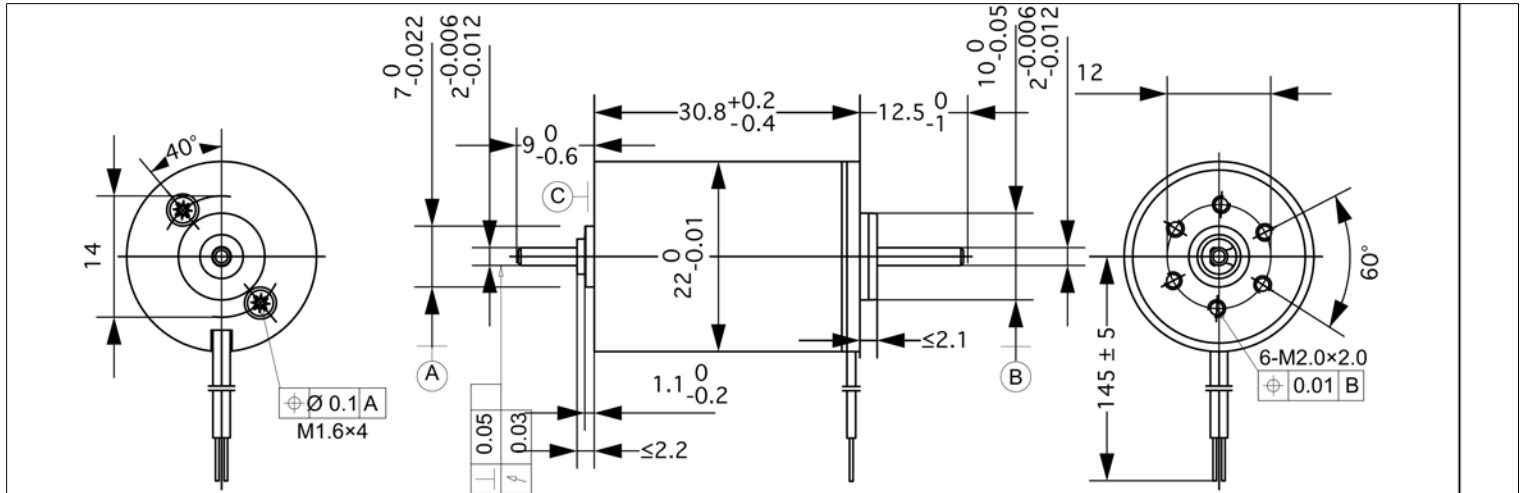


# Coreless DC Motor - 22 mm Ø

C22G12SD000 9.31 Watts Peak Power



Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	12.0 Volts	12.0 Volts	12.0 Volts
No-Load Speed	8,240 rpm	8,240 rpm	8,240 rpm
Stall Torque	43.6 mNm	445.0 gcm	6.18 oz-in
No-Load Current	0.036 Amps	0.036 Amps	0.036 Amps
Peak Output Power	9.31 Watts	9.31 Watts	9.31 Watts

Torque Constant	13.75 mNm/A	140.20 gcm/A	1.95 oz-in/A
Terminal Resistance	3.78 Ohms	3.78 Ohms	3.78 Ohms
Back-EMF Constant	1.44 V/krpm	1.44 V/krpm	1.44 V/krpm
Inductance			
Rotor Inertia	5.200 kg-m <sup>2</sup> x10 <sup>-7</sup>	5.200 gm cm <sup>2</sup>	0.736 x10 <sup>-4</sup> oz in sec <sup>2</sup>

Mechanical Time Constant	10.4 msec	10.4 msec	10.4 msec
Slope of Speed/Torque Curve	188.8 rpm/mNm	18.5 rpm/gcm	1,333.1 rpm/oz-in
Speed Constant	695 rpm/Volt	695 rpm/Volt	695 rpm/Volt
Motor Constant	7.07 mNm/√Watt	72.11 gcm/√Watt	1.00 oz-in/√Watt

