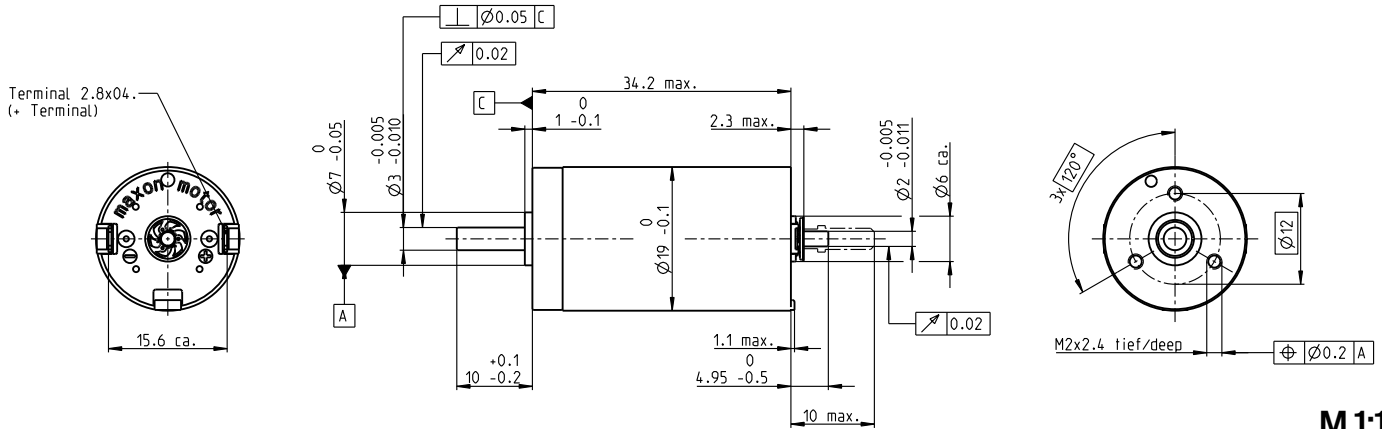


DCX 19 S \varnothing 19 mm, precious metal brushes, DC motor

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	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	176
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...+85
21_	Ambient temperature sleeve bearings	$^{\circ}$ C	-30...+85
22_	Max. winding temperature	$^{\circ}$ C	100

Operating Range

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
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	16 [5]

Modular System

23_	Max. speed	rpm	7500
24_	Axial play	mm	0...0.2
25_	Radial play	mm	0.02
26_	Max. axial load (dynamic)	N	0.1
27_	Max. force for press fits (static)	N	80
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	3 [5]

Details on catalog page 36

23_	Max. speed	rpm	7500
24_	Axial play	mm	0...0.2
25_	Radial play	mm	0.02
26_	Max. axial load (dynamic)	N	0.1
27_	Max. force for press fits (static)	N	80
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	3 [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	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

20000
15000



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

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
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	16 [5]

Mechanical data sleeve bearings

23_	Max. speed	rpm	7500
24_	Axial play	mm	0...0.2
25_	Radial play	mm	0.02
26_	Max. axial load (dynamic)	N	0.1
27_	Max. force for press fits (static)	N	80
27_	(static, shaft supported)	N	440
28_	Max. radial load [mm from flange]	N	3 [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	48

Modular System

371_GPX 19 A/C	1-2 [3-4]
372_GPX 19 LN/LZ	1-2 [3-4]
373_GPX 19 HP	2-3 [4]
375_GPX 22 A/C	3-4
376_GPX 22 LN/LZ	3-4
377_GPX 22 HP	4

Sensor

473_ENX 10 EASY
473_ENX 10 QUAD
474_ENX 10 EASY XT
475_ENX 16 EASY
476_ENX 16 EASY XT
477_ENX 16 EASY Abs.
478_ENX 16 EASY Abs. XT
486_ENX 16 RIO

Motor Control

532_ESCON Module 24/2
532_ESCON 36/2 DC
541_EPOS4 Micro 24/5
542_EPOS4 Module 24/1.5
543_EPOS4 Compact 24/5 3-axes
544_EPOS4 Compact 24/1.5