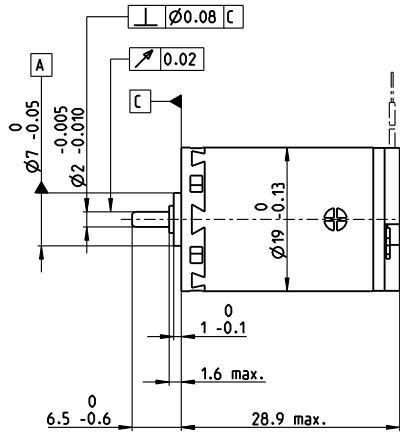
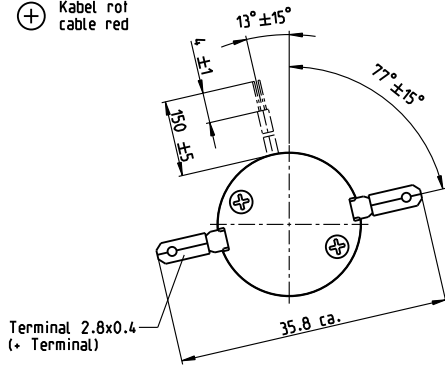


A-max 19 $\varnothing 19$ mm, precious metal brushes CLL, 2.5 watt

Kabel AWG 26/7
cable UL Style 1061

⊕ Kabel rot
cable red



M 1:1

A-max

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

Part Numbers

	110081	110082	110083	110084	110085	110086	110087	110088	110089
with terminals									
with cables	139828	202411	352922	202412	352923	233453	238388	267427	235373

Motor Data

Values at nominal voltage		1.5	3.6	4.5	6	9	12	15	18	24
1 Nominal voltage	V	1.5	3.6	4.5	6	9	12	15	18	24
2 No load speed	rpm	8040	10800	9420	7790	9220	10300	10300	9300	8870
3 No load current	mA	78	52.9	33.6	18.6	16.2	14.6	11.7	8.25	5.73
4 Nominal speed	rpm	6840	8080	5710	4000	5470	6510	6500	5380	4900
5 Nominal torque (max. continuous torque)	mNm	1.35	2.48	3.61	3.59	3.59	3.49	3.48	3.42	3.39
6 Nominal current (max. continuous current)	A	0.84	0.84	0.83	0.51	0.403	0.33	0.264	0.195	0.138
7 Stall torque	mNm	7.79	9.43	9	7.36	8.83	9.47	9.45	8.16	7.63
8 Stall current	A	4.44	3.02	2.01	1.02	0.963	0.867	0.692	0.45	0.301
9 Max. efficiency	%	76	76	76	76	76	76	76	76	75
Characteristics		0.338	1.19	2.24	5.88	9.34	13.8	21.7	40	79.7
10 Terminal resistance	Ω	0.338	1.19	2.24	5.88	9.34	13.8	21.7	40	79.7
11 Terminal inductance	mH	0.019	0.059	0.121	0.314	0.506	0.719	1.12	1.98	3.87
12 Torque constant	mNm/A	1.76	3.12	4.49	7.22	9.17	10.9	13.7	18.1	25.4
13 Speed constant	rpm/V	5440	3060	2130	1320	1040	874	699	526	377
14 Speed/torque gradient	rpm/mNm	1050	1170	1060	1080	1060	1110	1110	1160	1180
15 Mechanical time constant	ms	27.9	25.4	24.3	24.2	24.1	24.2	24.3	25	24.6
16 Rotor inertia	gcm ²	2.54	2.07	2.18	2.14	2.16	2.09	2.09	2.06	1.99

Specifications

Thermal data	
17 Thermal resistance housing-ambient	21.3 K/W
18 Thermal resistance winding-housing	10.5 K/W
19 Thermal time constant winding	11 s
20 Thermal time constant motor	201 s
21 Ambient temperature	-30...+65°C
22 Max. winding temperature	+85°C

Mechanical data (sleeve bearings)	
23 Max. speed	16 000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	1 N
27 Max. force for press fits (static)	80 N
28 Max. radial load, 5 mm from flange	2.7 N

Mechanical data (ball bearings)	
23 Max. speed	16 000 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	3.3 N
27 Max. force for press fits (static)	45 N
28 Max. radial load, 5 mm from flange	11.9 N

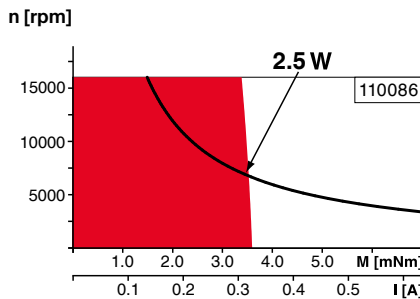
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	9
31 Weight of motor	33 g

CLL = Capacitor Long Life

Values listed in the table are nominal.
Explanation of the figures on page 82.

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

Details on catalog page 38

Planetary Gearhead

$\varnothing 19$ mm
0.1 - 0.3 Nm
Page 381

Planetary Gearhead

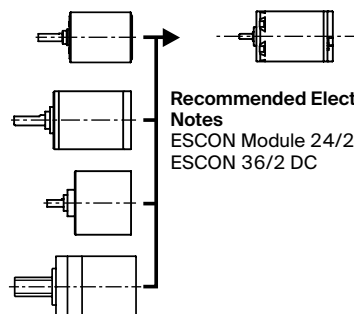
$\varnothing 22$ mm
0.5 - 2.0 Nm
Page 383/385

Spur Gearhead

$\varnothing 24$ mm
0.1 Nm
Page 389

Screw Drive

$\varnothing 22$ mm
Page 424/425



Recommended Electronics:
Notes Page 38
ESCON Module 24/2 500
ESCON 36/2 DC 500