

MOTOR SPECIFICATIONS

Part Number	BL23E48-02D-02R0
Dimension "A" Max	4.78 in [121.5mm]
Rated Voltage	48 VDC
Rated Torque	60.89 oz-in [0.43N-m]
Rated Speed	4000 RPM
Rated Power	180 Watts
Rated Current	4.5 Amps
Peak Torque	121.78 oz-in [0.85N-m]
Peak Current	9 Amps
Torque Constant (kt)	13.59 oz-in/Amp
Back EMF Constant (Ke)	9.09 Vp/KRPM
Motor Constant (Km)	20.49 oz-in/√W [0.145 N-m/√W]
Resistance	0.44 Ohms
Inductance	0.54 mH
Rotor Inertia	2.49 oz-in ²
Weight	3.75 lb [1.7 kg]
Electrical Time Constant	1.2 ms
Mechanical Time Constant	2.4 ms

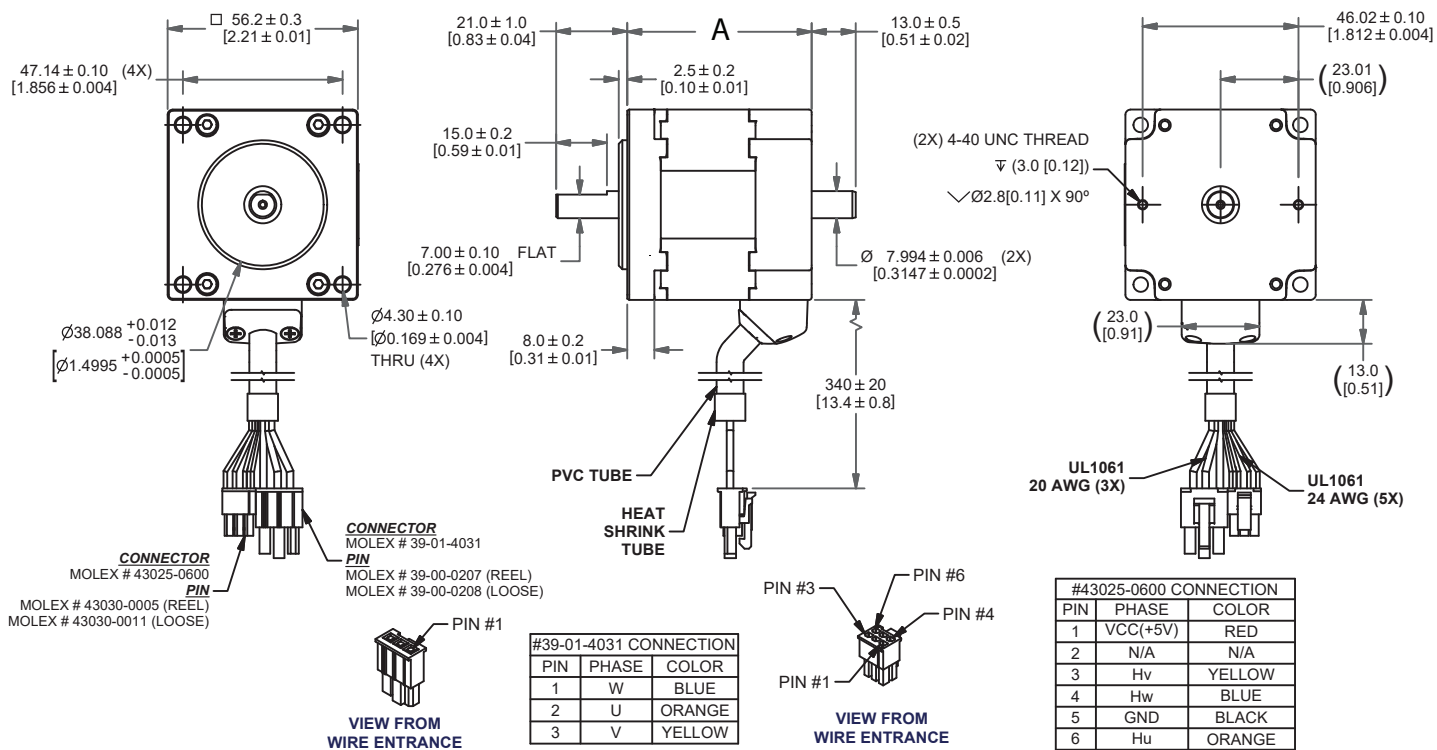
ENCODER SPECIFICATIONS

Part Number	AMT112S
Type	CAPACITIVE ENCODER
Resolution	400 CPR

