

**BL17 SERIES**  
**BL17E19-01**  
BLDC MOTOR

**CONFIGURATION**

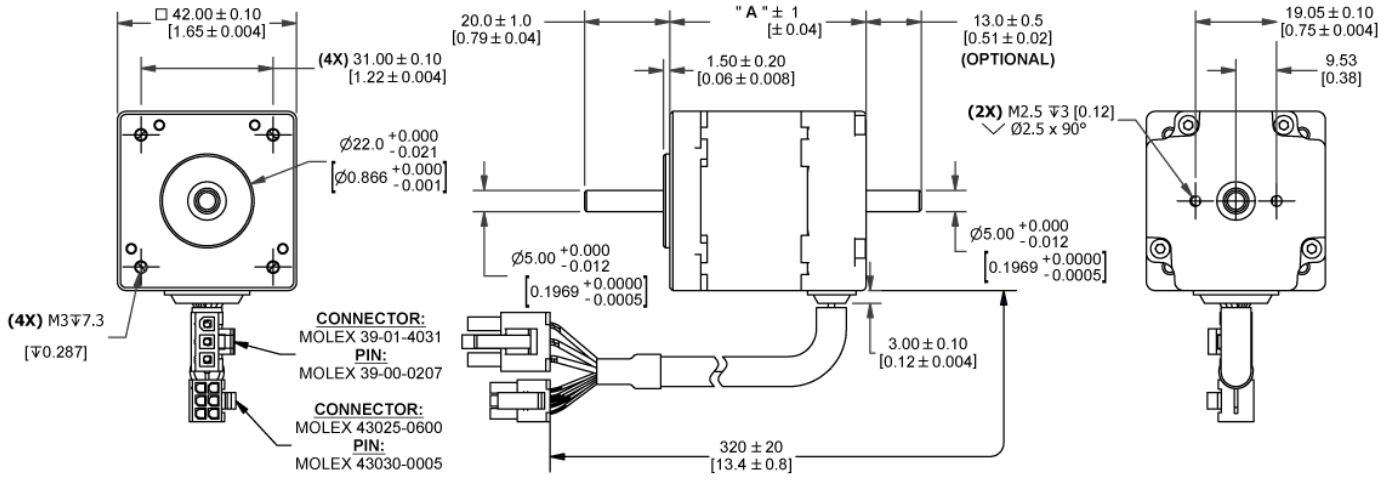
**Gearbox :** No Gearbox  
**Shaft :** Single Shaft  
**Shaft Option (front shaft) :** No Flat  
**Encoder :** No Encoder  
**Connector :** Molex Connector  
**Leadwire Length :** 12 inch (30.50 cm)

**MOTOR SPECIFICATIONS**

<b>Phase</b>	3
<b>Frame Size</b>	42 mm
<b>NEMA Size</b>	NEMA 17
<b>Body Length (Dimension A)</b>	47 mm
<b>Rated Voltage</b>	24 VDC
<b>Rated Output Power</b>	30 W
<b>Rated Speed</b>	4000 RPM
<b>Max Speed</b>	5000 RPM
<b>Rated Torque</b>	0.072 Nm
<b>Rated Current</b>	1.67 A
<b>Max Torque</b>	0.144 Nm
<b>Resistance</b>	1.34 ohm
<b>Terminal Inductance</b>	1.15 mH
<b>Torque Constant</b>	0.043 Nm/A
<b>Rotor Inertia</b>	33.8 g-cm <sup>2</sup>
<b>Weight</b>	0.32 kg
<b>Electrical Time Constant</b>	0.9 ms
<b>Mechanical Time Constant</b>	3 ms

