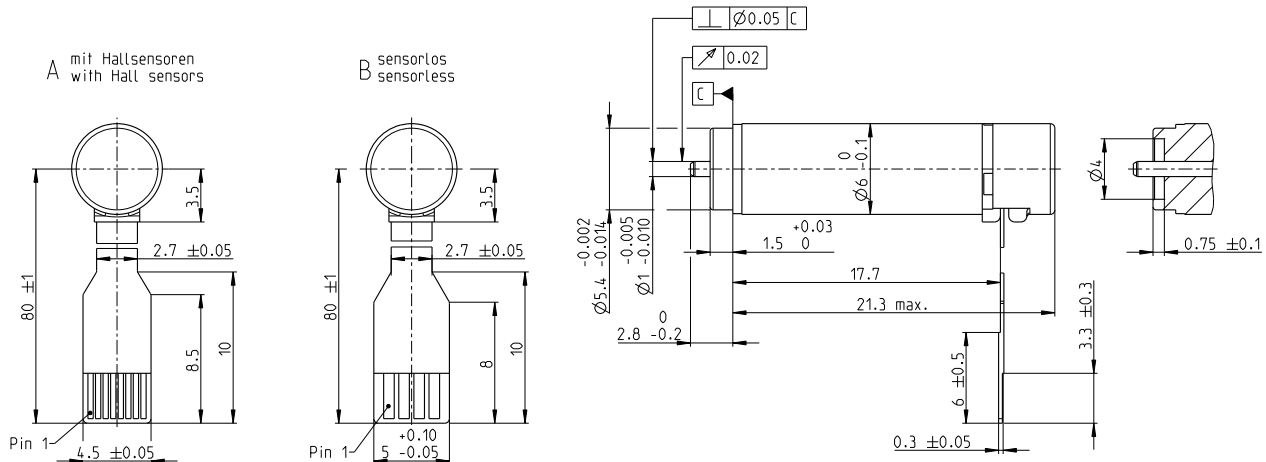


ECX SPEED 6 M Ø6 mm, brushless, BLDC motor

Key data: 1.5/3.0 W, 0.33 mNm, 100 000 rpm

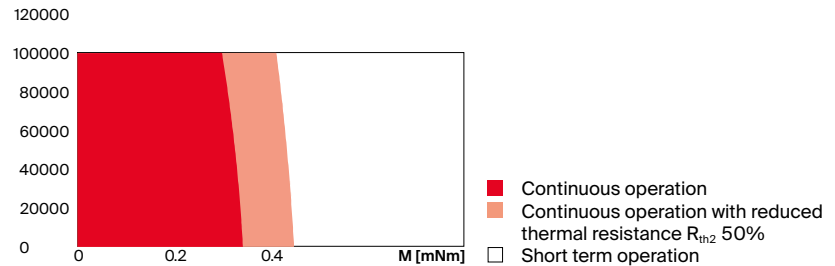


ECX SPEED



M 2:1

Motor data			
1. Nominal voltage	V	6	12
2. No load speed	rpm	44200	33300
3. No load current	mA	46.5	16.2
4. Nominal speed	rpm	25500	13900
5. Nominal torque	mNm	0.334	0.322
6. Nominal current (max. continuous current)	A	0.314	0.116
7. Stall torque	mNm	0.832	0.59
8. Stall current	A	0.688	0.188
9. Max. efficiency	%	56.2	51.3
10. Terminal resistance	Ω	8.72	63.8
11. Terminal inductance	mH	0.0652	0.436
12. Torque constant	mNm/A	1.21	3.14
13. Speed constant	rpm/V	7900	3040
14. Speed/torque gradient	rpm/mNm	57000	61800
15. Mechanical time constant	ms	4.2	4.55
16. Rotor inertia	gcm ²	0.00703	0.00703
Thermal data		Operating range	
17. Thermal resistance housing-ambient	K/W	671	n [rpm] winding 6 V
18. Thermal resistance winding-housing	K/W	16.8	
19. Thermal time constant winding	s	1.69	
20. Thermal time constant motor	s	71.8	
21. Ambient temperature	°C	-20...+100	
22. Max. winding temperature	°C	125	
Mechanical data ball bearings			
23. Max. speed	rpm	100 000	
24. Axial play	mm	0...0.07	
Preload	N	0.15	
Direction of force		pull	
25. Radial play		preloaded	
26. Max. axial load (dynamic)	N	0.1	
27. Max. force for press fits (static)	N	10	
(static, shaft supported)	N	110	
28. Max. radial load [mm from flange]	N	2 [2]	
Other specifications		Modular system	
29. Number of pole pairs	1	Gear	Stages [opt.]
30. Number of phases	3	371_GPX 6 A	1-5
31. Weight of motor	g		Sensor
32. Typical noise level [rpm]	dBA 44 [50 000]		for motor type A: 494_ENX 6 MAG
			Motor Control
			564_EPOS4 Module 24/1.5 566_EPOS4 Compact 24/1.5



Connection motor with hall sensor (A)

FPC Flexprint 8-pole, pitch 0.5 mm

Pin 1 Motor winding 1

Pin 2 Motor winding 2

Pin 3 Motor winding 3

Pin 4 V_{Hall} 2.5...5.5 VDC

Pin 5 GND

Pin 6 Hall sensor 1

Pin 7 Hall sensor 2

Pin 8 Hall sensor 3

Output signals: CMOS compatible push-pull stage

Output current per channel: max. 0.5 mA

Connection motor sensorless (B)

FPC flexprint 4-pole, pitch 1.0 mm:

Pin 1 Motor winding 1

Pin 2 Motor winding 2

Pin 3 Motor winding 3

Pin 4 N.C.

Configuration

Shaft front: length

Electrical connection: Flexprint/pins (on request)