

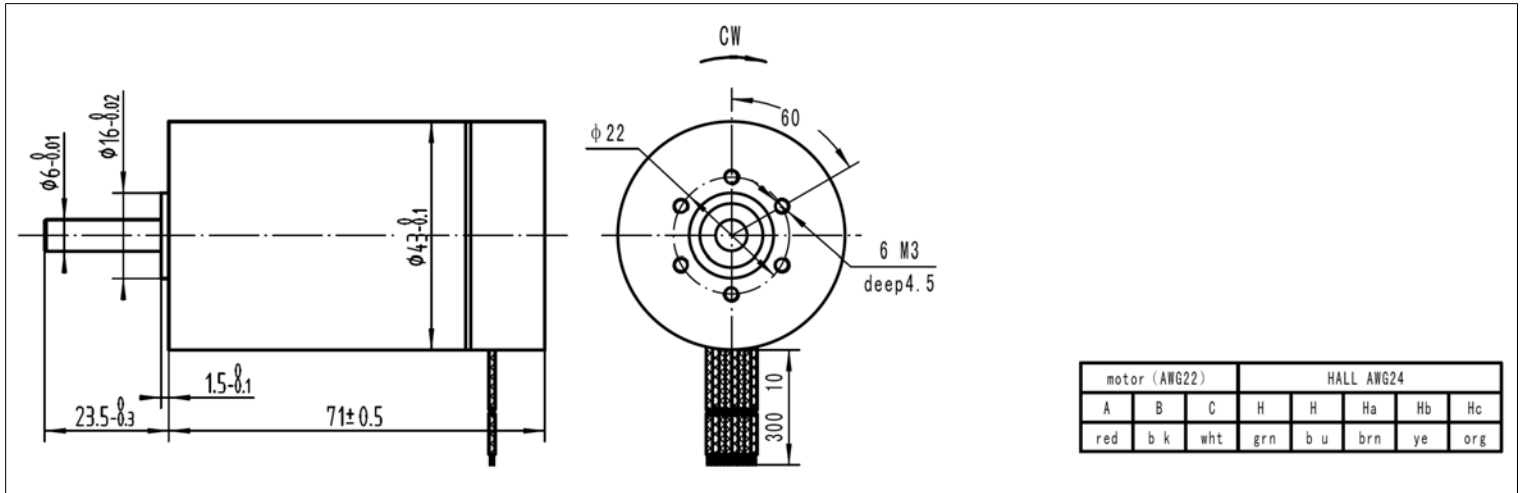
# BLDC Slotless Motor - 43 mm Ø

B43E24PZ000

642.6 Watts Peak Power



Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	24.0 Volts	24.0 Volts	24.0 Volts
No-Load Speed	20,000 rpm	20,000 rpm	20,000 rpm
Stall Torque	1,238.6 mNm	12,631.0 gcm	175.41 oz-in
No-Load Current	1.000 Amps	1.000 Amps	1.000 Amps
Peak Output Power	642.6 Watts	642.6 Watts	642.6 Watts
Torque Constant	11.35 mNm/A	115.78 gcm/A	1.61 oz-in/A
Terminal Resistance	0.22 Ohms	0.22 Ohms	0.22 Ohms
Back-EMF Constant	1.19 V/krpm	1.19 V/krpm	1.19 V/krpm
Inductance	0.010 mH	0.010 mH	0.010 mH
Rotor Inertia	108.000 kg-m <sup>2</sup> x10 <sup>-7</sup>	108.000 gm cm <sup>2</sup>	15.294 x10 <sup>-4</sup> oz in sec <sup>2</sup>
Mechanical Time Constant	18.4 msec	18.4 msec	18.4 msec
Slope of Speed/Torque Curve	16.1 rpm/mNm	1.6 rpm/gcm	114.0 rpm/oz-in
Speed Constant	841 rpm/Volt	841 rpm/Volt	841 rpm/Volt
Motor Constant	24.21 mNm/√Watt	246.84 gcm/√Watt	3.43 oz-in/√Watt

**Zero Cogging 3 Phase Brushless DC Motor featuring High Temperature Neodymium Iron Boron Magnets.**

Part Number:	How to Order	B43E24PZ000	Characteristics - Specifications at	22 °C
Radial Load Rating	Radial Play		Max Temperature	100 °C
Radial Load Distance	Thrust Play		Min Temperature	-30 °C
Axial Load	Magnet Type	NdFeB	Max Winding Temp	125 °C
Press Fit Force - Max	Bearing Type	Preloaded Ball	Mass	440.0 grams
Gearbox Options	Spur and Planetary Gearboxes.			
Encoder Options	Modular 2 channel Optical Encoder with zero index.			
Options - Other	Windings, special shafts, sensorless version, lubrication, connectors.			

