

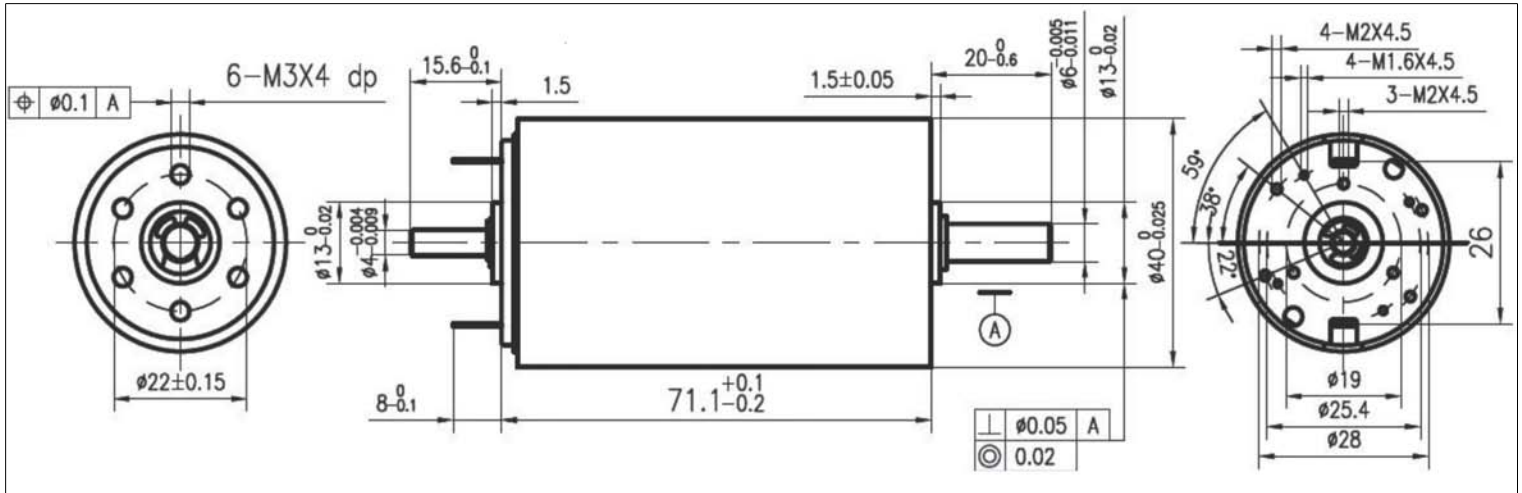
Coreless DC Motor - 40 mm Ø

C40G24BD000

551.33 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	7,800 rpm	7,800 rpm	7,800 rpm
Stall Torque	2,706.1 mNm	27,594.0 gcm	383.21 oz-in
No-Load Current	0.210 Amps	0.210 Amps	0.210 Amps
Peak Output Power	551.33 Watts	551.33 Watts	551.33 Watts
Torque Constant	29.32 mNm/A	298.94 gcm/A	4.15 oz-in/A
Terminal Resistance	0.26 Ohms	0.26 Ohms	0.26 Ohms
Back-EMF Constant	3.07 V/krpm	3.07 V/krpm	3.07 V/krpm
Inductance			
Rotor Inertia	146.9 kg-m ² x10 ⁻⁷	146.9 gm cm ²	20.8 x10 ⁻⁴ oz in sec ²
Mechanical Time Constant	4.4 msec	4.4 msec	4.4 msec
Slope of Speed/Torque Curve	2.9 rpm/mNm	0.3 rpm/gcm	20.4 rpm/oz-in
Speed Constant	326 rpm/Volt	326 rpm/Volt	326 rpm/Volt
Motor Constant	57.49 mNm/ $\sqrt{\text{Watt}}$	586.26 gcm/ $\sqrt{\text{Watt}}$	8.14 oz-in/ $\sqrt{\text{Watt}}$

CAUTION: Stall Torque and Peak Power are theoretical calculations - NOT a Rating or Max Value.

Rated Power @	7,379 rpm	122.30 Watts	122.30 Watts	122.30 Watts
Rated Torque @	7,379 rpm	158.4 mNm	1,615.2 gcm	22.43 oz-in
Rated Current @	7,379 rpm	5.400 Amps	5.400 Amps	5.400 Amps
Part Number: How to Order	C40G24BD000	Characteristics - Specifications at 22 °C		

Radial Load Rating	28.0 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	34 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	2.40 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	110.00 N	Bearing Type	Ball Bearings	Mass	420.0 grams
Gearbox Options	Planetary and low cost Spur Gearboxes are available.				
Encoder Options	Optical and Magnetic quadrature encoders, including 3 Channel Versions.				
Options - Other	Shaft length, wire leads, connectors.				