**GMP offers Planetary & Spur Gearboxes/Gearmotors from 6 mm diameter to 90 mm. Including low cost iron core**

Rated Power @ 6,202 rpm	7.01 Watts	7.01 Watts	7.01 Watts
Rated Torque @ 6,202 rpm	10.3 mNm	105.0 gcm	1.46 oz-in
Rated Current @ 6,202 rpm	0.785 Amps	0.785 Amps	0.785 Amps

Part Number: How to Order C22G12SD000 Characteristics - Specifications at 22 °C

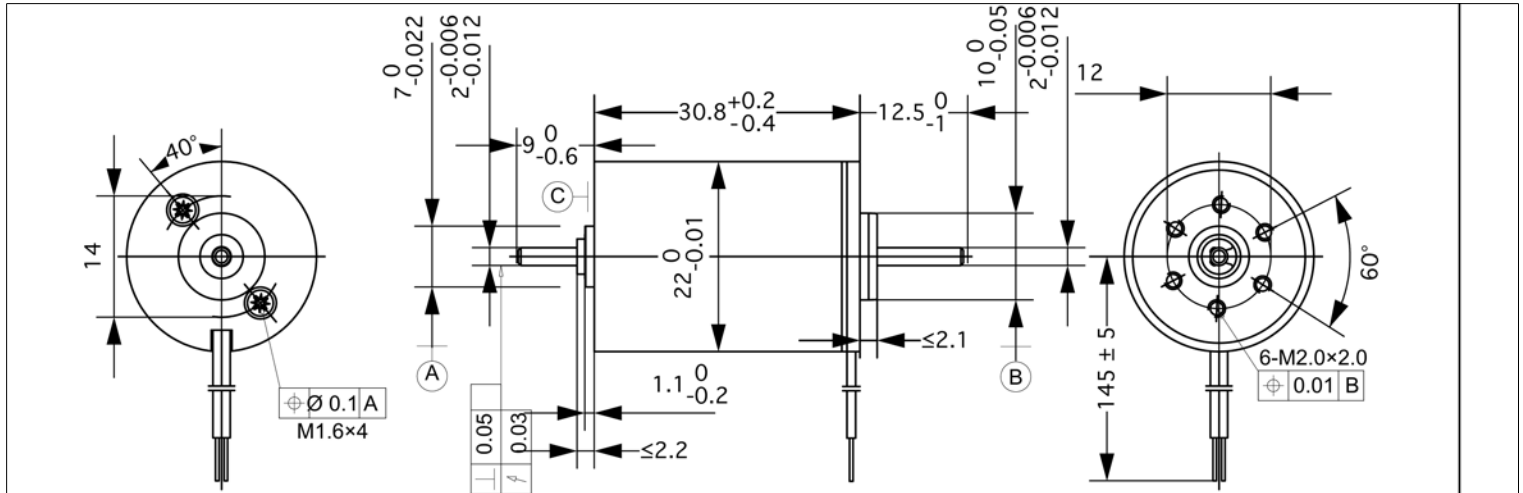
Radial Load Rating	2.7 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	4 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	1.00 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	80.00 N	Bearing Type	Sleeve (Optional)	Mass	55.0 grams
Gearbox Options	P22 Series Planetary Gearboxes. High Torque and Low Cost. 20 mm Spur Gearbox.				
Encoder Options	22 mm Optical - 3 Channel - 2 Channel Low Cost Magnetic Encoder				
Options - Other	Connectors. Precious Metal Brushes. Lubrication. Wire Leads. Single Shaft Version. Windings.				

