

## MOTOR SPECIFICATIONS

Part Number	<b>BL23E22-01D-R0</b>
Dimension "A" Max	2.19 in [55.5mm]
Rated Voltage	24 VDC
Rated Torque	20.53 oz-in [0.145N-m]
Rated Speed	4000 RPM
Rated Power	60 Watts
Rated Current	3.2 Amps
Peak Torque	41.07 oz-in [0.29N-m]
Peak Current	6.4 Amps
Torque Constant (kt)	6.37 oz-in/Amp
Back EMF Constant (Ke)	4.34 Vp/KRPM
Motor Constant (Km)	9.2 oz-in/√W [0.065 N-m/√W]
Resistance	0.48 Ohms
Inductance	0.45 mH
Rotor Inertia	0.81 oz-in <sup>2</sup>
Weight	1.41 lb [0.64 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	3.8 ms

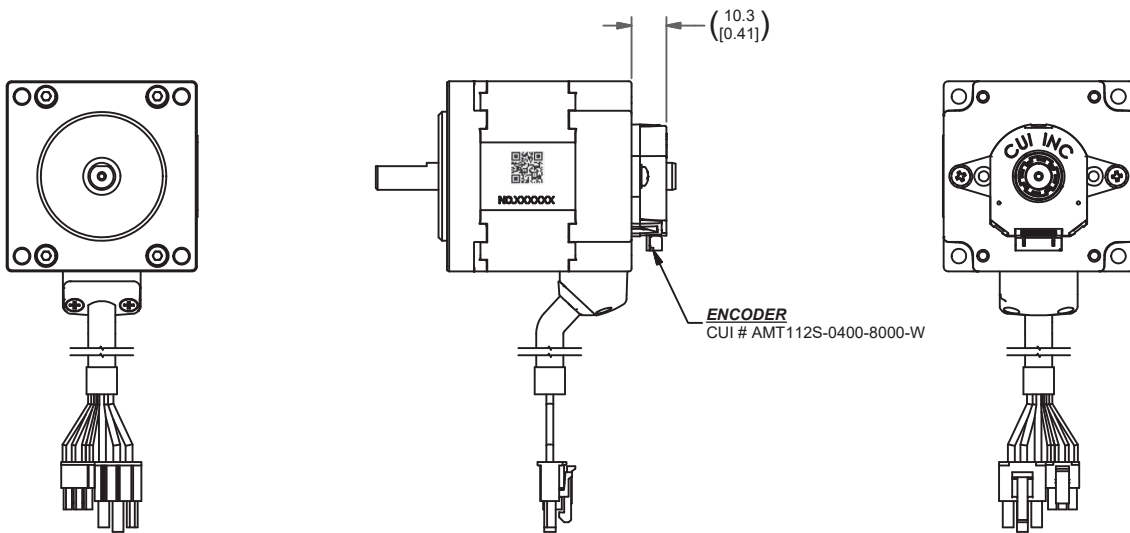
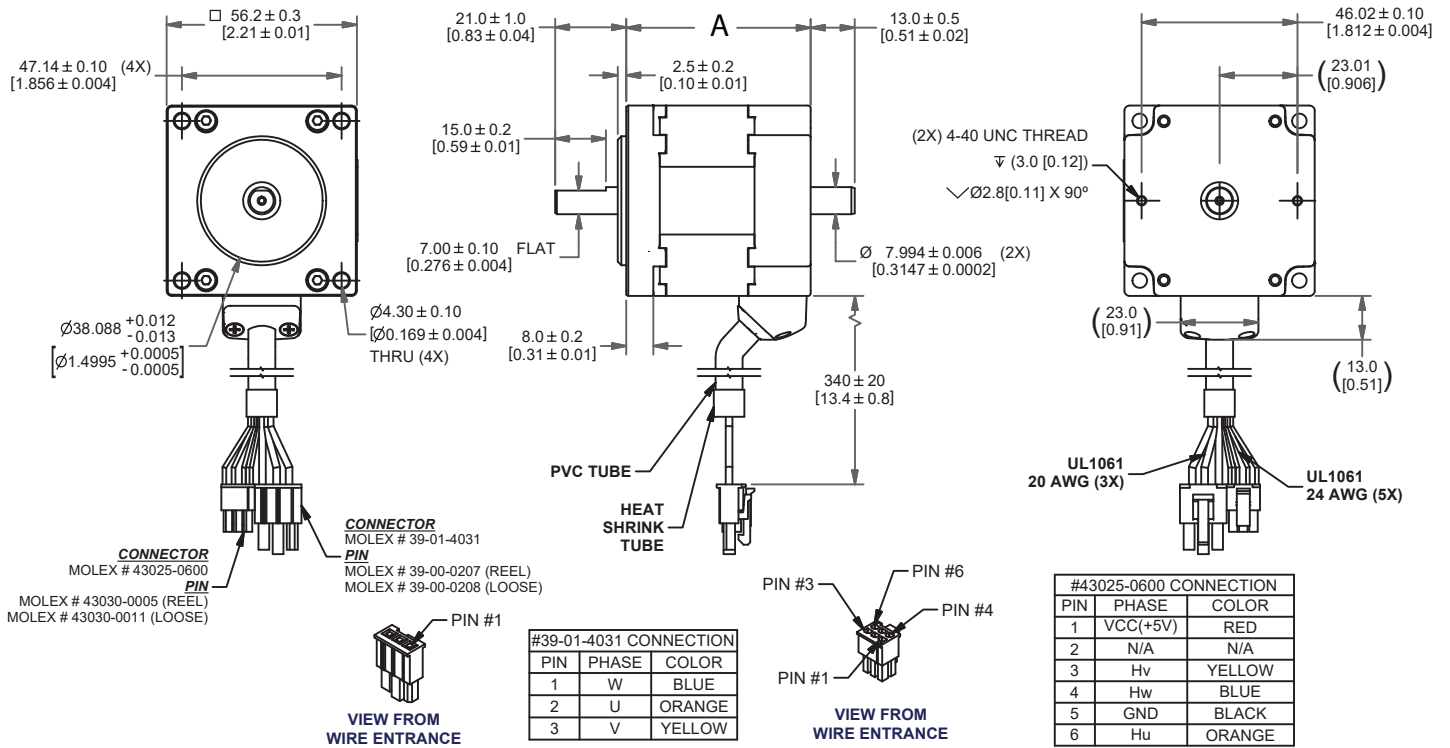
## ENCODER SPECIFICATIONS

