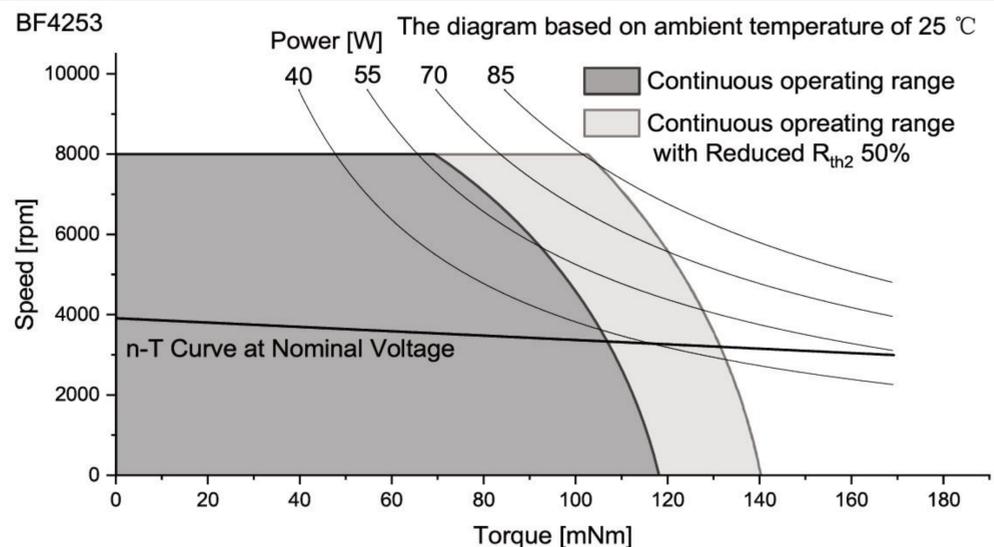


**M 1:2**

Motor data	With hall sensor	BF4253S-...	1204	2404				
<b>Values at nominal voltage</b>								
1	Nominal voltage	V	12	24				
2	No load speed	rpm	4023	4017				
3	No load current	mA	350	200				
4	Nominal speed	rpm	3616	3610				
5	Nominal torque	mNm	70	70				
6	Nominal current	A	2.84	1.45				
7	Stall torque	mNm	692.30	690.53				
8	Stall current	A	25.00	12.50				
9	Max. efficiency	%	77.7	76.3				
10	Supply voltage +Vcc	V	10..28	10..28				
11	Direction of rotation		CW	CW				
12	Torque constant	mNm/A	28.09	56.14				
13	Speed constant	rpm/V	340	170				
14	Speed/torque gradient	rpm/mNm	6	6				
15	Mechanical time constant	ms	8.9	8.9				
16	Rotor inertia	gcm <sup>2</sup>	146.4	146.4				

17	Thermal resistance housing-ambient	5.0 K/W
18	Thermal resistance winding-housing	3.6 K/W
19	Thermal time constant winding	17 s
20	Thermal time constant motor	630 s
21	Ambient temperature	-30...+100°C
22	Max. permissible winding temperature	+150°C
23	Max. permissible speed	8000 rpm
24	Axial play at axial load	<8 N 0 mm >8 N max. 0.3 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	7.5 N
27	Max. force for press fits (static)	100 N
	(static, shaft supported)	2700 N
28	Max. radial loading, 5mm from flange	25 N
29	Number of pole pairs	7
30	Number of phases	3
31	Weight of motor	215 g

**Operating Range**



Controller features	
Sensor, Open loop, I <sub>max</sub> < 4A	
Overload protection, Stall protection	
Max. temperature of electronics	+105°C

**Connection**

Conection			
Pin 1	+VCC	PVC	red
Pin 2	GND	AWG20	black

**Caution:**  
Incorrect lead connection will damage the controller!

**Configuration**

Function: On&Off/Direction/Speed control/Brake  
Speed closed&open-loop Control/Speed feedback  
Performance: Customized in the continuous operating range  
Ball bearing: Preload  
Flange: Standard frange front&back/customize the frange  
Shaft: Length/Diameter/Cut face  
Leadwire: PVC/Silicon/Teflon/UL No/Dimension/length  
Connector: JST/MOLEX/TE

More:  
Please contact our sales engineers