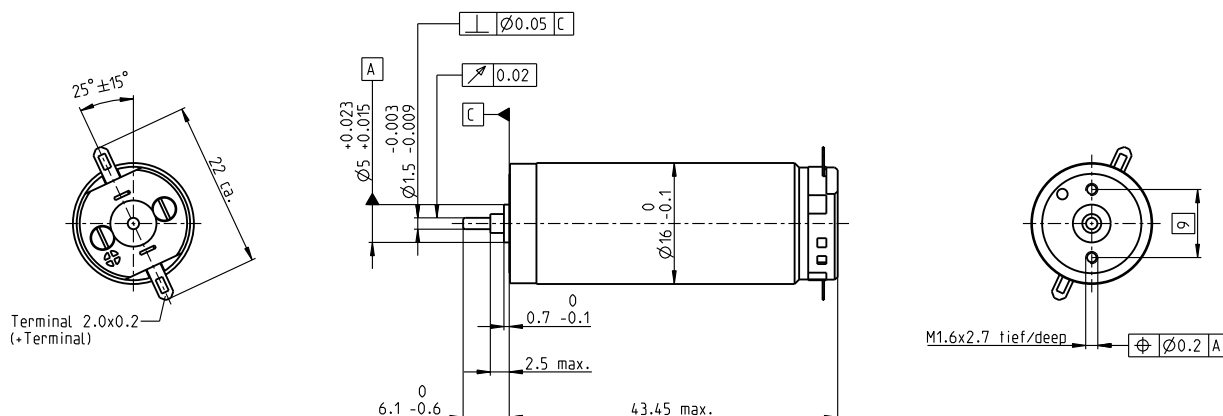


RE 16 Ø16 mm, graphite brushes, 4.5 watt

RE



M 1:1

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

Part numbers

Motor data		118710	118711	118712	118713	118714	118715	118716	118717	118718	118719	118720	118721	118722	118723	118724
Values at nominal voltage																
1 Nominal voltage	V	4.8	4.8	6	7.2	9	12	15	18	24	30	36	45	48	48	48
2 No load speed	rpm	12700	12100	13200	13600	13100	13900	14000	13200	14000	14700	14100	14500	14200	10100	5320
3 No load current	mA	105	98.7	87.6	75.4	56.9	45.9	37.1	28.5	23	19.6	15.6	12.8	11.8	7.66	3.63
4 Nominal speed	rpm	11200	10500	11500	11700	11000	11900	12100	11300	12100	12900	12300	12700	12400	8120	3170
5 Nominal torque	mNm	2.15	2.27	2.67	3.18	4.23	4.36	4.42	4.53	4.53	4.4	4.46	4.42	4.43	4.65	4.77
6 Nominal current (max. continuous current)	A	0.72	0.72	0.72	0.72	0.712	0.582	0.475	0.379	0.302	0.247	0.2	0.163	0.15	0.111	0.0603
7 Stall torque	mNm	26.3	22.8	25.8	27.4	29.9	34.3	35.3	33.4	36.3	36.8	35.6	36.2	35.4	24.2	12.1
8 Stall current	A	7.56	6.26	6.16	5.58	4.65	4.23	3.51	2.6	2.24	1.91	1.48	1.23	1.11	0.541	0.144
9 Max. efficiency	%	73	72	74	76	77	79	80	80	80	81	81	81	81	78	71
Characteristics																
10 Terminal resistance	Ω	0.635	0.767	0.975	1.29	1.94	2.83	4.28	6.93	10.7	15.7	24.4	36.5	43.3	88.7	334
11 Terminal inductance	mH	0.021	0.023	0.03	0.042	0.071	0.113	0.174	0.284	0.452	0.639	0.993	1.48	1.74	3.44	12.1
12 Torque constant	mNm/A	3.48	3.64	4.2	4.91	6.43	8.11	10.1	12.9	16.2	19.3	24.1	29.4	31.9	44.8	83.9
13 Speed constant	rpm/V	2750	2630	2280	1940	1480	1180	948	742	589	495	397	325	299	213	114
14 Speed/torque gradient	rpm/mNm	502	554	529	510	447	411	403	399	389	403	402	404	407	423	453
15 Mechanical time constant	ms	9.07	8.35	7.36	6.71	6.13	5.78	5.56	5.43	5.31	5.28	5.25	5.23	5.22	5.24	5.28
16 Rotor inertia	gcm ²	1.73	1.44	1.33	1.26	1.31	1.34	1.32	1.3	1.3	1.25	1.25	1.24	1.23	1.18	1.11

Specifications	Operating range	Comments
Thermal data 17 Thermal resistance housing-ambient 30 K/W 18 Thermal resistance winding-housing 8.5 K/W 19 Thermal time constant winding 10.6 s 20 Thermal time constant motor 504 s 21 Ambient temperature -20...+65°C 22 Max. winding temperature +85°C Mechanical data (sleeve bearings) 23 Max. speed 16 000 rpm 24 Axial play 0.05 - 0.15 mm 25 Radial play 0.014 mm 26 Max. axial load (dynamic) 0.8 N 27 Max. force for press fits (static) 15 N 28 Max. radial load, 5 mm from flange 1.5 N	n [rpm] 	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

- Other specifications**
- 29 Number of pole pairs 1
 - 30 Number of commutator segments 7
 - 31 Weight of motor 40 g
- Values listed in the table are nominal.
Explanation of the figures on page 94.

Modular system

Gear
 416_GP 16 A
 417_GP 16 C
 469-471_GP 16 S

Details on catalog page 48

Motor Control

550_ESCON Module 24/2
 550_ESCON 36/2 DC
 551_ESCON Module 50/5
 553_ESCON 50/5
 557_ESCON2 Nano 24/2
 557_ESCON2 Micro 60/5