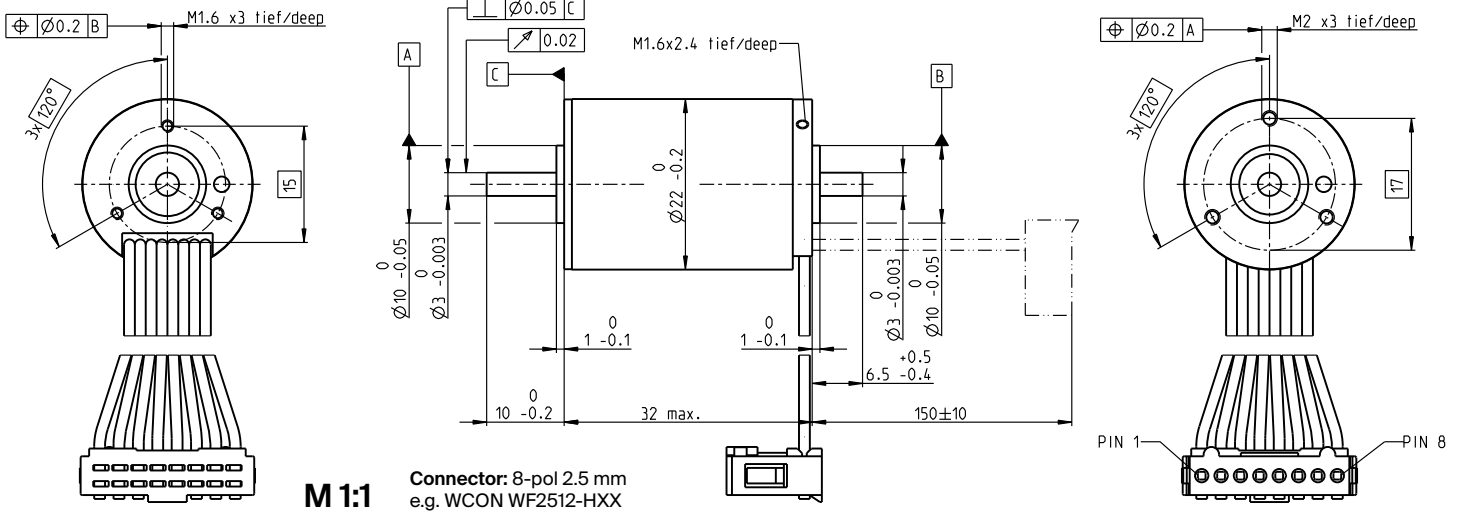


EC-max 22 Ø22 mm, brushless, 12 watt

EC-max



M 1:1

Connector: 8-pol 2.5 mm
e.g. WCON WF2512-HXX

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

Part Numbers				
283837	283838	283839	283840	283841

Motor Data							
Values at nominal voltage							
1	Nominal voltage	V	6	12	18	24	36
2	No load speed	rpm	11900	12100	12100	12100	12100
3	No load current	mA	301	155	103	773	51.6
4	Nominal speed	rpm	7920	8040	8250	8250	8210
5	Nominal torque (max. continuous torque)	mNm	11	10.2	10.9	10.8	10.6
6	Nominal current (max. continuous current)	A	2.61	1.25	0.88	0.657	0.432
7	Stall torque	mNm	33.9	31.3	35.4	35.1	34.1
8	Stall current	A	7.36	3.47	2.6	1.94	1.25
9	Max. efficiency	%	65	63	65	65	65
Characteristics							
10	Terminal resistance phase to phase	Ω	0.816	3.46	6.93	12.4	28.7
11	Terminal inductance phase to phase	mH	0.0315	0.121	0.275	0.488	1.09
12	Torque constant	mNm/A	4.61	9.02	13.6	18.1	27.2
13	Speed constant	rpm/V	2070	1060	701	526	352
14	Speed/torque gradient	rpm/mNm	366	406	356	360	372
15	Mechanical time constant	ms	8.63	9.56	8.39	8.47	8.75
16	Rotor inertia	gcm ²	2.25	2.25	2.25	2.25	2.25

