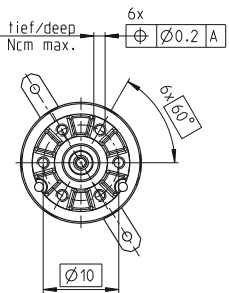
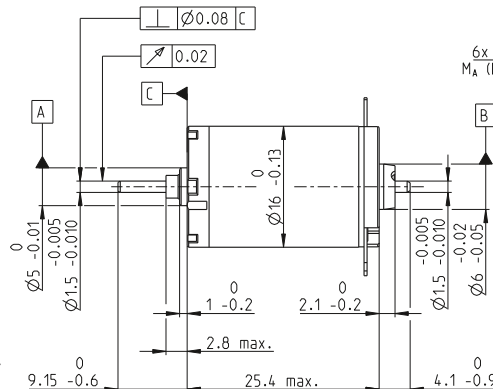
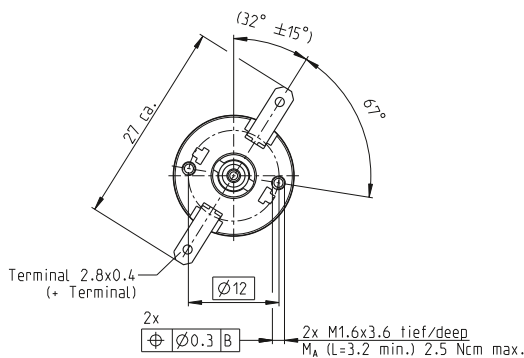


DC-max 16 S Ø16 mm, precious metal brushes, DC motor

Key data: 2/4.3 W, 4.1 mNm, 11000 rpm



DC-max



M 1:1

Motor data

1_	Nominal voltage	V	6	12	24
2_	No load speed	rpm	7890	7560	7470
3_	No load current	mA	14.7	6.90	3.40
4_	Nominal speed	rpm	4830	4390	4210
5_	Nominal torque	mNm	4.06	3.92	3.80
6_	Nominal current (max. continuous current)	A	0.577	0.267	0.128
7_	Stall torque	mNm	10.5	9.44	8.75
8_	Stall current	A	1.46	0.629	0.289
9_	Max. efficiency	%	81	80	80
10_	Terminal resistance	Ω	4.10	19.1	83.2
11_	Terminal inductance	mH	0.140	0.610	2.49
12_	Torque constant	mNm/A	7.19	15.0	30.3
13_	Speed constant	rpm/V	1330	637	315
14_	Speed/torque gradient	rpm/mNm	758	809	864
15_	Mechanical time constant	ms	8.87	8.92	9.00
16_	Rotor inertia	gcm ²	1.12	1.05	0.994

Thermal data

17_	Thermal resistance housing-ambient	K/W	29.8
18_	Thermal resistance winding-housing	K/W	5.5
19_	Thermal time constant winding	s	5.35
20_	Thermal time constant motor	s	288
21_	Ambient temperature	°C	-30...+65
22_	Max. winding temperature	°C	85

Mechanical data ball bearings

23_	Max. speed	rpm	11000
24_	Axial play	mm	0.05...0.15
	Preload	N	0
25_	Radial play	mm	0.025
26_	Max. axial load (dynamic)	N	2.2
27_	Max. force for press fits (static) (shaft supported)	N	30
28_	Max. radial load [mm from flange]	N	200
		N	7.8 [5]

Mechanical data sleeve bearings

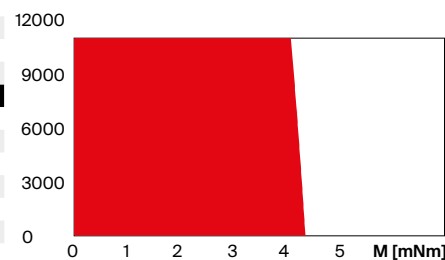
23_	Max. speed	rpm	11000
24_	Axial play	mm	0.05...0.15
	Preload	N	0
25_	Radial play	mm	0.012
26_	Max. axial load (dynamic)	N	0.8
27_	Max. force for press fits (static) (shaft supported)	N	35
28_	Max. radial load [mm from flange]	N	200
		N	1.4 [5]

Other specifications

29_	Number of pole pairs		1
30_	Number of commutator segments		7
31_	Weight of motor	g	23.3

Operating range

n [rpm] Winding 12 V



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

Modular system

Gear	Stages [opt.]	Sensor
381_GPX 16 A/C	1-2 [3-4]	498_ENX 13 GAMA
382_GPX 16 LN/LZ	1-2 [3-4]	502_ENX 16 IMR
386_GPX 19 A/C	3-4	507_ENX 10 QUAD
387_GPX 19 LN/LZ	3-4	507_ENX 10 EASY

Details on catalog page 40

Motor Control
550_ESCON Module 24/2
550_ESCON 36/2 DC
557_ESCON2 Nano 24/2
563_EPOS4 Micro 24/5
564_EPOS4 Module 24/1.5
565_EPOS4 Compact 24/5 3-axes
566_EPOS4 Compact 24/1.5

Configuration

Bearing: Sleeve bearings/ball bearings
Commutation: Precious metal brushes with CLL/Graphite Brushes
Shaft front/back: Length
Electric connection: Terminals/cable