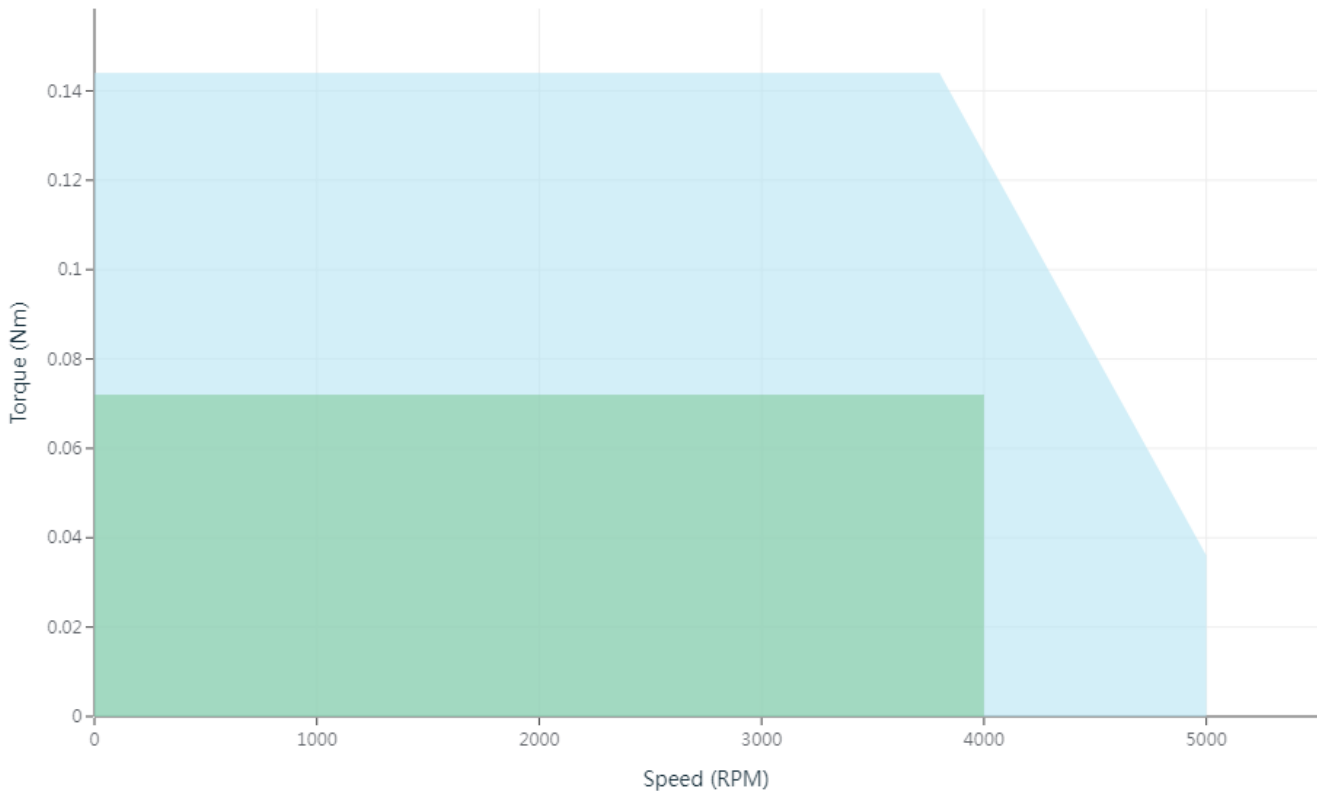
# DIMENSIONS

<b>Model</b>	BL17E19-01
<b>DIM. A (length) mm</b>	47 mm



# PERFORMANCE CURVE

**BL17E19-01**  
 24 VDC, 1.67 A



## OPERATING SPECIFICATIONS

<b>Hall Effect Angle</b>	120° electrical Angle
<b>Radial Play</b>	0.05 mm @ 0.45 kg
<b>End Play</b>	0.08 mm @ 45 kg
<b>Max. Radial Force</b>	10 mm @ 1.53 kg
<b>Max. Axial Force</b>	1.02 kg
<b>Insulation Class</b>	Class B
<b>Dielectric Strength</b>	500 VDC for 1 minute
<b>Insulation Resistance</b>	100 Ω Min. 500 VDC
<b>Ambient Operating Temperature</b>	-20.00 ° to 50.00 °C
<b>Storage Temperature</b>	-20.00 ° to 100.00 °C
<b>Humidity Range (%)</b>	85% (RH) non-condensing
<b>Direction Of Rotation</b>	CCW

## PIN OUTS

PIN #	COLOR	PHASE
1	RED	VCC (+5V)
2	YELLOW	HV
3	BLUE	HW
4	BLACK	GND
5	ORANGE	HU

PIN #	COLOR	PHASE
1	BLUE	W
2	ORANGE	U
5	YELLOW	V

# Motion Control, *Solved.*

## Motor Engineering and Manufacturing



*Optimized For  
Your  
Applications*



*Quick Prototype  
Turnaround*



*Small Batch to  
OEM Volume  
Production*



*US Based  
Support &  
Manufacturing*