

Please find our works drawings for the parts supplied to Farnell. The parts are modified motors from the base motors (i.e. reduced shaft ready for use with the Gearheads or back shaft reduced ready for the encoder)

I have enclosed the Maxon base part number and the catalogue PDF that gives the electrical specifications

121391 MOTOR, 26MMDIA, 12VDC, 11W – Farnell Order Code 176-1305.
Maxon base part no 110937

121394 MOTOR, 26MMDIA, 24VDC, 11W – Farnell Order Code 176-1306.
Maxon base part no 110940

243066 MOTOR, 32MMDIA, 12VDC, 15W, THRO S – Farnell Order Code 1761307
Maxon base part no 236653

240987 MOTOR, 32MMDIA, 24VDC, 15W, THRO S – Farnell Order Code 1761308
Maxon base part no 236655

137576 MOTOR, 36MMDIA, 24VDC, 70W – Farnell Order Code 1761309
Maxon base no 118798

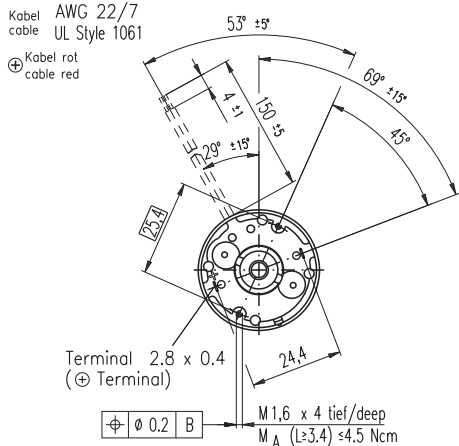
Maxon motor UK Ltd

Maxon House, Hogwood Lane, Finchampstead, Berkshire, RG40 4QW

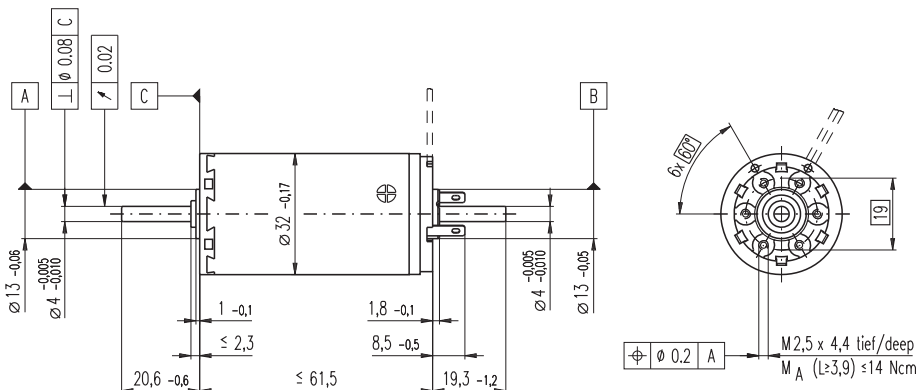
Tel: +44 (0) 118 9733337 Fax: +44 (0) 118 9737472

A-max 32 Ø32 mm, Graphite Brushes, 15 Watt

Kabel AWG 22/7
 cable UL Style 1061
 ⊕ Kabel rot
 cable red



Verlegung der Kabel im Bürstendeckel nicht dargestellt



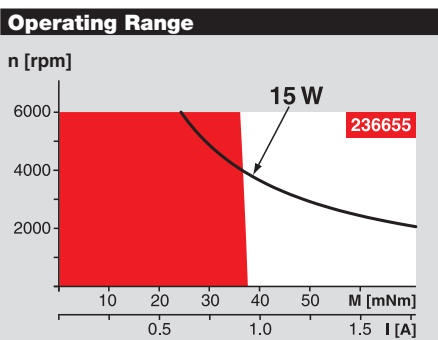
M 1:2

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

		Order Number							
with terminals		236651	236652	236653	236654	236655	236656	236657	236658
with cables		353220	353221	353222	353223	353224	353225	353226	353227

