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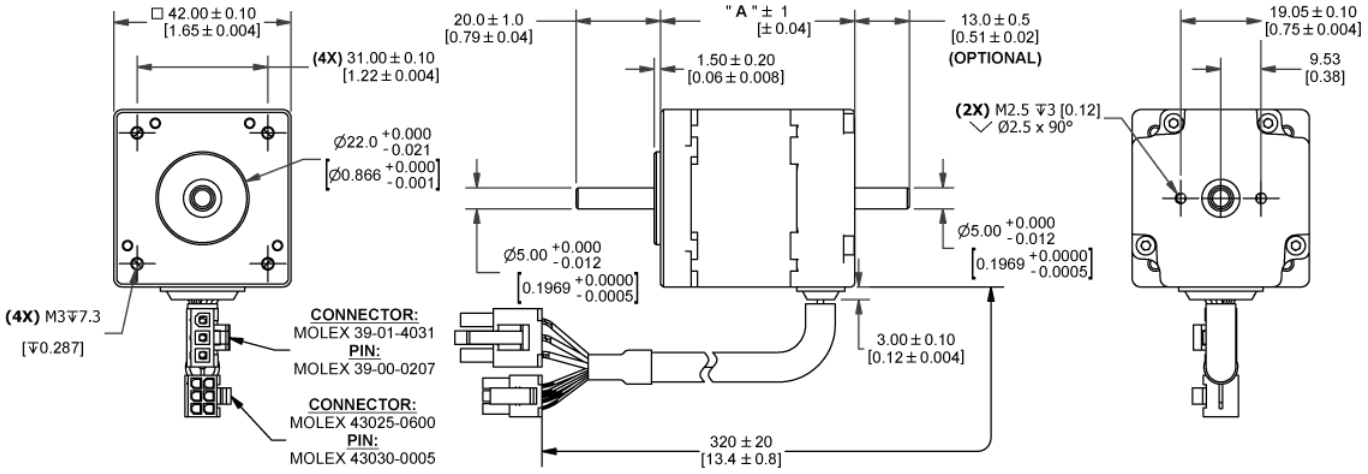
MOTOR SPECIFICATIONS

Part Number	**BL17E19-01D-RO**
Dimension “A” Max	1.85 in [47mm]
Rated Voltage	24 VDC
Rated Torque	10.2 oz-in [0.072N-m]
Rated Speed	4000 RPM
Rated Power	30 Watts
Rated Current	1.67 Amps
Peak Torque	20.4 oz-in [0.144N-m]
Peak Current	3.34 Amps
Torque Constant (kt)	6.09 oz-in/Amp
Back EMF Constant (Ke)	4.16 Vp/KRPM
Motor Constant (Km)	5.26 oz-in/√W [0.037 N-m/√W]
Resistance	1.34 Ohms
Inductance	1.15 mH
Rotor Inertia	0.18 oz-in^2
Weight	0.71 lb [0.32 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	3 ms

DIMENSIONS



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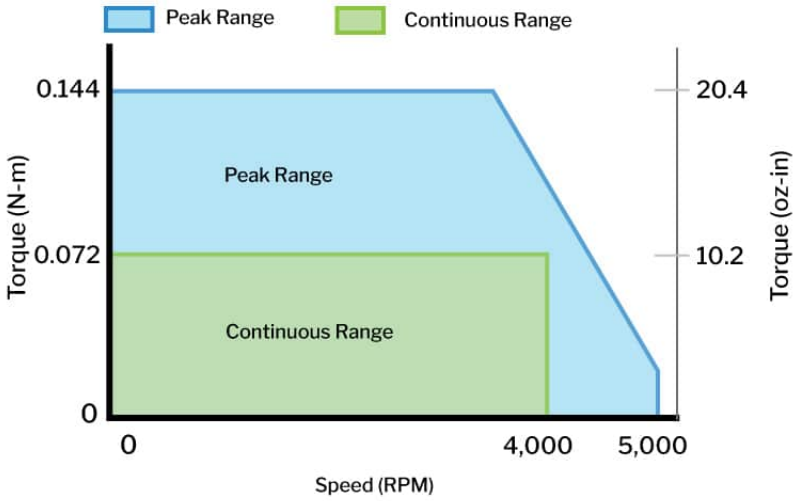
PERFORMANCE CURVE

BL17E19-01

Rated Voltage: 24Volts, Rated Current: 1.67 Amps

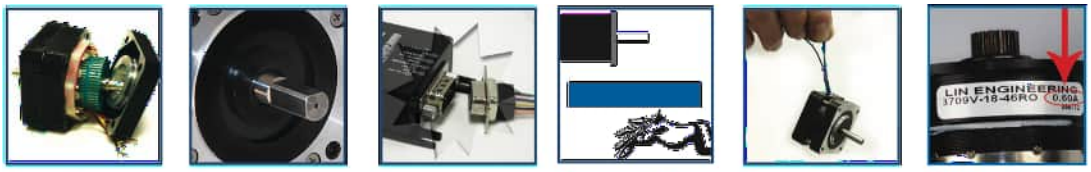


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



Do not disassemble moving assembly. 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.

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MOTOR SPECIFICATIONS

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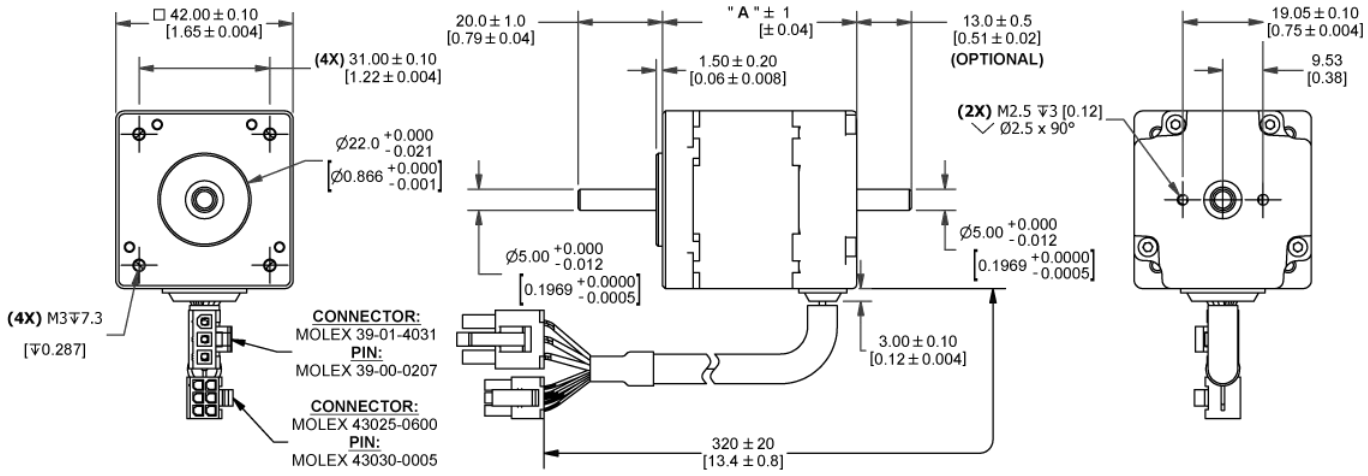

