

MOTOR SPECIFICATIONS

Part Number	BL23E33-02D-02RO
Dimension "A" Max	3.29 in [83.5mm]
Rated Voltage	48 VDC
Rated Torque	41.07 oz-in [0.29N-m]
Rated Speed	4000 RPM
Rated Power	120 Watts
Rated Current	3 Amps
Peak Torque	82.13 oz-in [0.58N-m]
Peak Current	6 Amps
Torque Constant (kt)	13.74 oz-in/Amp
Back EMF Constant (Ke)	9.02 Vp/KRPM
Motor Constant (Km)	15.76 oz-in/√W [0.111 N-m/√W]
Resistance	0.76 Ohms
Inductance	0.84 mH
Rotor Inertia	1.53 oz-in ²
Weight	2.38 lb [1.08 kg]
Electrical Time Constant	1.1 ms
Mechanical Time Constant	2.5 ms

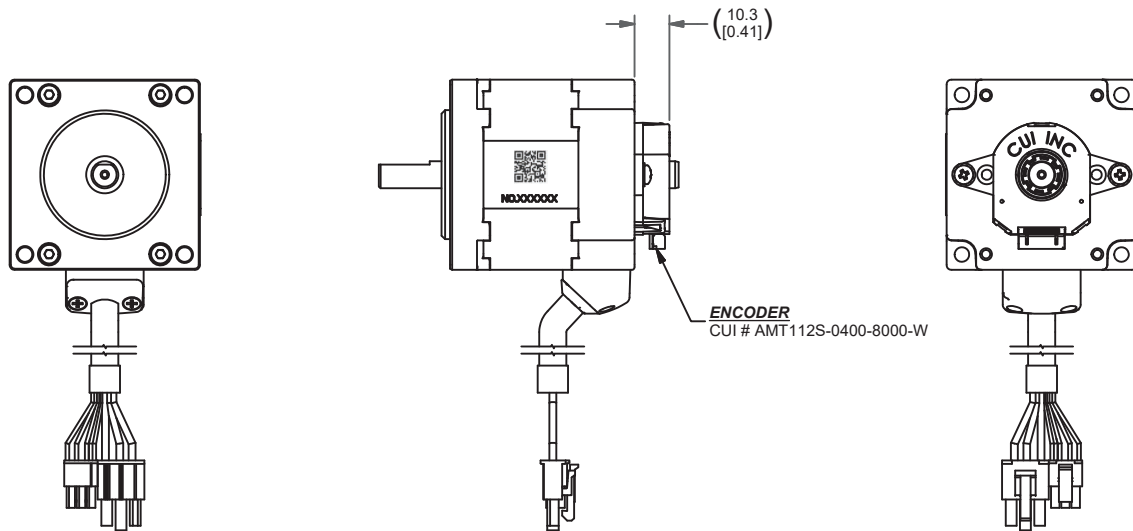
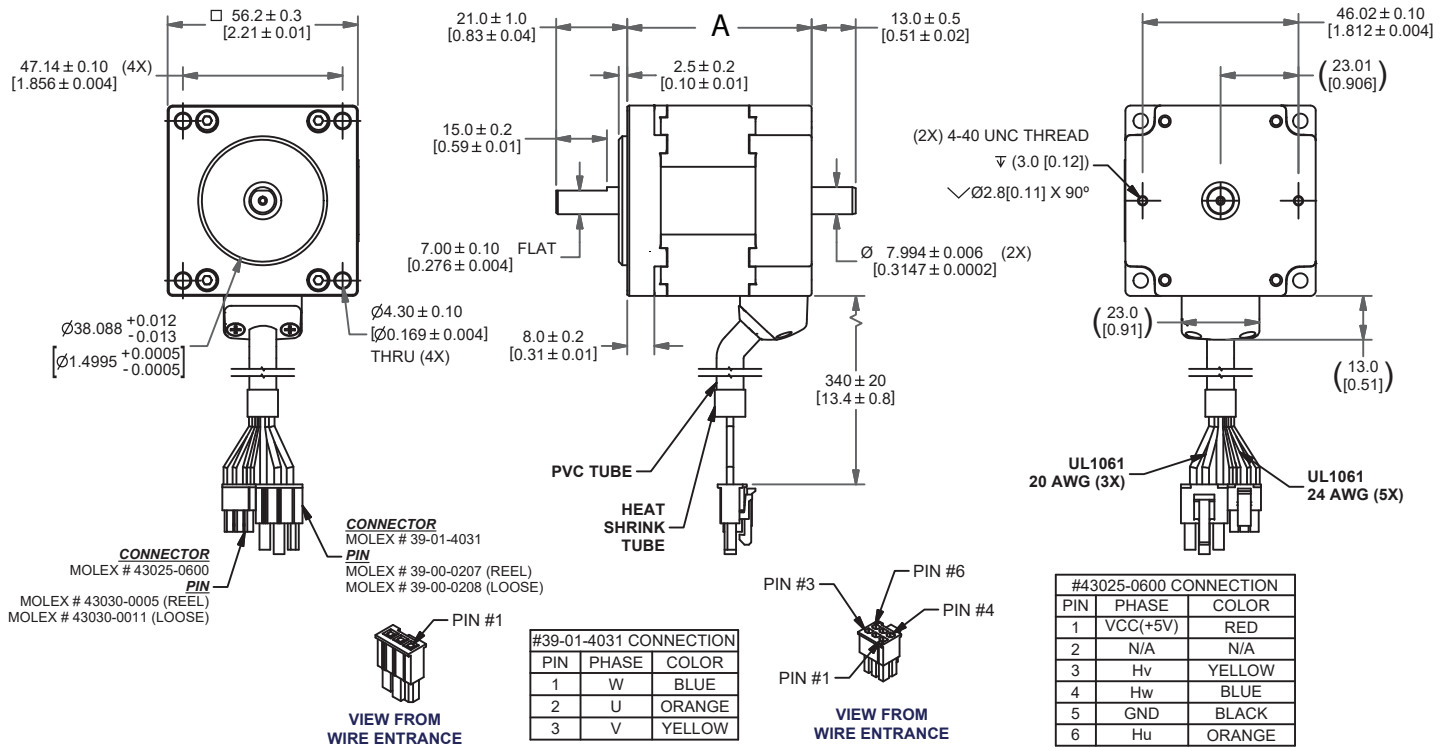
ENCODER SPECIFICATIONS

