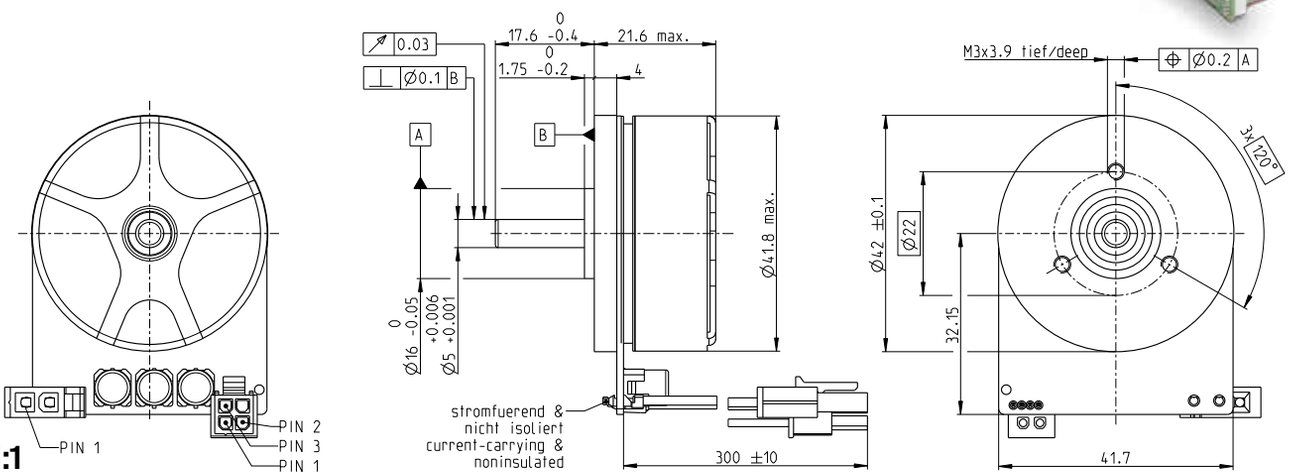
ECX FLAT 42 M ∅42 mm, brushless, with integrated electronics

High Torque, 4-Q-Speed Controller

Key data: 120 W, 190 mNm, 8000 rpm

NEW

I/O⇔



M 1:1

	Drive data		
1_	Nominal power supply voltage	V	24
2_	Nominal speed	rpm	6100
3_	Nominal torque at 25°C	mNm	190
5_	Nominal supply current at 25°C	A	7.1
7_	Maximum speed at nominal voltage	rpm	7776
8_	Maximum permissible drive speed	rpm	8000
9_	Maximum torque (short-time)	mNm	536
10_	Maximum supply current (short-time)	A	17.46
11_	Rotor inertia of the drive	gcm²	86.2
12_	Nominal supply voltage + V_{CC}	V	8...28
13_	Mechanical time constant	ms	2.57
	Speed constant	rpm/V	339
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	8000

	Thermal data		
14_	Thermal resistance housing-ambient	K/W	1.66
15_	Thermal resistance winding-housing	K/W	3.01
16_	Thermal time constant winding	s	20.1
17_	Thermal time constant drive	s	92.2
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	6
22_	Max. force for press fits (static)	N	86
	(shaft supported)	N	1300
23_	Max. radial load [mm from flange]	N	40 [5]

	Other specifications		
24_	Weight of the drive	g	128

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 18)

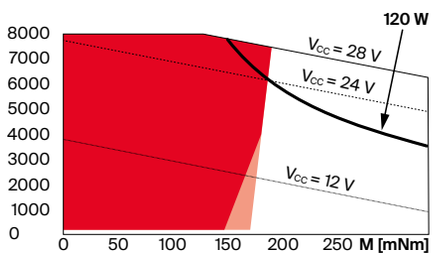
red	Pin 1	+V_{CC} 8...28 VDC
black	Pin 2	GND
Connector	**Article number**	
Molex	39-01-2020	

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
405_GPX 42 C/UP 455_GSW 55 A	1–4	integrated	integrated

Configuration

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

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