

## MOTOR SPECIFICATIONS

Part Number	<b>BL17E40-01D-02R0</b>
Dimension "A" Max	3.98 in [101mm]
Rated Voltage	24 VDC
Rated Torque	30.45 oz-in [0.215N-m]
Rated Speed	4000 RPM
Rated Power	90 Watts
Rated Current	4.92 Amps
Peak Torque	60.9 oz-in [0.43N-m]
Peak Current	9.84 Amps
Torque Constant (kt)	6.23 oz-in/Amp
Back EMF Constant (Ke)	4.23 Vp/KRPM
Motor Constant (Km)	9.85 oz-in/ $\sqrt{W}$ [0.070 N-m/ $\sqrt{W}$ ]
Resistance	0.4 Ohms
Inductance	0.37 mH
Rotor Inertia	0.79 oz-in <sup>2</sup>
Weight	1.83 lb [0.83 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	3.2 ms

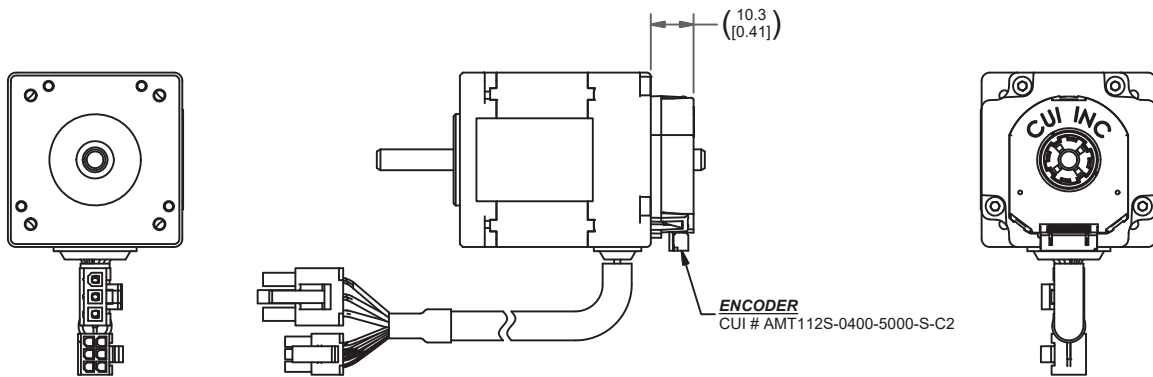
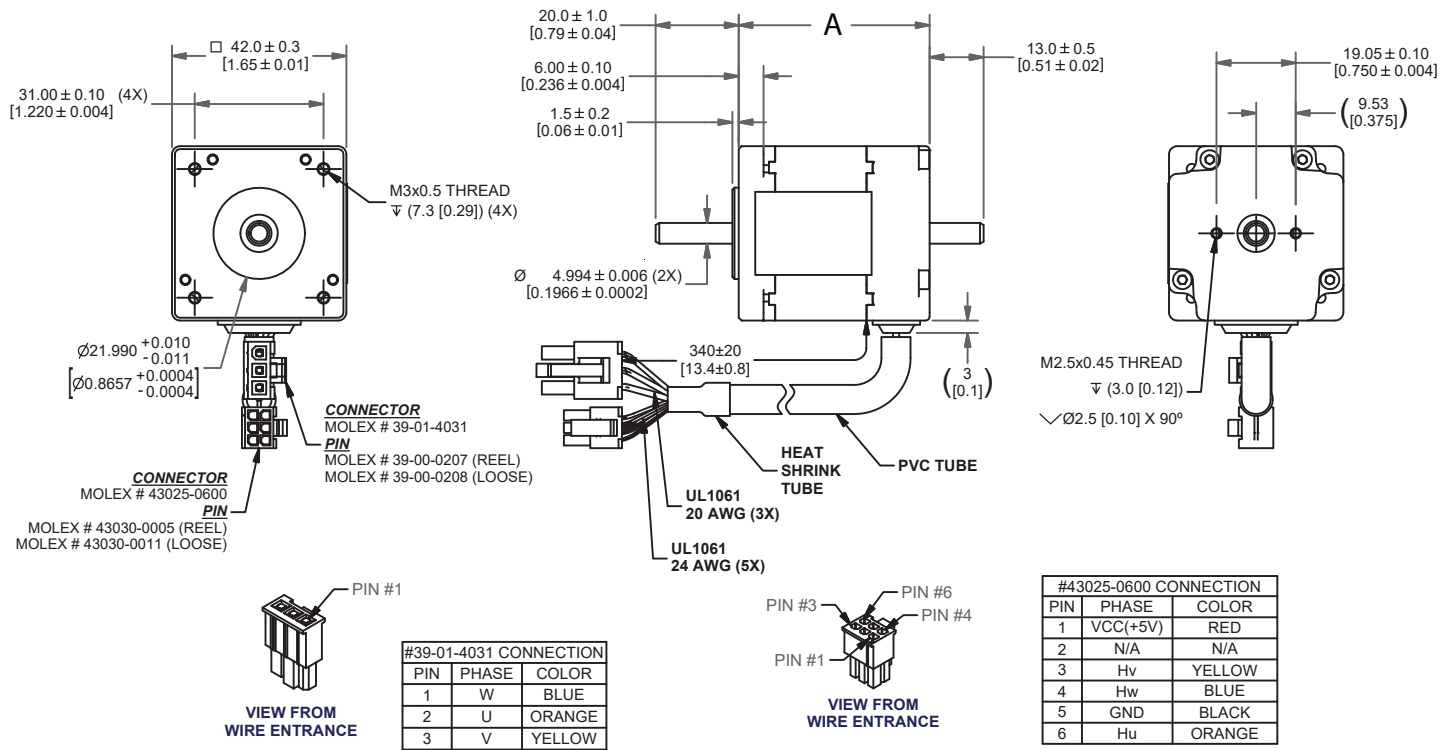
## ENCODER SPECIFICATIONS