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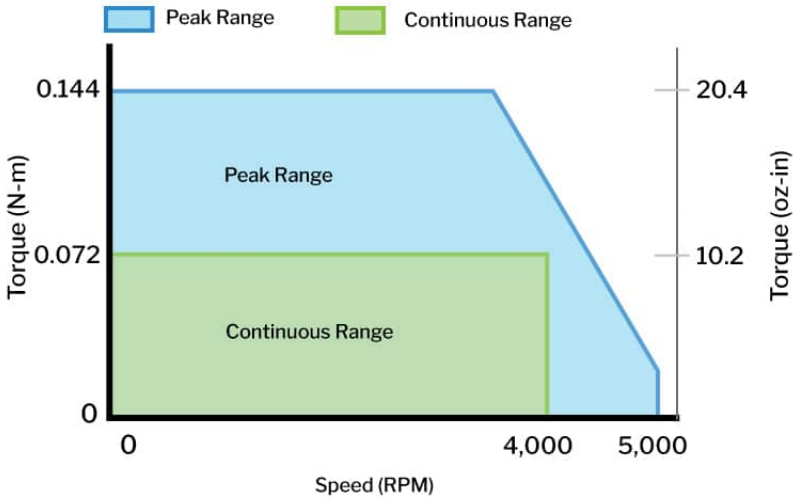
PERFORMANCE CURVE

BL17E19-01

Rated Voltage: 24Volts, Rated Current: 1.67 Amps



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5	YELLOW	V

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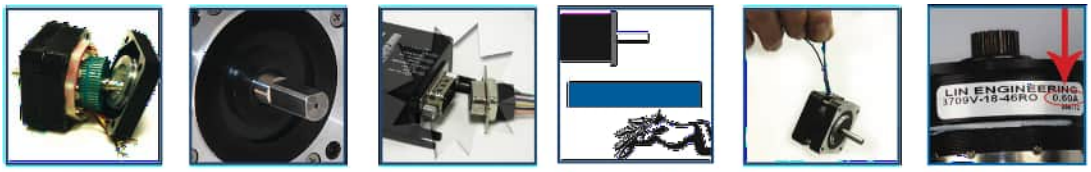

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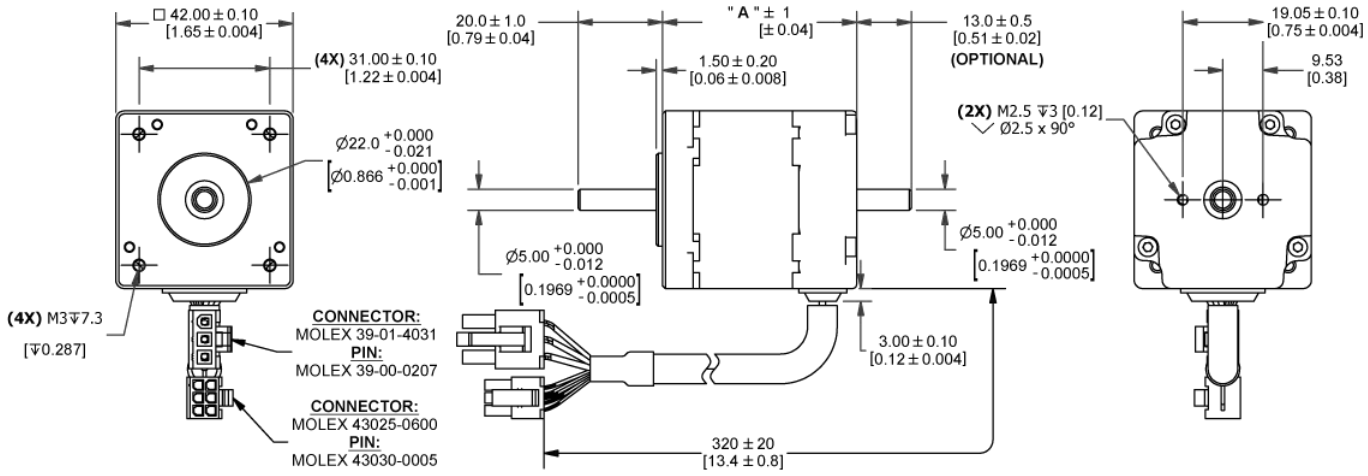
MOTOR SPECIFICATIONS

Part Number	**BL17E19-02D-RO**
Dimension “A” Max	1.85 in [47mm]
Rated Voltage	48 VDC
Rated Torque	10.2 oz-in [0.072N-m]
Rated Speed	4000 RPM
Rated Power	30 Watts
Rated Current	0.81 Amps
Peak Torque	20.4 oz-in [0.144N-m]
Peak Current	1.62 Amps
Torque Constant (kt)	12.6 oz-in/Amp
Back EMF Constant (Ke)	8.64 Vp/KRPM
Motor Constant (Km)	5.18 oz-in/√W [0.037 N-m/√W]
Resistance	5.92 Ohms
Inductance	5 mH
Rotor Inertia	0.18 oz-in^2
Weight	0.71 lb [0.32 kg]
Electrical Time Constant	0.8 ms
Mechanical Time Constant	3.1 ms

DIMENSIONS



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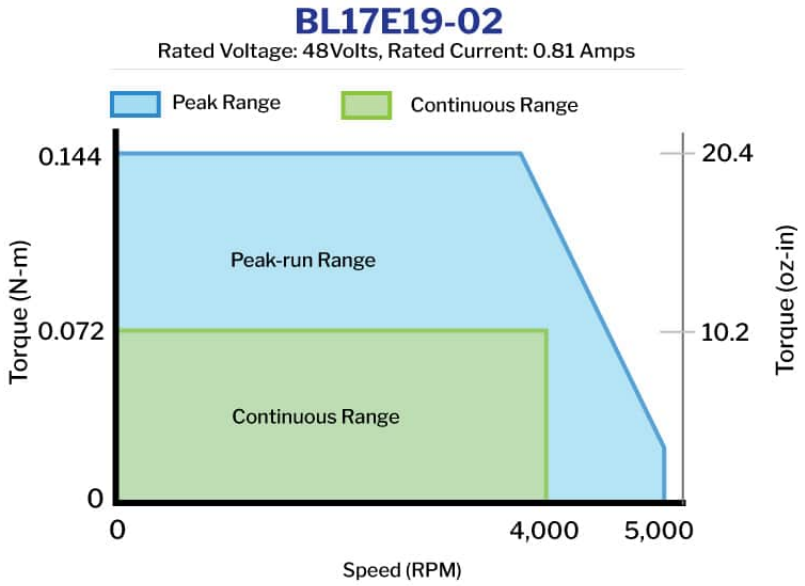

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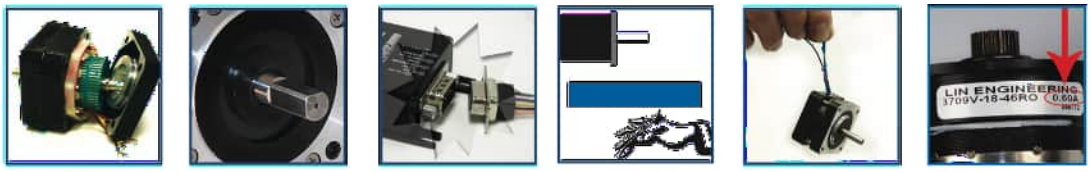

