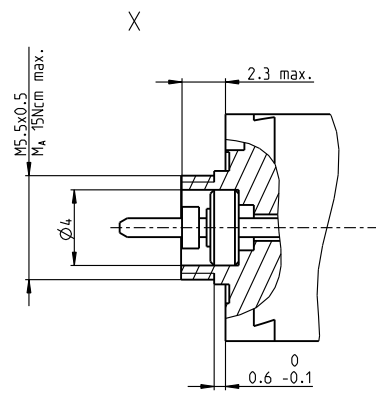
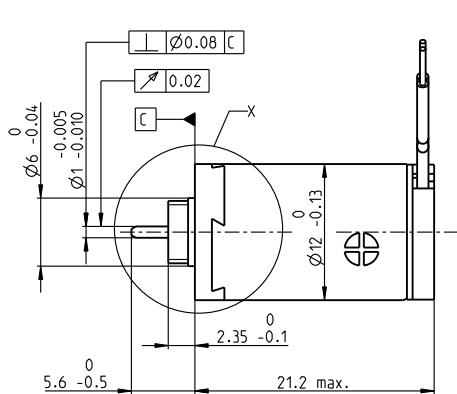
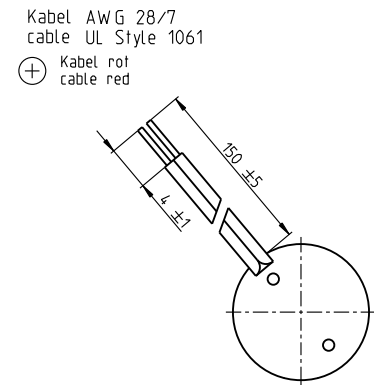


A-max 12 Ø12 mm, precious metal brushes CLL, 0.75 watt



A-max

M 3:2

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

Part numbers

200937 265374 265375 265376 265377 265378

Motor data

Values at nominal voltage

1 Nominal voltage	V	3	4.5	6	9	12	15
2 No load speed	rpm	13900	11900	12800	12100	12300	13800
3 No load current	mA	21.1	11.5	9.47	5.87	4.5	4.2
4 Nominal speed	rpm	5980	4380	5260	4470	4610	5030
5 Nominal torque	mNm	0.897	0.961	0.948	0.941	0.931	0.804
6 Nominal current (max. continuous current)	A	0.465	0.282	0.225	0.141	0.107	0.0836
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	%	70	71	71	70	70	68

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

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	245 s
21 Ambient temperature	-30...+65°C
22 Max. winding temperature	+85°C

Mechanical data (sleeve bearings)

23 Max. speed	19 000 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
28 Max. radial load, 4 mm from flange	0.4 N

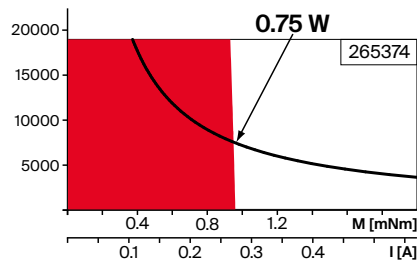
Other specifications

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

Values listed in the table are nominal.
Explanation of the figures on page 94.

Operating range

n [rpm]



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**

Modular system

- Gear**
- 414_GP 10 A
- 415_GP 13 A
- 448_GS 12 A

Details on catalog page 48

Motor Control

- 550_ESCON Module 24/2
- 550_ESCON 36/2 DC
- 557_ESCON2 Nano 24/2