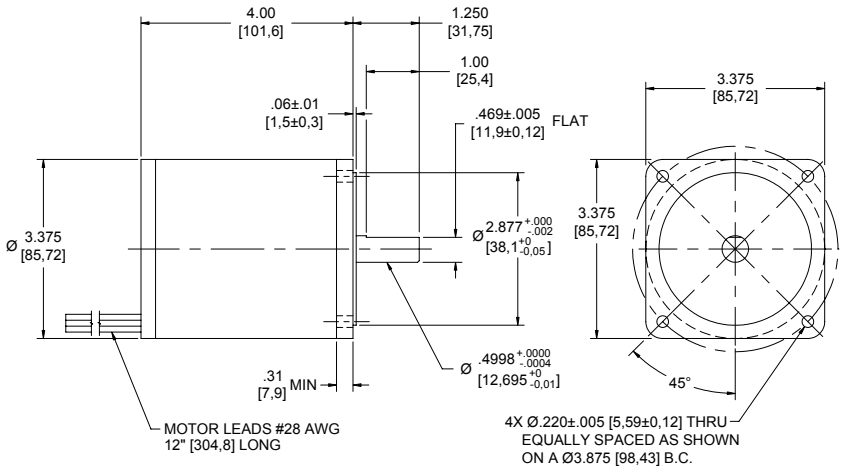
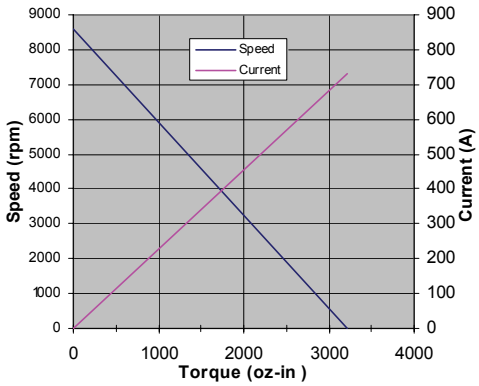
ϕ3.4” (ϕ86mm) SERIES SLOTLESS BLDC MOTOR



Motor Data	Symbol	Units	Part Number Designation BI-34-150-3.20
Supply Voltage (Reference)	V_s	V	28
Continuous Torque[3]	T_c	oz-in	95
		Nm	0.67
Speed @ Cont. Torque	S_c	rpm	8340
Current @ Cont. Torque	I_c	A	23.5
Continuous Output Power[3]	$P_{o,c}$	W	600
Motor Constant	K_M	oz-in/√W	22.89
		Nm/√W	0.162
Torque Constant	K_T	oz-in/A	4.40
		Nm/A	0.031
Voltage Constant	K_E	V/krpm	3.26
		V s/rad	0.031
Terminal Resistance	R_{mt}	Ω	0.04
Inductance	L	mH	0.02
No-Load Current	I_{nl}	A	1.0
No-Load Speed	S_{nl}	rpm	8600
Peak Current (Stall)[2]	I_{pk}	A	730
Peak Torque (Stall)[2]	T_{pk}	oz-in	3215
		Nm	22.7
Electrical Time Constant	τ_e	ms	0.405
Mechanical Time Constant	τ_m	ms	7.0
Thermal Resistance[3]	R_{th}	°C/W	25
Max. Winding Temperature	θ_{max}	°C	105
Rotor Inertia	J_r	oz-in-sec^2	$3.3x10^{-3}$
		kg m^2	$2.4x10^{-5}$
Motor Weight (Mass)	w_M	oz	64
		g	1814

Performance (BI-34-150-3.20)



Standard Features

- Shielded Ball Bearings
- 6-Pole Rotor
- Neodymium Magnets
- 3-Phase Stator
- Hall Sensors
- Stainless Construction

Complementary Products

- Planetary Gearbox
- 48134 Controller
- Optical Encoder
- 48140 Controller

Connection Chart	
Color/Pin	**Function**
Black	Motor ϕC
Violet	Vcc
Blue	Sensor 3
Green	Sensor 2
Yellow	Sensor 1
Orange	Ground
Red	Motor ϕA
White	Motor ϕB
120° Electrical Spacing	

Notes:

[1] All values specified at 25°C ambient temperature and without heat sink.

[2] Peak values are theoretical and supplied for reference only.

[3] Recorded at max. winding temperature at 25°C ambient, mounted to a 12”x12”x0.5” heatsink.

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