



MOTOR SPECIFICATIONS

Part Number	BL23E48-02D-03R0
Length Dimension	120.5 mm [4.74 in]
Rated Voltage	48 VDC
Rated Output Power	180 W
Pole Number	8
Phase Number	3
Rated Speed	4000 RPM
Max Speed	5000 RPM
Rated Torque	0.43 N-m [60.89oz-in]
Rated Current	4.5 Amps
Back EMF Constant	6.8 Vrms/krpm [9.62Vpeak/krpm]
Moment of Inertia	0.0000456kg-m ² [2.49oz-in ²]
Resistance	0.440hms
Inductance	0.54 mH
Weight	1.7kg [3.75lb]

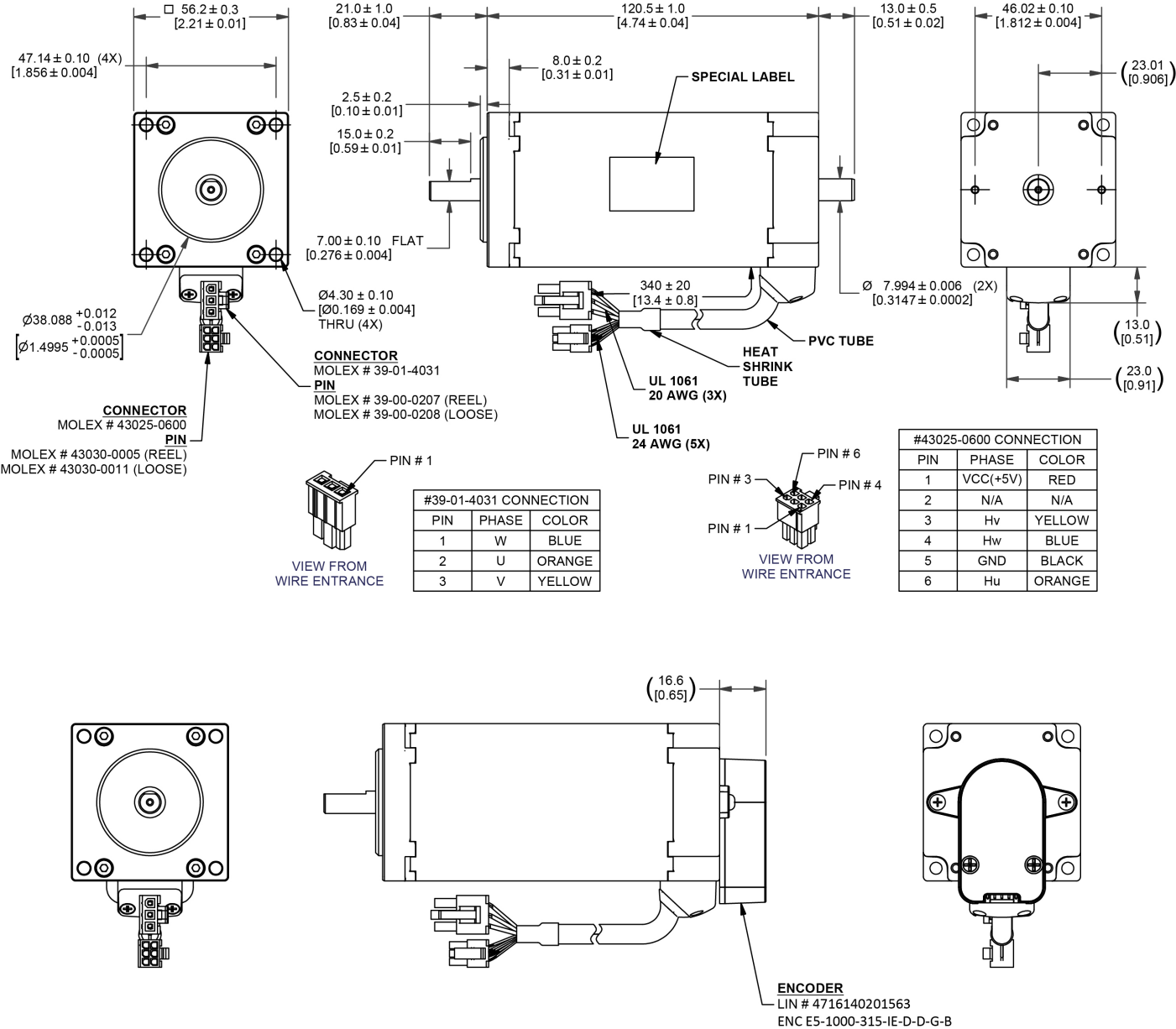
ENCODER SPECIFICATIONS

Part Number	E5 Encoder
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-BL23E48-02