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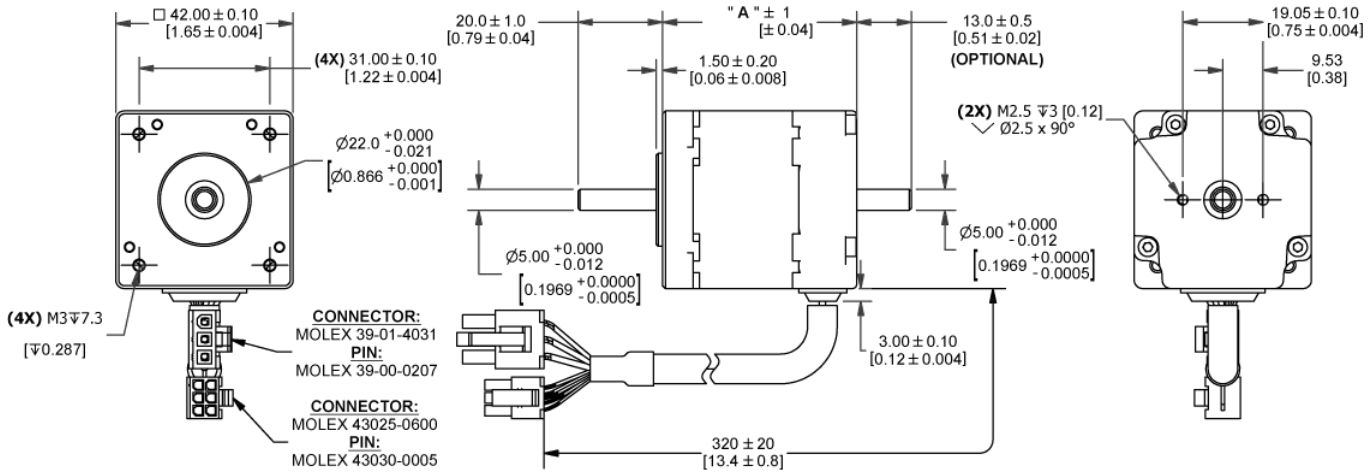

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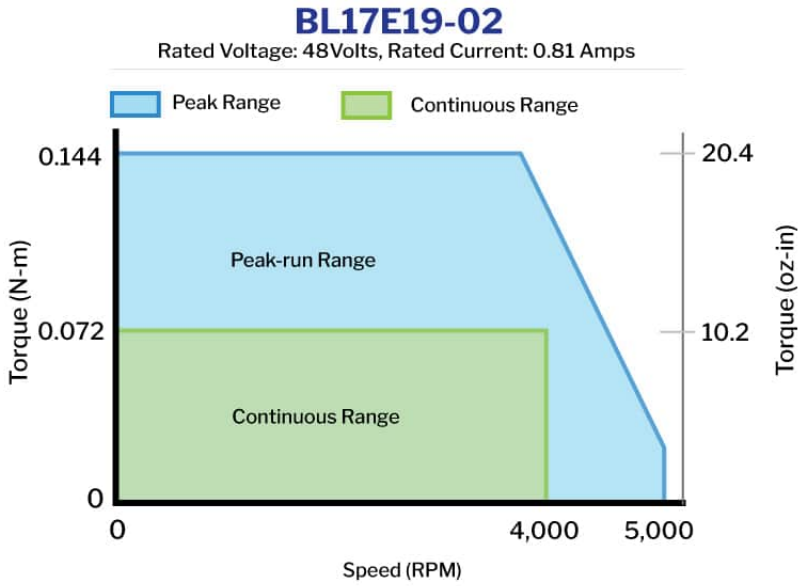

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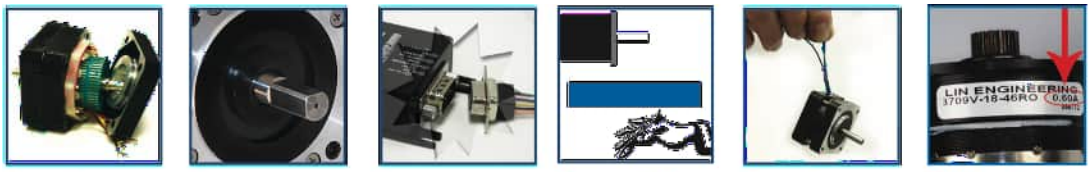
OPERATION & USAGE TIPS



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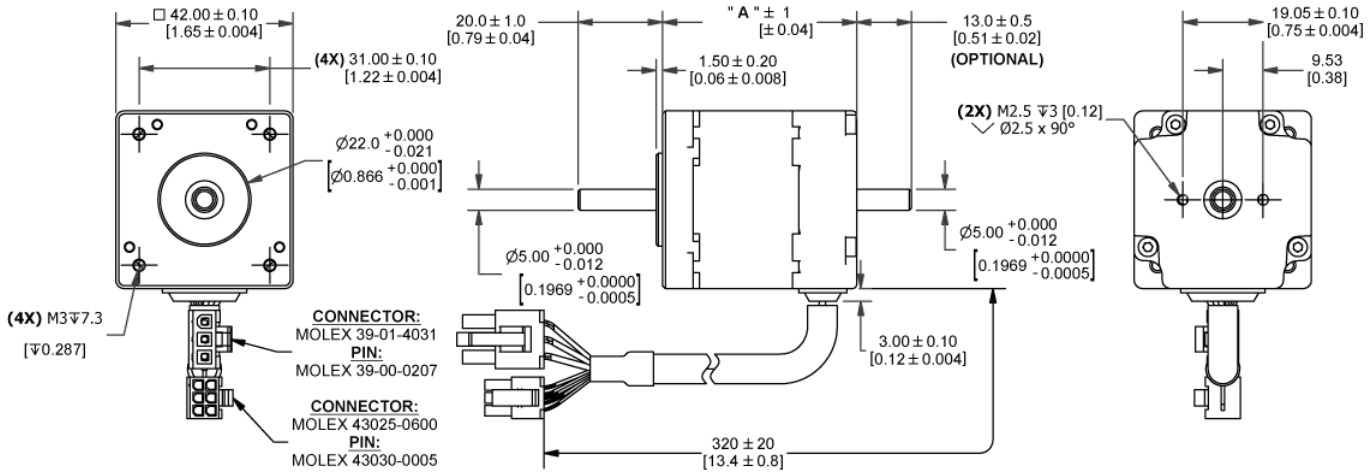
MOTOR SPECIFICATIONS

Part Number	**BL17E28-01D-RO**
Dimension “A” Max	2.8 in [71mm]
Rated Voltage	24 VDC
Rated Torque	20.39 oz-in [0.144N-m]
Rated Speed	4000 RPM
Rated Power	60 Watts
Rated Current	3.28 Amps
Peak Torque	40.7 oz-in [0.288N-m]
Peak Current	6.56 Amps
Torque Constant (kt)	6.23 oz-in/Amp
Back EMF Constant (Ke)	4.23 Vp/KRPM
Motor Constant (Km)	7.56 oz-in/√W [0.053 N-m/√W]
Resistance	0.68 Ohms
Inductance	0.6 mH
Rotor Inertia	0.39 oz-in^2
Weight	1.21 lb [0.55 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	2.8 ms

