

MOTOR SPECIFICATIONS

Part Number	BL23E33-01D-03R0
Dimension "A" Max	3.29 in [83.5mm]
Rated Voltage	24 VDC
Rated Torque	41.07 oz-in [0.29N-m]
Rated Speed	4000 RPM
Rated Power	120 Watts
Rated Current	6.9 Amps
Peak Torque	82.13 oz-in [0.58N-m]
Peak Current	13.8 Amps
Torque Constant (kt)	5.95 oz-in/Amp
Back EMF Constant (Ke)	4.23 Vp/KRPM
Motor Constant (Km)	14.02 oz-in- \sqrt{W} [0.099 N-m/ \sqrt{W}]
Resistance	0.18 Ohms
Inductance	0.18 mH
Rotor Inertia	1.53 oz-in ²
Weight	2.38 lb [1.08 kg]
Electrical Time Constant	1 ms
Mechanical Time Constant	3 ms

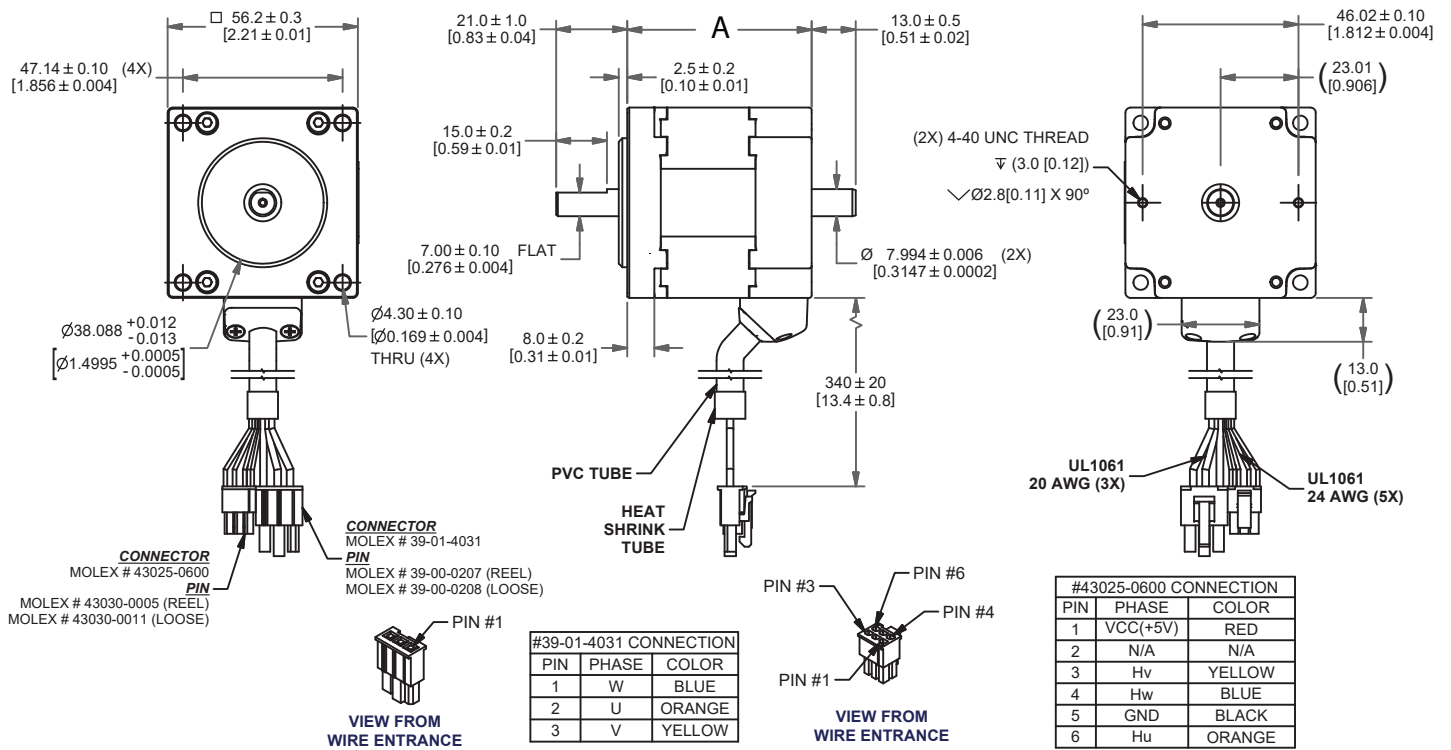
ENCODER SPECIFICATIONS

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
