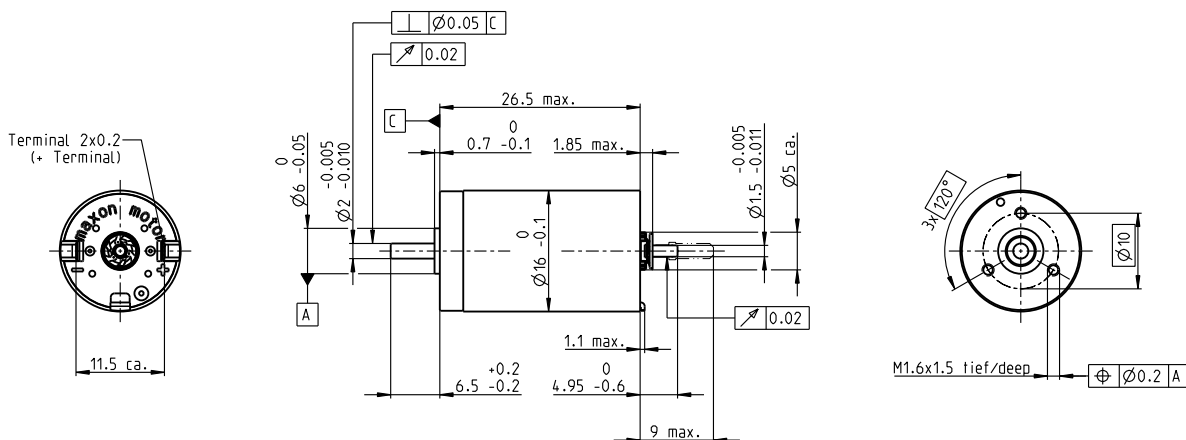


DCX 16 S Ø16 mm, precious metal brushes, DC motor

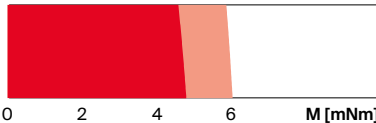
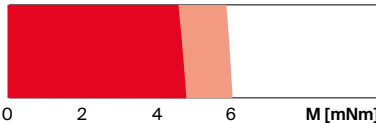
Key data: 3/5 W, 5.3 mNm, 8680 rpm



DCX



M 1:1

Motor data									
1_	Nominal voltage	V	3	4.5	6	9	12	18	24
2_	No load speed	rpm	6320	6320	6610	6320	6260	6340	6250
3_	No load current	mA	44.6	29.7	23.4	14.9	11	7.43	5.51
4_	Nominal speed	rpm	3350	3300	3760	3270	3320	3530	3200
5_	Nominal torque	mNm	5.15	5.05	5.36	5	5.19	5.45	4.99
6_	Nominal current (max. continuous current)	A	1.20	0.784	0.65	0.389	0.299	0.211	0.144
7_	Stall torque	mNm	11.1	10.7	12.6	10.6	11.2	12.5	10.4
8_	Stall current	A	2.49	1.61	1.48	0.791	0.624	0.467	0.289
9_	Max. efficiency	%	75	75	77	75	75	77	74
10_	Terminal resistance	Ω	1.20	2.80	4.06	11.4	19.2	38.6	83.1
11_	Terminal inductance	mH	0.036	0.080	0.131	0.320	0.581	1.28	2.32
12_	Torque constant	mNm/A	4.45	6.67	8.53	13.3	18.0	26.7	36.0
13_	Speed constant	rpm/V	2150	1430	1120	715	531	358	265
14_	Speed/torque gradient	rpm/mNm	580	600	533	610	568	517	613
15_	Mechanical time constant	ms	6.09	6.09	6.05	6.13	6.11	6.08	6.17
16_	Rotor inertia	gcm²	1.00	0.97	1.08	0.959	1.03	1.12	0.960
Thermal data				Operating range					
17_	Thermal resistance housing-ambient	K/W	23.5	n [rpm]	Winding 12 V				
18_	Thermal resistance winding-housing	K/W	9.9	20000					
19_	Thermal time constant winding	s	9.63						
20_	Thermal time constant motor	s	227						
21_	Ambient temperature ball bearings	°C	-40...+85						
	Ambient temperature sleeve bearings	°C	-30...+85	15000					
22_	Max. winding temperature	°C	100						
Mechanical data ball bearings									
23_	Max. speed	rpm	8680	10000					
24_	Axial play	mm	0...0.1	5000					
	Preload	N	0.8	0					
25_	Radial play	mm	0.015	2					
26_	Max. axial load (dynamic)	N	0.8	4					
27_	Max. force for press fits (static)	N	18	6					
	(shaft supported)	N	300	10					
28_	Max. radial load [mm from flange]	N	10 [5]	M [mNm]					
Mechanical data sleeve bearings				Modular system					
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	569_EPOS4 50/5		
Other specifications									
29_	Number of pole pairs		1						
30_	Number of commutator segments		7						
31_	Weight of motor	g	26						
32_	Typical noise level	dBA	40	Configuration					

Configuration

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