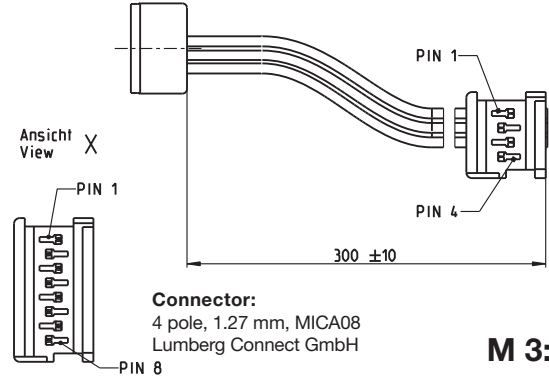
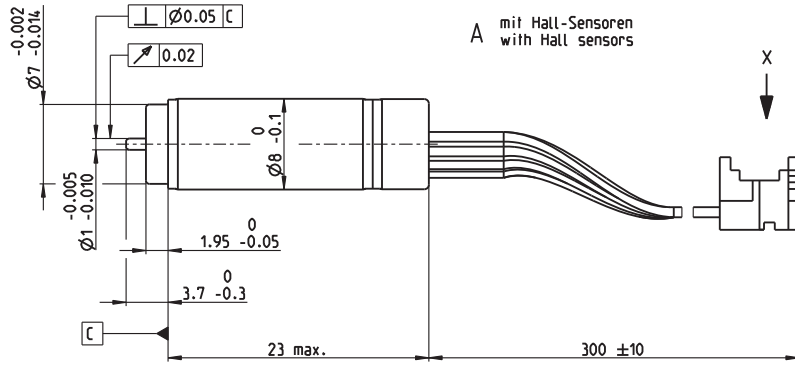


ECX SPEED 8 M brushless BLDC motor Ø8 mm

NEW



2/4.7 W 0.94 mNm 50000 rpm



Connector:
8 pole, 1.27 mm, MICA08
Lumberg Connect GmbH

Connector:
4 pole, 1.27 mm, MICA08
Lumberg Connect GmbH

M 3:2

Motor Data

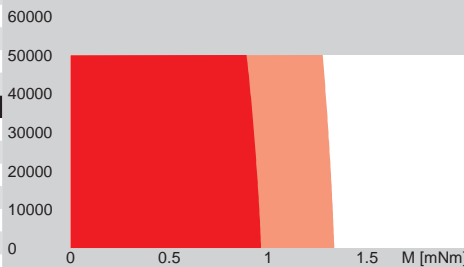
1_	Nominal voltage	V	6	12	24
2_	No load speed	rpm	34500	42200	41100
3_	No load current	mA	87.6	58.2	28
4_	Nominal speed	rpm	23300	31900	31100
5_	Nominal torque (max. continuous torque)	mNm	0.979	0.937	0.94
6_	Nominal current (max. continuous current)	A	0.689	0.408	0.199
7_	Stall torque	mNm	3.15	4.02	4.05
8_	Stall current	A	1.98	1.54	0.755
9_	Max. efficiency	%	64	66	66
10_	Terminal resistance	Ω	3.02	7.8	31.8
11_	Terminal inductance	mH	0.039	0.106	0.447
12_	Torque constant	mNm/A	1.59	2.61	5.37
13_	Speed constant	rpm/V	6020	3660	1780
14_	Speed/torque gradient	rpm/mNm	11500	10900	10500
15_	Mechanical time constant	ms	3	2.85	2.75
16_	Rotor inertia	gcm ²	0.0249	0.0249	0.0249

Thermal data

17_	Thermal resistance housing-ambient	K/W	51.2
18_	Thermal resistance winding-housing	K/W	3.5
19_	Thermal time constant winding	s	0.832
20_	Thermal time constant motor	s	154
21_	Ambient temperature ¹	°C	-20...+85
22_	Max. winding temperature	°C	+125

Operating Range

n [rpm] Winding 12 V



■ Continuous operation
■ Continuous operation with reduced thermal resistance R_{m2} 50%
■ Short term operation

Mechanical data ball bearings

23_	Max. speed	rpm	50000
24_	Axial play	mm	0...0.07
	Preload	N	0.3
	Direction of force		pull
25_	Radial play		preloaded
26_	Max. axial load (dynamic)	N	0.2
27_	Max. force for press fits (static)	N	10
	(static, shaft supported)	N	10
28_	Max. radial load [mm from flange]	N	2 [2]

Other specifications

29_	Number of pole pairs	1
30_	Number of phases	3
31_	Weight of motor	g 6
32_	Typical noise level [rpm]	dBA 49 [50000]

maxon Modular System

maxon gear	Stages	maxon sensor	maxon motor control
114_GPX 8 A	1-5	for motor type B: 144_ENX 8 145_ENX 8 Abs.	416_ESCON Module 24/2 417_ESCON 36/3 EC 417_ESCON Module 50/4 EC-S 420_DEC Module 24/2 424_EPOS2 24/2 424_EPOS2 Module 36/2

Connection A (flat band cable AWG 28, pitch 1.27 mm)

- Pin 1 Motor winding 1
 - Pin 2 Motor winding 2
 - Pin 3 Motor winding 3
 - Pin 4 V_{Hall} 1.6...5.5 VDC
 - Pin 5 GND
 - Pin 6 Hall sensor 1
 - Pin 7 Hall sensor 2
 - Pin 8 Hall sensor 3
- Output signal: CMOS compatible
Output current per channel: max 0.5 mA

Connection B (flat band cable AWG 28, pitch 1.27 mm)

- Pin 1 Motor winding 1
- Pin 2 Motor winding 2
- Pin 3 Motor winding 3
- Pin 4 N.C.

Configuration

Shaft front: length
Electric connection: flex or cable, cable length
Cable insulation: PVC/PO/FEP

Notes

¹ For type A:
PVC-cable (-20...85°C)
PO- and FEP cable (-30...85°C)
For type B:
PVC-cable (-20...100°C)
PO- and FEP cable (-40...100°C)

Cable and plug configuration:
Adapter Micromotor (Part number 498157)
required for all maxon controllers.