

9236S009

Lo-Cog® DC Servo Motor



Assembly Data	Symbol	Units	Value
Reference Voltage	E	V	24
No-Load Speed	S _{NL}	rpm (rad/s)	4,913 (514)
Continuous Torque (Max.) ¹	T _C	oz-in (N-m)	9.5 (6.7E-02)
Peak Torque (Stall) ²	T _{PK}	oz-in (N-m)	62 (4.4E-01)
Weight	W _M	oz (g)	17 (476)
Motor Data			
Torque Constant	K _T	oz-in/A (N-m/A)	6.49 (4.58E-02)
Back-EMF Constant	K _E	V/krpm (V/rad/s)	4.80 (4.58E-02)
Resistance	R _T	Ω	2.49
Inductance	L	mH	2.63
No-Load Current	I _{NL}	A	0.16
Peak Current (Stall) ²	I _P	A	9.64
Motor Constant	K _M	oz-in/√W (N-m/√W)	4.11 (2.90E-02)
Friction Torque	T _F	oz-in (N-m)	0.80 (5.6E-03)
Rotor Inertia	J _M	oz-in-s ² (kg-m ²)	1.0E-03 (7.1E-06)
Electrical Time Constant	τ _E	ms	1.06
Mechanical Time Constant	τ _M	ms	8.5
Viscous Damping	D	oz-in/krpm (N-m-s)	0.053 (3.5E-06)
Damping Constant	K _D	oz-in/krpm (N-m-s)	13 (8.5E-04)
Maximum Winding Temperature	θ _{MAX}	°F (°C)	311 (155)
Thermal Impedance	R _{TH}	°F/watt (°C/watt)	56.3 (13.5)
Thermal Time Constant	τ _{TH}	min	13.5
Gearbox Data			
Encoder Data			
Channels			3
Resolution		CPR	500

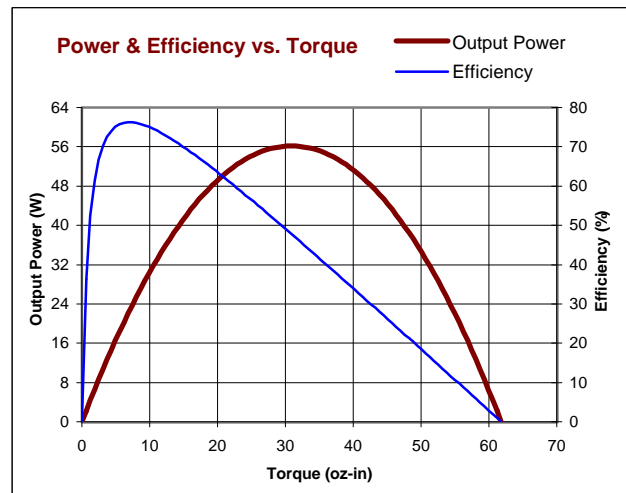
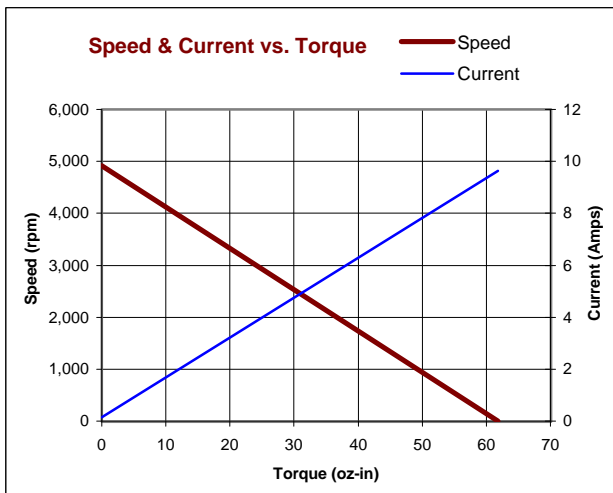
1 - Specified at max. winding temperature at 25°C ambient without heat sink. 2 - Theoretical values supplied for reference only.

Included Features

- 2-Pole Stator
- Ceramic Magnets
- Heavy-Gauge Steel Housing
- 7-Slot Armature
- Silicon Steel Laminations
- Stainless Steel Shaft
- Copper-Graphite Brushes
- Diamond Turned Commutator
- Motor Ball Bearings

Customization Options

- Alternate Winding
- Sleeve or Ball Bearings
- Modified Output Shaft
- Custom Cable Assembly
- Special Brushes
- EMI/RFI Suppression
- Spur or Planetary Gearbox
- Special Lubricant
- Optional Encoder
- Fail-Safe Brake



All values are nominal. Specifications subject to change without notice. Graphs are shown for reference only.

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