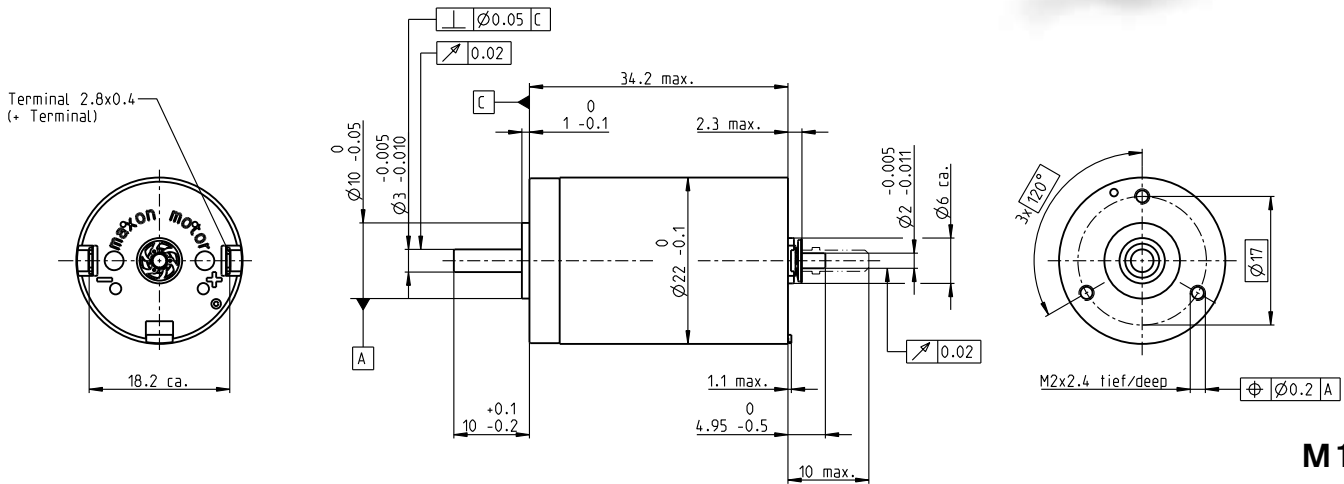


DCX 22 S $\varnothing 22$ mm, precious metal brushes, DC motor

Key Data: 6/10 W, 14.5 mNm, 7160 rpm



DCX



M 1:1

Motor Data

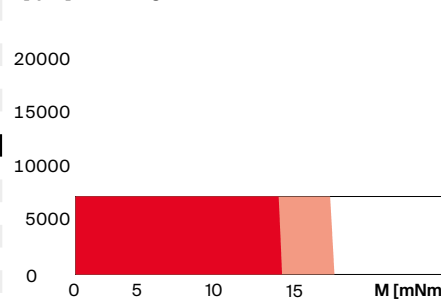
1_	Nominal voltage	V	6	12	18	24	36	48
2_	No load speed	rpm	6200	6200	6110	6340	6550	5890
3_	No load current	mA	39.2	19.6	12.8	10.1	7.09	4.55
4_	Nominal speed	rpm	4960	4670	4560	4700	4940	4240
5_	Nominal torque	mNm	10.7	14.7	14.5	13.6	13.8	13.6
6_	Nominal current (max. continuous current)	A	1.20	0.817	0.531	0.388	0.272	0.180
7_	Stall torque	mNm	53.7	59.7	57.5	52.7	56.5	48.6
8_	Stall current	A	5.85	3.25	2.06	1.47	1.08	0.63
9_	Max. efficiency	%	84	85	85	84	85	84
10_	Terminal resistance	Ω	1.02	3.69	8.75	16.3	33.3	76.2
11_	Terminal inductance	mH	0.058	0.231	0.535	0.881	1.86	4.08
12_	Torque constant	mNm/A	9.18	18.4	28.0	35.9	52.2	77.2
13_	Speed constant	rpm/V	1040	520	342	266	183	124
14_	Speed/torque gradient	rpm/mNm	116	104	107	121	117	122
15_	Mechanical time constant	ms	6.14	6.07	6.09	5.93	6.15	6.19
16_	Rotor inertia	gcm ²	5.05	5.55	5.44	4.67	5.03	4.84

Thermal data

17_	Thermal resistance housing-ambient	K/W	16
18_	Thermal resistance winding-housing	K/W	7
19_	Thermal time constant winding	s	20
20_	Thermal time constant motor	s	528
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

n [rpm] Winding 18 V



Mechanical data ball bearings

23_	Max. speed	rpm	7160
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]

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

Mechanical data sleeve bearings

23_	Max. speed	rpm	7160
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]

Modular System

Gear	Stages [opt.]	Sensor
375_GPX 22 A/C	1-2 [3-4]	473_ENX 10 EASY
376_GPX 22 LN/LZ	1-2 [3-4]	473_ENX 10 QUAD
377_GPX 22 HP	2-3 [4]	474_ENX 10 EASY XT
378_GPX 22 UP	1-4	475_ENX 16 EASY
380_GPX 26 A/C	3	476_ENX 16 EASY XT
381_GPX 26 LN/LZ	3	477_ENX 16 EASY Abs.
382_GPX 26 HP	4	478_ENX 16 EASY Abs. XT
		486_ENX 16 RIO
		517_ENC AEDL 5810
		518_ENC 30 HEDS 5540
		524_ENC 30 HEDL 5540

Details on catalog page 36

Motor Control
532_ESCON Module 24/2
532_ESCON 36/2 DC
533_ESCON Module 50/5
535_ESCON 50/5
541_EPOS4 Micro 24/5
542_EPOS4 Module 24/1.5
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
548_EPOS4 Disk 60/8

Other specifications

29_	Number of pole pairs		1
30_	Number of commutator segments		9
31_	Weight of motor	g	66
32_	Typical noise level	dBA	48

Configuration

Bearing: Ball bearings preloaded/sleeve bearings
 Commutation: Precious metal brushes with or without CLL/
 graphite brushes/EMI filter
 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