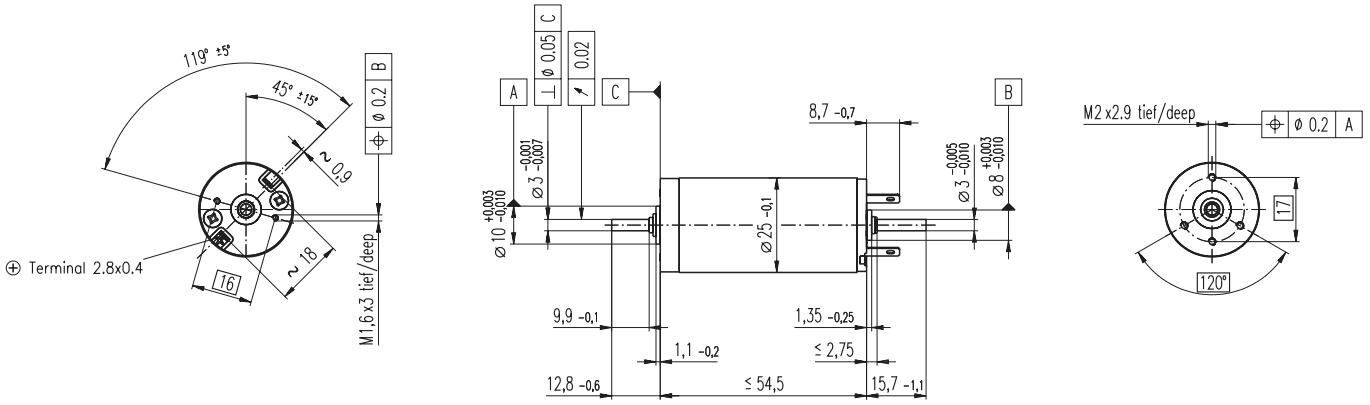
RE 25 ∅25 mm, Graphite Brushes, 20 Watt



Stock program
Standard program
Special program (on request!)

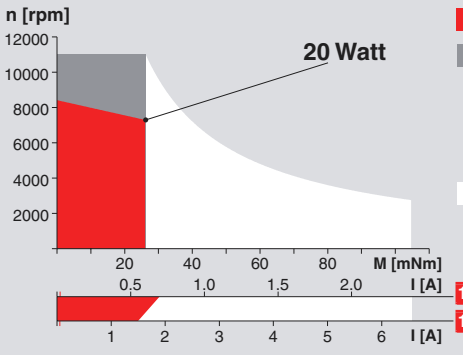
Order Number

			118749	118750	118751	118752	118753	118754	118755	118756	118757
Motor Data											
1	Assigned power rating	W	20	20	20	20	20	20	20	20	20
2	Nominal voltage	Volt	9.0	15.0	18.0	24.0	30.0	42.0	48.0	48.0	48.0
3	No load speed	rpm	10100	9760	10300	9660	9970	11200	10500	8320	5100
4	Stall torque	mNm	229	222	218	240	246	280	261	207	127
5	Speed / torque gradient	rpm / mNm	47.6	45.7	49.0	41.2	41.3	40.6	40.5	40.6	40.6
6	No load current	mA	111	62	55	37	31	26	20	15	9
7	Starting current	mA	29100	15700	13500	10300	8720	7940	6030	3810	1440
8	Terminal resistance	Ohm	0.309	0.953	1.33	2.32	3.44	5.29	7.96	12.6	33.4
9	Max. permissible speed	rpm	11000	11000	11000	11000	11000	11000	11000	11000	11000
10	Max. continuous current	mA	1500	1500	1500	1230	1030	841	695	560	350
11	Max. continuous torque	mNm	11.8	21.2	24.2	28.4	29.0	29.7	30.1	30.5	31.0
12	Max. power output at nominal voltage	mW	52800	52900	55600	58400	62200	80400	70200	44400	16800
13	Max. efficiency	%	77	82	83	85	86	87	87	87	84
14	Torque constant	mNm / A	7.88	14.1	16.1	23.2	28.2	35.3	43.3	54.4	88.7
15	Speed constant	rpm / V	1210	677	592	412	338	271	220	175	108
16	Mechanical time constant	ms	6	5	5	5	4	4	4	4	4
17	Rotor inertia	gcm²	11.3	10.00	9.11	10.3	10.1	10.1	10.00	9.96	9.91
18	Terminal inductance	mH	0.03	0.09	0.12	0.24	0.35	0.55	0.83	1.31	3.48
19	Thermal resistance housing-ambient	K / W	14	14	14	14	14	14	14	14	14
20	Thermal resistance rotor-housing	K / W	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
21	Thermal time constant winding	s	13	11	10	12	12	12	12	11	11

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **ball bearing** loads
  axial (dynamic)
  not preloaded 3.2 N
  preloaded 3.2 N
  radial (5 mm from flange) 16 N
  Press-fit force (static) 64 N
  (static, shaft supported) 270 N
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -20 / +100°C
- Max. rotor temperature +125°C
- Number of commutator segments 11
- Weight of motor 130 g
- Values listed in the table are nominal.
  For applicable tolerances (see page 43).
  For additional details please use the maxon selection program on the enclosed CD-Rom.

Operating Range



Comments Details on page 49

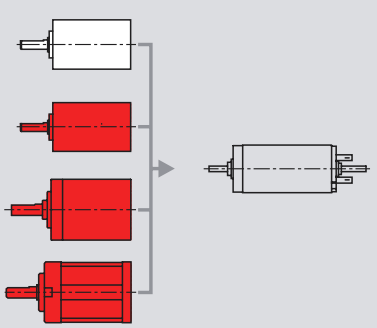
Recommended operating range

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).

118755 Motor with high resistance winding
118751 Motor with low resistance winding

maxon Modular System



Planetary Gearhead
∅26 mm
0.2 - 1.8 Nm
Details page 180

Planetary Gearhead
∅26 mm
0.5 - 2.0 Nm
Details page 181

Planetary Gearhead
∅32 mm
0.75 - 6.0 Nm
Details page 183 / 186

Planetary Gearhead
∅32 mm
0.4 - 2.0 Nm
Details page 189

Digital MR Encoder
128 - 1000 CPT,
3 channels
Details page 201

Digital Encoder
22 mm
100 CPT, 2 channels
Details page 203

Digital Encoder HP HED_ 55__
500 CPT, 3 channels
Details page 205 / 207

DC-Tacho
∅22 mm
0.52 V
Details page 213

Brake
∅40 mm
24 VDC, 0.4 Nm
Details page 236