DIMENSIONS



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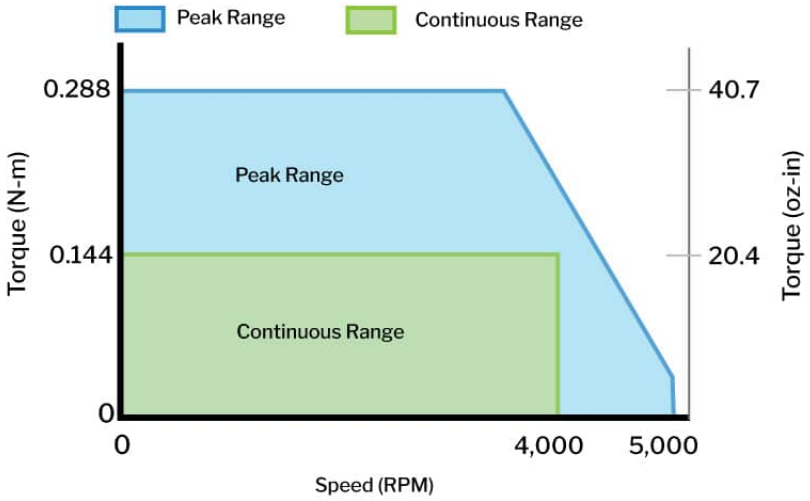
PERFORMANCE CURVE

BL17E28-01

Rated Voltage: 24Volts, Rated Current: 3.28 Amps



PIN OUT CHARTS

PIN #	COLOR	PHASE
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2	ORANGE	U
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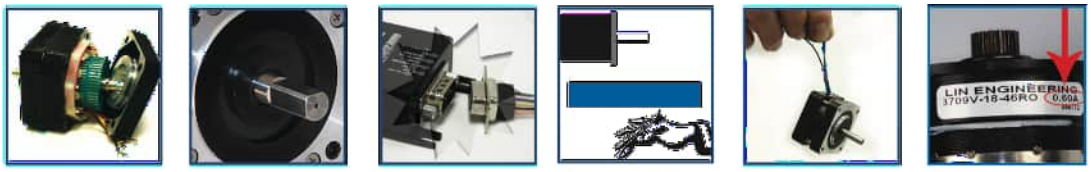
OPERATION & USAGE TIPS



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MOTOR SPECIFICATIONS

Part Number	**BL17E28-01-RO**
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Rated Speed	4000 RPM
Rated Power	60 Watts
Rated Current	3.28 Amps
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Peak Current	6.56 Amps
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Mechanical Time Constant	2.8 ms

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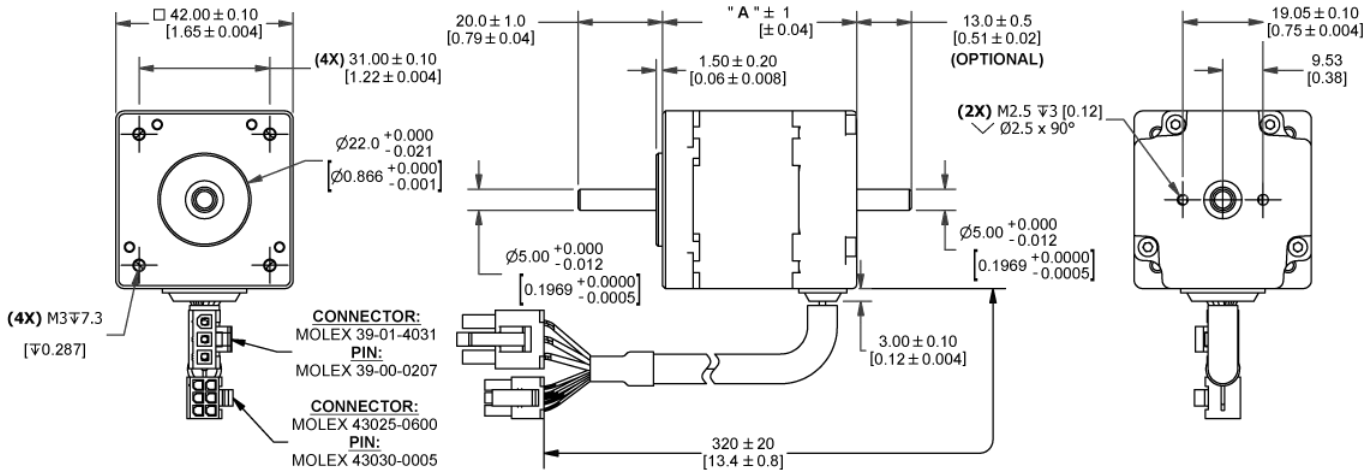

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PERFORMANCE CURVE

BL17E28-01

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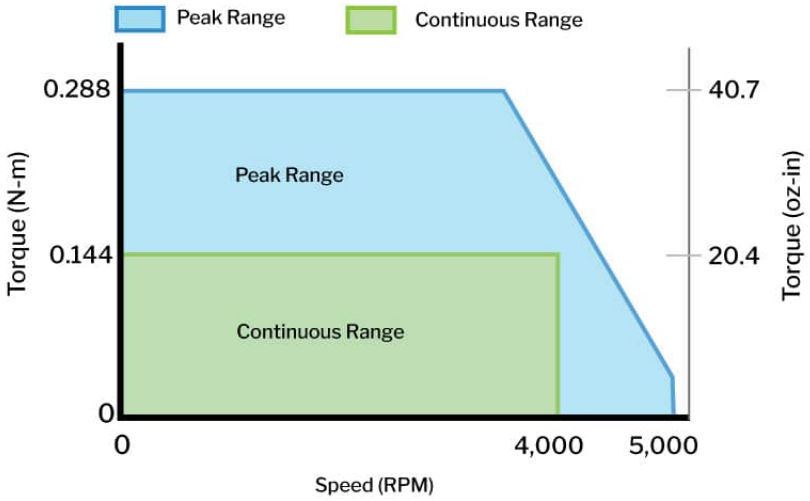

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PIN #	COLOR	PHASE
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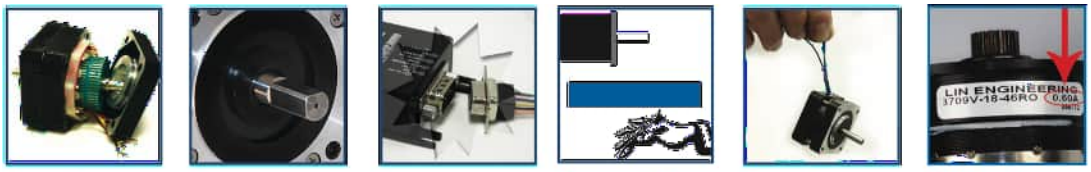
OPERATION & USAGE TIPS



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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^2
Weight	1.21 lb [0.55 kg]
Electrical Time Constant	1 ms
Mechanical Time Constant	2.7 ms

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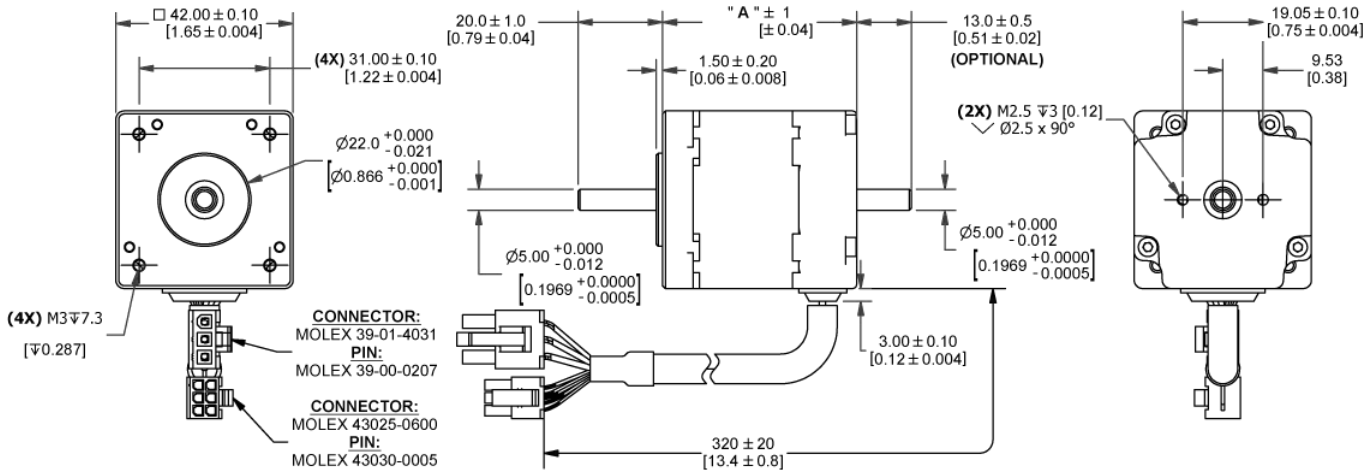