# Coreless DC Motor - 22 mm Ø

C22G15SD000 10.37 Watts Peak Power



Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	15.0 Volts	15.0 Volts	15.0 Volts
No-Load Speed	8,300 rpm	8,300 rpm	8,300 rpm
Stall Torque	48.2 mNm	492.0 gcm	6.83 oz-in
No-Load Current	0.030 Amps	0.030 Amps	0.030 Amps
Peak Output Power	10.37 Watts	10.37 Watts	10.37 Watts

Torque Constant	17.07 mNm/A	174.11 gcm/A	2.42 oz-in/A
Terminal Resistance	5.31 Ohms	5.31 Ohms	5.31 Ohms
Back-EMF Constant	1.79 V/krpm	1.79 V/krpm	1.79 V/krpm
Inductance			
Rotor Inertia	4.930 kg-m <sup>2</sup> x10 <sup>-7</sup>	4.930 gm cm <sup>2</sup>	0.698 x10 <sup>-4</sup> oz in sec <sup>2</sup>

Mechanical Time Constant	9.0 msec	9.0 msec	9.0 msec
Slope of Speed/Torque Curve	172.1 rpm/mNm	16.9 rpm/gcm	1,215.2 rpm/oz-in
Speed Constant	559 rpm/Volt	559 rpm/Volt	559 rpm/Volt
Motor Constant	7.41 mNm/√Watt	75.56 gcm/√Watt	1.05 oz-in/√Watt

**GMP offers Planetary & Spur Gearboxes/Gearmotors from 6 mm diameter to 90 mm. Including low cost iron core**

Rated Power @ 6,434 rpm	7.31 Watts	7.31 Watts	7.31 Watts
Rated Torque @ 6,434 rpm	10.3 mNm	105.3 gcm	1.46 oz-in
Rated Current @ 6,434 rpm	0.635 Amps	0.635 Amps	0.635 Amps

Part Number: How to Order C22G15SD000 Characteristics - Specifications at 22 °C

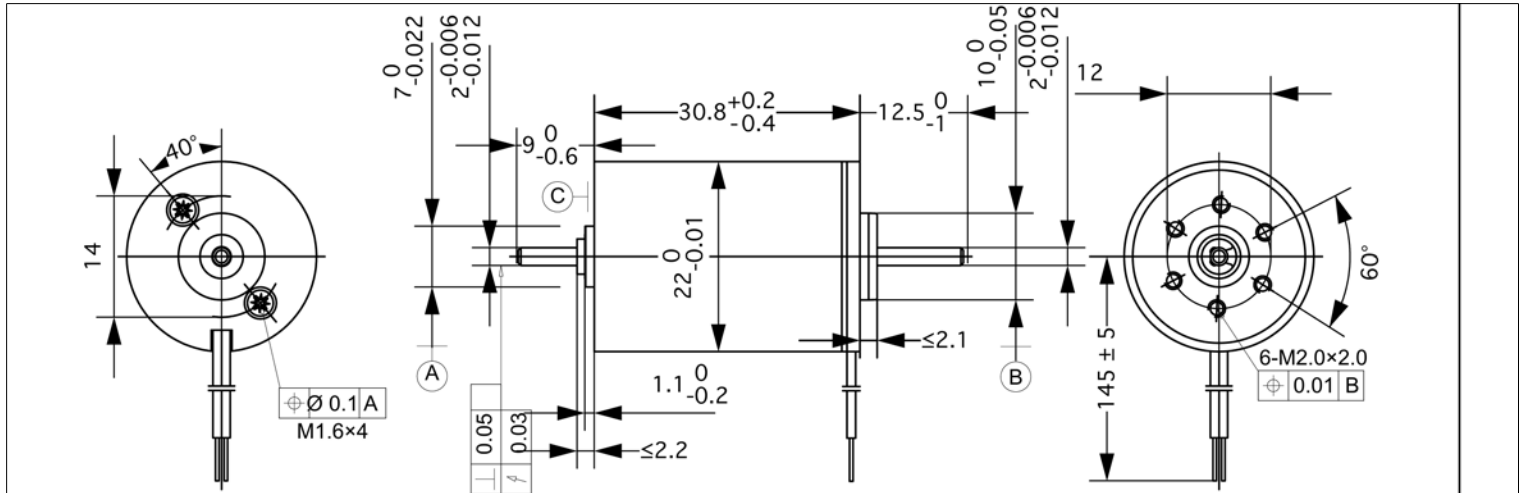
Radial Load Rating	2.7 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	4 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	1.00 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	80.00 N	Bearing Type	Sleeve (Optional)	Mass	55.0 grams
Gearbox Options	P22 Series Planetary Gearboxes. High Torque and Low Cost. 20 mm Spur Gearbox.				
Encoder Options	22 mm Optical - 3 Channel - 2 Channel Low Cost Magnetic Encoder				
Options - Other	Connectors. Precious Metal Brushes. Lubrication. Wire Leads. Single Shaft Version. Windings.				

