

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

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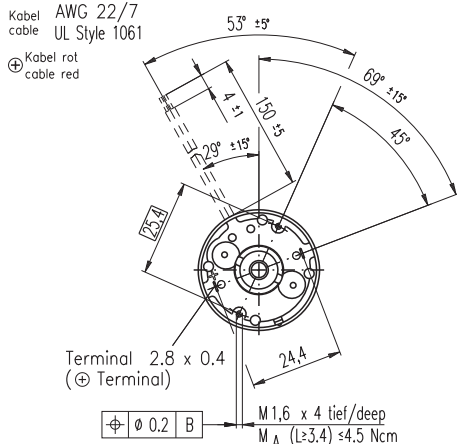
element14.

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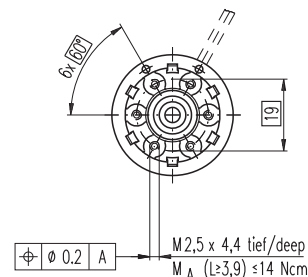
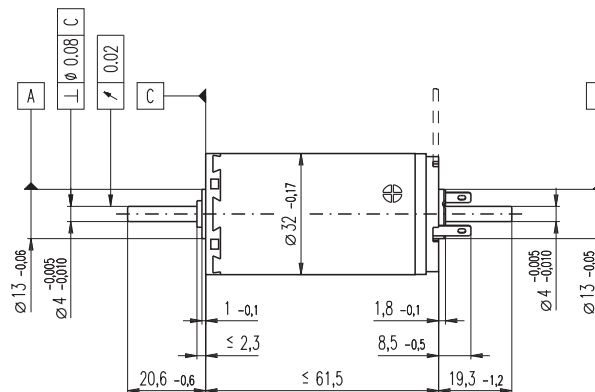
Contact us for more information, to get a **Quote** on this product or for answers to technical questions from our **Technical Support Team**.

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
with cables

■ 236651	 236652	 236653	236654	■ 236655	236656	236657	236658
353220	353221	353222	353223	353224	353225	353226	353227

Motor Data

Values at nominal voltage

	V	6.0	9.0	12.0	18.0	24.0	30.0	36.0	48.0
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)	110 N
(static, shaft supported)	2000 N
28 Max. radial loading, 5 mm from flange	32 N

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)	110 N
(static, shaft supported)	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

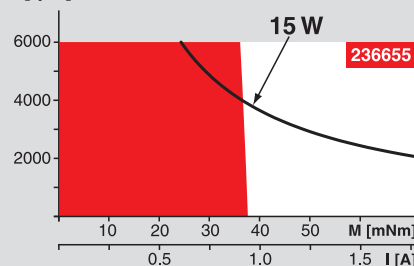
Values listed in the table are nominal.
Explanation of the figures on page 49.

Option

Sleeve bearings in place of ball bearings

Operating Range

n [rpm]



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

Planetary Gearhead

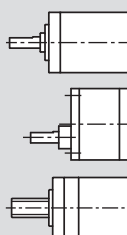
Ø32 mm
0.75 - 6.0 Nm
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Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
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Spindle Drive

Ø32 mm
Page 251 / 252 / 253



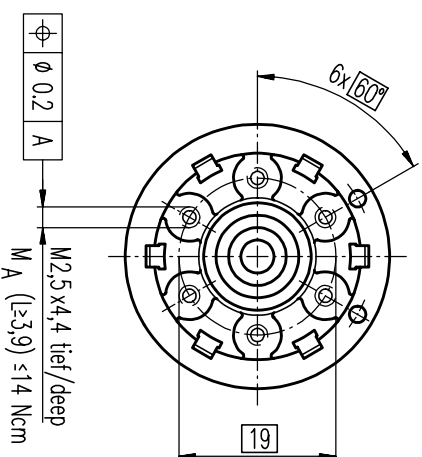
Overview on page 16 - 21

Encoder MR
256 - 1024 CPT,
3 channels
Page 265

Encoder HED_5540
500 CPT,
3 channels
Page 269 / 271

Recommended Electronics:

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EPOS2 Module 36/2	302
EPOS2 24/5	303
EPOS2 50/5	303
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		maxon A-max32 GB 20W KL 2WE		
		maxon A-max32 GB 15W KL 2WE		
Artikelnummer Artikel-Nr. / part no		Fertigprodukt Index / rev. AFD-Nr./Change 960137-2 27.08.2001 KOM		Basissnummer Massstab scale A3 1.5:1
Modierung in der Herstellertechnik: Geometrie und Material nur in Absprache mit maxon motor ag Sachsen		Masse ohne Toleranzangabe: dimensions without tolerance: ISO 2768-m		
Modifikation in production technology: geometry and materials only by agreement with maxon motor ag Sachsen		Benennung / title For diese Zeichnung behalten wir uns alle Rechte vor. We reserve all rights for this drawing. Mosbild Motor		
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Freigabe: 960137-2		Index / rev. 01		Blatt/sheet 1 / 1