MOTOR OPERATING SPECIFICATIONS

Hall Effect Angle	120°Ω 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-BL23E48-02**



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

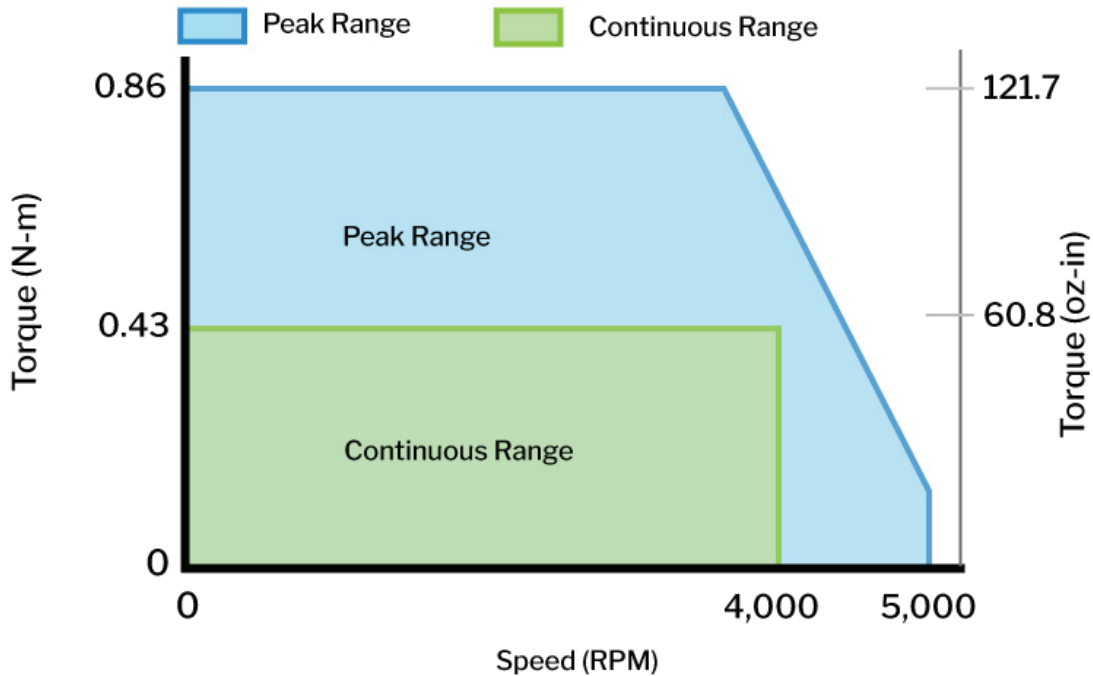


**ENCODER CABLE
AMT-17C-1-012/036/108**

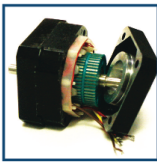
PERFORMANCE CURVE

BL23E48-02

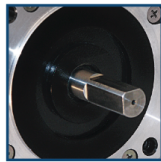
Rated Voltage: 24Volts, Rated Current: 4.5 Amps



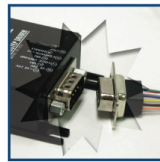
OPERATION & USAGE TIPS



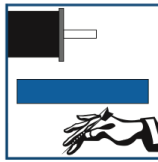
Do not disassemble motors; a significant reduction in motor performance will occur.



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