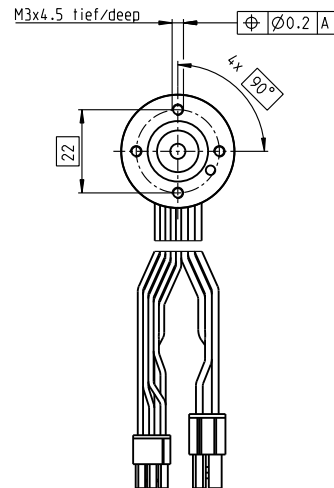
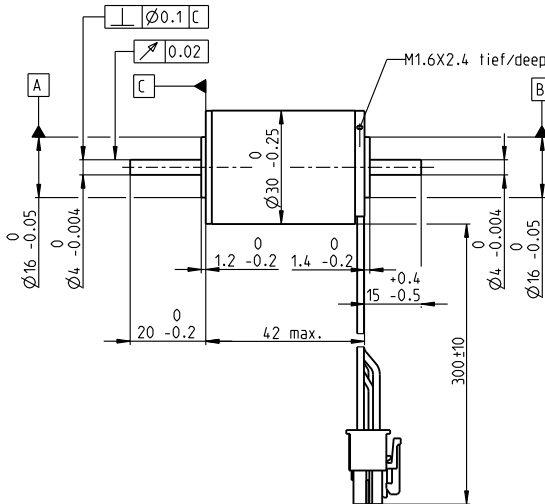
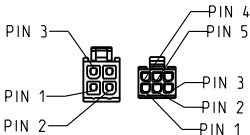
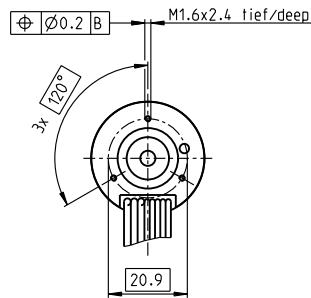


EC-max 30 Ø30 mm, brushless, 40 watt

EC-max



M 1:2

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

Part numbers

272766	272768	272769	272770
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Motor Data

Values at nominal voltage					
1 Nominal voltage	V	12	24	36	48
2 No load speed	rpm	8680	9250	9150	9250
3 No load current	mA	223	123	80.5	61.4
4 Nominal speed	rpm	6630	7220	7090	7210
5 Nominal torque	mNm	34.9	33.8	33.3	33.4
6 Nominal current (max. continuous current)	A	2.88	1.49	0.97	0.738
7 Stall torque	mNm	153	160	154	157
8 Stall current	A	11.8	6.57	4.18	3.24
9 Max. efficiency	%	75	75	75	75
Characteristics					
10 Terminal resistance phase to phase	Ω	1.01	3.65	8.61	14.8
11 Terminal inductance phase to phase	mH	0.088	0.31	0.713	1.24
12 Torque constant	mNm/A	12.9	24.3	36.8	48.6
13 Speed constant	rpm/V	738	393	259	197
14 Speed/torque gradient	rpm/mNm	57.8	59.1	60.6	59.9
15 Mechanical time constant	ms	6.66	6.81	6.98	6.9
16 Rotor inertia	gcm ²	11	11	11	11

Specifications

- Thermal data**
 - 17 Thermal resistance housing-ambient 8.6 K/W
 - 18 Thermal resistance winding-housing 1 K/W
 - 19 Thermal time constant winding 3.25 s
 - 20 Thermal time constant motor 777 s
 - 21 Ambient temperature -40...+100°C
 - 22 Max. winding temperature +155°C
- Mechanical data (preloaded ball bearings)**
 - 23 Max. speed 15000 rpm
 - 24 Axial play at axial load < 6.0 N 0 mm
 - > 6.0 N 0.14 mm
 - 25 Radial play preloaded 5 N
 - 26 Max. axial load (dynamic) 98 N
 - 27 Max. force for press fits (static) (static, shaft supported) 2000 N
 - 28 Max. radial load, 5 mm from flange 25 N

- Other specifications**
 - 29 Number of pole pairs
 - 30 Number of phases
 - 31 Weight of motor

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. N.C. Pin 4

Connector Part number

39-01-2040

Connection sensors (Cable AWG 26)

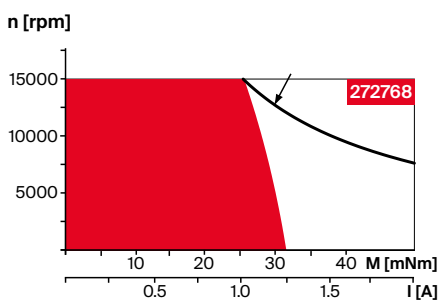
- yellow Hall sensor 1 Pin 1
- brown Hall sensor 2 Pin 2
- grey Hall sensor 3 Pin 3
- blue GND Pin 4
- green V_{Hall} 3...24 VDC Pin 5
- N.C. N.C. Pin 6

Connector Part number

430-25-0600

Wiring diagram for Hall sensors see p. 67

Operating range



Comments

- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) and an ambient temperature of 25°C, the maximum permissible winding temperature will be reached during continuous operation = thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

Modular system

- Gear**
 - 428_GP 32 A
 - 430_GP 32 C
 - 432_GP 32 HP
 - 435_KD 32
 - 474-482_GP 32 S

- Sensor**
 - 509_ENX 16 EASY
 - 510_ENX 16 EASY XT
 - 511_ENX 16 EASY Absolute
 - 512_ENX 16 EASY Absolute XT
 - 539_Encoder HEDL 5540

- Accessories**
 - 584_Brake AB 20

- Motor Control**
 - 547_DEC Module 24/2
 - 550_ESCON Module 24/2
 - 551_ESCON 36/3 EC
 - 551_ESCON Module 50/4 EC-S
 - 551_ESCON Module 50/5
 - 553_ESCON 50/5
 - 557_ESCON2 Nano 24/2
 - 557_ESCON2 Micro 60/5
 - 563_EPOS4 Micro 24/5
 - 564_EPOS4 Module 50/5
 - 564_EPOS4 Module 24/1.5
 - 565_EPOS4 Compact 24/5 3-axes
 - 566_EPOS4 Compact 24/1.5
 - 567_EPOS4 Compact 50/5
 - 569_EPOS4 50/5
 - 570_EPOS4 Disk 60/8
 - 571_EPOS4 Disk 60/12