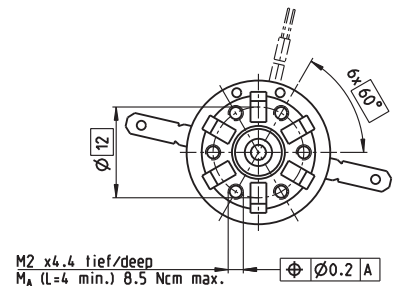
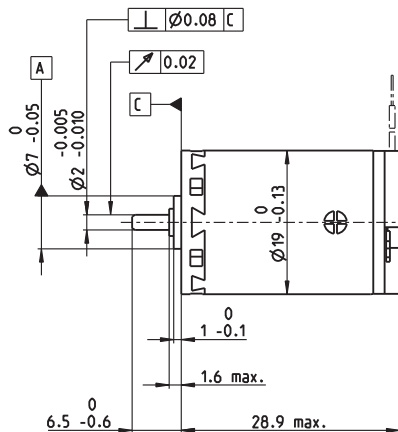
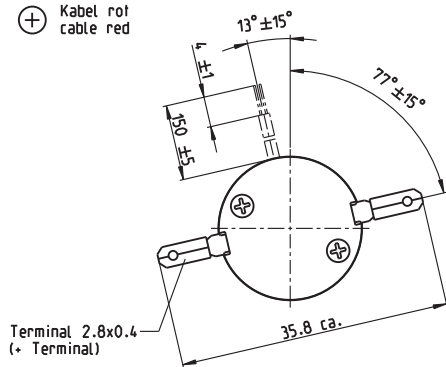


A-max 19 Ø19 mm, Precious Metal Brushes CLL, 2.5 Watt

Kabel AWG 26/7
cable UL Style 1061

⊕ Kabel rot
cable red



M 1:1

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

Part Numbers

with terminals	110081	110082	110083	110084	110085	110086	110087	110088	110089
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	Starting 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	77	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	0.0186	0.0587	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. permissible winding temperature	+85°C
Mechanical data (sleeve bearings)		
23	Max. permissible speed	16000 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. permissible speed	16000 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

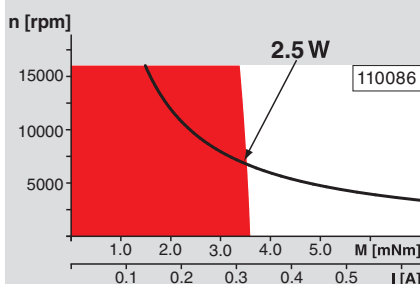
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	9
31	Weight of motor	33 g
CLL = Capacitor Long Life		

Values listed in the table are nominal.
Explanation of the figures on page 79.

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 20–25

Planetary Gearhead

Ø19 mm
0.1 - 0.3 Nm
Page 257

Planetary Gearhead

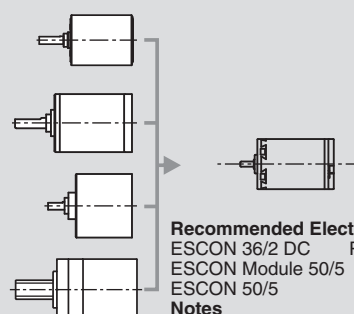
Ø22 mm
0.1 - 2.0 Nm
Page 262/264

Spur Gearhead

Ø24 mm
0.1 Nm
Page 269

Spindle Drive

Ø22 mm
Page 299/300



Recommended Electronics:

ESCON 36/2 DC	Page 342
ESCON Module 50/5	343
ESCON 50/5	344
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