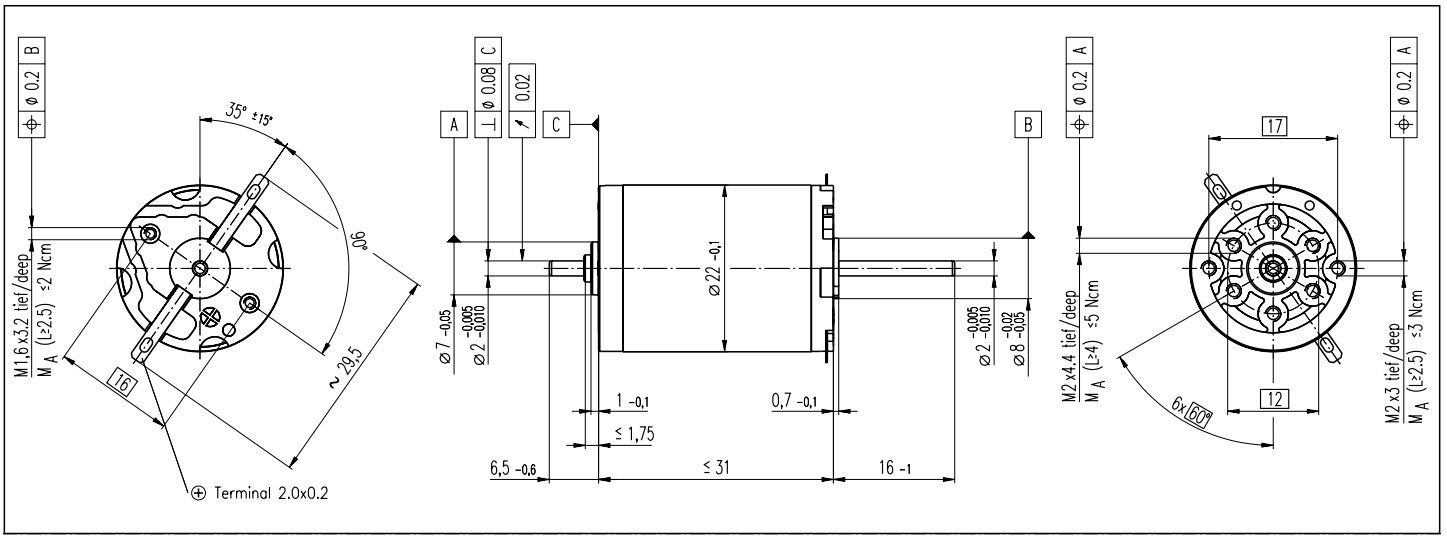
A 2522

∅22 mm, Precious Metal Brushes CLL, 3.8 Watt

CE approved

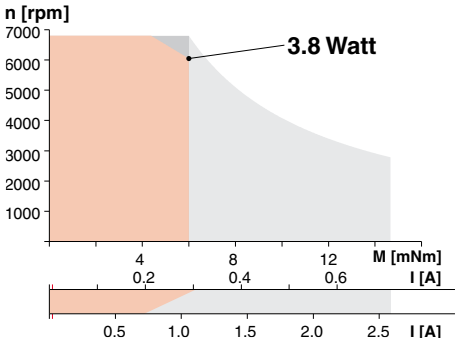


Motor Data: Order Number

2522. ...-52.112-000 (Insert winding number)

