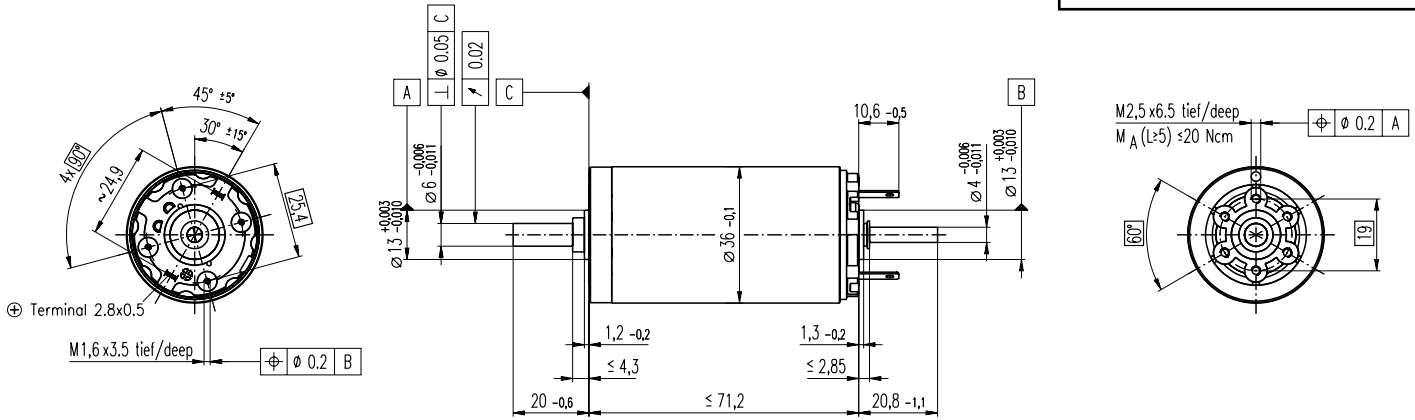


RE 36 $\varnothing 36$ mm, Graphite Brushes, 70 Watt

Farnell Code
415 8740 - base - 118798



M 1:2

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

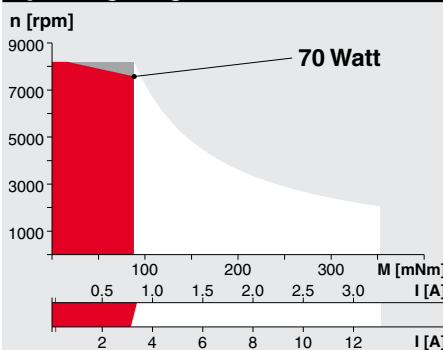
Order Number

Motor Data		118797	118798	118799	118800	118801	118802	118803	118804	118805	118806	118807	118808	118809	118810
1 Assigned power rating	W	70	70	70	70	70	70	70	70	70	70	70	70	70	70
2 Nominal voltage	Volt	18.0	24.0	32.0	42.0	42.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
3 No load speed	rpm	6610	6210	6790	7020	6340	6420	5220	4320	3450	2830	2280	1780	1420	1180
4 Stall torque	mNm	730	783	832	865	786	785	627	504	403	326	258	198	158	127
5 Speed / torque gradient	rpm / mNm	9.23	8.05	8.27	8.19	8.14	8.25	8.41	8.65	8.67	8.80	8.96	9.17	9.21	9.51
6 No load current	mA	153	105	89	70	61	55	42	33	25	20	15	12	9	7
7 Starting current	A	28.6	21.5	18.7	15.3	12.6	11.1	7.22	4.80	3.06	2.04	1.30	0.784	0.501	0.334
8 Terminal resistance	Ohm	0.628	1.11	1.71	2.75	3.35	4.32	6.65	10.00	15.7	23.5	36.8	61.3	95.8	144
9 Max. permissible speed	rpm	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200	8200
10 Max. continuous current	A	3.18	2.44	1.99	1.59	1.44	1.27	1.03	0.847	0.679	0.556	0.445	0.346	0.277	0.226
11 Max. continuous torque	mNm	81	88.8	88.5	89.8	90.4	90.1	89.8	89.0	89.2	88.8	88.1	87.3	87.2	85.8
12 Max. power output at nominal voltage	W	123	125	146	157	129	131	84.9	56.4	36.0	23.9	15.2	9.09	5.78	3.82
13 Max. efficiency	%	84	85	86	86	86	86	85	84	82	81	79	77	75	72
14 Torque constant	mNm / A	25.5	36.4	44.5	56.6	62.6	70.7	86.9	105	131	160	198	253	315	380
15 Speed constant	rpm / V	375	263	215	169	152	135	110	90.9	72.7	59.8	48.2	37.8	30.3	25.1
16 Mechanical time constant	ms	6	6	6	6	6	6	6	6	6	6	6	6	6	6
17 Rotor inertia	gcm ²	60.2	67.7	65.2	65.4	65.6	64.6	63.3	61.5	61.3	60.3	59.2	57.8	57.5	55.7
18 Terminal inductance	mH	0.10	0.20	0.30	0.49	0.60	0.76	1.15	1.68	2.62	3.87	5.96	9.70	15.10	21.90
19 Thermal resistance housing-ambient	K / W	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
20 Thermal resistance rotor-housing	K / W	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
21 Thermal time constant winding	s	38	43	41	41	41	41	40	39	39	38	37	36	36	35

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **ball bearing** loads
 - axial (dynamic) 5.6 N
 - not preloaded 2.4 N
 - preloaded 28 N
 - radial (5 mm from flange) 110 N
 - Force for press fits (static) 1200 N
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -20 ... +100°C
- Max. rotor temperature +125°C
- Number of commutator segments 13
- Weight of motor 350 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.
- ⚠ Tolerances may vary from the standard specification.

Operating Range



Comments

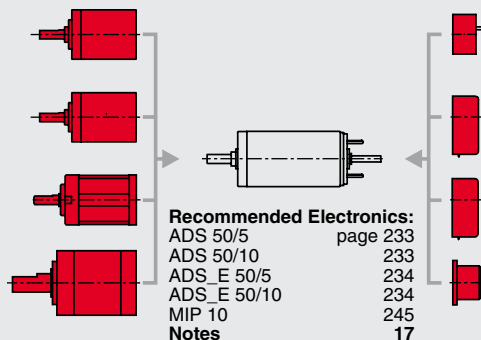
- **Recommended operating range**
- **Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit
- **Short term operation**
The motor may be briefly overloaded (recurring).
- **118804** Motor with high resistance winding
- **118797** Motor with low resistance winding

Details on page 49

maxon Modular System

Overview on page 17 - 21

- Planetary Gearhead**
 $\varnothing 32$ mm
0.75 - 4.5 Nm
Details page 196
- Planetary Gearhead**
 $\varnothing 32$ mm
1.0 - 6.0 Nm
Details page 198
- Planetary Gearhead**
 $\varnothing 32$ mm
0.4 - 2.0 Nm
Details page 199
- Planetary Gearhead**
 $\varnothing 42$ mm
3 - 15 Nm
Details page 201



- Digital MR Encoder**
256 - 1024 CPT,
3 channels
Details page 213
- Digital Encoder**
HP HEDS 5540
500 CPT, 3 channels
Details page 216
- Digital Encoder**
HP HEDL 5540
500 CPT, 3 channels
Details page 218
- DC-Tacho**
 $\varnothing 22$ mm
0.52 V
Details page 224