Global Motion Products  
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 Precision Motion Distributors: (925) 803-9565  
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Commutation Type: **Manufactured under a Certified ISO 9001:2008 Quality System**  
 Electronic - Hall Effect

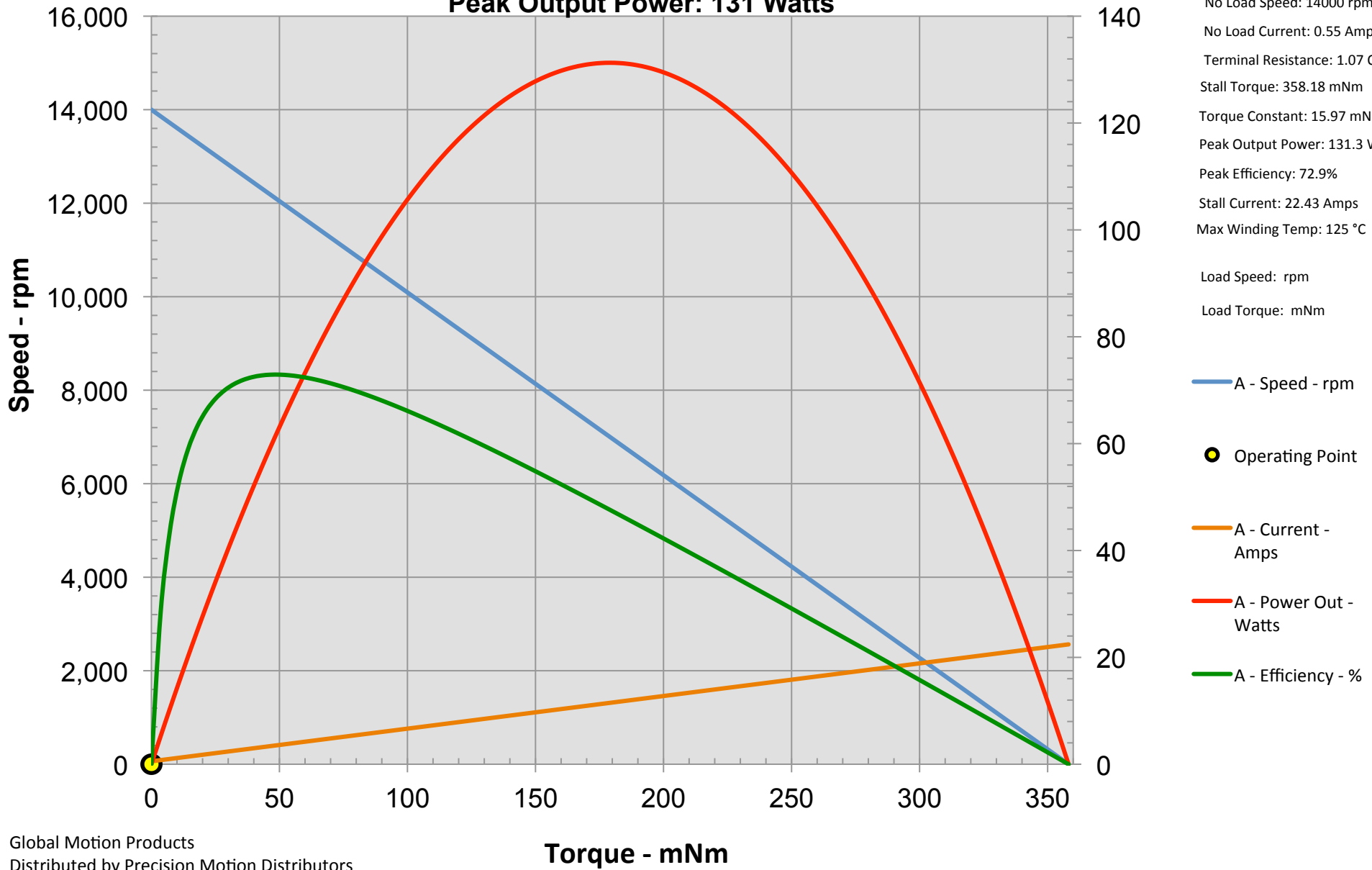
**RoHS Compliant**

Prelimin - September 2012 Specifications Subject to change without notice

**BLDC Slotless Motor - 43 mm Ø x 71**  
**B43E24BZ000 - - - 24 Volts**  
**Peak Output Power: 131 Watts**

**B43E24BZ000**

Voltage: 24 Volts  
 No Load Speed: 14000 rpm  
 No Load Current: 0.55 Amps  
 Terminal Resistance: 1.07 Ohm  
 Stall Torque: 358.18 mNm  
 Torque Constant: 15.97 mNm/A  
 Peak Output Power: 131.3 Watts  
 Peak Efficiency: 72.9%  
 Stall Current: 22.43 Amps  
 Max Winding Temp: 125 °C



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**IT IS NOT TEST DATA.** Stall Torque ignores motor coulomb and viscous torque losses. Voltage divided by Resistance multiplied by Torque Constant equals Stall Torque for motor only simulations. **CAUTION:** Peak Output Power is NOT a RATING. This is merely a calculated value and does not address Thermal Issues.

November 30, 2012

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