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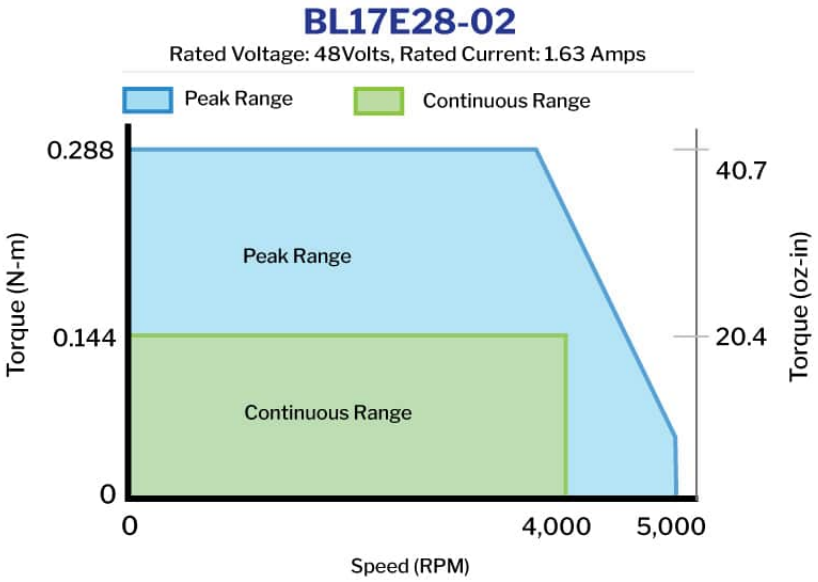

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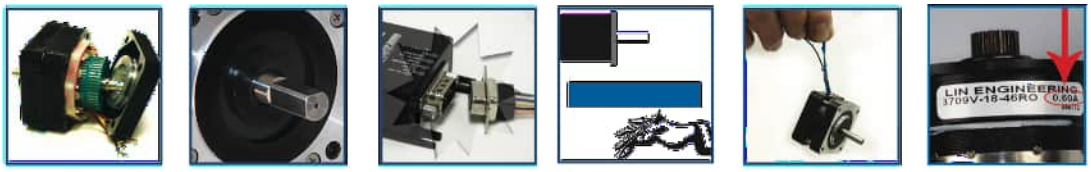
OPERATION & USAGE TIPS



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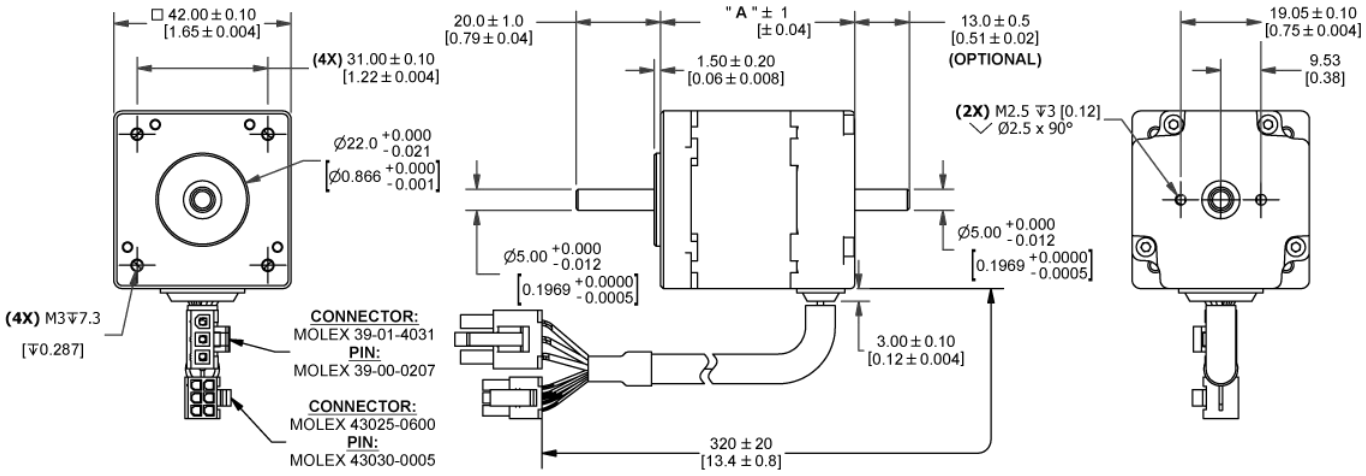
MOTOR SPECIFICATIONS

Part Number	**BL17E28-02-RO**
Dimension “A” Max	2.8 in [71mm]
Rated Voltage	48 VDC
Rated Torque	203.92 oz-in [1.44N-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^2
Weight	1.21 lb [0.55 kg]
Electrical Time Constant	1 ms
Mechanical Time Constant	2.7 ms

DIMENSIONS



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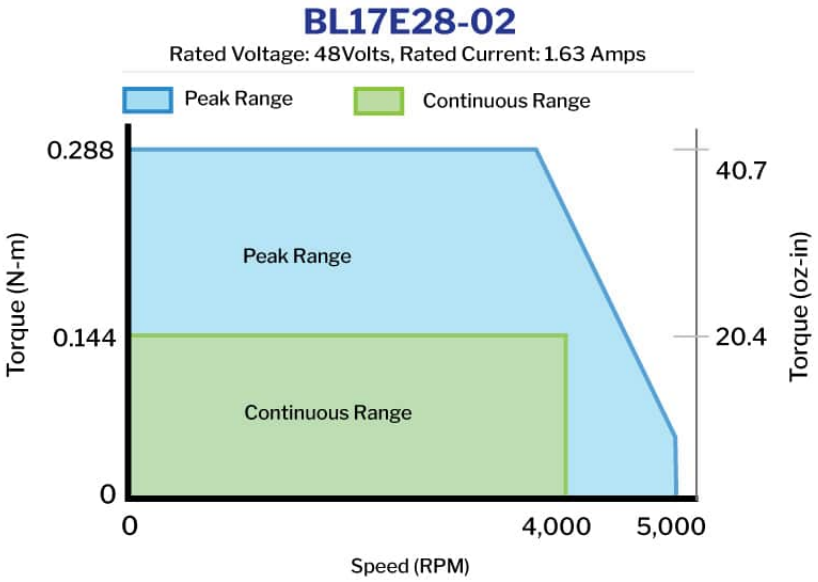
PERFORMANCE CURVE

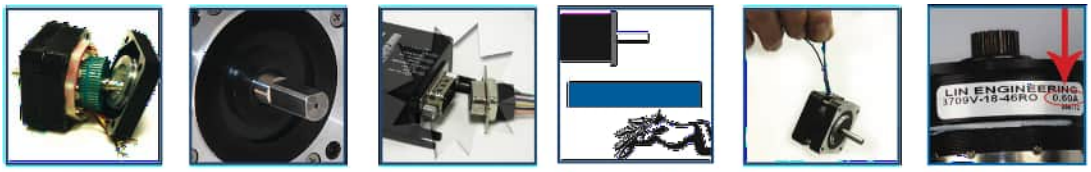


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



Do not disassemble motor as removal of rotor magnet will cause irreversible damage to motor performance.

