

DC Coreless Motor

General Specification

Maximum Sleeve Bearing Loads

Axial (Dynamic)	≤1.0N
Radial (4mm From Jamming Ring)	≤2.7N
Press-Fit Force (Static)	≤80N
Axial Play (Measured Under Less Than 4N Axial Force)	0.05 - 0.15mm
Maximum Radial Play	0.02mm
Maximum Allowable Screw Depth into flange 2.5mm	

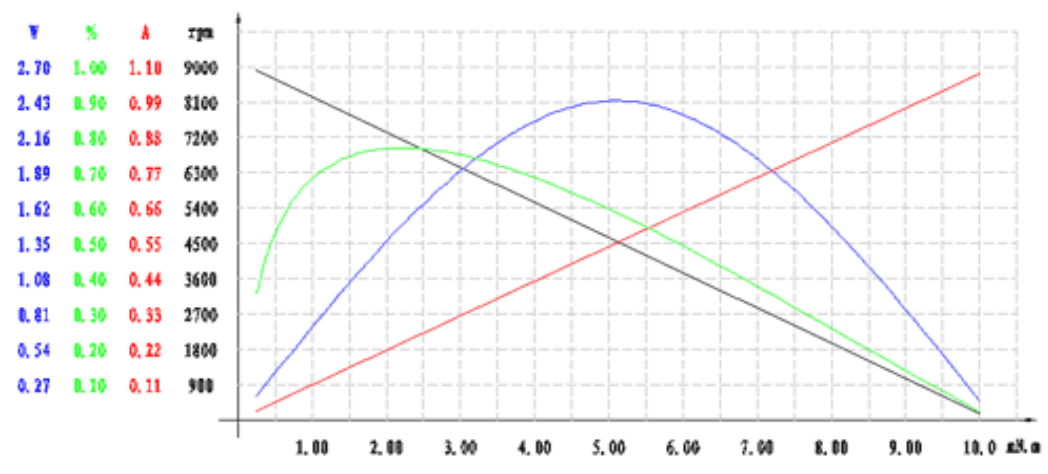
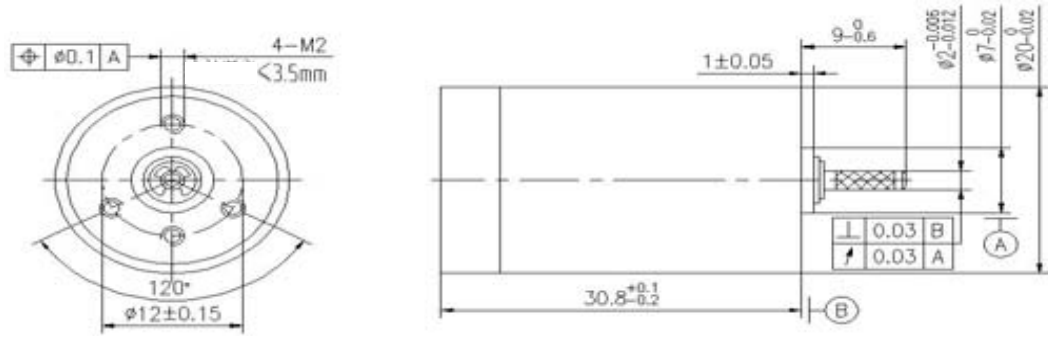
Table 1

		Motor data (at 25°C)					
		CD20-0203	CD20-0206	CD20-0209			
Assigned power rating	W	1.6	1.6	1.6			
Nominal voltage	V	3.0	6.0	9.0			
Terminal resistance ±10%	Ω	0.655	3.91	8.09			
No load speed ±10%	rpm	8500	8200	8170			
No load current	mA	60.2	19	19.5			
Speed constant	rpm/V	2833	1367	908			
Torque constant	mN.m/A	3.33	6.9	10.34			
Starting current	mA	4580	1535	1112			
Stall torque	mN.m	15.24	10.59	11.5			
Max. efficiency	%	78	79	75			
Limits for continuous operating range	Current	mA	628	352	228		
	Torque	mN.m	2.09	2.43	2.36		
	Speed	rpm	7335	6319	6496		
	Output power	W	1.76	0.84	2.54		
Max. permissible winding temperature	°C	+85	+85	+85			
Ambient temperature range	°C	-20 -- +65	-20 -- +65	-20 -- +65			
Weight	g	39	39.5	39			

Table 2

		Motor data (at 25°C)					
		CD20-0309					
Assigned power rating	W	3.2					
Nominal voltage	V	9.0					
Terminal resistance ±10%	Ω	2.2					
No load speed ±10%	rpm	8130					
No load current	mA	23.2					
Speed constant	rpm/V	903					
Torque constant	mN.m/A	10.52					
Starting current	mA	4091					
Stall torque	mN.m	43.02					
Max. efficiency	%	86					
Limits for continuous operating range	Current	mA	396				
	Torque	mN.m	4.16				
	Speed	rpm	7343				
	Output power	W	3.20				
Max. permissible winding temperature	°C	+85					
Ambient temperature range	°C	-20 -- +65					
Weight	g	61.1					

Representative drawings and performance Curve for models in table 1



Note

1. Motor data tested at ambient temperature 25°C. Data varies when the temperature changes.
2. Motor service life different from operating conditions. In common condition, service life is achievable between appros. 1000 to 3000 hours.
3. Electrical connection: 2 wire pigtail approx. 150 mm long.

