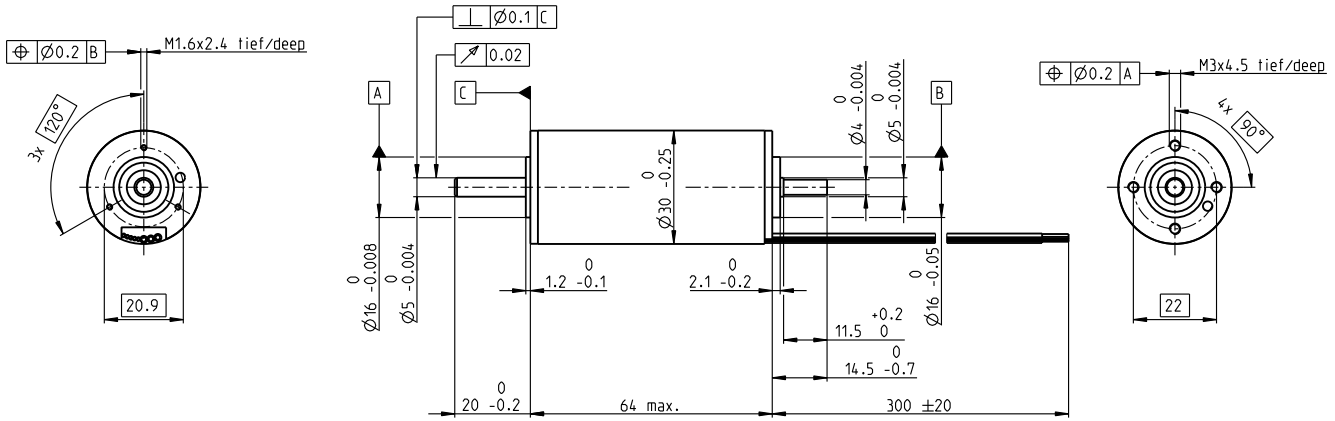


EC-4pole 30 Ø30 mm, brushless, 200 watt

High Power



EC-4pole

M 1:2

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

Part Numbers				
305013	305014	305015		

Motor Data				
Values at nominal voltage				
1 Nominal voltage	V	24	36	48
2 No load speed	rpm	16700	16700	16500
3 No load current	mA	723	482	356
4 Nominal speed	rpm	16100	16100	16000
5 Nominal torque (max. continuous torque)	mNm	95.6	95.2	92.9
6 Nominal current (max. continuous current)	A	7.61	5.06	3.68
7 Stall torque	mNm	3240	3520	3430
8 Stall current	A	236	171	124
9 Max. efficiency	%	90	90	90
Characteristics				
10 Terminal resistance phase to phase	Ω	0.102	0.21	0.386
11 Terminal inductance phase to phase	mH	0.016	0.037	0.065
12 Torque constant	mNm/A	13.7	20.6	27.6
13 Speed constant	rpm/V	697	465	346
14 Speed/torque gradient	rpm/mNm	5.17	4.75	4.83
15 Mechanical time constant	ms	1.80	1.66	1.69
16 Rotor inertia	gcm ²	33.3	33.3	33.3

Specifications	Operating Range	Comments
<p>Thermal data</p> <p>17 Thermal resistance housing-ambient 7.4 K/W</p> <p>18 Thermal resistance winding-housing 0.21 K/W</p> <p>19 Thermal time constant winding 2.11 s</p> <p>20 Thermal time constant motor 1180 s</p> <p>21 Ambient temperature -20...+100°C</p> <p>22 Max. winding temperature +155°C</p> <p>Mechanical data (preloaded ball bearings)</p> <p>23 Max. speed 25000 rpm</p> <p>24 Axial play at axial load < 4.0 N 0 mm</p> <p style="padding-left: 20px;">> 4.0 N 0.14 mm</p> <p>25 Radial play preloaded</p> <p>26 Max. axial load (dynamic) 5.5 N</p> <p>27 Max. force for press fits (static) (static, shaft supported) 73 N</p> <p>28 Max. radial load, 5 mm from flange 1300 N</p> <p style="padding-left: 20px;">25 N</p>	<p>n [rpm]</p> <p>200 W</p> <p>305015</p>	<ul style="list-style-type: none"> Continuous operation Continuous operation with reduced thermal resistance R_{th2} 50% Intermittent operation Assigned power rating

maxon Modular System		Details on catalog page 42
<p>2 Planetary Gearhead</p> <p>3 Ø32 mm</p> <p>300 g 1.0 - 6.0 Nm</p> <p>Page 396-397</p> <p>Planetary Gearhead</p> <p>Ø32 mm</p> <p>4.0 - 8.0 Nm</p> <p>Page 401</p> <p>Planetary Gearhead</p> <p>Ø42 mm</p> <p>3.0 - 15.0 Nm</p> <p>Page 406-407</p> <p>Screw Drive</p> <p>Ø32 mm</p> <p>Page 426-434</p>		<p>ENX 22 EMT</p> <p>65 536 turns, Multi Turn,</p> <p>Page 457</p> <p>Encoder 16 EASY/XT</p> <p>128 - 1024 CPT, 3 channels</p> <p>Page 464/466</p> <p>Encoder 16 EASY Absolute/XT</p> <p>4096 steps, Single Turn</p> <p>Page 468/470</p> <p>Encoder 16 RIO</p> <p>1024 - 32 768 CPT, 3 channels</p> <p>Page 481</p> <p>Encoder AEDL 5810</p> <p>1024 - 5000 CPT, 3 channels</p> <p>Page 484</p> <p>Encoder HEDL 5540</p> <p>500 CPT, 3 channels</p> <p>Page 491</p> <p>Brake AB 20</p> <p>24 VDC, 0.1 Nm</p> <p>Page 533</p>
	<p>Recommended Electronics:</p> <p>Notes Page 42</p> <p>ESCON Mod. 50/5 501</p> <p>ESCON Mod. 50/4 EC-S 501</p> <p>ESCON Mod. 50/8 (HE) 502</p> <p>ESCON 50/5 503</p> <p>ESCON 70/10 503</p> <p>DEC Module 50/5 505</p> <p>EPOS4 Mod./Comp. 50/5 510</p> <p>EPOS4 Module 50/8 511</p> <p>EPOS4 Comp. 50/8 CAN 513</p> <p>EPOS4 50/5 515</p> <p>EPOS4 70/15 515</p> <p>EPOS4 Disk 60/8 516</p> <p>EPOS4 Disk 60/12 517</p>	