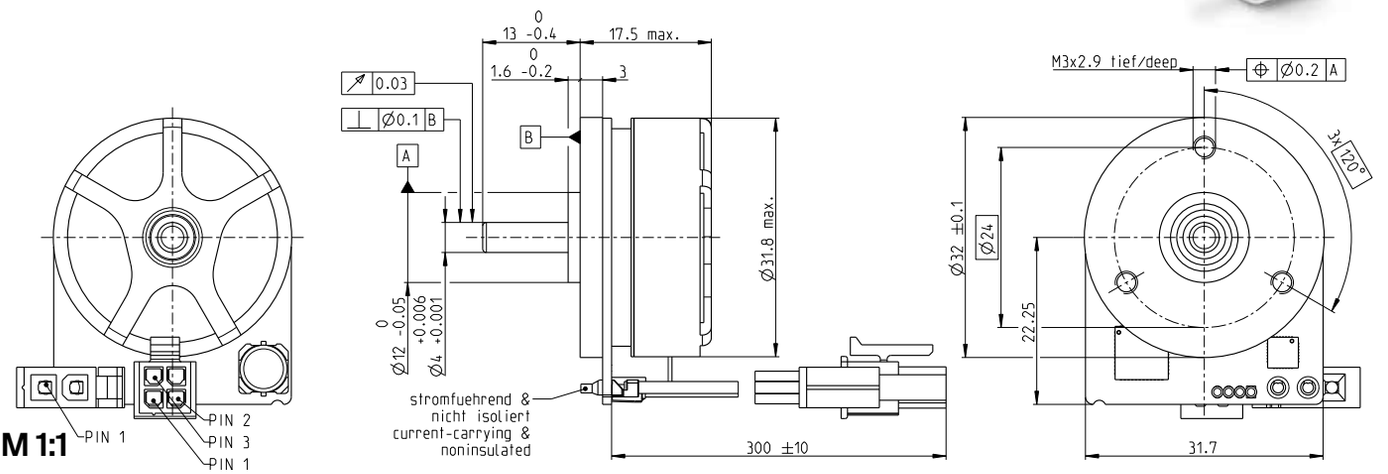
ECX FLAT 32 S ∅32 mm, brushless, with integrated electronics

High Torque, 4-Q-Speed Controller

Key data: 50 W, 47.8 mNm, 14 000 rpm

I/O⇔



	Drive data		
1_	Nominal power supply voltage	V	24
2_	Nominal speed	rpm	10 000
3_	Nominal torque at 25 °C	mNm	47.8
5_	Nominal supply current at 25 °C	A	3.04
7_	Maximum speed at nominal voltage	rpm	12 491
8_	Maximum permissible drive speed	rpm	14 000
9_	Maximum torque (short-time)	mNm	91.4
10_	Maximum supply current (short-time)	A	5.28
11_	Rotor inertia of the drive	gcm²	24.4
12_	Nominal supply voltage + V_{CC}	V	8...28
13_	Mechanical time constant	ms	4.79
	Speed constant	rpm/V	569
37_	Speed set value input	V	0...10
38_	Scale speed set value input	rpm/V	1000
	Min. permissible drive speed	rpm	200
40_	Max. acceleration	rpm/s	20 000

	Thermal data		
14_	Thermal resistance housing-ambient	K/W	4.38
15_	Thermal resistance winding-housing	K/W	6.44
16_	Thermal time constant winding	s	20.7
17_	Thermal time constant drive	s	130
18_	Ambient temperature	°C	-25...+85

	Mechanical data		
19_	Axial play at axial load	< 4 N	0 mm
		> 4 N	0.14 mm
	Direction of force		Pull
20_	Radial play		preloaded
21_	Max. axial load (dynamic)	N	4
22_	Max. force for press fits (static)	N	45
	(shaft supported)	N	1000
23_	Max. radial load [mm from flange]	N	12 [5]

	Other specifications		
24_	Weight of the drive	g	59.5

Drive data in the table is nominal data.

Protective functions
Overload protection, blockage protection, inverse-polarity protection, thermal overload protection, low/high voltage cut-off

Connection, Supply (Cable AWG 20)

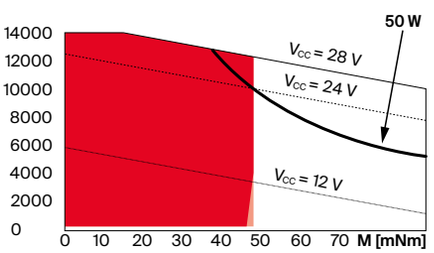
red	Pin 1	+V_{CC} 8...28 VDC
black	Pin 2	GND
Connector	**Article number**	
Molex	39-01-2020	

Connection, I/O's (Cable AWG 28)

white	Pin 1	I/O 1
green	Pin 2	I/O 2
grey	Pin 3	I/O 3
brown	Pin 4	I/O 4
Connector	**Article number**	
Molex	43025-0400	

Operating range

n [rpm] 24-V-system



Continuous operation
Continuous operation with reduced thermal resistance R_{th2} 50%
Short term operation

Modular system Details on catalog page 44

Gear	Stages [opt.]	Sensor	Motor Control
399_GPX 32 A/C	1–3	integrated	integrated
400_GPX 32 LN/LZ	1–3		
401_GPX 32 HP	2–4		
402_GPX 32 UP	1–4		
403_GPX 37 A	3		
404_GPX 37 LN/LZ	3		

Configuration

Shaft, front: Length/shaft shoulder/faces
Shaft, rear: Length/shaft shoulder
Motor controller: I/O functionality/system parameters

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