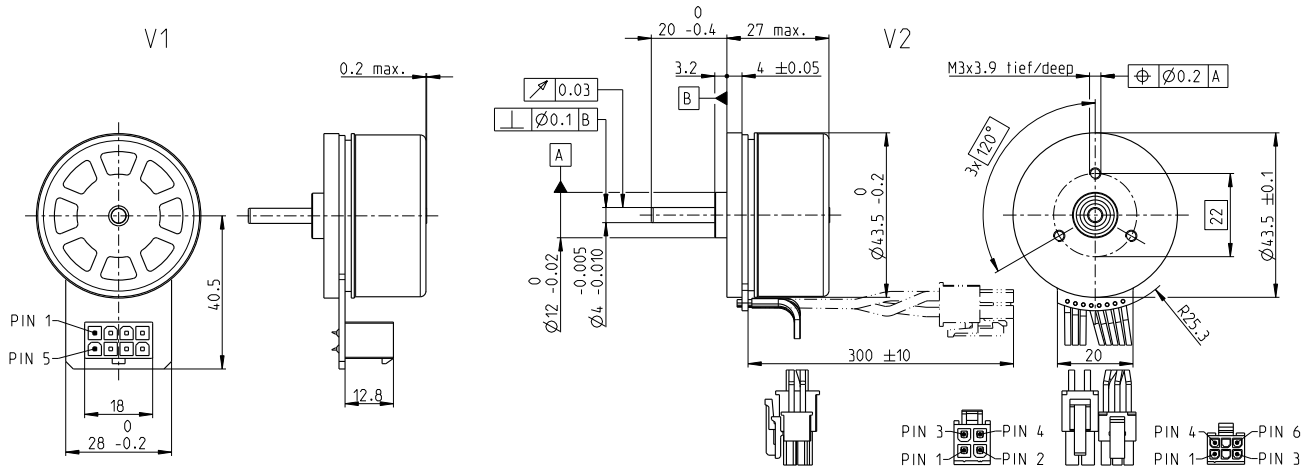


EC 45 flat $\varnothing 43.5$ mm, brushless, 80 watt

Open Rotor

EC flat

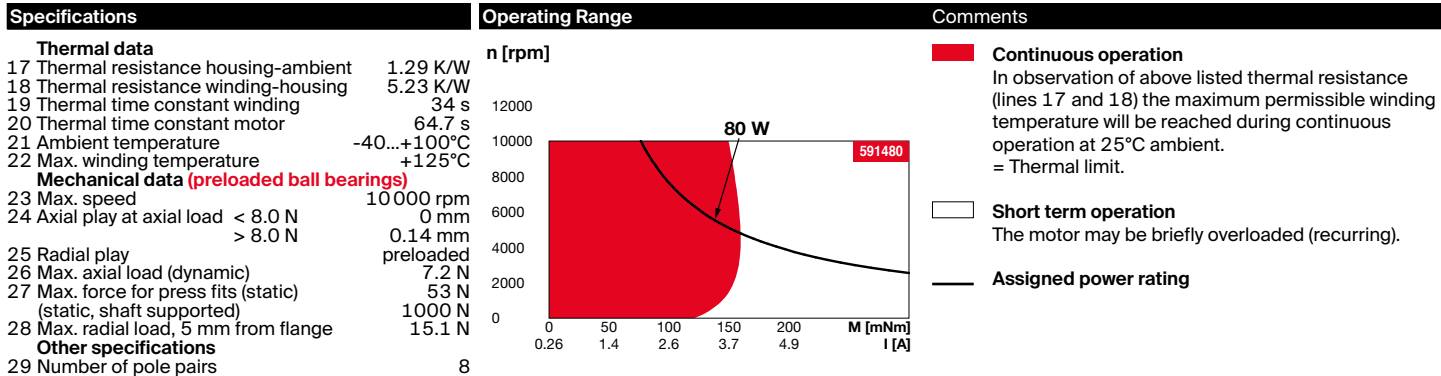


M 1:2

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

Part Numbers				
V1 with Hall sensors	591480	591481	591482	591483
V2 with Hall sensors and cables	608144	608145	608146	608147

Motor Data					
Values at nominal voltage					
1 Nominal voltage	V	24	36	48	60
2 No load speed	rpm	5600	5930	5580	3720
3 No load current	mA	270	198	135	57
4 Nominal speed	rpm	4560	4870	4560	2890
5 Nominal torque (max. continuous torque)	mNm	167	139	140	170
6 Nominal current (max. continuous current)	A	3.96	2.41	1.71	1.06
7 Stall torque ¹	mNm	1690	1320	1260	1240
8 Stall current	A	42	23	16	8
9 Max. efficiency	%	84.9	82.7	82.6	84.2
Characteristics					
10 Terminal resistance phase to phase	Ω	0.573	1.560	3.070	7.370
11 Terminal inductance phase to phase	mH	0.301	0.601	1.210	4.270
12 Torque constant	mNm/A	40.4	57	80.8	152
13 Speed constant	rpm/V	236	167	118	62.8
14 Speed/torque gradient	rpm/mNm	3.350	4.580	4.490	3.040
15 Mechanical time constant	ms	6.350	8.680	8.510	5.770
16 Rotor inertia	gcm ²	181	181	181	181



maxon Modular System		Details on catalog page 46	
Planetary Gearhead $\varnothing 32$ mm 0.75 - 6.0 Nm Page 394/398 Planetary Gearhead $\varnothing 42$ mm 3.0 - 15.0 Nm Page 407 Spur Gearhead $\varnothing 45$ mm 0.5 - 2.0 Nm Page 409		Encoder MILE 256 - 2048 CPT, 2 channels Page 461	Recommended Electronics: Notes Page 46 ESCON 36/3 EC 501 ESCON Module 50/5 501 ESCON 50/5 503 ESCON 70/10 503 DEC Module 50/5 505 EPOS4 Micro 24/5 509 EPOS4 Mod./Comp. 50/5 510 EPOS4 50/5 515 EPOS4 Disk 60/8 516 EPOS2 P 24/5 520
Values listed in the table are nominal. Connection V1 Pin 1 Hall sensor 1* Pin 2 Hall sensor 2* Pin 3 V _{Hall} 3.5...24 VDC Pin 4 Motor winding 3 Pin 5 Hall sensor 3* Pin 6 GND Pin 7 Motor winding 1 Pin 8 Motor winding 2 *Internal pull-up (7...13 k Ω) on V _{Hall} Wiring diagram for Hall sensors see p. 59 Connector Molex 39-28-1083 Molex 39-01-2040 Connection cable for V1 Universal, L = 500 mm 339380 to EPOS, L = 500 mm 354045 21 V2 Ambient temperature -20...+100°C ¹ Calculation does not include saturation effect (p. 71/178)	V2 (sensors, AWG 24) Hall sensor 1* Hall sensor 2* Hall sensor 3* GND V _{Hall} 3.5...24 VDC N.C. V2 (motor, AWG 22) Motor winding 1 Motor winding 2 Motor winding 3 N.C.		