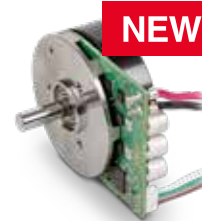


## High Torque, 4-Q-Speed Controller

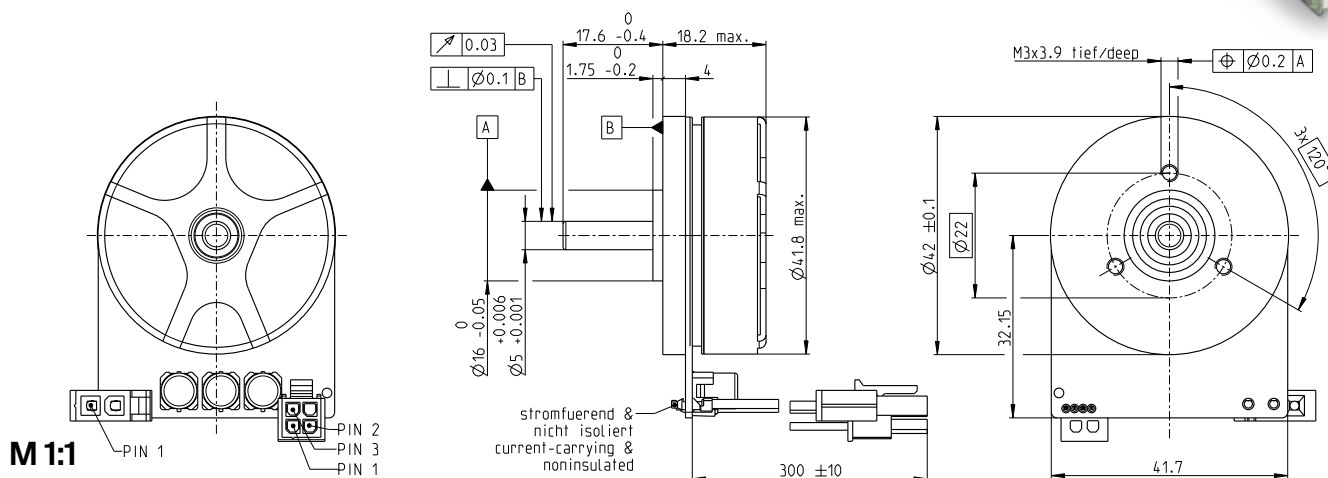
**Key data: 90 W, 127 mNm, 8000 rpm**

NEW



I/O  $\leftrightarrow$

# ECX FLAT



## Drive data

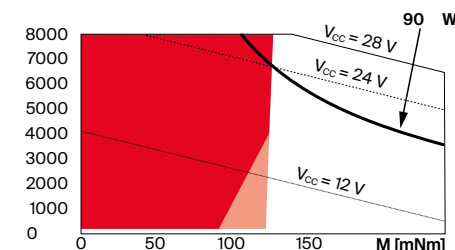
| Drive data |                                          |                       |
|------------|------------------------------------------|-----------------------|
| 1_         | Nominal power supply voltage             | V 24                  |
| 2_         | Nominal speed                            | rpm 6700              |
| 3_         | Nominal torque at 25°C                   | mNm 127               |
| 5_         | Nominal supply current at 25°C           | A 5.66                |
| 7_         | Maximum speed at nominal voltage         | rpm 8000              |
| 8_         | Maximum permissible drive speed          | rpm 8000              |
| 9_         | Maximum torque (short-time)              | mNm 321.1             |
| 10_        | Maximum supply current (short-time)      | A 12.61               |
| 11_        | Rotor inertia of the drive               | gcm <sup>2</sup> 65.3 |
| 12_        | Nominal supply voltage + V <sub>CC</sub> | V 8...28              |
| 13_        | Mechanical time constant                 | ms 3.97               |
|            | Speed constant                           | rpm/V 386             |
| 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

| Thermal data                           |     |           | Operating range |             |
|----------------------------------------|-----|-----------|-----------------|-------------|
| 14_ Thermal resistance housing-ambient | K/W | 2.12      | n [rpm]         | 24-V-system |
| 15_ Thermal resistance winding-housing | K/W | 3.53      |                 |             |
| 16_ Thermal time constant winding      | s   | 15.2      |                 |             |
| 17_ Thermal time constant drive        | s   | 118       |                 |             |
| 18_ Ambient temperature                | °C  | -25...+85 |                 |             |

### Mechanical data

|     |                                                         |   |            |
|-----|---------------------------------------------------------|---|------------|
| 19. | Direction of force                                      |   |            |
| 20. | Radial play                                             |   | preloaded  |
| 21. | Max. axial load (dynamic)                               | N | 6          |
| 22. | Max. force for press fits (static)<br>(shaft supported) | N | 86<br>1300 |
| 23. | Max. radial load [mm from flange]                       | N | 35 [5]     |



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

## Modular system

| Other specifications    |   |     | Modular system                          |                      | Details on catalog page 47 |                             |
|-------------------------|---|-----|-----------------------------------------|----------------------|----------------------------|-----------------------------|
| 24_ Weight of the drive | g | 105 | Gear<br>405_GPX 42 C/UP<br>455_GSW 55 A | Stages [opt.]<br>1-4 | Sensor<br>integrated       | Motor Control<br>integrated |

Details on catalog page 44

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<sub>CC</sub> 8...28 VDC

|       |       |     |
|-------|-------|-----|
| red   | Pin 1 | VCC |
| black | Pin 2 | GND |

**Connector**      **Article number**

|            |                 |
|------------|-----------------|
| Connector: | Article number: |
| Molex      | 39-01-2020      |

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

white Pin 1 I/O 1

|       |       |       |
|-------|-------|-------|
| white | Pin 1 | I/O 1 |
| green | Pin 2 | I/O 2 |

green Pin 2 I/O 2  
grey Pin 3 I/O 3

|       |       |       |
|-------|-------|-------|
| grey  | Pin 3 | I/O 3 |
| brown | Pin 4 | I/O 4 |

**Connector**      **Article number**

|           |                |
|-----------|----------------|
| Connector | Article Number |
| Molex     | 43025-0400     |

## Configuration

Shaft, front: Length/shaft shoulder/faces

Shaft, rear: Length/shaft shoulder

Motor controller: I/O functionality/system parameters