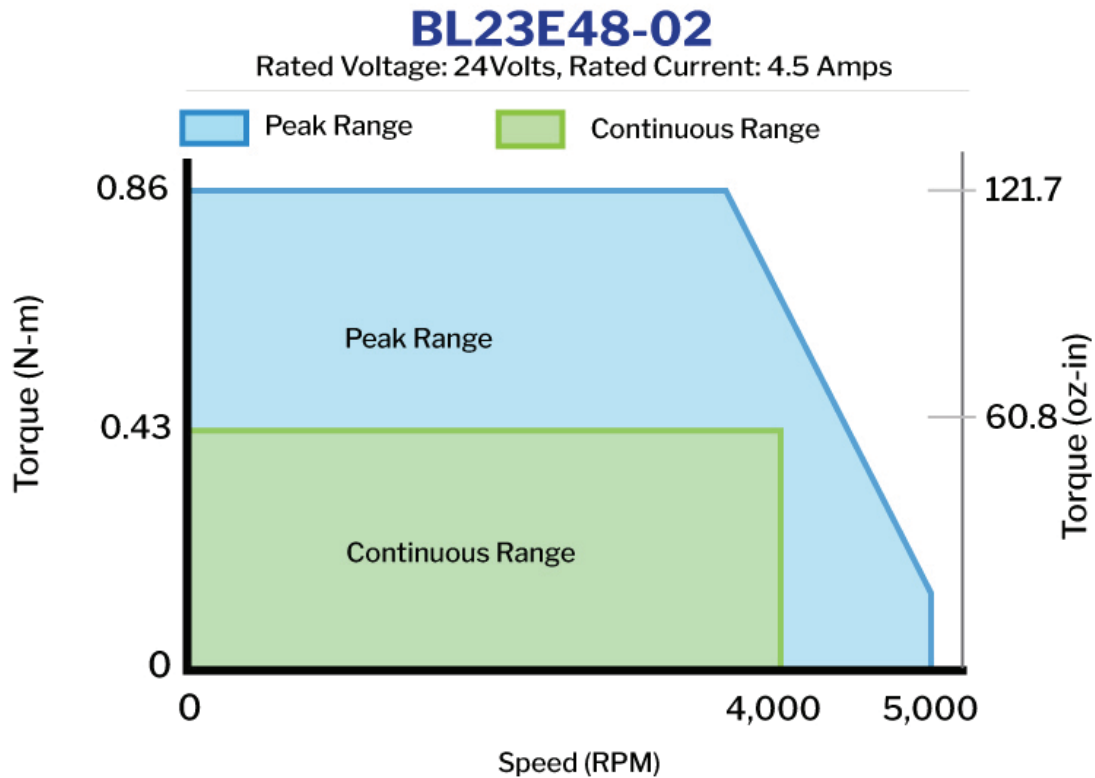


BLDC EXTENSION CABLE
4201-100/300

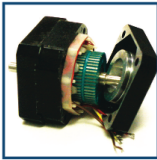


E5 ENCODER CABLE
CA-FC10-SH-NC-10-PKG

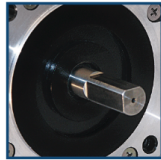
PERFORMANCE CURVE



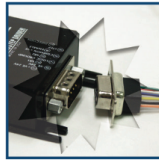
OPERATION & USAGE TIPS



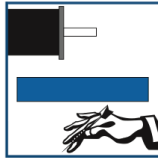
Do not disassemble motors; a significant reduction in motor performance will occur.



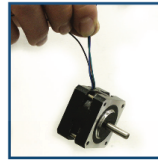
Do not machine shafts; this will have a negative effect on shaft run out and perpendicularity.



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