# Coreless DC Motor - 22 mm Ø

C22G24SD000 8.22 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	8,450 rpm	8,450 rpm	8,450 rpm
Stall Torque	37.9 mNm	387.0 gcm	5.37 oz-in
No-Load Current	0.030 Amps	0.030 Amps	0.030 Amps
Peak Output Power	8.22 Watts	8.22 Watts	8.22 Watts

Torque Constant	26.55 mNm/A	270.76 gcm/A	3.76 oz-in/A
Terminal Resistance	16.80 Ohms	16.80 Ohms	16.80 Ohms
Back-EMF Constant	2.78 V/krpm	2.78 V/krpm	2.78 V/krpm
Inductance			
Rotor Inertia	4.240 kg-m <sup>2</sup> x10 <sup>-7</sup>	4.240 gm cm <sup>2</sup>	0.600 x10 <sup>-4</sup> oz in sec <sup>2</sup>

Mechanical Time Constant	10.1 msec	10.1 msec	10.1 msec
Slope of Speed/Torque Curve	222.8 rpm/mNm	21.8 rpm/gcm	1,573.1 rpm/oz-in
Speed Constant	360 rpm/Volt	360 rpm/Volt	360 rpm/Volt
Motor Constant	6.48 mNm/√Watt	66.06 gcm/√Watt	0.92 oz-in/√Watt

**GMP offers Planetary & Spur Gearboxes/Gearmotors from 6 mm diameter to 90 mm. Including low cost iron core**

Rated Power @ 6,782 rpm	5.37 Watts	5.37 Watts	5.37 Watts
Rated Torque @ 6,782 rpm	-0.0 mNm	-0.5 gcm	-0.01 oz-in
Rated Current @ 6,782 rpm	0.028 Amps	0.028 Amps	0.028 Amps

Part Number: How to Order C22G24SD000 Characteristics - Specifications at 22 °C

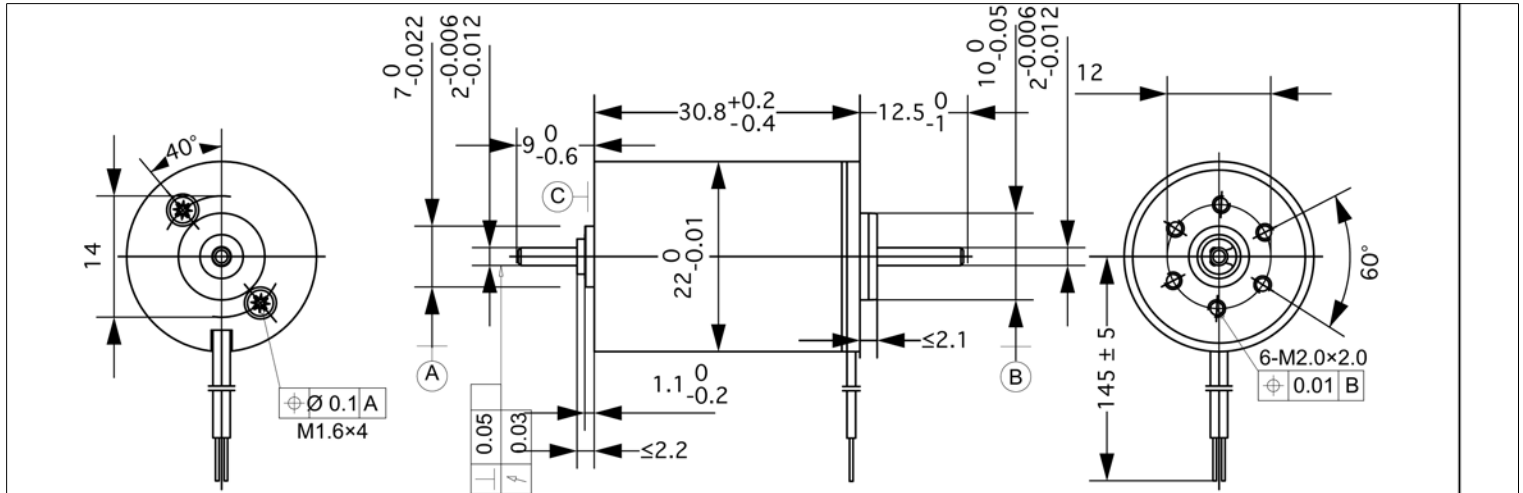
Radial Load Rating	2.7 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	4 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	1.00 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	80.00 N	Bearing Type	Sleeve (Optional)	Mass	55.0 grams
Gearbox Options	P22 Series Planetary Gearboxes. High Torque and Low Cost. 20 mm Spur Gearbox.				
Encoder Options	22 mm Optical - 3 Channel - 2 Channel Low Cost Magnetic Encoder				
Options - Other	Connectors. Precious Metal Brushes. Lubrication. Wire Leads. Single Shaft Version. Windings.				

