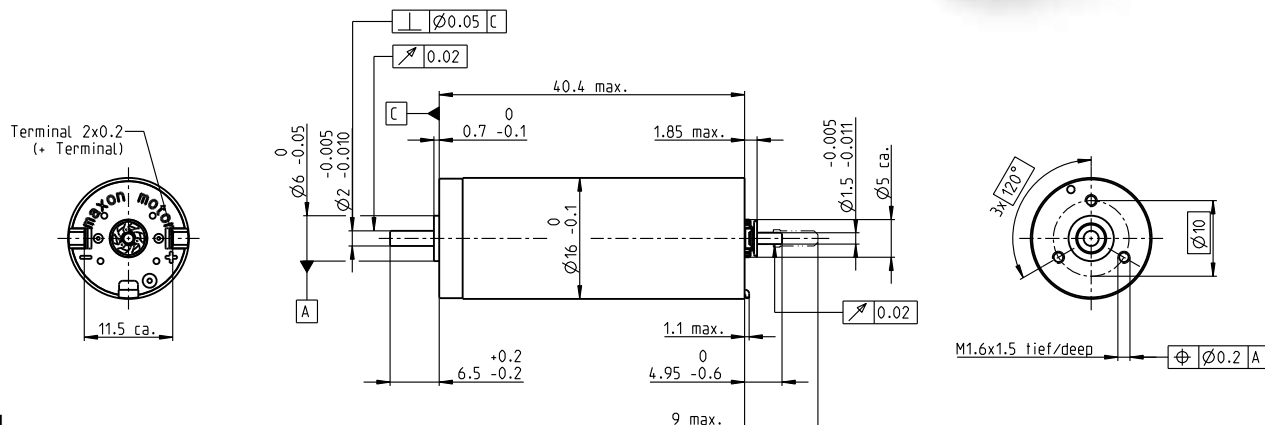


DCX

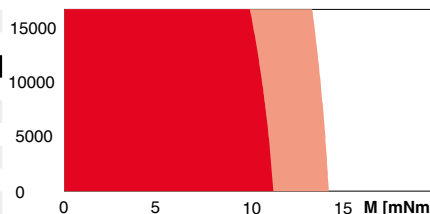


A small, cylindrical Maxon motor with the brand name 'maxon' printed on its side.



Motor Data							
Nominal voltage	V	6	9	12	18	24	36
No load speed	rpm	12800	13100	13200	12800	12800	12800
No load current	mA	73.5	50.7	38.6	24.5	18.4	12.3
Nominal speed	rpm	11000	11000	10700	10600	10600	10700
Nominal torque (max. continuous torque)	mNm	8.58	11.8	10.4	11.6	11.3	11.6
Nominal current (max. continuous current)	A	2.00	1.85	1.24	0.896	0.651	0.447
Stall torque	mNm	61.8	74.2	63.3	74.5	68.5	72
Stall current	A	13.9	11.4	7.37	5.59	3.85	2.70
Max. efficiency	%	85	87	83	86	86	87
Terminal resistance	Ω	0.431	0.791	1.63	3.22	6.23	13.3
Terminal inductance	mH	0.026	0.055	0.096	0.231	0.411	0.925
Torque constant	mNm/A	4.44	6.52	8.59	13.3	17.8	26.7
Speed constant	rpm/V	2150	1470	1110	716	537	358
Speed/torque gradient	rpm/mNm	209	178	211	173	188	179
Mechanical time constant	ms	4.77	4.47	5.21	4.70	4.48	4.37
Rotor inertia	acm ²	2.18	2.40	2.36	2.59	2.28	2.33

Thermal data		gWh	210	Operating Range	200	200	210	200
Thermal resistance housing-ambient	K/W	17.9	n [rpm]	Winding 12 V				
Thermal resistance winding-housing	K/W	7.21						
Thermal time constant winding	s	21.5						
Thermal time constant motor	s	294	20000					
Ambient temperature ball bearings	°C	-40...+100						
Ambient temperature sleeve bearings	°C	-30...+100	15000					
Max. winding temperature	°C	125						



- Continuous operation
- Continuous operation with reduced thermal resistance R_{th2} 50%
- Intermittent operation

	Mechanical data ball bearings		
23_	Max. speed	rpm	17 000
24_	Axial play	mm	0...0.1
	Preload	N	0.8
25_	Radial play	mm	0.015
26_	Max. axial load (dynamic)	N	0.8
27_	Max. force for press fits (static) (static, shaft supported)	N	18 300
28_	Max. radial load [mm from flange]	N	10 [5]

Mechanical data sleeve bearings		maxon Modular System				Details on catalog page 34	
23_	Max. speed	rpm	15 000	maxon gear	Stages [opt.]	maxon sensor	maxon motor control
24_	Axial play	mm	0...0.2	341_GPX 16 A/C	1–2 [3–4]	447_ENX 10 EASY	500_ESCON Module 24/2
	Preload	N	0	342_GPX 16 LN/LZ	1–2 [3–4]	447_ENX 10 QUAD	500_ESCON 36/2 DC
25_	Radial play	mm	0.015	343_GPX 16 HP	2–3 [4]	448_ENX 10 EASY XT	509_EPOS4 Micro 24/5
26_	Max. axial load (dynamic)	N	0.1	345_GPX 19 A/C	3–4	450_ENX 16 EASY	510_EPOS4 Mod./Comp. 24/1.5
27_	Max. force for press fits (static)	N	60	346_GPX 19 LN/LZ	3–4	451_ENX 16 EASY XT	510_EPOS4 Mod./Comp. 50/5
	(static, shaft supported)	N	300	347_GPX 19 HP	4	452_ENX 16 EASY Abs.	511_EPOS4 Comp. 24/5 3-axes
28_	Max. radial load [mm from flange]	N	2 [5]			453_ENX 16 EASY Abs. XT	515_EPOS4 50/5
	Other specifications					458_ENX 16 RIO	520_EPOS2 P 24/5

28_	Other specifications		
29_	Number of pole pairs		1
30_	Number of commutator segments		7
31_	Weight of motor	g	42
32_	Typical noise level	dBA	40

Bearing: Ball bearings preloaded/sleeve bearings
Commutation: Precious metal brushes with CLL/graphite brushes
Flange front/back: Standard flange/configurable flange/no flange
Shaft front/back: Length/diameter/flat face
Electric connection: Terminals or cable/alignment of connection/cable length/connector type