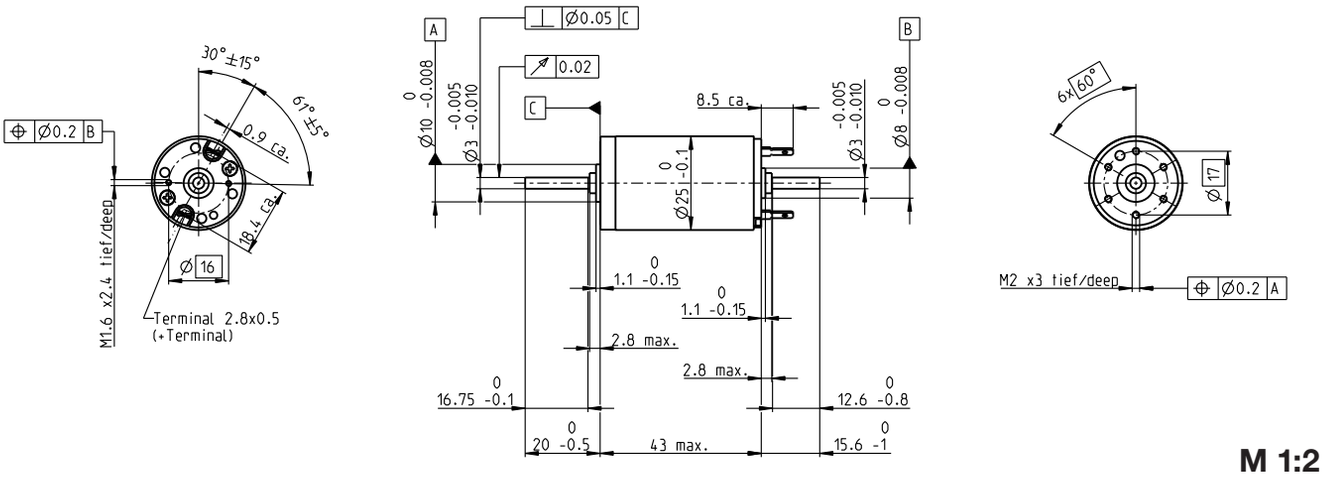
RE 25 ∅25 mm, Graphite Brushes, 20 Watt



M 1:2

Stock program
Standard program
Special program (on request)

Part Numbers

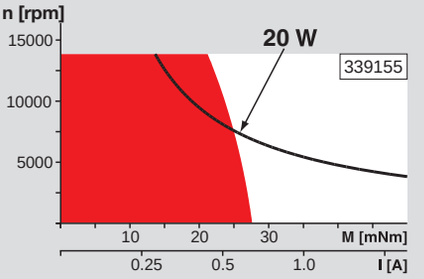
		302534	339149	339150	339151	339152	339153	339154	339155	339156	339157	339158
Motor Data												
	Values at nominal voltage											
1	Nominal voltage	V	7.2	9	12	18	24	30	36	48	48	48	48
2	No load speed	rpm	10500	9710	9620	10400	10900	9210	10100	9540	8450	6720	4650
3	No load current	mA	133	93.2	68.1	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	88	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	0.016	0.031	0.057	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)	20 N
27	Max. force for press fits (static)	60 N
	(static, shaft supported)	1000 N
28	Max. radial load, 5 mm from flange	35 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 151.

Operating Range



Comments

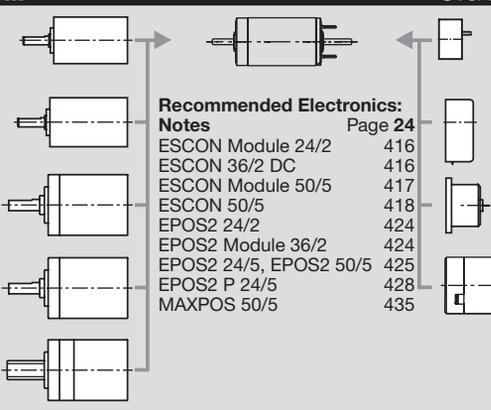
Continuous operation
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.

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

Assigned power rating

maxon Modular System

Overview on page 20–27



Planetary Gearhead
∅22 mm
0.5 Nm
Page 330

Planetary Gearhead
∅26 mm
0.75 - 4.5 Nm
Page 336

Planetary Gearhead
∅32 mm
0.75 - 6.0 Nm
Page 338/339/342

Koaxdrive
∅32 mm
1.0 - 4.5 Nm
Page 347

Spindle Drive
∅32 mm
Page 370–372

Recommended Electronics:

Notes	Page 24
ESCON Module 24/2	416
ESCON 36/2 DC	416
ESCON Module 50/5	417
ESCON 50/5	418
EPOS2 24/2	424
EPOS2 Module 36/2	424
EPOS2 24/5, EPOS2 50/5	425
EPOS2 P 24/5	428
MAXPOS 50/5	435

Encoder MR
128 - 1000 CPT,
3 channels
Page 392

Encoder HED_ 5540
500 CPT,
3 channels
Page 400/401

DC-Tacho DCT
∅22 mm
0.52 V
Page 411

Brake AB 28
24 VDC
0.4 Nm
Page 446