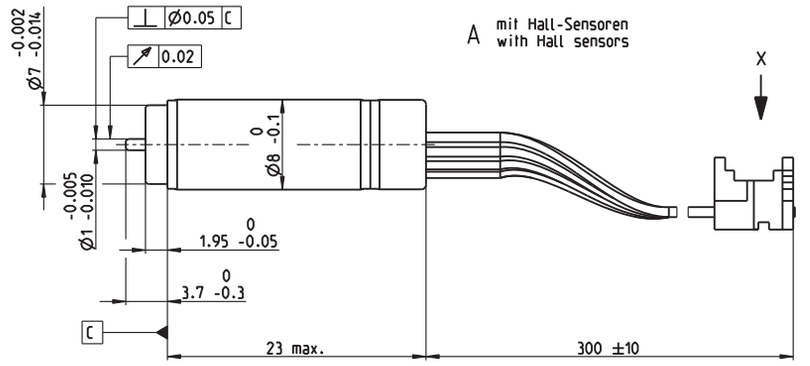
ECX SPEED 8 M brushless

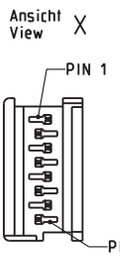
BLDC motor Ø8 mm

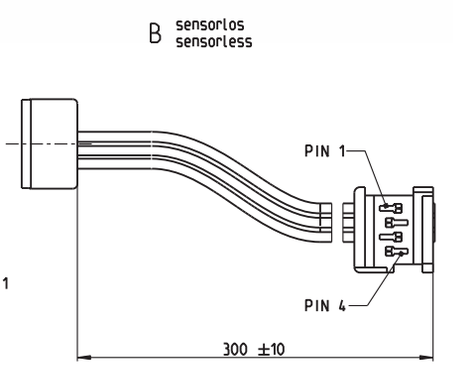
High Power

3/6 W 1.24 mNm 50000 rpm

NEW







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

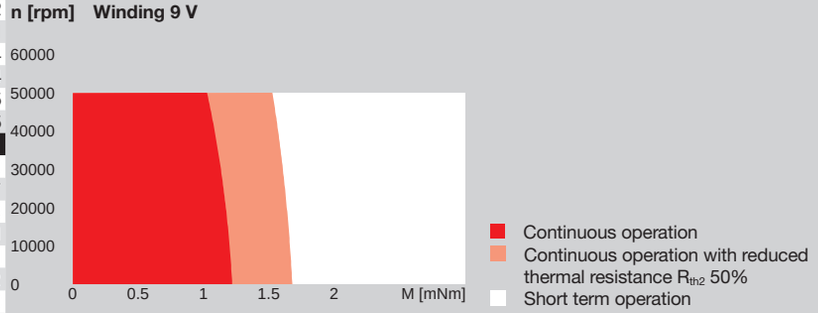
Connector:
4 pole, 1.27 mm, MICA08
Lumberg Connect GmbH

M 3:2

	Motor Data				
1_	Nominal voltage	V	6	9	12
2_	No load speed	rpm	35500	29100	30500
3_	No load current	mA	128	63.4	50.9
4_	Nominal speed	rpm	26700	21200	22800
5_	Nominal torque (max. continuous torque)	mNm	1.23	1.26	1.26
6_	Nominal current (max. continuous current)	A	0.902	0.497	0.391
7_	Stall torque	mNm	5.18	4.83	5.18
8_	Stall current	A	3.34	1.7	1.43
9_	Max. efficiency	%	66	66	67
10_	Terminal resistance	Ω	1.8	5.3	8.38
11_	Terminal inductance	mH	0.026	0.089	0.144
12_	Torque constant	mNm/A	1.55	2.84	3.62
13_	Speed constant	rpm/V	6160	3360	2640
14_	Speed/torque gradient	rpm/mNm	7130	6260	6110
15_	Mechanical time constant	ms	1.86	1.64	1.6
16_	Rotor inertia	gcm²	0.0249	0.0249	0.0249

	Thermal data		
17_	Thermal resistance housing-ambient	K/W	51.2
18_	Thermal resistance winding-housing	K/W	4.11
19_	Thermal time constant winding	s	0.874
20_	Thermal time constant motor	s	154
21_	Ambient temperature[1]	°C	-20...+85
22_	Max. winding temperature	°C	+125
	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]

Operating Range



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.

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

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.

xdrives.maxonmotor.com