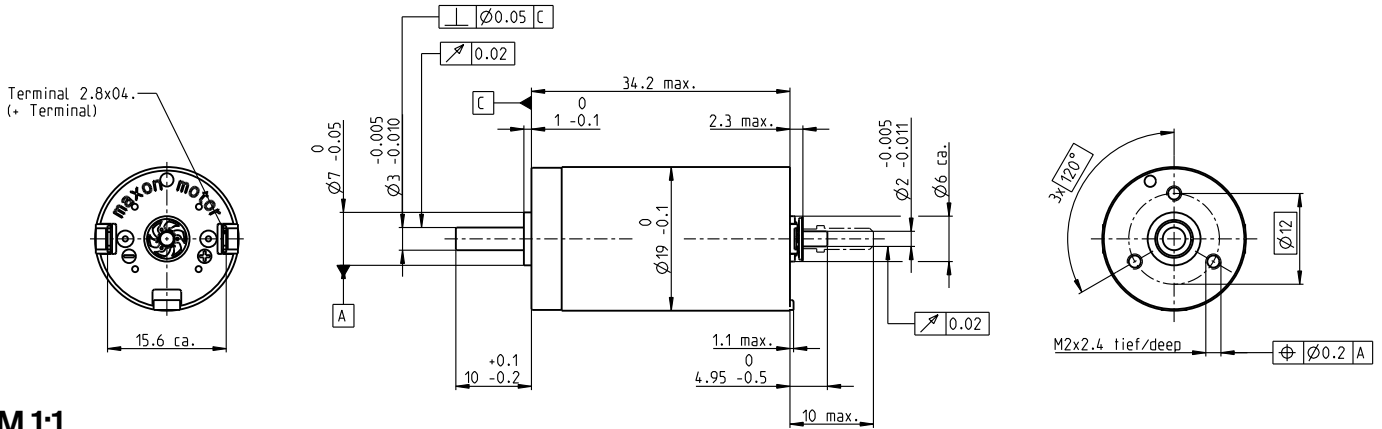


DCX 19 S \varnothing 19 mm, graphite brushes, DC motor

Key Data: 11/17 W, 11.3 mNm, 16 000 rpm



DCX



M 1:1

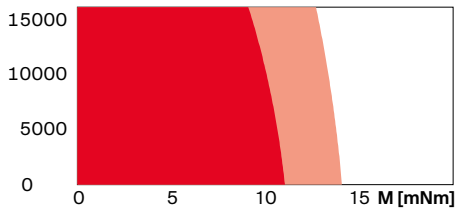
Motor Data								
1_	Nominal voltage	V	9	12	18	24	36	48
2_	No load speed	rpm	12900	12800	12600	12700	12700	12700
3_	No load current	mA	102	75	48.9	37.4	25	18.7
4_	Nominal speed	rpm	10900	10800	10600	10600	10700	10700
5_	Nominal torque	mNm	11.3	11.4	11.4	11.1	11.3	11.3
6_	Nominal current (max. continuous current)	A	1.81	1.35	0.884	0.657	0.445	0.335
7_	Stall torque	mNm	73.8	73.9	72.2	73.2	73.9	73.8
8_	Stall current	A	11.2	8.30	5.33	4.11	2.77	2.07
9_	Max. efficiency	%	82	82	82	81	82	82
10_	Terminal resistance	Ω	0.802	1.45	3.38	5.84	13.0	23.2
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	177	174	176	176	174	174
15_	Mechanical time constant	ms	4.94	4.90	4.88	5.07	5.00	4.97
16_	Rotor inertia	gcm ²	2.67	2.68	2.65	2.75	2.74	2.72

Thermal data

Thermal data		Operating Range	
17_	Thermal resistance housing-ambient	K/W	17.6
18_	Thermal resistance winding-housing	K/W	6.5
19_	Thermal time constant winding	s	11.6
20_	Thermal time constant motor	s	312
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	16 000
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
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	16 [5]



Mechanical data sleeve bearings

Mechanical data sleeve bearings		Modular System		Details on catalog page 36	
23_	Max. speed	rpm	13 500	Gear	Motor Control
24_	Axial play	mm	0...0.2	371_GPX 19 A/C	532_ESCON Module 24/2
25_	Preload	N	0	372_GPX 19 LN/LZ	532_ESCON 36/2 DC
25_	Radial play	mm	0.02	373_GPX 19 HP	533_ESCON Module 50/5
26_	Max. axial load (dynamic)	N	0.1	375_GPX 22 A/C	535_ESCON 50/5
27_	Max. force for press fits (static)	N	80	376_GPX 22 LN/LZ	541_EPOS4 Micro 24/5
27_	(static, shaft supported)	N	440	377_GPX 22 HP	542_EPOS4 Module 24/1.5
28_	Max. radial load [mm from flange]	N	3 [5]		542_EPOS4 Module 50/5
					543_EPOS4 Compact 24/5 3-axes
					544_EPOS4 Compact 24/1.5
					545_EPOS4 Compact 50/5
					547_EPOS4 50/5

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	40

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