



## MOTOR SPECIFICATIONS

Part Number	<b>BL34E21-01D-07RO</b>
Length Dimension	50 mm [1.97 in]
Rated Voltage	24 VDC
Rated Output Power	100 W
Pole Number	8
Phase Number	3
Rated Speed	4000 RPM
Max Speed	4500 RPM
Rated Torque	0.24 N-m [33.99 oz-in]
Rated Current	4.9 Amps
Back EMF Constant	3.6 Vrms/krpm 5.09 Vpeak/krpm
Moment of Inertia	0.000038 kg-m <sup>2</sup> [2.08 oz-in <sup>2</sup> ]
Resistance	0.18 Ohms
Inductance	0.34 mH
Weight	0.98kg [2.16 lb]

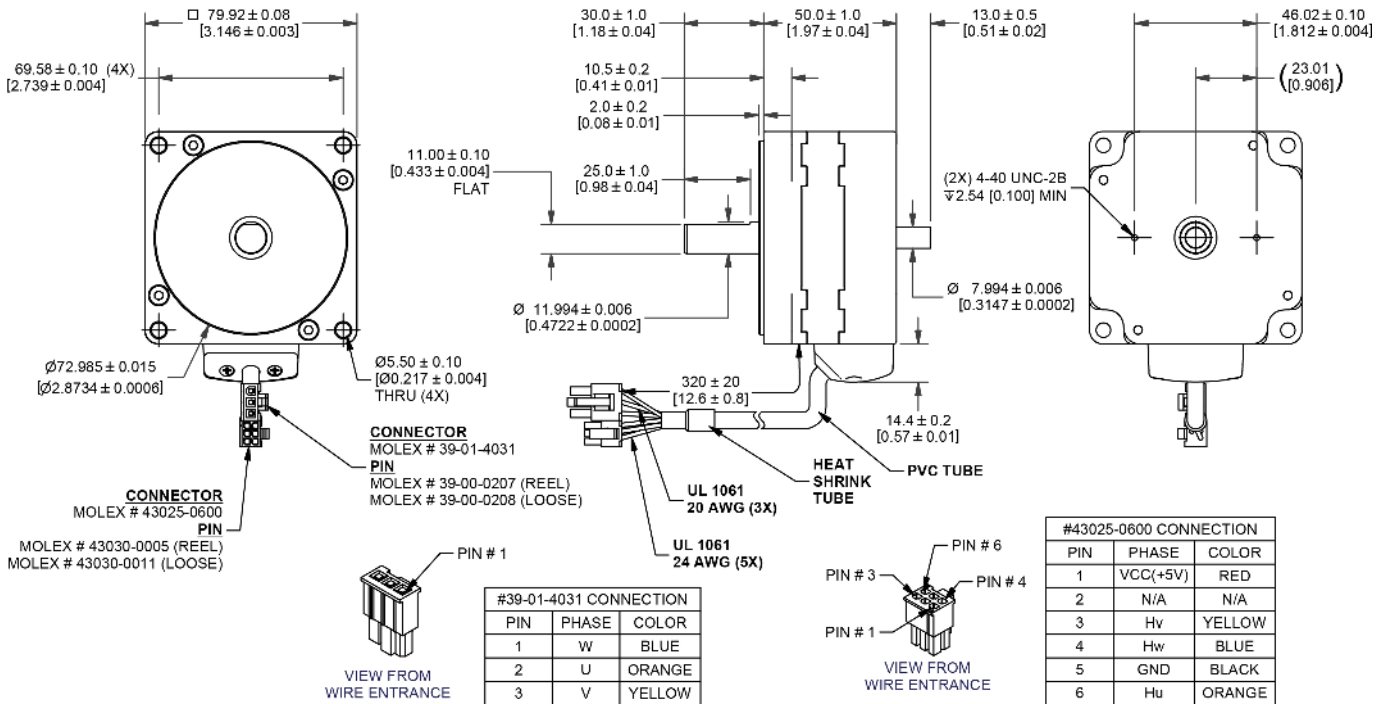
## ENCODER SPECIFICATIONS

Part Number	<b>E5 Encoder</b>
Type	Optical Incremental Encoder
Resolution	1000 CPR
Index	Yes
Output Type:	Differential

