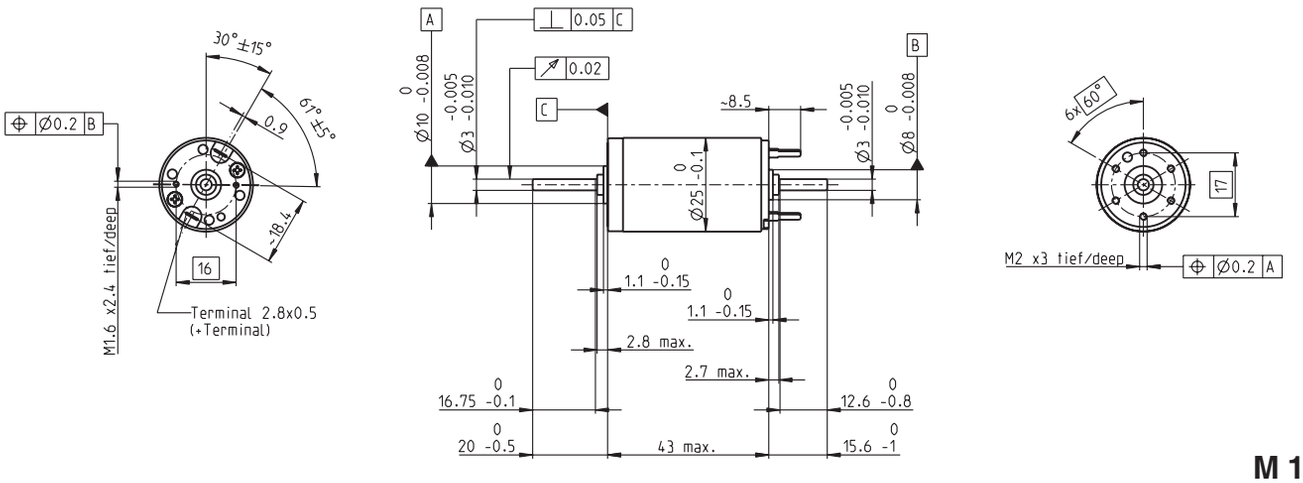
RE 25 ∅25 mm, Graphite Brushes, 20 Watt



M 1:2

Stock program
Standard program
Special program (on request)

Part Numbers

	302534	339149	339150	339151	339152	339153	339154	339155	339156	339157	339158
Motor Data											
Values at nominal voltage											
1 Nominal voltage V	7.2	9	12	18	24	30	36	48	48	48	48
2 No load speed rpm	10500	9710	9620	10400	10900	9210	10100	9540	8450	6720	4650
3 No load current mA	133	93.2	68.1	50.6	40.2	25	23.7	16.4	13.7	9.89	6
4 Nominal speed rpm	8970	8260	8310	9190	9690	8010	8860	8360	7270	5530	3430
5 Nominal torque (max. continuous torque) mNm	21.9	24.4	27.5	29.1	30.4	31.4	30.7	31.7	32.3	32.9	32.8
6 Nominal current (max. continuous current) A	3.68	2.97	2.45	1.85	1.5	1.04	0.931	0.68	0.614	0.495	0.341
7 Stall torque mNm	259	238	268	297	325	265	279	270	243	192	127
8 Stall current A	42.1	28.1	23.2	18.4	15.6	8.61	8.24	5.67	4.51	2.84	1.3
9 Max. efficiency %	79	81	84	86	88	88	88	89	89	88	86
Characteristics											
10 Terminal resistance Ω	0.171	0.32	0.517	0.98	1.53	3.49	4.37	8.47	10.6	16.9	36.8
11 Terminal inductance mH	0.0163	0.0308	0.0573	0.112	0.186	0.407	0.493	0.979	1.25	1.97	4.11
12 Torque constant mNm/A	6.15	8.46	11.5	16.1	20.8	30.8	33.8	47.7	53.8	67.7	97.6
13 Speed constant rpm/V	1550	1130	828	591	460	311	282	200	177	141	97.8
14 Speed / torque gradient rpm/mNm	43.2	42.8	37.1	35.9	34	35.2	36.5	35.6	35.1	35.2	36.9
15 Mechanical time constant ms	6.52	6.06	5.62	5.36	5.24	5.17	5.16	5.13	5.12	5.12	5.14
16 Rotor inertia gcm²	14.4	13.5	14.5	14.3	14.7	14	13.5	13.8	13.9	13.9	13.3

Specifications

Thermal data

17	Thermal resistance housing-ambient	14.4 K/W
18	Thermal resistance winding-housing	5.1 K/W
19	Thermal time constant winding	27.7 s
20	Thermal time constant motor	543 s
21	Ambient temperature	-30…+100°C
22	Max. winding temperature	+155°C

Mechanical data (ball bearings)

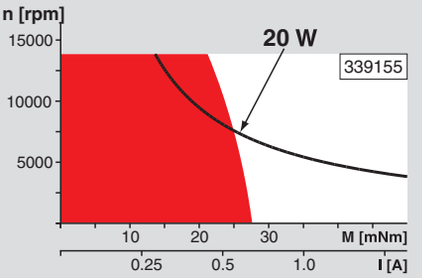
23	Max. speed	14000 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	3.2 N
27	Max. force for press fits (static)	60 N
	(static, shaft supported)	1000 N
28	Max. radial load, 5 mm from flange	16 N

Other specifications

29	Number of pole pairs	1
30	Number of commutator segments	11
31	Weight of motor	115 g

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

Operating Range



Comments

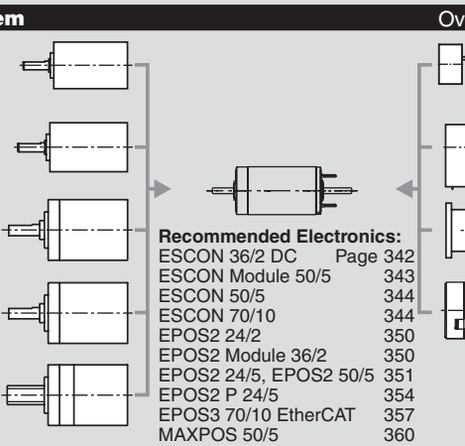
Continuous operation
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

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

Assigned power rating

maxon Modular System

Overview on page 20–25



Planetary Gearhead
∅22 mm
0.5 Nm
Page 263

Planetary Gearhead
∅26 mm
0.75 - 4.5 Nm
Page 270

Planetary Gearhead
∅32 mm
0.75 - 6.0 Nm
Page 272/273/276

Koaxdrive
∅32 mm
1.0 - 4.5 Nm
Page 281

Spindle Drive
∅32 mm
Page 301–303

Recommended Electronics:

ESCON 36/2 DC	Page 342
ESCON Module 50/5	343
ESCON 50/5	344
ESCON 70/10	344
EPOS2 24/2	350
EPOS2 Module 36/2	350
EPOS2 24/5, EPOS2 50/5	351
EPOS2 P 24/5	354
EPOS3 70/10 EtherCAT	357
MAXPOS 50/5	360
Notes	**22**

Encoder MR
128 - 1000 CPT,
3 channels
Page 319

Encoder HED_ 5540
500 CPT,
3 channels
Page 326/327

DC-Tacho DCT
∅22 mm
0.52 V
Page 336

Brake AB 28
24 VDC
0.4 Nm
Page 372