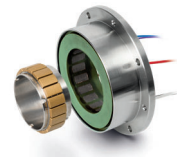
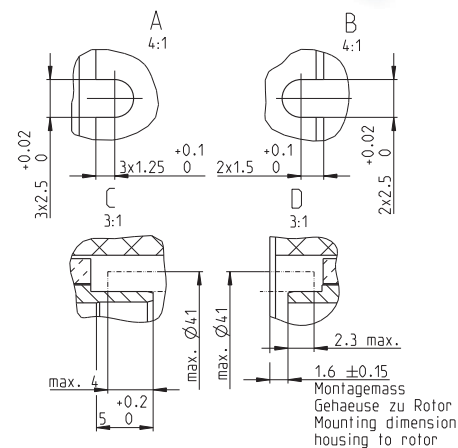
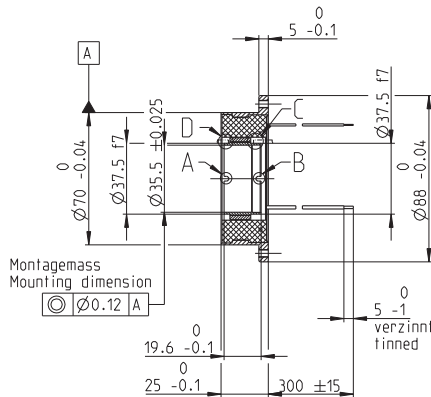
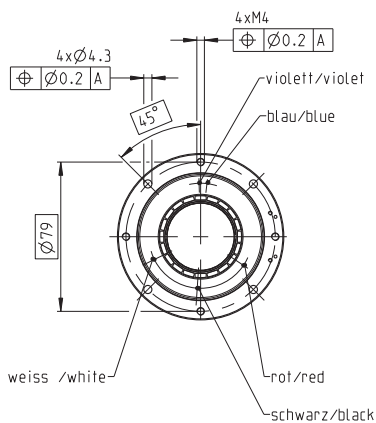


EC frameless DT 65 S Ø70 mm, brushless, 290 watt

Dynamic Torque



EC frameless DT



M 1:4

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

Part numbers

sensorless 783327

Motor data

Values at nominal voltage		
1 Nominal voltage	V	48
2 No load speed	rpm	4570
3 No load current	mA	204
4 Nominal speed	rpm	3840
5 Nominal torque	mNm	688
6 Nominal current (max. continuous current)	A	6.26
Continuous torque with heat sink	mNm	907
7 Stall torque	mNm	4080
8 Stall current	A	145
9 Max. efficiency	%	92.6
Characteristics		
10 Terminal resistance phase to phase	Ω	0.332
11 Terminal inductance phase to phase	mH	0.458
12 Torque constant	mNm/A	99.7
13 Speed constant	rpm/V	95.8
14 Speed/torque gradient	rpm/mNm	0.319
15 Mechanical time constant	ms	0.569
16 Rotor inertia	gcm ²	170

Specifications

Thermal data		
17 Thermal resistance housing-ambient	3.65 K/W	
18 Thermal resistance winding-housing	0.379 K/W	
19 Thermal time constant winding	121 s	
20 Thermal time constant motor	1330 s	
21 Ambient temperature	-40...+100°C	
22 Max. winding temperature	+155°C	

Mechanical data		
23 Max. speed	5000 rpm	

Other specifications		
29 Number of pole pairs	10	
30 Number of phases	3	
31 Weight of motor (with mounting flange made of stainless steel)	377 g	
Weight for integration (without mounting flange)	219 g	

Values listed in the table are nominal.

Connection motor (Cable AWG 18)

red	Motor winding 1
black	Motor winding 2
white	Motor winding 3

Connection NTC (Cable AWG 24)

purple	NTC
blue	NTC
Resistance 25°C: 5 kΩ ±1%, beta (25–85°C): 3490 K	

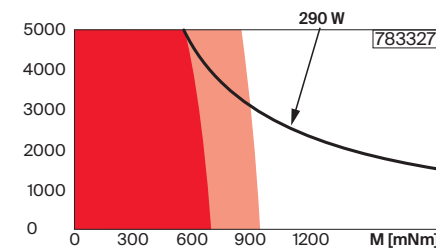
Comment

For Torque control data, refer to "Installation Manual" available on maxon online shop.

Operating range

Comments

n [rpm]



- Continuous operation
- Continuous operation with reduced thermal resistance R_{th2} 50%
- Intermittent operation
- Assigned power rating

Modular system

Details on catalog page 56

Sensor
524_TSX 65 MAG with
commutation signals

Motor Control
552_ESCON Module 50/8
553_ESCON 70/10
557_ESCON2 Micro 60/5
558_ESCON2 Module 60/12
559_ESCON2 Compact 60/12
565_EPOS4 Module 50/8
568_EPOS4 Compact 50/8
569_EPOS4 70/15
570_EPOS4 Disk 60/8 CAN
570_EPOS4 Disk 60/8 EtherCAT

Variants

maxon integration into customer housing on request
Other coil designs on request