

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

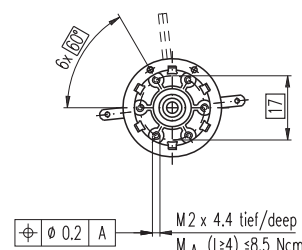
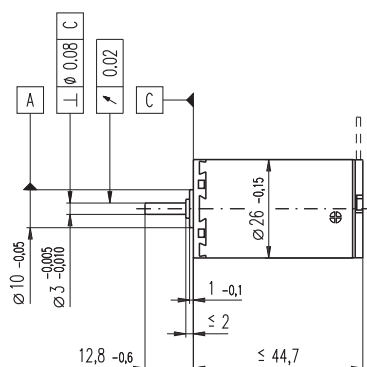
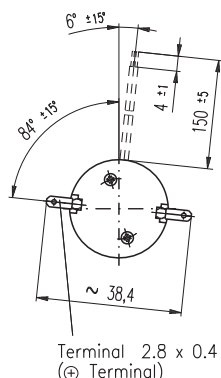
Maxon House, Hogwood Lane, Finchampstead, Berkshire, RG40 4QW

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

A-max 26 Ø26 mm, Graphite Brushes, 11 Watt

High Power

Kabel AWG 24/7
UL Style 1061
⊕ Kabel rot
cable red



M 1:2

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

Order Number

with terminals
with cables

110935	110936	110937	110938	110939	110940	110941	110942	110943	110944	110945
139852	353166	353167	353168	353169	206344	353171	314214	202893	353174	353175

Motor Data

Values at nominal voltage

		V	6.0	7.2	12.0	15.0	18.0	24.0	30.0	36.0	42.0	48.0	48.0
1	Nominal voltage	V	6.0	7.2	12.0	15.0	18.0	24.0	30.0	36.0	42.0	48.0	48.0
2	No load speed	rpm	9110	9850	8010	8320	7950	8820	7020	7250	7850	7450	6000
3	No load current	mA	140	128	56.7	47.3	37.0	31.7	18.9	15.5	12.7	9.67	
4	Nominal speed	rpm	7560	8230	6030	6150	5830	6730	4910	5160	5770	5340	3860
5	Nominal torque (max. continuous torque)	mNm	5.53	6.30	14.2	16.5	17.2	17.2	17.6	17.7	17.6	17.5	17.7
6	Nominal current (max. continuous current)	A	1.08	1.08	1.08	1.03	0.846	0.704	0.455	0.394	0.365	0.300	0.244
7	Stall torque	mNm	54.4	59.6	66.6	70.3	69.8	77.6	60.5	63.1	68.4	63.2	50.6
8	Starting current	A	9.32	9.07	4.80	4.19	3.30	3.04	1.51	1.35	1.36	1.04	0.672
9	Max. efficiency	%	68	70	76	77	78	79	78	79	79	79	77

Characteristics

10	Terminal resistance	Ω	0.644	0.794	2.50	3.58	5.46	7.90	19.9	26.6	30.9	46.0	71.4
11	Terminal inductance	mH	0.0402	0.0509	0.227	0.332	0.528	0.770	1.90	2.57	2.99	4.34	6.68
12	Torque constant	mNm / A	5.84	6.57	13.9	16.8	21.2	25.5	40.1	46.7	50.3	60.6	75.2
13	Speed constant	rpm / V	1640	1450	689	569	451	374	238	205	190	158	127
14	Speed / torque gradient	rpm / mNm	180	176	124	122	116	116	118	117	116	120	121
15	Mechanical time constant	ms	27.1	23.6	17.5	16.7	16.2	15.7	15.4	15.3	15.2	15.2	15.2
16	Rotor inertia	gcm ²	14.3	12.8	13.5	13.1	13.2	13.0	12.5	12.5	12.5	12.1	12.0

Specifications

Thermal data

17	Thermal resistance housing-ambient	13.2 K / W
18	Thermal resistance winding-housing	3.2 K / W
19	Thermal time constant winding	12.4 s
20	Thermal time constant motor	772 s
21	Ambient temperature	-30 ... +85°C
22	Max. permissible winding temperature	+125°C

Mechanical data (ball bearings)

23	Max. permissible speed	10400 rpm
24	Axial play	0.1 - 0.2 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	5 N
27	Max. force for press fits (static)	75 N
28	Max. radial loading, 5 mm from flange	20.5 N

Mechanical data (sleeve bearings)

23	Max. permissible speed	10400 rpm
24	Axial play	0.1 - 0.2 mm
25	Radial play	0.012 mm
26	Max. axial load (dynamic)	1.7 N
27	Max. force for press fits (static)	80 N
28	Max. radial loading, 5 mm from flange	5.5 N

Other specifications

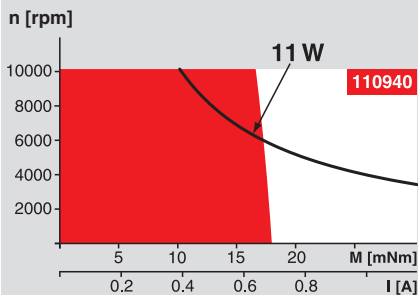
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	117 g

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

Option

Sleeve bearings in place of ball bearings

Operating Range



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

Overview on page 16 - 21

Planetary Gearhead

Ø26 mm
0.5 - 2.0 Nm
Page 230

Spur Gearhead

Ø30 mm
0.07 - 0.2 Nm
Page 231

Planetary Gearhead

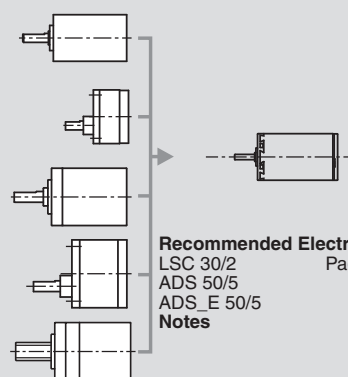
Ø32 mm
0.4 - 6.0 Nm
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Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
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Spindle Drive

Ø32 mm
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Recommended Electronics:

LSC 30/2 Page 282
ADS 50/5 282
ADS_E 50/5 283
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