

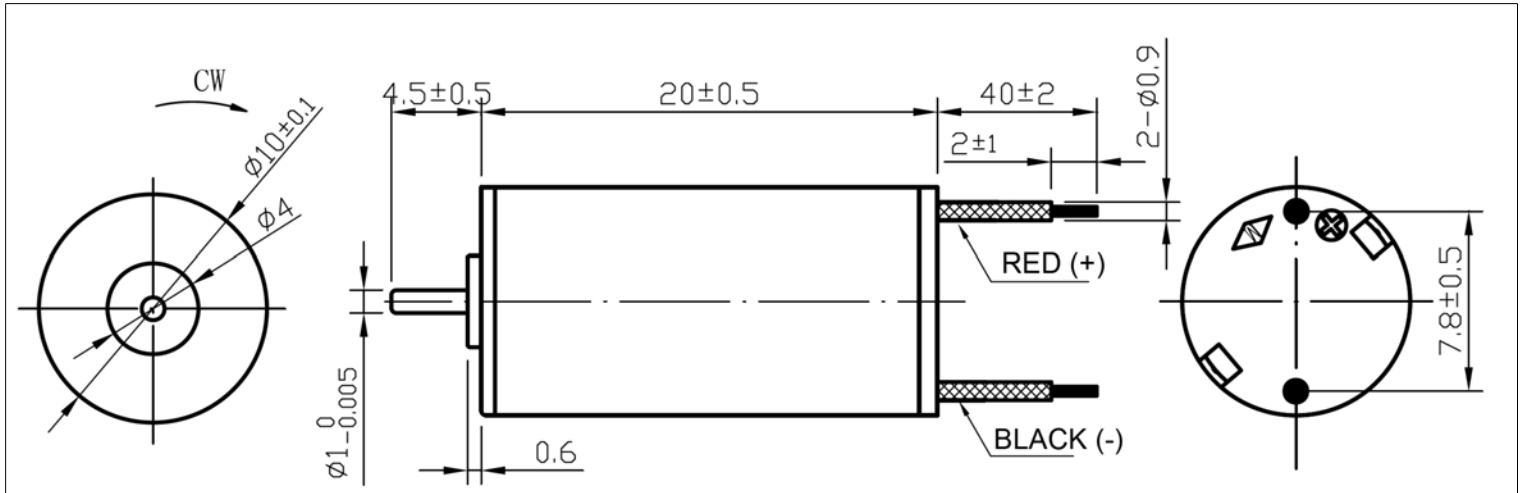
# Coreless DC Motor - 10 mm Ø x 20

C12P03SG000

0.55 Watts Peak Power



Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	3.0 Volts	3.0 Volts	3.0 Volts
No-Load Speed	15,500 rpm	15,500 rpm	15,500 rpm
Stall Torque	1.4 mNm	14.0 gcm	0.20 oz-in
No-Load Current	0.030 Amps	0.030 Amps	0.030 Amps
Peak Output Power	0.55 Watts	0.55 Watts	0.55 Watts
Torque Constant	1.78 mNm/A	18.13 gcm/A	0.25 oz-in/A
Terminal Resistance	3.80 Ohms	3.80 Ohms	3.80 Ohms
Back-EMF Constant	0.19 V/krpm	0.19 V/krpm	0.19 V/krpm
Inductance			
Rotor Inertia	0.090 kg-m <sup>2</sup> x10 <sup>-7</sup>	0.090 gm cm <sup>2</sup>	0.013 x10 <sup>-4</sup> oz in sec <sup>2</sup>
Mechanical Time Constant	10.8 msec	10.8 msec	10.8 msec
Slope of Speed/Torque Curve	11,042.3 rpm/mNm	1,107.1 rpm/gcm	77,975.4 rpm/oz-in
Speed Constant	5,371 rpm/Volt	5,371 rpm/Volt	5,371 rpm/Volt
Motor Constant	0.91 mNm/√Watt	9.30 gcm/√Watt	0.13 oz-in/√Watt

**Zero cogging, Low Inductance, Fast Accelerating/Decelerating Coreless/Ironless DC Motor with Precious Metal Commutation is perfect for Ambulatory Medical Devices, Battery Powered Products, Locking Mechanism, Gas and Air Pumps and Miniature Electromechanical Mechanisms. Superb for any application where long life, low power consumption, low RFI/EMI, low Starting Voltages are needed features. And where a large array of Complimentary Products including Gearboxes and Encoders and Value Added Work is desired.**

Part Number: How to Order C12P03SG000 Characteristics - Specifications at 22 °C

Radial Load Rating	0.3 N	Radial Play	Max Temperature	60 °C
Radial Load Distance	3 mm	Thrust Play	Min Temperature	-20 °C
Axial Load	0.10 N	Magnet Type	Max Winding Temp	100 °C
Press Fit Force - Max		Bearing Type	Mass	7.0 grams

Gearbox Options 10 mm Metal Planetary Gearbox with exact ratios.

Encoder Options Contact GMP for Options

Options - Other Thread motor pilot for screw type mounting. Special Shafts. Windings. Wiring harness. Lubrication.

