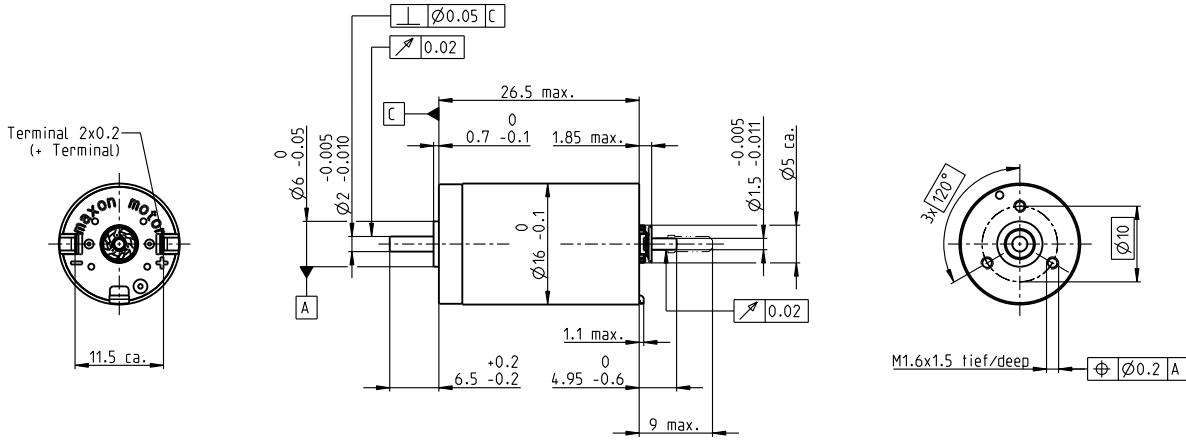


DCX 16 S \varnothing 16 mm, graphite brushes, DC motor

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



DCX



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	gcm ²	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		
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	$^{\circ}$ C	-40...+100					
21_ Ambient temperature sleeve bearings	$^{\circ}$ C	-30...+100					
22_ Max. winding temperature	$^{\circ}$ 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
(static, shaft supported)	N	300
28_ Max. radial load [mm from flange]	N	10 [5]

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

Mechanical data sleeve bearings **Modular System** **Details on catalog page 36**

23_ Max. speed	rpm	17000	Gear	Stages [opt.]	Sensor	Motor Control
24_ Axial play	mm	0...0.2	367_GPX 16 A/C	1-2 [3-4]	473_ENX 10 EASY	532_ESCON Module 24/2
Preload	N	0	368_GPX 16 LN/LZ	1-2 [3-4]	473_ENX 10 QUAD	532_ESCON 36/2 DC
25_ Radial play	mm	0.015	369_GPX 16 HP	2-3 [4]	474_ENX 10 EASY XT	533_ESCON Module 50/5
26_ Max. axial load (dynamic)	N	0.1	371_GPX 19 A/C	3-4	475_ENX 16 EASY	535_ESCON 50/5
27_ Max. force for press fits (static)	N	60	372_GPX 19 LN/LZ	3-4	476_ENX 16 EASY XT	541_EPOS4 Micro 24/5
(static, shaft supported)	N	300	373_GPX 19 HP	4	477_ENX 16 EASY Abs.	542_EPOS4 Module 50/5
28_ Max. radial load [mm from flange]	N	2 [5]			478_ENX 16 EASY Abs. XT	542_EPOS4 Module 24/1.5
					486_ENX 16 RIO	543_EPOS4 Compact 24/5 3-axes
29_ Number of pole pairs		1				544_EPOS4 Compact 24/1.5
30_ Number of commutator segments		7				545_EPOS4 Compact 50/5
31_ Weight of motor	g	26				547_EPOS4 50/5
32_ Typical noise level	dBA	38				

Other specifications **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