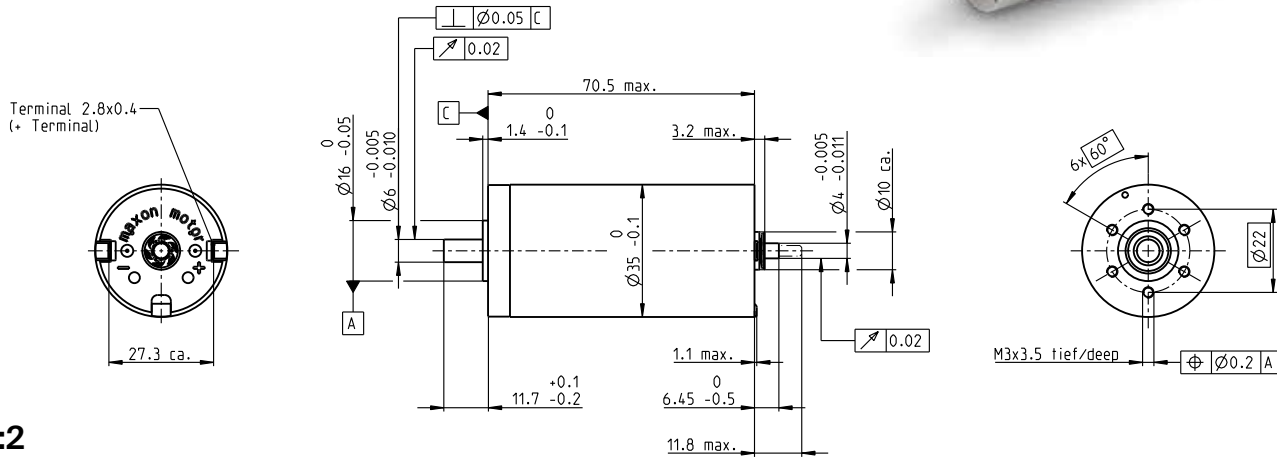


DCX 35 L Ø35 mm, graphite brushes, DC motor

Key Data: 80/120 W, 138 mNm, 12300 rpm

DCX



M 1:2

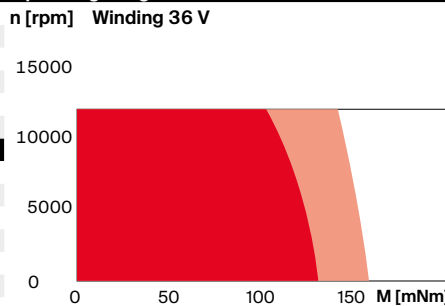
Motor Data

1_	Nominal voltage	V	12	18	24	36	48	60
2_	No load speed	rpm	8130	7200	7720	7940	6670	7690
3_	No load current	mA	320	177	146	101	58.6	57.5
4_	Nominal speed	rpm	7610	6640	7160	7410	6140	7160
5_	Nominal torque	mNm	77.7	120	121	128	138	132
6_	Nominal current (max. continuous current)	A	6.00	5.32	4.26	3.07	2.08	1.84
7_	Stall torque	mNm	2080	1980	2030	2160	1860	2050
8_	Stall current	A	152	84.8	69.3	50.3	27.3	27.7
9_	Max. efficiency	%	85	88	89	90	90	90
10_	Terminal resistance	Ω	0.079	0.212	0.346	0.716	1.76	2.16
11_	Terminal inductance	mH	0.026	0.077	0.121	0.260	0.658	0.776
12_	Torque constant	mNm/A	13.7	23.4	29.3	42.9	68.3	74.1
13_	Speed constant	rpm/V	699	408	326	223	140	129
14_	Speed/torque gradient	rpm/mNm	4.04	3.70	3.86	3.72	3.61	3.76
15_	Mechanical time constant	ms	4.21	3.97	3.91	3.84	3.76	3.75
16_	Rotor inertia	gcm ²	99.5	102	96.6	98.7	99.5	95.2

Thermal data

17_	Thermal resistance housing-ambient	K/W	6.98
18_	Thermal resistance winding-housing	K/W	2.1
19_	Thermal time constant winding	s	43.9
20_	Thermal time constant motor	s	1030
21_	Ambient temperature	°C	-40...+100
22_	Max. winding temperature	°C	155

Operating Range



Mechanical data ball bearings

23_	Max. speed	rpm	12 300
24_	Axial play	mm	0..0.1
	Preload	N	7
25_	Radial play	mm	0.02
26_	Max. axial load (dynamic)	N	7
27_	Max. force for press fits (static) (static, shaft supported)	N	22.6
28_	Max. radial load [mm from flange]	N	65.3 [5]

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

Other specifications

29_	Number of pole pairs	1	
30_	Number of commutator segments	11	
31_	Weight of motor	g	385
32_	Typical noise level	dBA	48

Modular System

Gear	Stages [opt.]
387_GPX 37 A	1-2
388_GPX 37 LN/LZ	1-2
389_GPX 42 C	1-4
389_GPX 42 UP	1-4

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
517_ENC AEDL 5810
518_ENC 30 HEDS 5540
524_ENC 30 HEDL 5540

Details on catalog page 36

Motor Control

533_ESCON Module 50/5
534_ESCON Module 50/8 HE
535_ESCON 50/5
535_ESCON 70/10
541_EPOS4 Micro 24/5
542_EPOS4 Module 50/5
543_EPOS4 Compact 24/5 3-axes
543_EPOS4 Module 50/8
545_EPOS4 Compact 50/5
545_EPOS4 Compact 50/8
547_EPOS4 50/5
547_EPOS4 70/15
548_EPOS4 Disk 60/8
549_EPOS4 Disk 60/12

Configuration

Bearing: Ball bearings preloaded
 Commutation: 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