Coreless DC Motor - 40 mm Ø
Motor: C40G24BD000 - - - 24 Volts
Peak Output Power: 553 Watts

Motor: C40G24BD000

Voltage: 24 Volts

No Load Speed: 7800 rpm

No Load Current: 0.21 Amps

Terminal Resistance: 0.26 Ohms

Stall Torque: 2706.06 mNm

Torque Constant: 29.32 mNm/A

Peak Output Power: 552.6 Watts

Peak Efficiency: 90.9%

Stall Current: 92.31 Amps

Max Winding Temp: 85 °C

Operating Point 1

Load Speed: 3250 rpm

Load Torque: 140 mNm

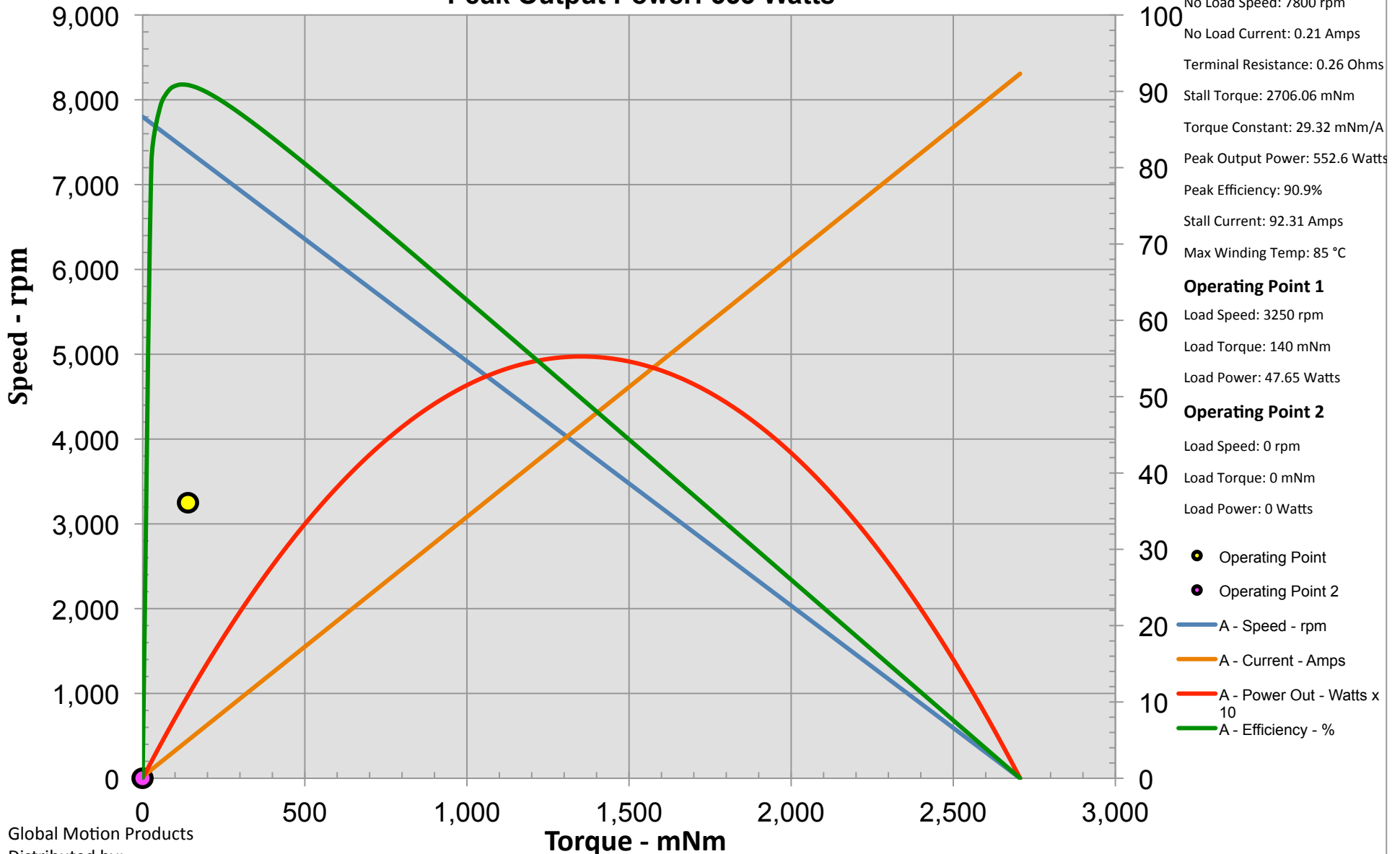
Load Power: 47.65 Watts

Operating Point 2

Load Speed: 0 rpm

Load Torque: 0 mNm

Load Power: 0 Watts



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

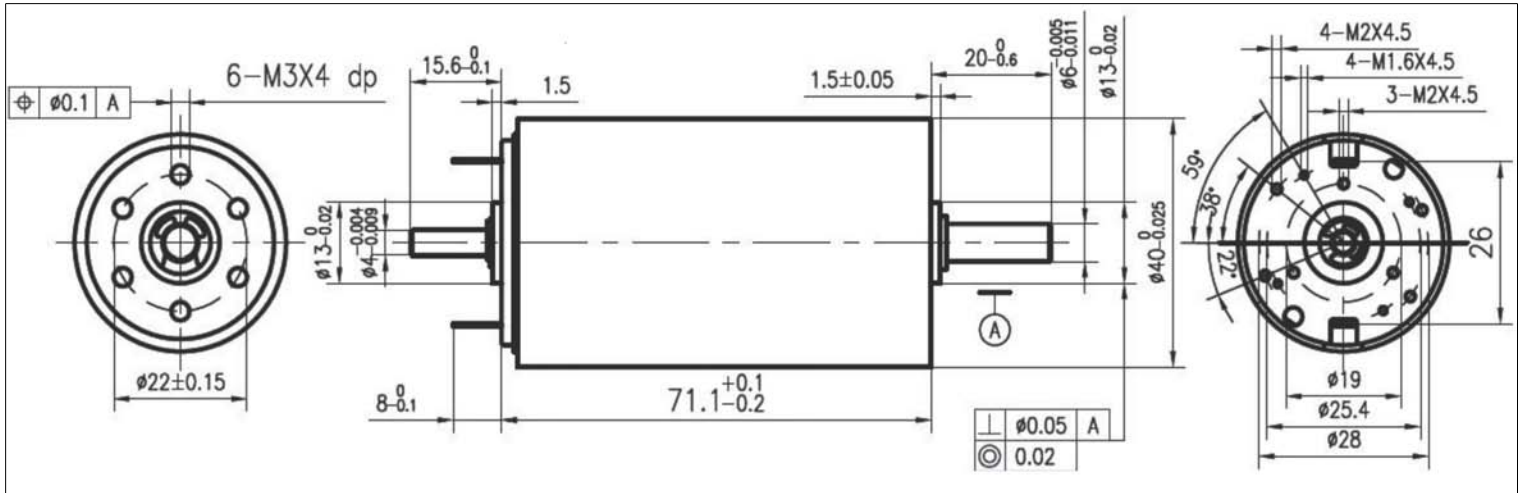
Coreless DC Motor - 40 mm Ø

C40G15BD000

310.25 Peak Power



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Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	15.0 Volts	15.0 Volts	15.0 Volts
No-Load Speed	7,000 rpm	7,000 rpm	7,000 rpm
Stall Torque	1,699.1 mNm	17,326.0 gcm	240.61 oz-in
No-Load Current	0.300 Amps	0.300 Amps	0.300 Amps
Peak Output Power	310.25 Watts	310.25 Watts	310.25 Watts
Torque Constant	20.39 mNm/A	207.91 gcm/A	2.89 oz-in/A
Terminal Resistance	0.18 Ohms	0.18 Ohms	0.18 Ohms