BLDC100-BL23E33-01



BLDC EXTENSION CABLE
4201-100/300

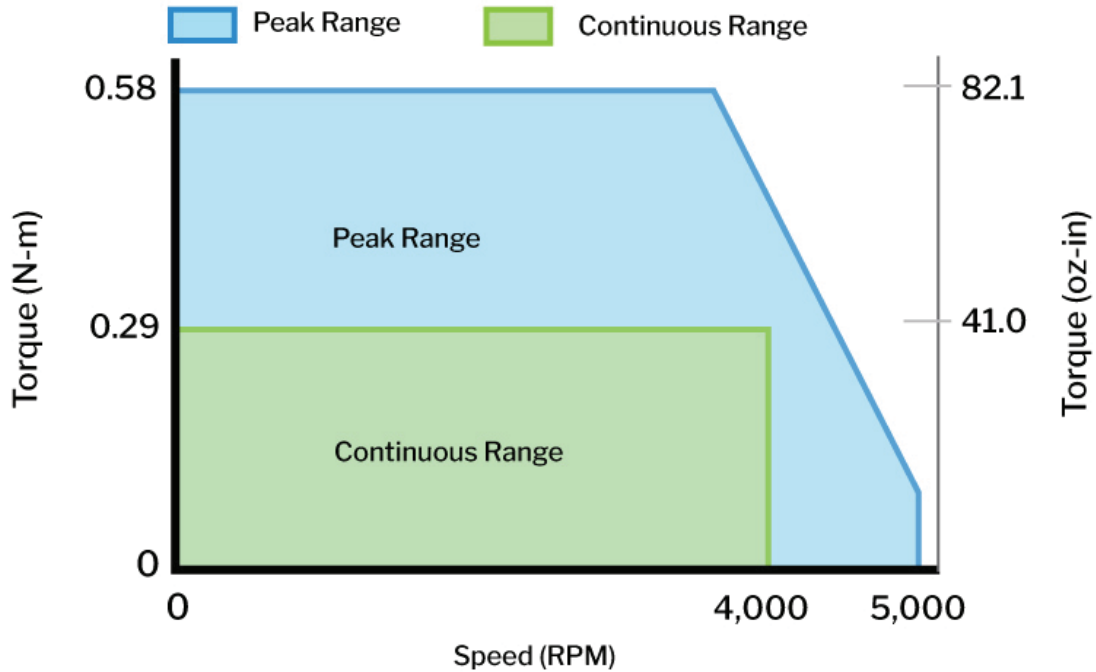


ENCODER CABLE
AMT-17C-1-012/036/108

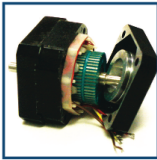
PERFORMANCE CURVE

BL23E33-01

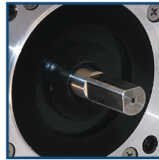
Rated Voltage: 24Volts, Rated Current: 6.9 Amps



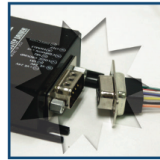
OPERATION & USAGE TIPS



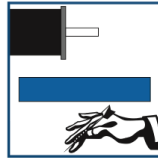
Do not disassemble motors; a significant reduction in motor performance will occur.



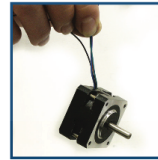
Do not machine shafts; this will have a negative effect on shaft run out and perpendicularity.



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