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

Do not disconnect motor from drive while in operation.

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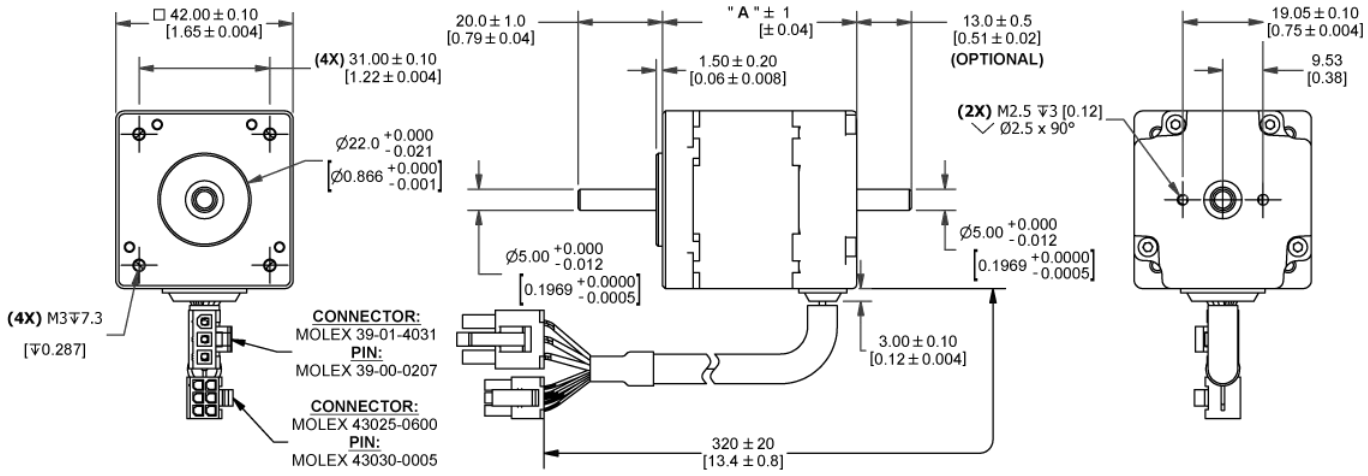
MOTOR SPECIFICATIONS

Part Number	**BL17E40-01D-RO**
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/√W [0.070 N-m/√W]
Resistance	0.4 Ohms
Inductance	0.37 mH
Rotor Inertia	0.79 oz-in^2
Weight	1.83 lb [0.83 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	3.2 ms

DIMENSIONS



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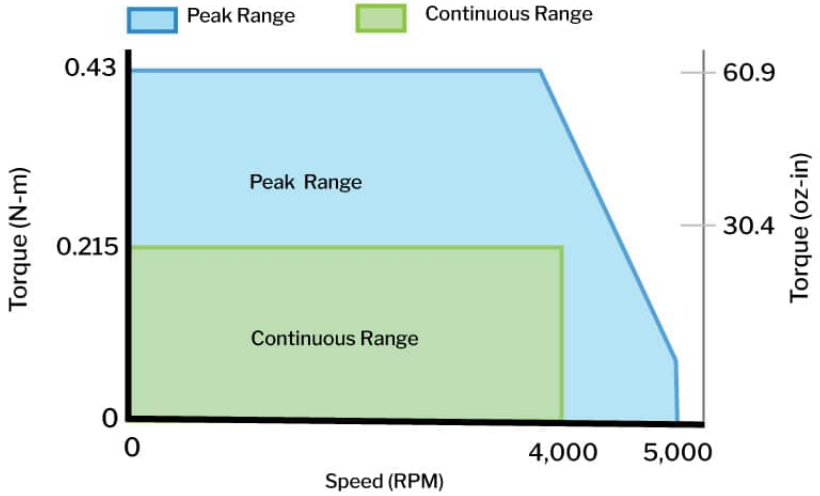
PERFORMANCE CURVE

BL17E40-01

Rated Voltage: 24Volts, Rated Current: 4.92 Amps



PIN OUT CHARTS

PIN #	COLOR	PHASE
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2	YELLOW	HV
3	BLUE	HW
4	BLACK	GND
5	ORANGE	HU

PIN #	COLOR	PHASE
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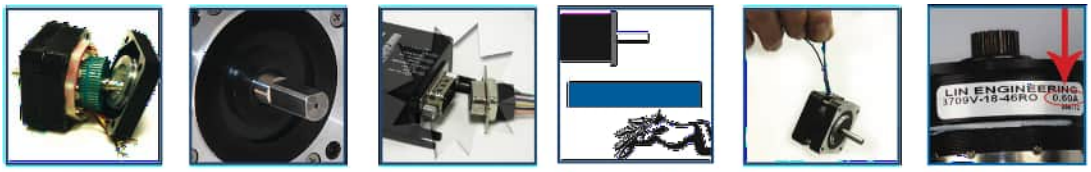
2	ORANGE	U
5	YELLOW	V

OPERATION & USAGE TIPS



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MOTOR SPECIFICATIONS

Part Number	**BL17E40-01-RO**
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/√W [0.070 N-m/√W]
Resistance	0.4 Ohms
Inductance	0.37 mH
Rotor Inertia	0.79 oz-in^2
Weight	1.83 lb [0.83 kg]
Electrical Time Constant	0.9 ms
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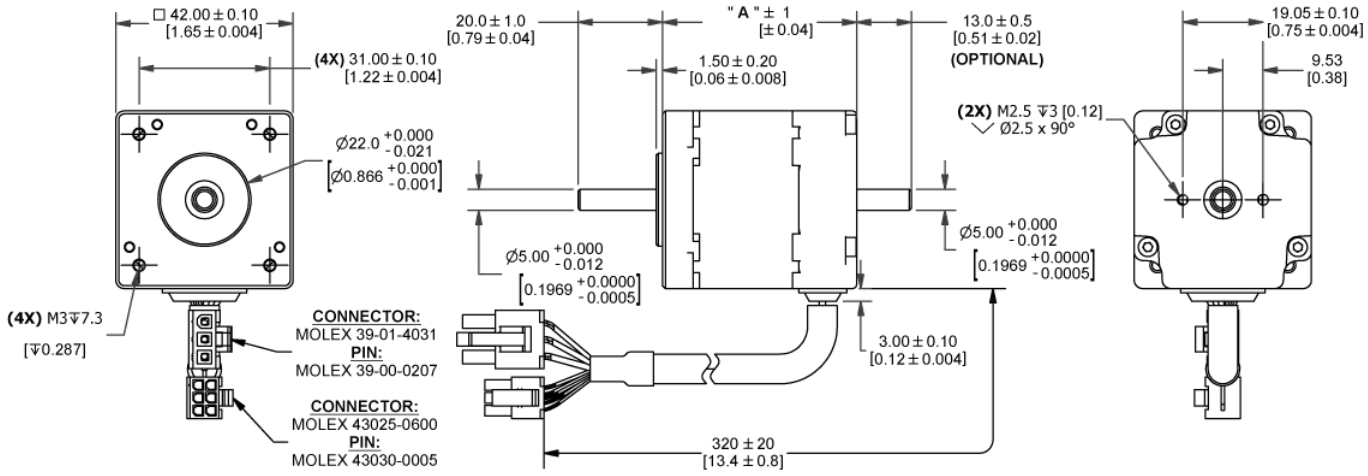