Back-EMF Constant	2.14 V/krpm	2.14 V/krpm	2.14 V/krpm
Inductance			
Rotor Inertia	103.7 kg-m ² x10 ⁻⁷	103.7 gm cm ²	14.7 x10 ⁻⁴ oz in sec ²
Mechanical Time Constant	4.5 msec	4.5 msec	4.5 msec
Slope of Speed/Torque Curve	4.1 rpm/mNm	0.4 rpm/gcm	29.1 rpm/oz-in
Speed Constant	468 rpm/Volt	468 rpm/Volt	468 rpm/Volt
Motor Constant	48.06 mNm/√Watt	490.05 gcm/√Watt	6.81 oz-in/√Watt

CAUTION: Stall Torque and Peak Power are theoretical calculations - NOT a Rating or Max Value.

Rated Power @	6,439 rpm	91.80 Watts	91.80 Watts	91.80 Watts
Rated Torque @	6,439 rpm	136.2 mNm	1,388.9 gcm	19.29 oz-in
Rated Current @	6,439 rpm	6.676 Amps	6.676 Amps	6.676 Amps

Part Number: How to Order C40G15BD000 Characteristics - Specifications at 22 °C

Radial Load Rating	28.0 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	34 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	2.40 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	110.00 N	Bearing Type	Ball Bearings	Mass	420.0 grams
Gearbox Options	Planetary and low cost Spur Gearboxes are available.				
Encoder Options	Optical and Magnetic quadrature encoders, including 3 Channel Versions.				
Options - Other	Shaft length, wire leads, connectors.				