Motor Data										
Values at nominal voltage										
1	Nominal voltage	V	6.0	9.0	12.0	18.0	24.0	30.0	36.0	48.0
2	No load speed	rpm	5830	4930	4670	5270	5930	5870	5830	3870
3	No load current	mA	153	83.2	58.4	44.8	38.6	30.5	25.2	11.7
4	Nominal speed	rpm	3800	2980	2860	3550	4180	4140	4090	2080
5	Nominal torque (max. continuous torque)	mNm	31.4	33.1	36.0	37.5	36.7	37.1	36.8	36.9
6	Nominal current (max. continuous current)	A	3.42	2.02	1.55	1.21	0.998	0.798	0.656	0.328
7	Stall torque	mNm	99.7	87.4	95.9	118	127	128	125	81.3
8	Starting current	A	10.4	5.12	3.98	3.66	3.34	2.66	2.15	0.698
9	Max. efficiency	%	75	75	77	79	80	80	80	76
Characteristics										
10	Terminal resistance	Ω	0.577	1.76	3.02	4.92	7.19	11.3	16.7	68.8
11	Terminal inductance	mH	0.0657	0.209	0.416	0.739	1.04	1.66	2.43	9.71
12	Torque constant	mNm / A	9.58	17.1	24.1	32.2	38.2	48.2	58.3	117
13	Speed constant	rpm / V	996	559	396	297	250	198	164	81.9
14	Speed / torque gradient	rpm / mNm	59.9	57.6	49.5	45.5	47.1	46.3	47.1	48.4
15	Mechanical time constant	ms	27.6	23.5	22.4	21.8	21.7	21.5	21.5	21.5
16	Rotor inertia	gcm ²	43.9	39.0	43.3	45.9	44.0	44.4	43.6	42.4

Specifications		
Thermal data		
17	Thermal resistance housing-ambient	7.5 K / W
18	Thermal resistance winding-housing	2.1 K / W
19	Thermal time constant winding	17.7 s
20	Thermal time constant motor	791 s
21	Ambient temperature	-20 ... +85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (ball bearings)		
23	Max. permissible speed	6000 rpm
24	Axial play	0.12 - 0.22 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	7.6 N
27	Max. force for press fits (static) (static, shaft supported)	110 N / 2000 N
28	Max. radial loading, 5 mm from flange	32 N



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**

Mechanical data (sleeve bearings)		
23	Max. permissible speed	6000 rpm
24	Axial play	0.12 - 0.22 mm
25	Radial play	0.012 mm
26	Max. axial load (dynamic)	5.0 N
27	Max. force for press fits (static) (static, shaft supported)	110 N / 2000 N
28	Max. radial loading, 5 mm from flange	10.5 N
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	211 g

Values listed in the table are nominal.
 Explanation of the figures on page 49.