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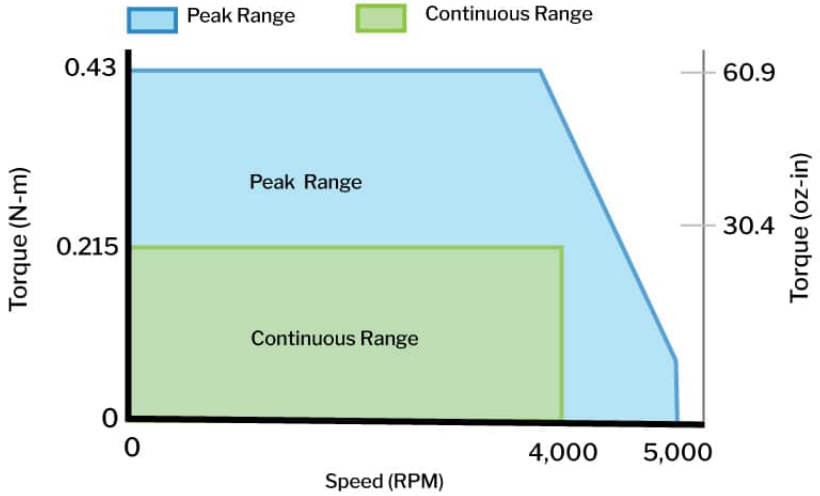
PERFORMANCE CURVE

BL17E40-01

Rated Voltage: 24Volts, Rated Current: 4.92 Amps



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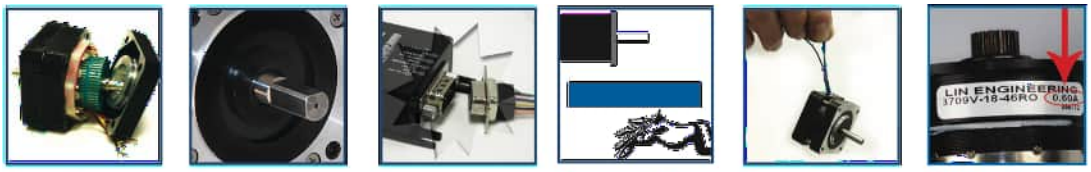

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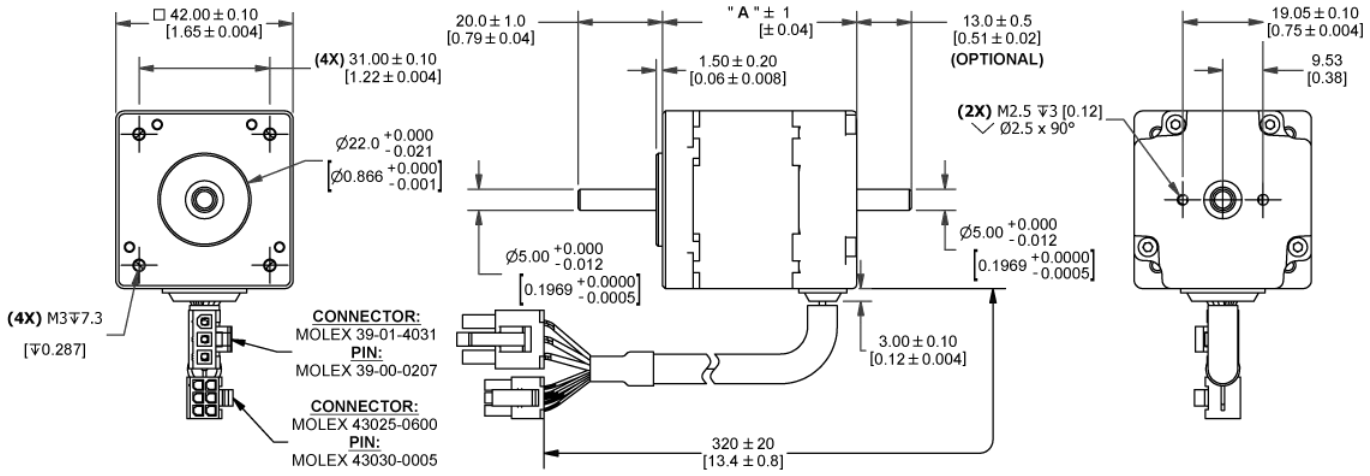
MOTOR SPECIFICATIONS

Part Number	**BL17E40-02D-RO**
Dimension “A” Max	3.98 in [101mm]
Rated Voltage	48 VDC
Rated Torque	30.45 oz-in [0.215N-m]
Rated Speed	4000 RPM
Rated Power	90 Watts
Rated Current	2.4 Amps
Peak Torque	60.9 oz-in [0.43N-m]
Peak Current	4.8 Amps
Torque Constant (kt)	12.6 oz-in/Amp
Back EMF Constant (Ke)	8.6 Vp/KRPM
Motor Constant (Km)	10.4 oz-in/√W [0.073 N-m/√W]
Resistance	1.47 Ohms
Inductance	1.57 mH
Rotor Inertia	0.79 oz-in^2
Weight	1.83 lb [0.83 kg]
Electrical Time Constant	1.1 ms
Mechanical Time Constant	2.9 ms

DIMENSIONS



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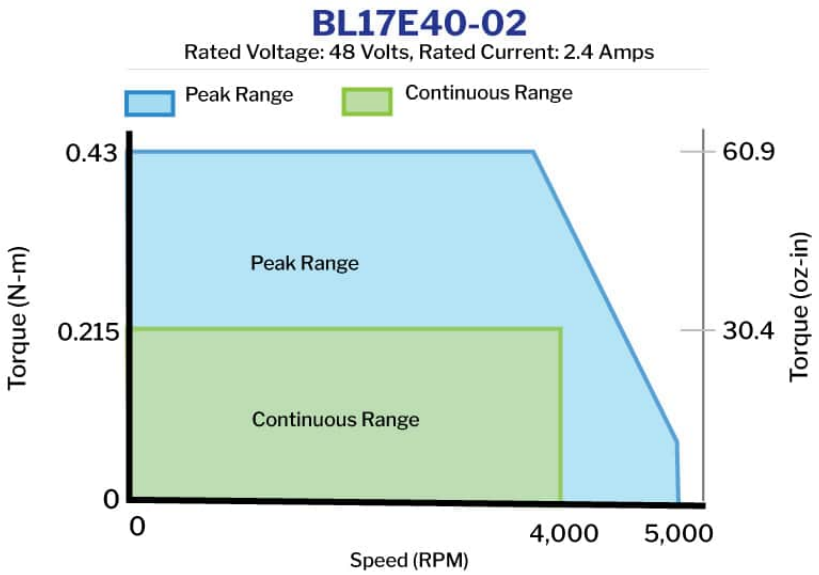
PERFORMANCE CURVE