## MOTOR OPERATING SPECIFICATIONS

Hall Effect Angle	120° electrical Angle
Radial Play	0.002 in [0.05 mm] @ 0.99 lbs [0.45 kg]
End Play	0.003 in [0.08 mm] @ 99.21 lbs [45.00 kg]
Max. Radial Force	0.787 in [20.00 mm] @ 16.80 lbs [7.62 kg]
Max. Axial Force	3.37 lbs [1.53 kg]
Insulation Class	Class B
Dielectric Strength	500 VDC for 1 minute
Insulation Resistance	100 Ω min. 500 VDC
Ambient Operating Temp.	-20°C to 50°C
Storage Temperature	-20°C to 100°C
Humidity Range (%)	85% (RH) non-condensing

# DIMENSIONS



# RECOMMENDED PRODUCTS



**BLDC DRIVER**  
**BLDC50-BL34E21-01**



**BLDC EXTENSION CABLE**  
**4201-100/300**

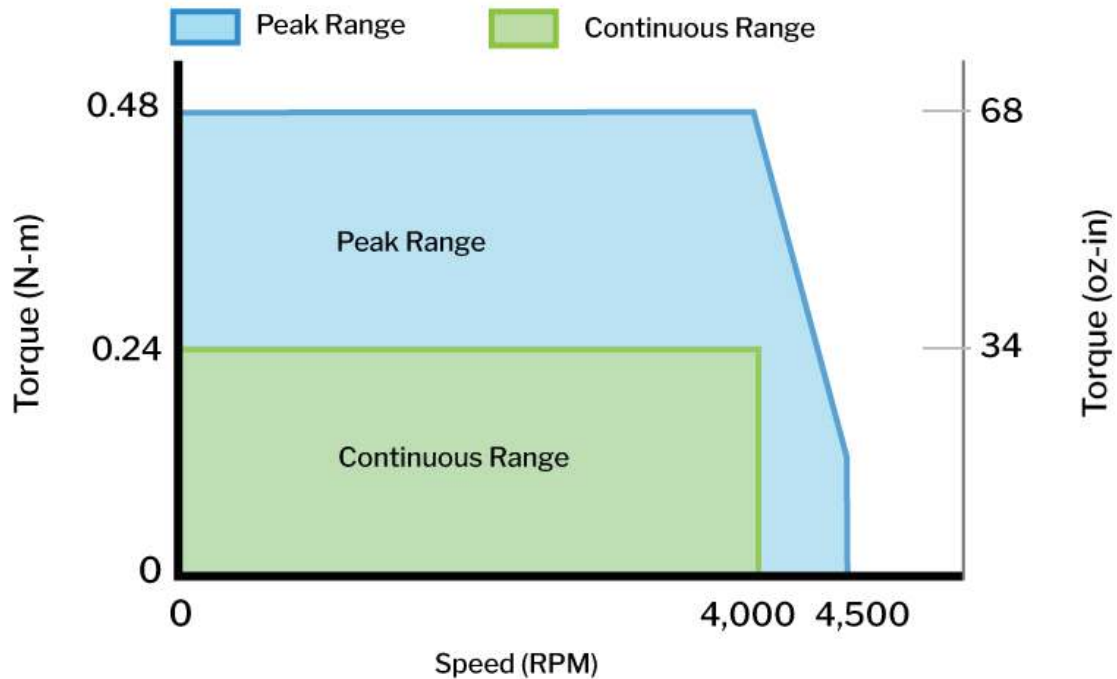


**E5 ENCODER CABLE**  
**CA-FC10-SH-NC-10-PKG**

## PERFORMANCE CURVE

### BL34E21-01

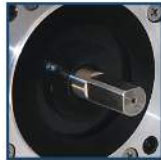
Rated Voltage: 24 Volts, Rated Current: 5 Amps



## OPERATION & USAGE TIPS



**Do not** disassemble motors; a significant reduction in motor performance will occur.



**Do not** machine shafts; this will have a negative effect on shaft run out and perpendicularity.



**Do not** disconnect motor from drive while in operation.



**Do not** use holding torque/detent torque of motor as a fail safe brake.



**Do not** hold motor by lead wires.



**Do not** exceed the rated current; this will burn the motor.

FAILURE TO COMPLY WITH THESE RECOMMENDATIONS WILL VOID ALL WARRANTY TERMS

# Motion Control, **Solved.**

## MOTOR ENGINEERING & MANUFACTURING



Optimized  
For Your  
Application



Quick  
Prototype  
Turnaround



Small Batch  
to OEM Volume  
Production



US Based  
Support &  
Manufacturing