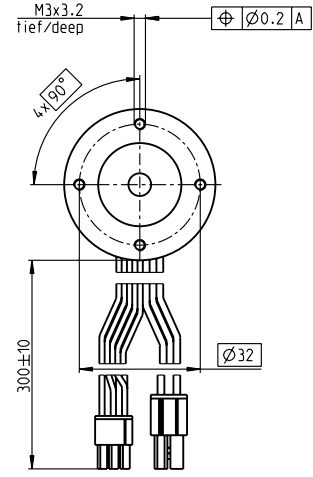
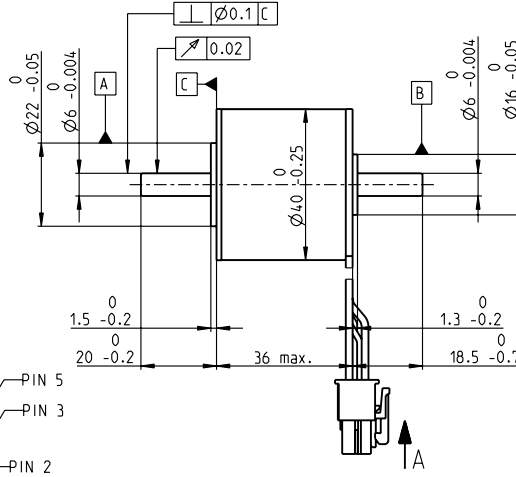
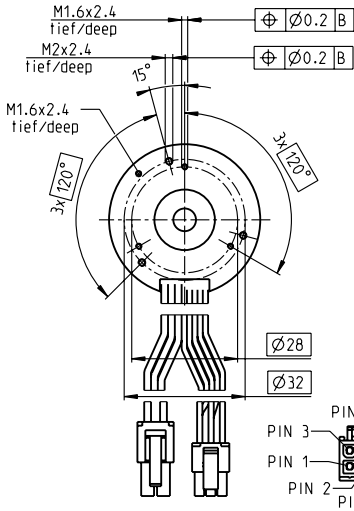


# EC-i 40 Ø40 mm, brushless, 70 watt

EC-i

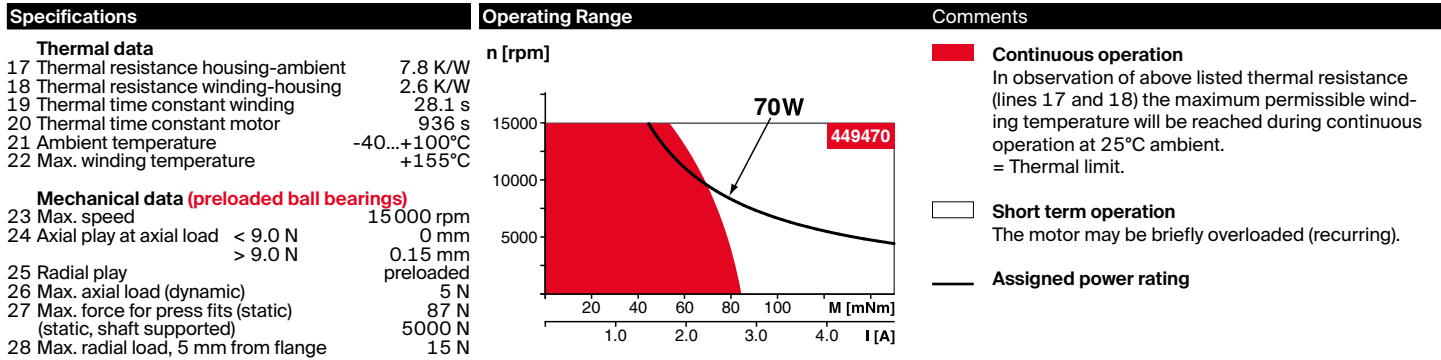


M 1:2

- Stock program
- Standard program
- Special program (on request)

Part Numbers	
with Hall sensors	449469 <span style="color: red;">449470</span>

Motor Data		with Hall sensors	
<b>Values at nominal voltage</b>			
1 Nominal voltage	V	18	36
2 No load speed	rpm	10100	10700
3 No load current	mA	354	192
4 Nominal speed	rpm	8230	8740
5 Nominal torque (max. continuous torque)	mNm	68.7	83.4
6 Nominal current (max. continuous current)	A	3.93	2.43
7 Stall torque <sup>1</sup>	mNm	876	1460
8 Stall current	A	52.5	46.3
9 Max. efficiency	%	84	87
<b>Characteristics</b>			
10 Terminal resistance phase to phase	Ω	0.343	0.778
11 Terminal inductance phase to phase	mH	0.18	0.644
12 Torque constant	mNm/A	16.7	31.5
13 Speed constant	rpm/V	572	303
14 Speed/torque gradient	rpm/mNm	11.7	7.47
15 Mechanical time constant	ms	2.98	1.89
16 Rotor inertia	gcm <sup>2</sup>	24.2	24.2



- Other specifications**
- 29 Number of pole pairs 7
  - 30 Number of phases 3
  - 31 Weight of motor 240 g
- Values listed in the table are nominal.
- Connection motor** (Cable AWG 20)
- |       |                 |       |
|-------|-----------------|-------|
| red   | Motor winding 1 | Pin 1 |
| black | Motor winding 2 | Pin 2 |
| white | Motor winding 3 | Pin 3 |
|       | N.C.            | Pin 4 |
- Connector Article number**
- |       |            |
|-------|------------|
| Molex | 39-01-2040 |
|-------|------------|
- Connection sensor** (Cable AWG 26)
- |        |                                |       |
|--------|--------------------------------|-------|
| yellow | Hall sensor 1                  | Pin 1 |
| brown  | Hall sensor 2                  | Pin 2 |
| grey   | Hall sensor 3                  | Pin 3 |
| blue   | GND                            | Pin 4 |
| green  | V <sub>Hall</sub> 4.5...24 VDC | Pin 5 |
|        | N.C.                           | Pin 6 |
- Connector Article number**
- |       |             |
|-------|-------------|
| Molex | 430-25-0600 |
|-------|-------------|
- Wiring diagram for Hall sensors see p. 59  
<sup>1</sup>Calculation does not include saturation effect (p. 71/178)

**maxon Modular System** Details on catalog page 42

<b>Planetary Gearhead</b> Ø32 mm 1.0 - 6.0 Nm Page 398  <b>Planetary Gearhead</b> Ø42 mm 3 - 15 Nm Page 407  <b>Screw Drive</b> Ø32 mm Page 426-434		<b>Recommended Electronics:</b> <span style="float: right;">Page 42</span> Notes ESCON 36/3 EC 501 ESCON Mod. 50/4 EC-S 501 ESCON Module 50/5 501 ESCON 50/5 503 DEC Module 50/5 505 EPOS4 Micro 24/5 509 EPOS4 Mod./Comp. 50/5 510 EPOS4 Comp. 24/5 3-axes 511 EPOS4 50/5 515 EPOS2 P 24/5 520	<b>Encoder 16 EASY/XT</b> 128 - 1024 CPT, 3 channels Page 465/467  <b>Encoder 16 EASY Absolute/XT</b> 4096 steps Page 469/471  <b>Encoder 16 RIO</b> 1024 - 32768 CPT, 3 channels Page 482  <b>Encoder AEDL 5810</b> 1024 - 5000 CPT, 3 channels Page 485  <b>Encoder HEDL 5540</b> 500 CPT, 3 channels Page 492
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