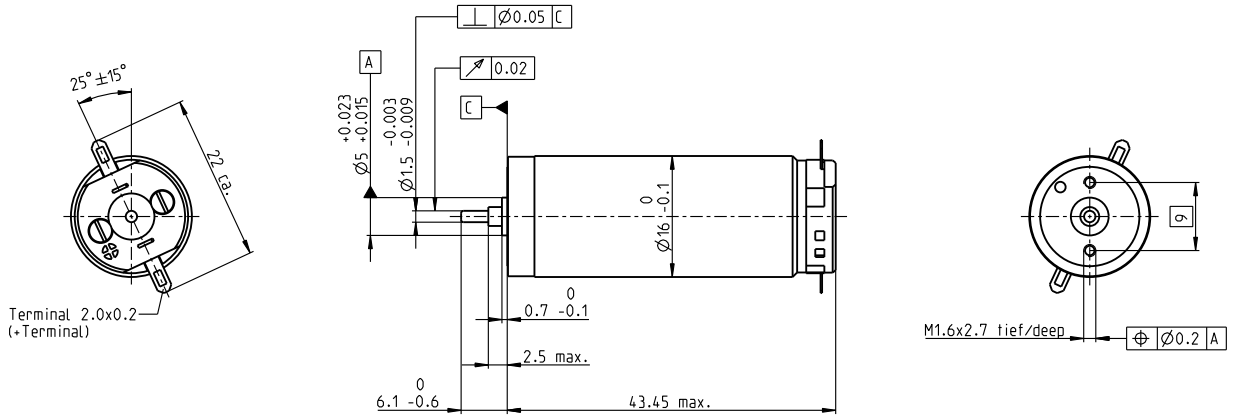


RE 16 \varnothing 16 mm, graphite brushes, 4.5 watt

RE



M 1:1

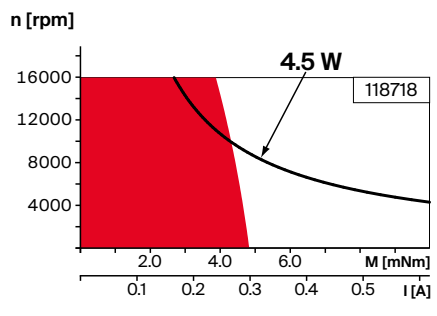
- Stock program
- Standard program
- Special program (on request)

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
2 No load speed	rpm	12700	12100	13200	13600	13100	13900	14000	13200	14000	14700	14100	14500	14200	10100
3 No load current	mA	105	98.7	876	75.4	56.9	45.9	371	28.5	23	19.6	15.6	12.8	11.8	7.66
4 Nominal speed	rpm	11200	10500	11500	11700	11000	11900	12100	11300	12100	12900	12300	12700	12400	8120
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
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
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
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
9 Max. efficiency	%	73	72	74	76	77	79	80	80	80	81	81	81	81	78
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
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 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
13 Speed constant	rpm/V	2750	2630	2280	1940	1480	1180	948	742	589	495	397	325	299	213
14 Speed/torque gradient	rpm/mNm	502	554	529	510	447	411	403	399	389	403	402	404	407	423
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
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

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: 16000 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



- **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	Modular System	Details on catalog page 44
29 Number of pole pairs	1	Motor Control 532_ESCON Module 24/2 532_ESCON 36/2 DC 533_ESCON Module 50/5 535_ESCON 50/5
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 90.	Gear 405_GP 16 A 406_GP 16 C 447-449_GP 16 S	