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	0.394 in [10.00 mm] @ 3.37 lbs [1.53kg]
Max. Axial Force	2.25 lbs [1.02 kg]
Insulation Class	Class B
Dielectric Strength	500 VDC for 1 minute
Insulation Resistance	100 $\Omega$ 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



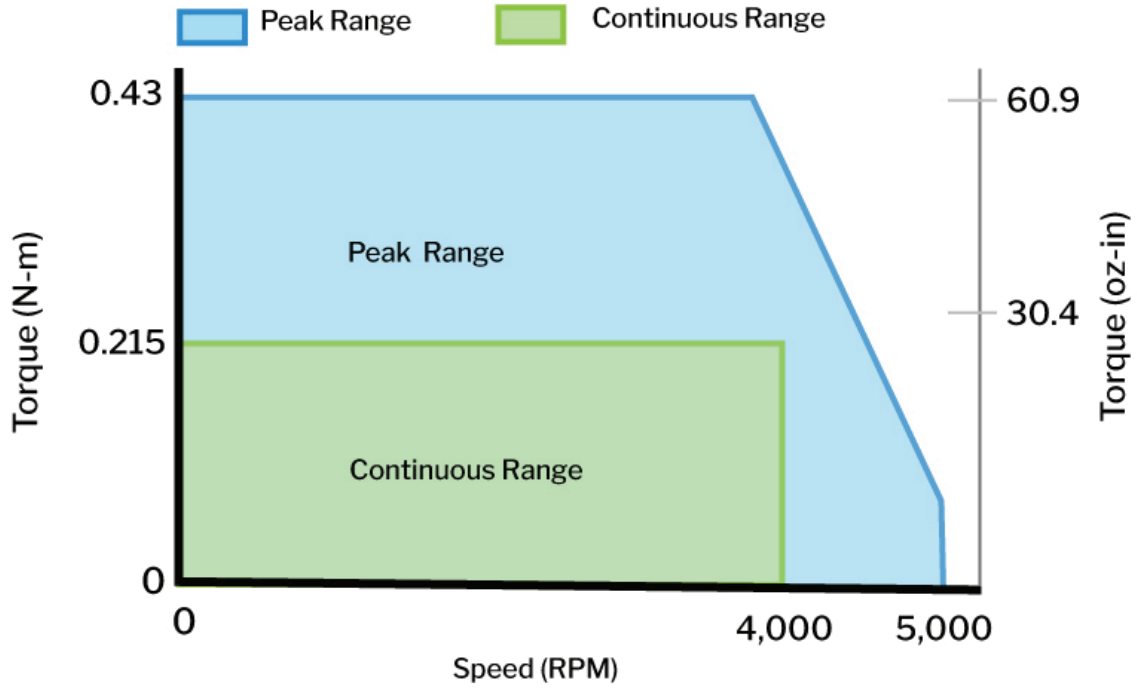
# RECOMMENDED PRODUCTS



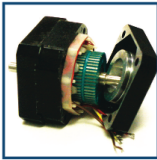
# PERFORMANCE CURVE

## BL17E40-01

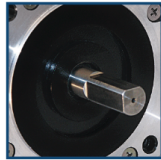
Rated Voltage: 24Volts, Rated Current: 4.92 Amps



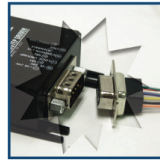
# OPERATION & USAGE TIPS



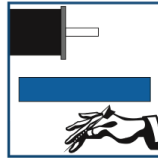
**Do not** disassemble motors; a significant reduction in motor performance will occur.



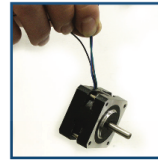
**Do not** machine shafts; this will have a negative effect on shaft run out and perpendicularity.



**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