# Coreless DC Motor - 22 mm Ø

C22G36SD000 4.25 Watts Peak Power



Global Motion Products



Not to Scale - Dimensions in millimeters (mm)

Nominal Voltage	36.0 Volts	36.0 Volts	36.0 Volts
No-Load Speed	8,450 rpm	8,450 rpm	8,450 rpm
Stall Torque	19.4 mNm	198.0 gcm	2.75 oz-in
No-Load Current	0.005 Amps	0.005 Amps	0.005 Amps
Peak Output Power	4.25 Watts	4.25 Watts	4.25 Watts
Torque Constant	40.26 mNm/A	410.56 gcm/A	5.70 oz-in/A
Terminal Resistance	74.60 Ohms	74.60 Ohms	74.60 Ohms
Back-EMF Constant	4.22 V/krpm	4.22 V/krpm	4.22 V/krpm
Inductance			
Rotor Inertia	4.280 kg-m <sup>2</sup> x10 <sup>-7</sup>	4.280 gm cm <sup>2</sup>	0.606 x10 <sup>-4</sup> oz in sec <sup>2</sup>
Mechanical Time Constant	19.7 msec	19.7 msec	19.7 msec
Slope of Speed/Torque Curve	434.9 rpm/mNm	42.7 rpm/gcm	3,071.1 rpm/oz-in
Speed Constant	237 rpm/Volt	237 rpm/Volt	237 rpm/Volt
Motor Constant	4.66 mNm/√Watt	47.53 gcm/√Watt	0.66 oz-in/√Watt

**GMP offers Planetary & Spur Gearboxes/Gearmotors from 6 mm diameter to 90 mm. Including low cost iron core**

Rated Power @	6,434 rpm	7.31 Watts	7.31 Watts	7.31 Watts
Rated Torque @	6,434 rpm	3.7 mNm	37.4 gcm	0.52 oz-in
Rated Current @	6,434 rpm	0.096 Amps	0.096 Amps	0.096 Amps
Part Number: How to Order	C22G36SD000	Characteristics - Specifications at 22 °C		

Radial Load Rating	2.7 N	Radial Play	≤ 0.020 mm	Max Temperature	65 °C
Radial Load Distance	4 mm	Thrust Play	≤ 0.150 mm	Min Temperature	-20 °C
Axial Load	1.00 N	Magnet Type	NdFeB	Max Winding Temp	85 °C
Press Fit Force - Max	80.00 N	Bearing Type	Sleeve (Optional)	Mass	55.0 grams
Gearbox Options	P22 Series Planetary Gearboxes. High Torque and Low Cost. 20 mm Spur Gearbox.				
Encoder Options	22 mm Optical - 3 Channel - 2 Channel Low Cost Magnetic Encoder				
Options - Other	Connectors. Precious Metal Brushes. Lubrication. Wire Leads. Single Shaft Version. Windings.				