Part Number	AMT112S
Type	CAPACITIVE ENCODER
Resolution	400 CPR

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
Direction of Rotation	CCW

DIMENSIONS



RECOMMENDED PRODUCTS



BLDC DRIVER
BLDC50-BL23E33-02



BLDC EXTENSION CABLE
4201-100/300

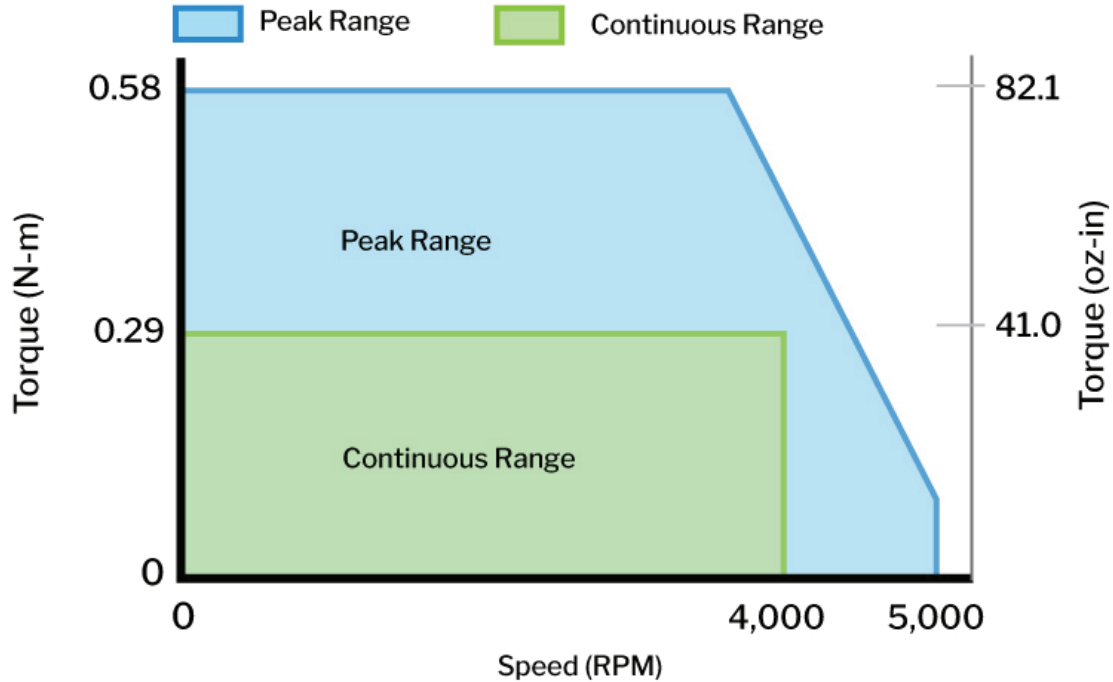


ENCODER CABLE
AMT-17C-1-012/036/108

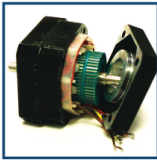
PERFORMANCE CURVE

BL23E33-02

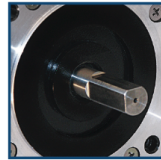
Rated Voltage: 48 Volts, Rated Current: 3 Amps



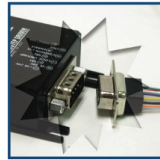
OPERATION & USAGE TIPS



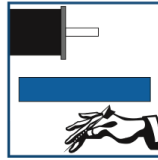
Do not disassemble motors; a significant reduction in motor performance will occur.



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