Specifications	Operating Range	Comments
Thermal data 17 Thermal resistance housing-ambient 13.5 K/W 18 Thermal resistance winding-housing 1.72 K/W 19 Thermal time constant winding 1.85 s 20 Thermal time constant motor 567 s 21 Ambient temperature -40...+100°C 22 Max. winding temperature +155°C Mechanical data (preloaded ball bearings) 23 Max. speed 18000 rpm 24 Axial play at axial load < 4 N 0 mm, > 4 N 0.14 mm 25 Radial play preloaded 3.5 N 26 Max. axial load (dynamic) 53 N 27 Max. force for press fits (static) (static, shaft supported) 1400 N 28 Max. radial load, 5 mm from flange 16 N		<p> Continuous operation In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient. = Thermal limit.</p> <p> Short term operation The motor may be briefly overloaded (recurring).</p> <p> Assigned power rating</p>

- Other specifications**
- 29 Number of pole pairs
 - 30 Number of phases
 - 31 Weight of motor
- Values listed in the table are nominal.
- Connection (Cable AWG 24)**
- | | | |
|--------|------------------------------|-------|
| brown | Motor winding 1 | Pin 1 |
| red | Motor winding 2 | Pin 2 |
| orange | Motor winding 3 | Pin 3 |
| yellow | V _{hall} 3...24 VDC | Pin 4 |
| green | GND | Pin 5 |
| blue | Hall sensor 1 | Pin 6 |
| violet | Hall sensor 2 | Pin 7 |
| grey | Hall sensor 3 | Pin 8 |
- Wiring diagram for Hall sensors see p. 57

<p>maxon Modular System</p> <p>1 3 83 g</p> <p>Planetary Gearhead Ø22 mm 0.5-1.0 Nm Page 383</p> <p>Planetary Gearhead Ø22 mm 0.5-3.4 Nm Page 386/387</p> <p>Koaxdrive Ø32 mm 1.0-4.5 Nm Page 403</p> <p>Screw Drive Ø22 mm Page 424/425</p>	<p>Encoder MR 128/256/512 CPT, 2/3 channels Page 477</p> <p>Brake AB 20 24 VDC 0.1 Nm Page 532</p> <p>Recommended Electronics: Notes Page 42</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>ESCON Module 24/2</td> <td>500</td> </tr> <tr> <td>ESCON 36/3 EC</td> <td>501</td> </tr> <tr> <td>ESCON Mod. 50/4 EC-S</td> <td>501</td> </tr> <tr> <td>ESCON Module 50/5</td> <td>501</td> </tr> <tr> <td>ESCON 50/5</td> <td>503</td> </tr> <tr> <td>DEC Module 24/2</td> <td>505</td> </tr> <tr> <td>DEC Module 50/5</td> <td>505</td> </tr> <tr> <td>EPOS4 Micro 24/5</td> <td>509</td> </tr> <tr> <td>EPOS4 Mod./Comp. 24/1.5</td> <td>510</td> </tr> <tr> <td>EPOS4 Mod./Comp. 50/5</td> <td>510</td> </tr> <tr> <td>EPOS4 Comp. 24/5 3-axes</td> <td>511</td> </tr> <tr> <td>EPOS4 50/5</td> <td>515</td> </tr> <tr> <td>EPOS2 P 24/5</td> <td>520</td> </tr> </table>	ESCON Module 24/2	500	ESCON 36/3 EC	501	ESCON Mod. 50/4 EC-S	501	ESCON Module 50/5	501	ESCON 50/5	503	DEC Module 24/2	505	DEC Module 50/5	505	EPOS4 Micro 24/5	509	EPOS4 Mod./Comp. 24/1.5	510	EPOS4 Mod./Comp. 50/5	510	EPOS4 Comp. 24/5 3-axes	511	EPOS4 50/5	515	EPOS2 P 24/5	520	<p>Details on catalog page 42</p>
ESCON Module 24/2	500																											
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