			Winding number	930	931	932	933	934	935	936	937	938	939	940	941
1	Assigned power rating	W		3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
2	Nominal voltage	Volt		3.0	3.6	4.2	4.8	6.0	7.2	7.2	9.0	12.0	15.0	18.0	24.0
3	No load speed	rpm		4890	5340	4720	4750	5290	5740	5000	5060	5440	5500	4970	4710
4	Stall torque	mNm		10.2	11.2	10.7	10.9	12.1	12.8	11.2	11.2	12.0	11.9	10.6	9.64
5	Speed/torque gradient	rpm/mNm		484	483	448	440	442	453	452	459	460	466	475	495
6	No load current	mA		23	22	16	14	13	12	10	8	7	5	4	3
7	Starting current	mA		1770	1760	1270	1150	1130	1080	823	666	575	464	311	201
8	Terminal resistance	Ohm		1.69	2.04	3.30	4.19	5.29	6.66	8.75	13.5	20.9	32.3	57.9	119
9	Max. permissible speed	rpm		6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800	6800
10	Max. continuous current	mA		720	720	720	682	607	541	472	379	305	245	183	128
11	Max. continuous torque	mNm		4.16	4.58	6.04	6.51	6.49	6.41	6.41	6.36	6.36	6.31	6.25	6.12
12	Max. power output at nominal voltage	mW		1300	1550	1310	1350	1670	1910	1450	1470	1690	1710	1370	1180
13	Max. efficiency	%		79	79	79	79	80	80	80	79	80	80	79	78
14	Torque constant	mNm/A		5.78	6.36	8.38	9.54	10.7	11.9	13.6	16.8	20.8	25.7	34.1	48.0
15	Speed constant	rpm/V		1650	1500	1140	1000	893	806	703	569	459	371	280	199
16	Mechanical time constant	ms		18	18	18	18	18	18	18	18	18	18	18	18
17	Rotor inertia	gcm²		3.65	3.64	3.87	3.93	3.90	3.81	3.80	3.74	3.73	3.68	3.61	3.47
18	Terminal inductance	mH		0.12	0.14	0.24	0.32	0.40	0.49	0.64	0.97	1.50	2.29	4.02	7.97
19	Thermal resistance housing-ambient	K/W		18	18	18	18	18	18	18	18	18	18	18	18
20	Thermal resistance rotor-housing	K/W		7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
21	Thermal time constant winding	s		11	11	11	12	11	11	11	11	11	11	11	10

Operating Range



Comments

Details on page 36

Recommended operating range

Continuous operation
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

Short term operation
The motor may be briefly overloaded (recurring).

938 Motor with high resistance winding

930 Motor with low resistance winding

Stock program
Standard program
Special program (on request!)

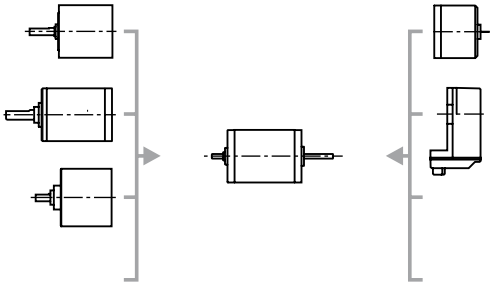
- Axial play 0.1 - 0.2 mm
- Max. **sleeve bearing** loads
  axial (dynamic) 1.0 N
  radial (5 mm from flange) 2.8 N
  Press-fit force (static) 80 N
  same as above, shaft supported 170 N
- Max. **ball bearing** loads
  axial (dynamic) 1.1 N
  radial (5 mm from flange) 5.5 N
  Press-fit force (static) 45 N
  same as above, shaft supported 170 N
- Radial play **sleeve bearings** 0.012 mm
- Radial play **ball bearings** 0.025 mm
- Ambient temperature range -20/+65°C
- Max. rotor temperature +85°C
- Number of commutator segments 9
- Weight of motor 54 g
- Values listed in the table are nominal. For applicable tolerances (see page 33) and additional details please request our computer printout.
- CLL = Capacitor Long Life
- Options: Pigtails in place of solder terminals (only in connection with tacho or encoder) and ball bearings in place of sleeve bearings.

maxon Modular System

Planetary Gearhead
∅22 mm
0.1-0.3 Nm
Details page 153

Planetary Gearhead
∅22 mm
0.5-1.0 Nm
Details page 154

Spur Gearhead
∅24 mm
0.1 Nm
Details page 156



DC Tacho
∅22 mm
0.52 V
Details page 173

Digital Encoder
22 mm
100 CTP, 2 channels
Details page 174