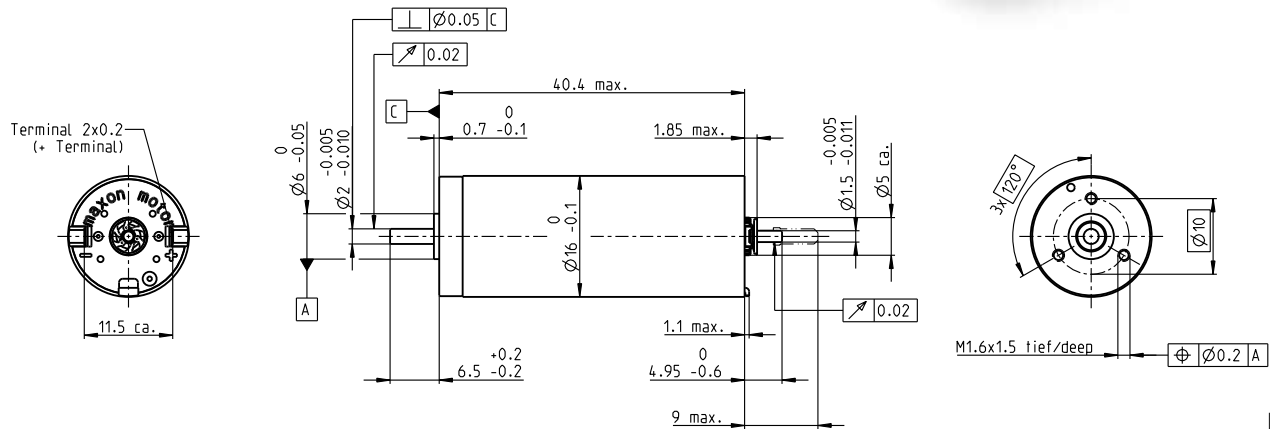


DCX 16 L Ø16 mm, precious metal brushes, DC motor

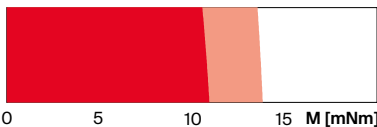
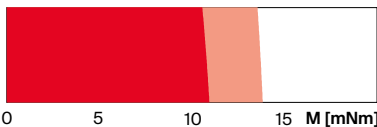
Key data: 5/10 W, 11.5 mNm, 8680 rpm



DCX



M 1:1

Motor data								
1_	Nominal voltage	V	3	6	9	12	18	24
2_	No load speed	rpm	6400	6620	6410	6400	6400	6560
3_	No load current	mA	62.5	32.6	20.8	15.6	10.4	8.05
4_	Nominal speed	rpm	5450	4920	4620	4490	4510	4630
5_	Nominal torque	mNm	5.06	10.0	11.6	10.8	10.9	10.7
6_	Nominal current (max. continuous current)	A	1.20	1.20	0.89	0.625	0.42	0.316
7_	Stall torque	mNm	34.4	39.3	41.8	36.6	37.3	36.6
8_	Stall current	A	7.73	4.57	3.14	2.06	1.40	1.06
9_	Max. efficiency	%	83	84	84	83	84	83
10_	Terminal resistance	Ω	0.388	1.31	2.87	5.82	12.9	22.7
11_	Terminal inductance	mH	0.026	0.096	0.231	0.411	0.925	1.56
12_	Torque constant	mNm/A	4.44	8.59	13.3	17.8	26.7	34.7
13_	Speed constant	rpm/V	2150	1110	716	537	358	276
14_	Speed/torque gradient	rpm/mNm	188	170	154	176	173	181
15_	Mechanical time constant	ms	4.29	4.20	4.18	4.19	4.22	4.23
16_	Rotor inertia	gcm²	2.18	2.36	2.59	2.28	2.33	2.23
Thermal data			Operating range					
17_	Thermal resistance housing-ambient	K/W	17.9	n [rpm] Winding 9 V				
18_	Thermal resistance winding-housing	K/W	7.21					
19_	Thermal time constant winding	s	21.5					
20_	Thermal time constant motor	s	294					
21_	Ambient temperature ball bearings	°C	-40...+85					
	Ambient temperature sleeve bearings	°C	-30...+85	20000				
22_	Max. winding temperature	°C	100	15000				
Mechanical data ball bearings								
23_	Max. speed	rpm	8680	10000				
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)	N	18					
	(shaft supported)	N	300					
28_	Max. radial load [mm from flange]	N	10 [5]					
Mechanical data sleeve bearings			Modular system			Details on catalog page 40		
23_	Max. speed	rpm	8680	Gear	Stages [opt.]	Sensor	Motor Control	
24_	Axial play	mm	0...0.2	381_GPX 16 A/C	1-2 [3-4]	507_ENX 10 EASY	550_ESCON Module 24/2	
	Preload	N	0	382_GPX 16 LN/LZ	1-2 [3-4]	507_ENX 10 QUAD	550_ESCON 36/2 DC	
25_	Radial play	mm	0.015	383_GPX 16 HP	2-3 [4]	508_ENX 10 EASY XT	557_ESCON2 Nano 24/2	
26_	Max. axial load (dynamic)	N	0.1	386_GPX 19 A/C	3-4	509_ENX 16 EASY	563_EPOS4 Micro 24/5	
27_	Max. force for press fits (static)	N	60	387_GPX 19 LN/LZ	3-4	510_ENX 16 EASY XT	564_EPOS4 Module 24/1.5	
	(shaft supported)	N	300	388_GPX 19 HP	4	511_ENX 16 EASY Abs.	565_EPOS4 Compact 24/5 3-axes	
28_	Max. radial load [mm from flange]	N	2 [5]			512_ENX 16 EASY Abs. XT	566_EPOS4 Compact 24/1.5	
						519_ENX 16 RIO		
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	44	Configuration				