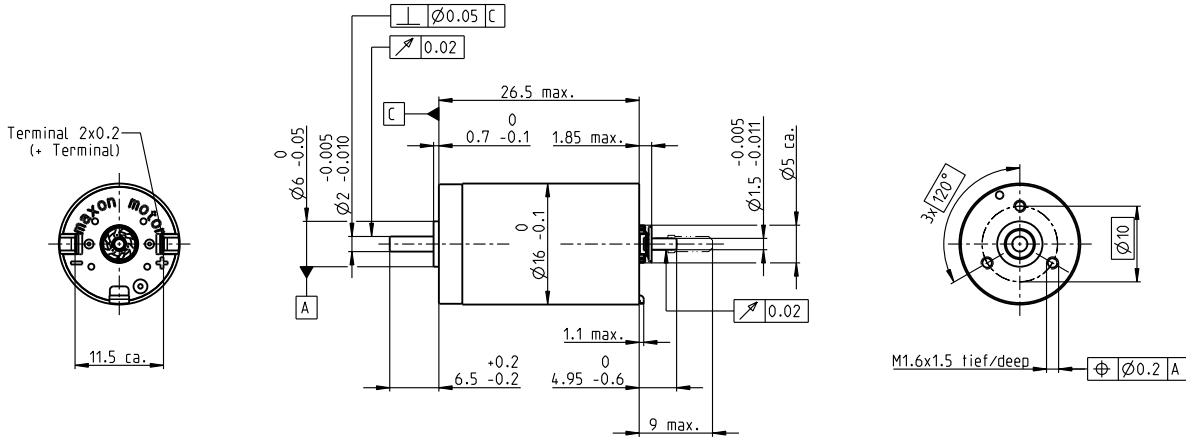


DCX 16 S Ø16 mm, graphite brushes, DC motor

Key data: 5/10 W, 5.4 mNm, 17000 rpm



M 1:1

Motor data									
1_	Nominal voltage	V	6	9	12	18	24	48	
2_	No load speed	rpm	12700	12700	13200	12700	12700	12600	
3_	No load current	mA	63.9	42.6	35.4	22.4	16.8	8.28	
4_	Nominal speed	rpm	9400	9400	9850	9260	9430	9250	
5_	Nominal torque	mNm	5.45	5.4	5.36	5.21	5.43	5.32	
6_	Nominal current (max. continuous current)	A	1.28	0.847	0.662	0.411	0.321	0.156	
7_	Stall torque	mNm	21.3	21	22.6	20.1	21.7	20.6	
8_	Stall current	A	4.79	3.15	2.65	1.51	1.22	0.572	
9_	Max. efficiency	%	78	78	76	76	78	77	
10_	Terminal resistance	Ω	1.25	2.85	4.53	12	19.7	83.9	
11_	Terminal inductance	mH	0.036	0.080	0.131	0.320	0.569	2.32	
12_	Torque constant	mNm/A	4.45	6.67	8.53	13.3	17.8	36.0	
13_	Speed constant	rpm/V	2150	1430	1120	715	536	265	
14_	Speed/torque gradient	rpm/mNm	605	612	594	641	592	620	
15_	Mechanical time constant	ms	6.35	6.21	6.74	6.43	6.32	6.23	
16_	Rotor inertia	gcm²	1.00	0.970	1.08	0.959	1.02	0.960	
Thermal data				Operating range					
17_	Thermal resistance housing-ambient	K/W	23.5	n [rpm] Winding 12 V 20000 15000 10000 5000 0 0 2 4 6 8 M [mNm] Continuous operation Continuous operation with reduced thermal resistance Rth2 50% Intermittent operation					
18_	Thermal resistance winding-housing	K/W	9.9						
19_	Thermal time constant winding	s	9.63						
20_	Thermal time constant motor	s	227						
21_	Ambient temperature ball bearings	°C	-40...+100						
21_	Ambient temperature sleeve bearings	°C	-30...+100						
22_	Max. winding temperature	°C	125						
Mechanical data ball bearings									
23_	Max. speed	rpm	17000						
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	17000	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	551_ESCON Module 50/5		
26_	Max. axial load (dynamic)	N	0.1	386_GPX 19 A/C	3-4	509_ENX 16 EASY	553_ESCON 50/5		
27_	Max. force for press fits (static)	N	60	387_GPX 19 LN/LZ	3-4	510_ENX 16 EASY XT	557_ESCON2 Nano 24/2		
	(shaft supported)	N	300	388_GPX 19 HP	4	511_ENX 16 EASY Abs.	563_EPOS4 Micro 24/5		
28_	Max. radial load [mm from flange]	N	2 [5]			512_ENX 16 EASY Abs. XT	564_EPOS4 Module 50/5		
						519_ENX 16 RIO	564_EPOS4 Module 24/1.5		
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	38						
				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					
				569_EPOS4 50/5					