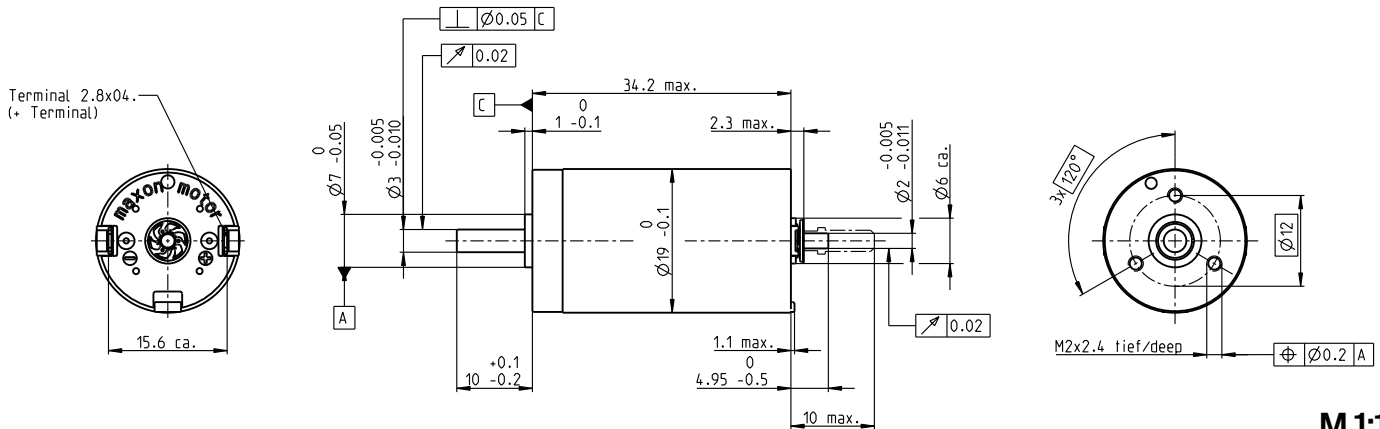


DCX 19 S Ø19 mm, precious metal brushes, DC motor

Key Data: 5/8 W, 11.0 mNm, 7500 rpm



DCX



M 1:1

Motor Data

1.	Nominal voltage	V	4.5	6	9	12	18	24
2.	No load speed	rpm	6440	6350	6260	6360	6360	6350
3.	No load current	mA	72	53	34.6	26.5	17.7	13.2
4.	Nominal speed	rpm	5080	4540	4350	4490	4490	4480
5.	Nominal torque (max. continuous torque)	mNm	7.46	10.3	10.8	11.0	11.0	10.9
6.	Nominal current (max. continuous current)	A	1.20	1.20	0.829	0.643	0.428	0.319
7.	Stall torque	mNm	35.7	36.3	35.8	38.0	37.8	37.5
8.	Stall current	A	5.42	4.07	2.64	2.13	1.41	1.05
9.	Max. efficiency	%	78	79	79	79	79	79
10.	Terminal resistance	Ω	0.831	1.47	3.40	5.63	12.7	22.8
11.	Terminal inductance	mH	0.045	0.082	0.191	0.329	0.740	1.320
12.	Torque constant	mNm/A	6.58	8.90	13.5	17.8	26.7	35.6
13.	Speed constant	rpm/V	1450	1070	705	536	358	268
14.	Speed/torque gradient	rpm/mNm	183	177	177	170	170	172
15.	Mechanical time constant	ms	5.12	4.99	4.92	4.89	4.89	4.90
16.	Rotor inertia	gcm ²	2.67	2.68	2.65	2.75	2.74	2.72

Thermal data

17.	Thermal resistance housing-ambient	K/W	17.6	Operating Range				
18.	Thermal resistance winding-housing	K/W	6.5	n [rpm] Winding 9 V				
19.	Thermal time constant winding	s	11.6					
20.	Thermal time constant motor	s	312					
21.	Ambient temperature ball bearings	°C	-40...+85					
21.	Ambient temperature sleeve bearings	°C	-30...+85					
22.	Max. winding temperature	°C	100					

Mechanical data ball bearings

23.	Max. speed	rpm	7500					
24.	Axial play	mm	0...0.1					
25.	Radial play	mm	0.02					
26.	Max. axial load (dynamic)	N	2.5					
27.	Max. force for press fits (static)	N	30					
	(static, shaft supported)	N	440					
28.	Max. radial load [mm from flange]	N	16 [5]					

Mechanical data sleeve bearings

23.	Max. speed	rpm	7500	maxon Modular System			Details on catalog page 34	
24.	Axial play	mm	0...0.2	maxon gear	Stages [opt.]	maxon sensor	maxon motor control	
	Preload	N	0	345_GPX 19 A/C	1-2 [3-4]	447_ENX 10 EASY	500_ESCON Module 24/2	
				346_GPX 19 LN/LZ	1-2 [3-4]	447_ENX 10 QUAD	500_ESCON 36/2 DC	
25.	Radial play	mm	0.02	347_GPX 19 HP	2-3 [4]	448_ENX 10 EASY XT	509_EPOS4 Micro 24/5	
26.	Max. axial load (dynamic)	N	0.1	349_GPX 22 A/C	3-4	450_ENX 16 EASY	510_EPOS4 Mod./Comp. 24/1.5	
27.	Max. force for press fits (static)	N	80	350_GPX 22 LN/LZ	3-4	451_ENX 16 EASY XT	511_EPOS4 Comp. 24/5 3-axes	
	(static, shaft supported)	N	440	351_GPX 22 HP	4	452_ENX 16 EASY Abs.	520_EPOS2 P 24/5	
28.	Max. radial load [mm from flange]	N	3 [5]			453_ENX 16 EASY Abs. XT		
						458_ENX 16 RIO		

Other specifications

29.	Number of pole pairs		1
30.	Number of commutator segments		9
31.	Weight of motor	g	50
32.	Typical noise level	dBA	48

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