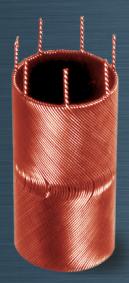
NEW

maxon DC-max

The art of being ahead.

Strong RE magnets, state-of-the-art winding technology, cost-optimized design, economical manufacturing: The **maxon DC-max** motors feature maximum performance at minimum volume and an unrivaled price-performance ratio.

- + 3x stronger than maxon A-max
- + 50% lower price than maxon RE-max
- + Neodymium magnets
- + Maximum power/minimum volume





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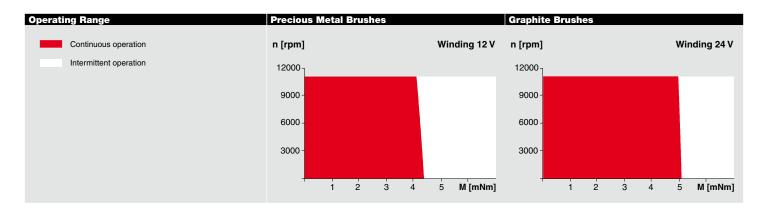
maxon motor

driven by precision

DC-max 16 S brushed DC motor Ø16 mm



Key Data		Precious Metal Brushes	Graphite Brushes
Typical Speed/torque gradient	rpm/mNm	712	684
Max. nominal torque	mNm	4.4	5.4
Max. permissible speed	rpm	11000	11000
Max. continuous output power/assigned p	ower rating W	4.5/2.5	4.7/4.5
Max. efficiency	%	80	82
Ambient temperature	°C	-30 85	-30 100
Mech. time constant	ms	8.39	8.32
Therm. time constant winding	S	8.6	8.6
Rotor inertia	gcm ²	1.05	1.05
Max. axial loading (dynamic)	N	Sleeve bearings: 0.8	Sleeve bearings: 0.8
Max. radial loading, 5 mm from flange	N	Sleeve bearings: 1.4	Sleeve bearings: 1.4
Weight	g	23.3	23.1



Nominal voltage V 6 12 No load speed rpm 7640 7310		6 12 24
No load speed rpm 7640 7310		
140 load speed	0 7230	9580 9580 9790
No load current mA 16.6 7.9	3.9	63.1 31.6 5.6
Nominal current A 0.60 0.279	9 0.134	0.72
Torque constant mNm/A 7.41 15.5	5 31.30	5.8 11.6 23.2
Speed constant rpm/V 1290 617	7 305	1650 823 411
Terminal resistance Ω 4.10 19.10	0 83.2	2.79 11.4 38.6
Terminal inductance mH 0.140 0.610	0 2.490	0.086 0.343 1.370

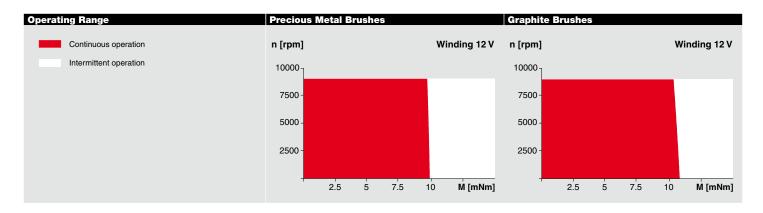
Modification	
Bearing	Sleeve bearings / ball bearings
Commutation	Precious metal brushes with CLL / Graphite Brushes
Shaft front/back	Length
Electric connection	Terminals / cable

maxon Modular System maxon gear GP 16 A	Page I	Dimensions M 1:1
maxon sensor		
ENX 10 QUAD	74	A 10.02 2.8 max. 1 -0.2 2.1 -0.2 3 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		Terminal 2.8x0.4 (* Terminal)
		6.1 - 0.6 EB 25.4 max. 4.1 - 0.9 Ø 10

DC-max 22 S brushed DC motor Ø22 mm



Key Data		Precious Metal Brushes	Graphite Brushes
Typical Speed/torque gradient	rpm/mNm	141	150
Max. nominal torque	mNm	11.1	12.6
Max. permissible speed	rpm	9000	9000
Max. continuous output power/assigned pov	wer rating W	9/5	11/11
Max. efficiency	%	88	81
Ambient temperature	°C	-30 85	-30 100
Mech. time constant	ms	8.38	8.71
Therm. time constant winding	s	16.8	16.8
Rotor inertia	gcm ²	5.2	5.1
Max. axial loading (dynamic)	N	Sleeve bearings: 1	Sleeve bearings: 1
Max. radial loading, 5 mm from flange	N	Sleeve bearings: 3	Sleeve bearings: 3
Weight	g	52	52



Specifications		Preciou	s Metal	Brushes	Graphit	e Brushe	es		
Nominal voltage	V	6	12	24	6	12	24		
No load speed	rpm	5490	5890	5090	7040	7140	7340		
No load current	mA	13.6	7.5	3.1	49.9	25.0	12.8		
Nominal current	Α	1.08	0.543	0.236	1.50	0.821	0.391		
Torque constant	mNm/A	10.4	19.4	44.8	7.89	15.8	30.8		
Speed constant	rpm/V	918	493	213	1210	605	310		
Terminal resistance	Ω	1.6	6.28	33.3	1.11	3.83	17.2		
Terminal inductance	mH	0.097	0.335	1.80	0.056	0.223	0.85		

Modification	
Bearing	Sleeve bearings / ball bearings
Commutation	Precious metal brushes with CLL / Graphite Brushes
Shaft front/back	Length
Electric connection	Terminals / cable

maxon Modular System maxon gear GP 22 A	Page Dia 262	mensions	M 3:4
maxon sensor ENX 10 QUAD	74	2.6 max. 1.0.2 2.4 -0.1 500 00 00 00 00 00 00 00 00 00 00 00 00	M2 x2.9 liel/deen M3 x4.4 liel/deen M3 x4.4 liel/deen M4 x4.4 liel/deen M5 x6.4 liel/deen M6 x4.4 liel/deen M7 x4.4 liel/deen M8 x4.4 liel

maxon motor at a glance.

maxon motor is the worldwide leading provider of high-precision drives and systems up to 500 W. We develop and produce brushless and brushed DC motors with the unique ironless maxon winding. Flat motors with iron cores supplement the modular product range. The modular system also includes: planetary, spur and special gearheads, as well as encoders and control electronics. High-tech CIM and MIM components are manufactured in a special competence center. maxon motor stands for the highest level of quality, innovation, competitive pricing, and a worldwide distribution network. But what matters most is the quality of the customer-specific solution that we create with you and for you.



www.maxonmotor.com