Option
 Sleeve bearings in place of ball bearings

maxon Modular System

Planetary Gearhead
 Ø32 mm
 0.75 - 6.0 Nm
 Page 232 / 234 / 235

Spur Gearhead
 Ø38 mm
 0.1 - 0.6 Nm
 Page 239

Spindle Drive
 Ø32 mm
 Page 251 / 252 / 253

Overview on page 16 - 21

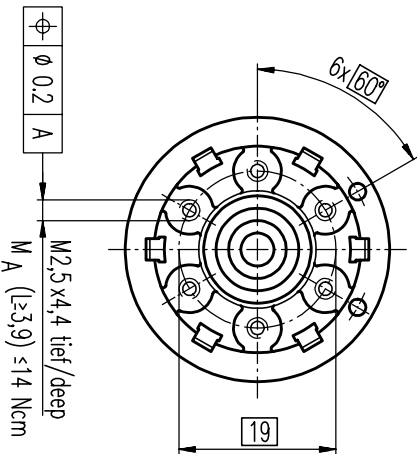
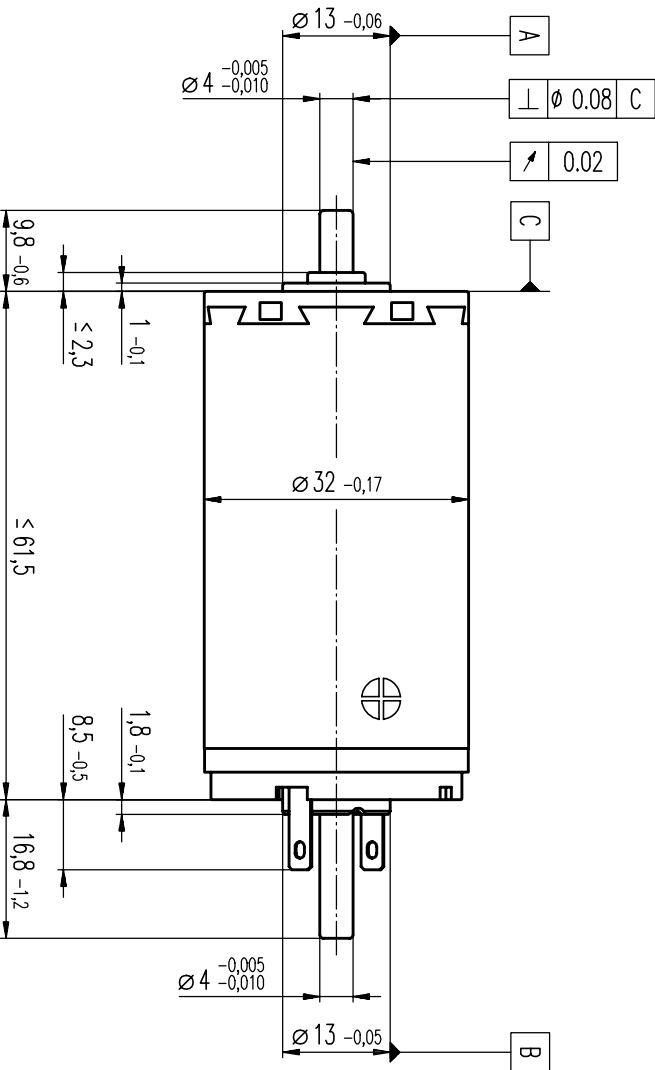
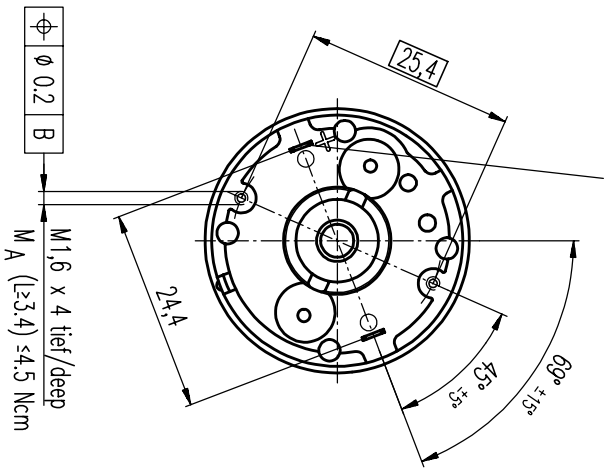
Encoder MR
 256 - 1024 CPT,
 3 channels
 Page 265

Encoder HED_5540
 500 CPT,
 3 channels
 Page 269 / 271

Recommended Electronics:
 LSC 30/2 Page 282
 ADS 50/5 282
 ADS_E 50/5 283
 EPOS2 Module 36/2 302
 EPOS2 24/5 303
 EPOS2 50/5 303
 EPOS P 24/5 306

Notes 18

Terminal 2.8 x 0.4
(⊕ Terminal)



Axialspiel 0.12 ... 0.22
axial play

Artikel-Nr. / part no		moxon A-max32 GB 20W Kl 2WE	
Artikelnummer		moxon A-max32 GB 15W Kl 2WE	
Index/rev	Fertigprodukt	Index/rev	Fertigprodukt
960137-2	AFD-Nr./change 960137-2	27.08.2001	KOM
27.08.2001	KOM	27.08.2001	KOM
Werkstoff / material		Basisnummer	
Masse ohne Toleranzangabe: dimensions without tolerance:		ISO 2768-m	
Anforderungen in der Herstellertechnologie, Geometrie und Material nur in Absprache mit moxon motor og Sachsen		Berechnung / title	
Modification in production technology geometry and materials only by agreement with moxon motor og Sachsen		Mossbild	
Datum/daterName		Motor	
Gezeichnet	27.08.2001	Dokument-Nr. / dwg no	549302
Geprüft	27.08.2001	For diese Zeichnung behalten wir uns alle Rechte vor. We reserve all rights for this drawing.	
EDV	8:000440735ZN	maxon motor ag CH-6072 Sachseln	
Freigebe:	960137-2	Index/rev	01
		Blatt/Sheet	1/1
		Ers.d.	