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Distributed by:

Precision Motion Distributors: (925) 803-9565

Technical Support: (760) 451-2723

http://www.gmpwebsite.com Email: info@gmpwebsite.com

Commutation Type: Manufactured under a Certified ISO 9001 Quality System and ISO 14001 Environmental Management System.  
Precious Metal

**RoHS Compliant**

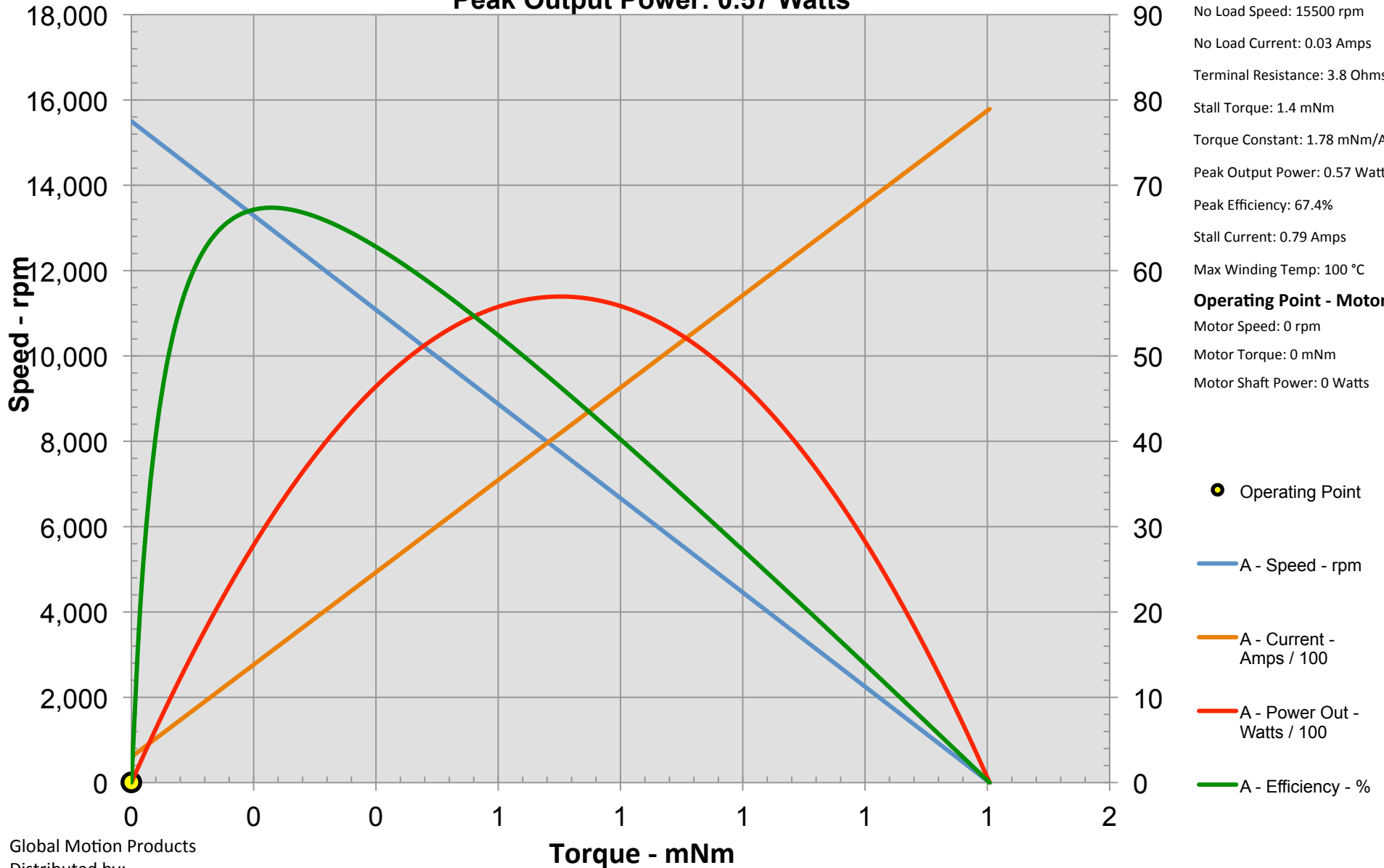
A March 2014

Specifications Subject to change without notice

**Coreless DC Motor - 10 mm Ø x 20**  
**Motor: C12P03SG000 - - - 3 Volts**  
**Peak Output Power: 0.57 Watts**

**Motor: C12P03SG000**

Voltage: 3 Volts  
 No Load Speed: 15500 rpm  
 No Load Current: 0.03 Amps  
 Terminal Resistance: 3.8 Ohms  
 Stall Torque: 1.4 mNm  
 Torque Constant: 1.78 mNm/A  
 Peak Output Power: 0.57 Watts  
 Peak Efficiency: 67.4%  
 Stall Current: 0.79 Amps  
 Max Winding Temp: 100 °C  
**Operating Point - Motor**  
 Motor Speed: 0 rpm  
 Motor Torque: 0 mNm  
 Motor Shaft Power: 0 Watts



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**IT IS NOT TEST DATA. Output Torque is computed by subtracting no load current from load current.**