

## MOTOR SPECIFICATIONS

Part Number	<b>BL17E28-02D-02R0</b>
Dimension "A" Max	2.8 in [71mm]
Rated Voltage	48 VDC
Rated Torque	20.39 oz-in [0.144N-m]
Rated Speed	4000 RPM
Rated Power	60 Watts
Rated Current	1.63 Amps
Peak Torque	40.7 oz-in [0.288N-m]
Peak Current	3.26 Amps
Torque Constant (kt)	12.46 oz-in/Amp
Back EMF Constant (Ke)	8.46 Vp/KRPM
Motor Constant (Km)	7.7 oz-in/√W [0.054 N-m/√W]
Resistance	2.62 Ohms
Inductance	2.5 mH
Rotor Inertia	0.39 oz-in <sup>2</sup>
Weight	1.21 lb [0.55 kg]
Electrical Time Constant	1 ms
Mechanical Time Constant	2.7 ms

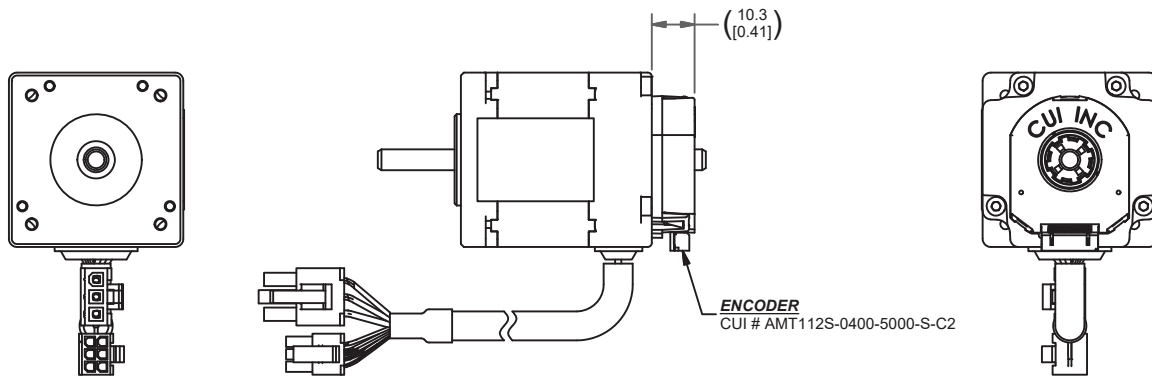
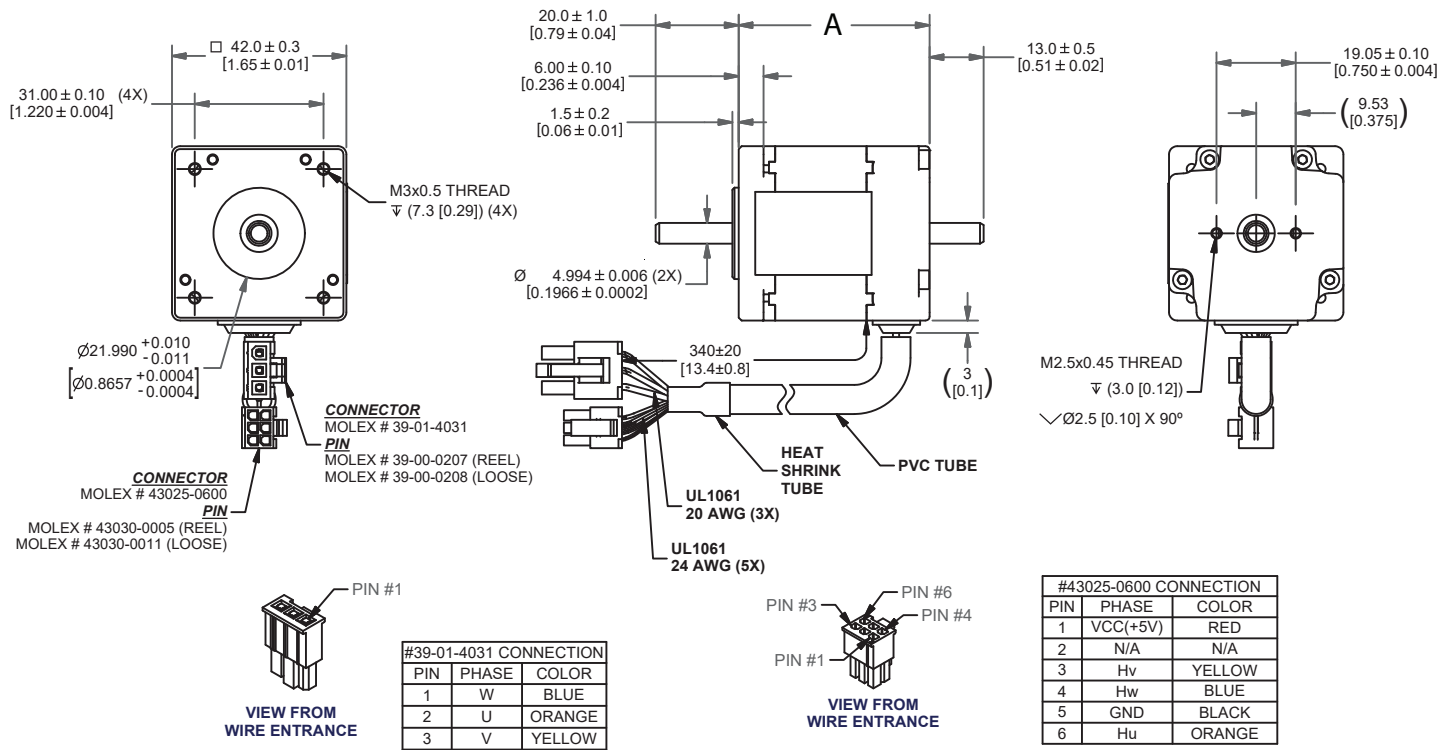
## ENCODER SPECIFICATIONS

