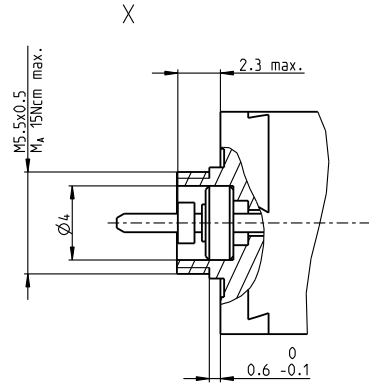
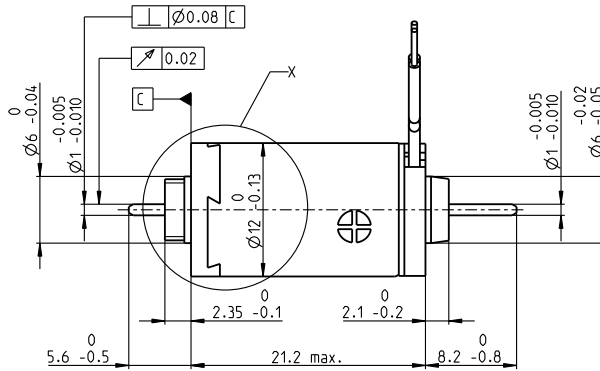
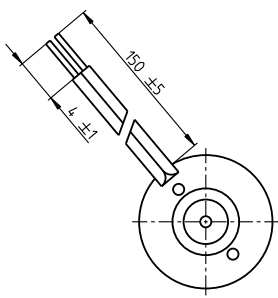


A-max 12 $\varnothing 12$ mm, precious metal brushes CLL, 0.5 watt

Kabel AWG 28/7
cable UL Style 1061

⊕ Kabel rot
cable red

A-max



M 3:2

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

Part Numbers

200938 265389 265390 265391 **265392** 265393

Motor Data							
Values at nominal voltage							
	V	3	4.5	6	9	12	15
1 Nominal voltage	V	3	4.5	6	9	12	15
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	6000	4390	5280	4480	4620	5050
5 Nominal torque	mNm	0.872	0.937	0.923	0.918	0.908	0.78
6 Nominal current (max. continuous current)	A	0.464	0.282	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 Stall current	A	0.789	0.438	0.374	0.22	0.168	0.129
9 Max. efficiency	%	63	63	64	63	63	60
Characteristics							
10 Terminal resistance	Ω	3.8	10.3	16	40.9	71.6	116
11 Terminal inductance	mH	0.085	0.264	0.403	1.01	1.74	2.13
12 Torque constant	mNm/A	2.01	3.53	4.36	6.92	9.06	10
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	20.6	20.3	20.4	20.4	20.5	21.1
16 Rotor inertia	gcm ²	0.218	0.246	0.241	0.238	0.235	0.183

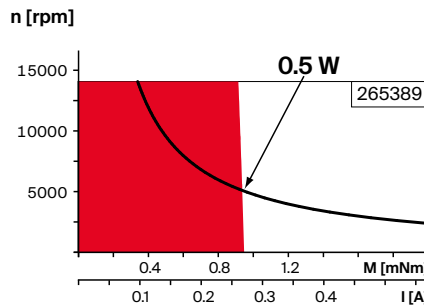
Specifications Operating Range Comments

- Thermal data**
- 17 Thermal resistance housing-ambient 44.5 K/W
 - 18 Thermal resistance winding-housing 15 K/W
 - 19 Thermal time constant winding 5.03 s
 - 20 Thermal time constant motor 267 s
 - 21 Ambient temperature -30...+65°C
 - 22 Max. winding temperature +85°C

- Mechanical data (sleeve bearings)**
- 23 Max. 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) 15 N
 - (static, shaft supported) 70 N
 - 28 Max. radial load, 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 90.



- 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**

Modular System Details on catalog page 44

Gear	Sensor	Motor Control
397_GP 10 A	504_Encoder MR 16 CPT	532_ESCON Module 24/2
398_GS 12 A	505_Encoder MR 64-256 CPT	532_ESCON 36/2 DC
399_GP 13 K		541_EPOS4 Micro 24/5
400_GP 13 A		542_EPOS4 Module 24/1.5
		543_EPOS4 Compact 24/5 3-axes
		544_EPOS4 Compact 24/1.5