Part Number	<b>AMT112S</b>
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-BL23E22-01



BLDC EXTENSION CABLE  
4201-100/300

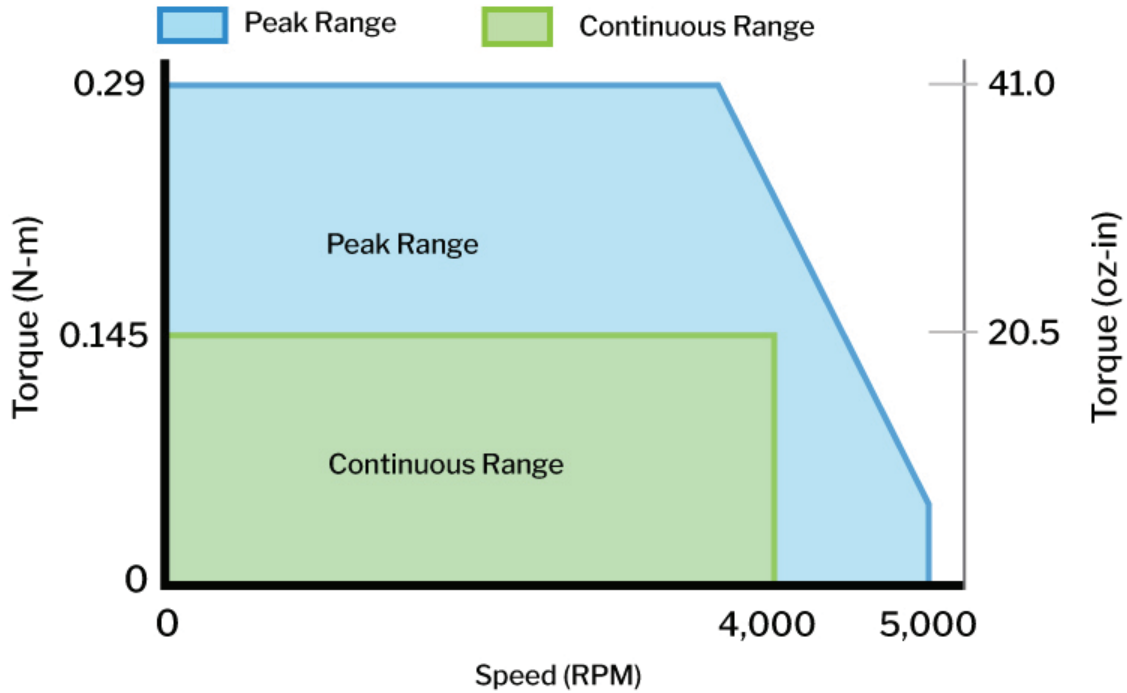


ENCODER CABLE  
AMT-17C-1-012/036/108

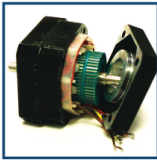
# PERFORMANCE CURVE

## BL23E22-01

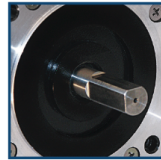
Rated Voltage: 24Volts, Rated Current: 3.2 Amps



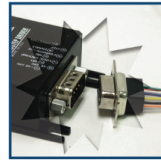
# OPERATION & USAGE TIPS



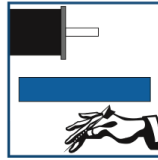
**Do not** disassemble motors; a significant reduction in motor performance will occur.



**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