Coreless DC Motor - 40 mm Ø
Motor: C40G15BD000 - - - 15 Volts
Peak Output Power: 311 Watts

Motor: C40G15BD000

Voltage: 15 Volts

No Load Speed: 7000 rpm

No Load Current: 0.3 Amps

Terminal Resistance: 0.18 Ohms

Stall Torque: 1699.09 mNm

Torque Constant: 20.39 mNm/A

Peak Output Power: 311.4 Watts

Peak Efficiency: 88.7%

Stall Current: 83.33 Amps

Max Winding Temp: 85 °C

Operating Point 1

Load Speed: 3250 rpm

Load Torque: 140 mNm

Load Power: 47.65 Watts

Operating Point 2

Load Speed: 0 rpm

Load Torque: 0 mNm

Load Power: 0 Watts

● Operating Point

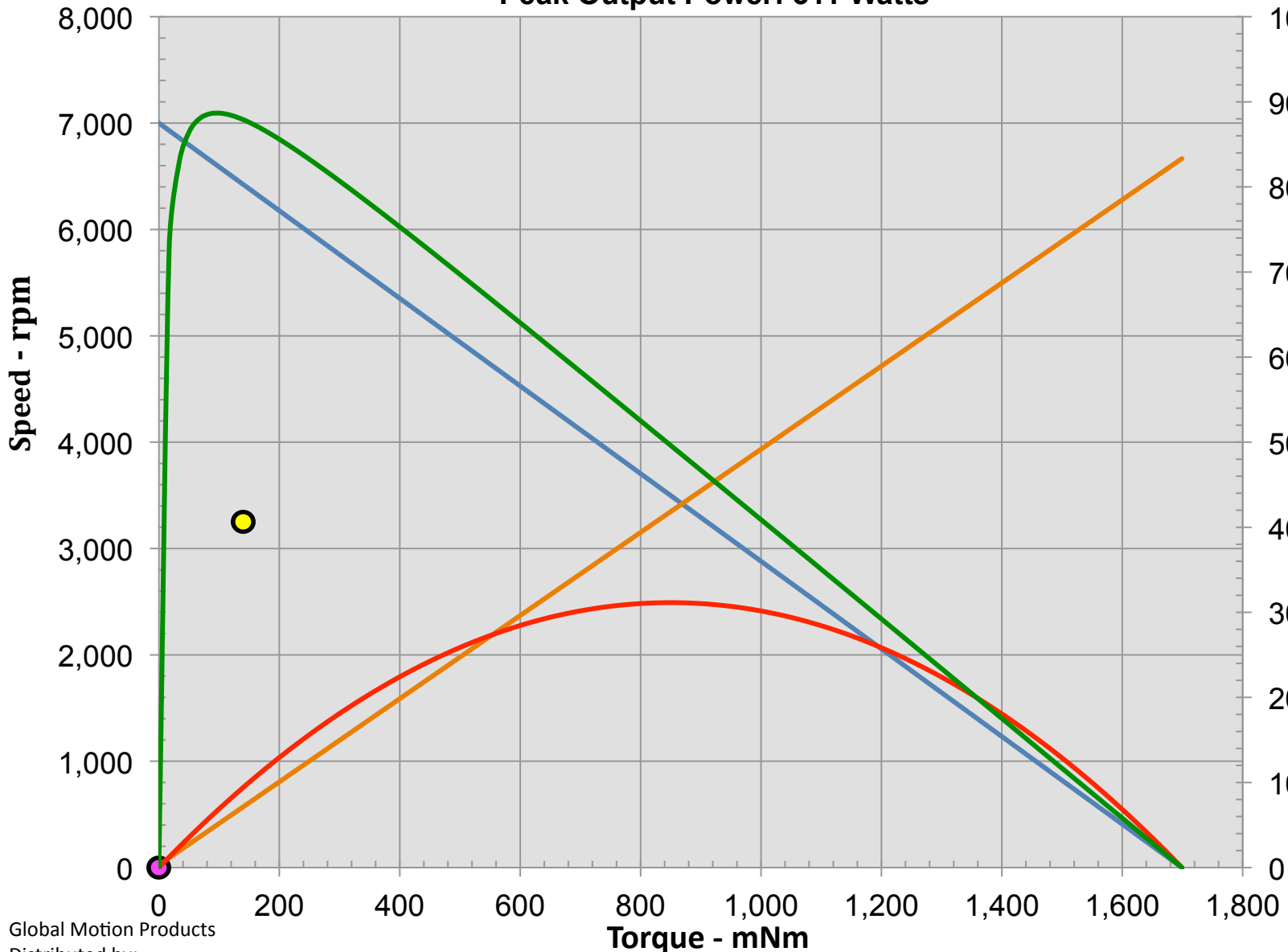
● Operating Point 2

— A - Speed - rpm

— A - Current - Amps

— A - Power Out - Watts x

— A - Efficiency - %



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