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 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-BL17E28-02**



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

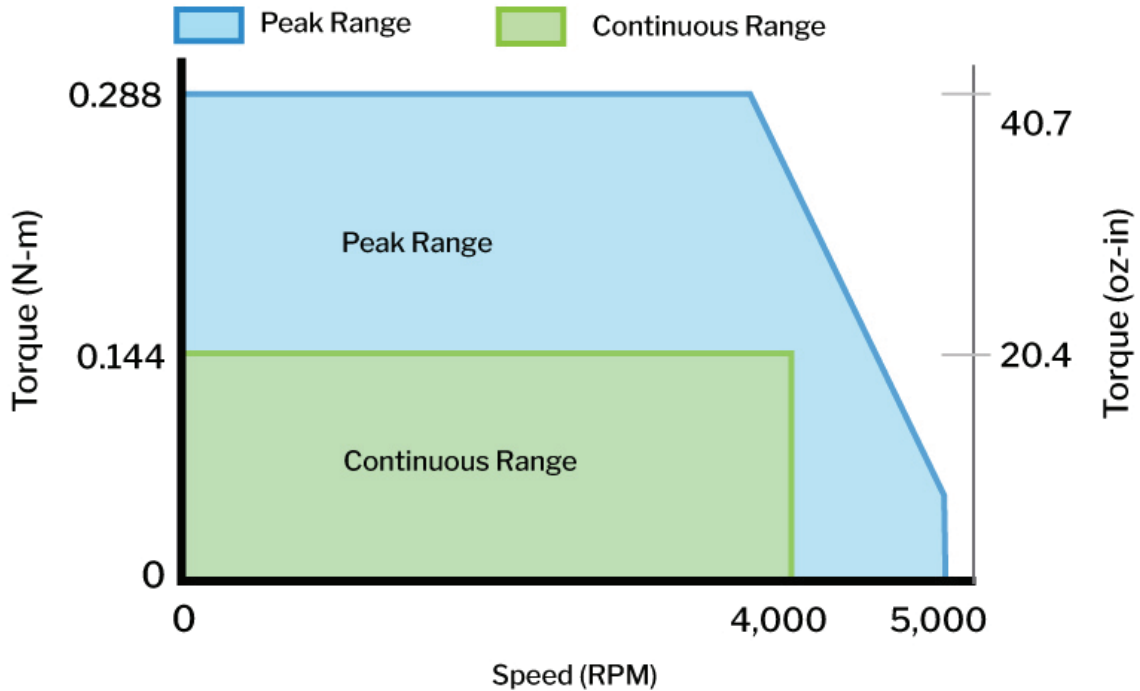


**ENCODER CABLE**  
**AMT-17C-1-012/036/108**

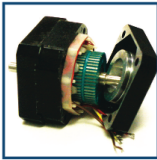
# PERFORMANCE CURVE

## BL17E28-02

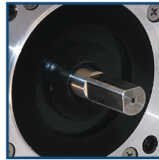
Rated Voltage: 48Volts, Rated Current: 1.63 Amps



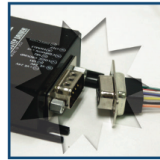
# OPERATION & USAGE TIPS



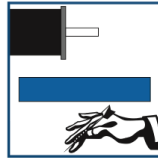
**Do not** disassemble motors; a significant reduction in motor performance will occur.



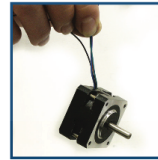
**Do not** machine shafts; this will have a negative effect on shaft run out and perpendicularity.



**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