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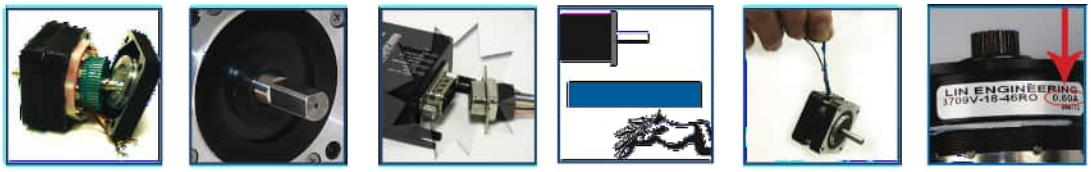
OPERATION & USAGE TIPS



Do not disassemble
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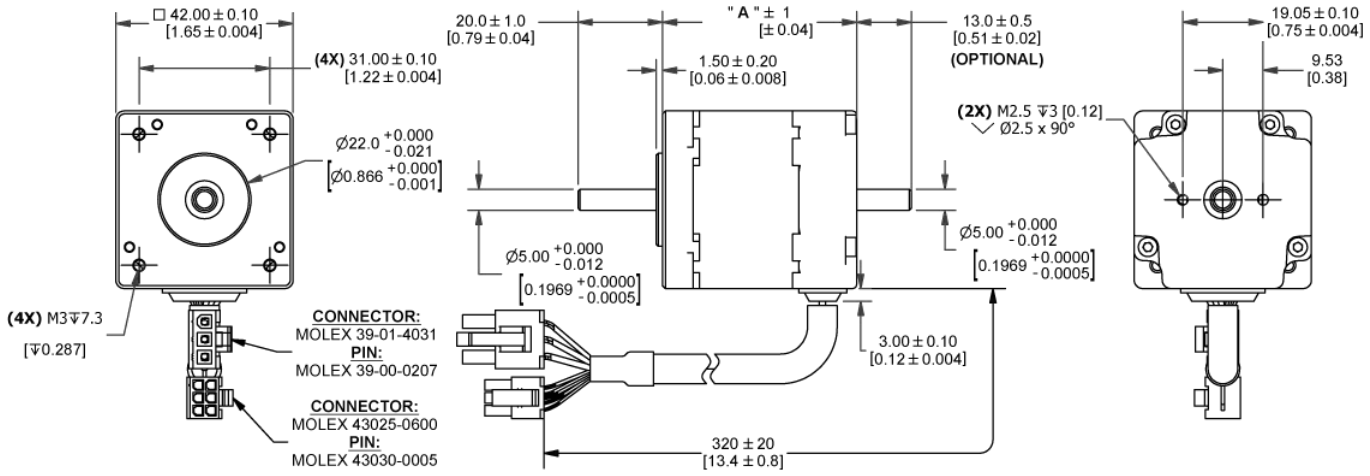

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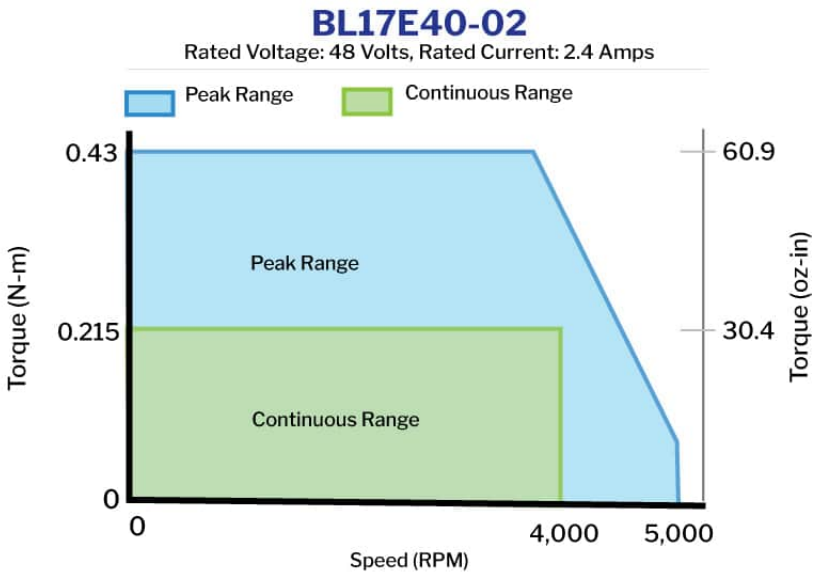
PERFORMANCE CURVE



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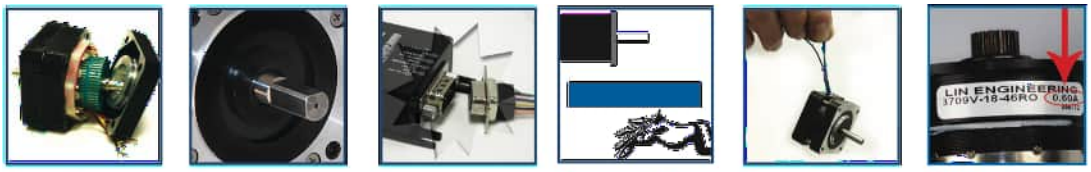
OPERATION & USAGE TIPS



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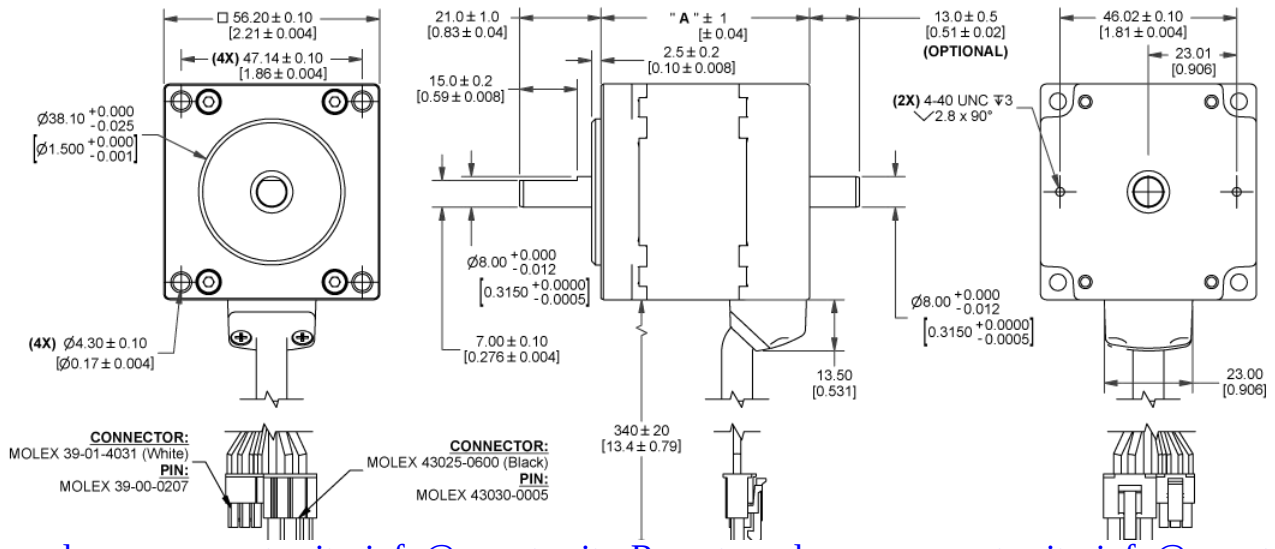
MOTOR SPECIFICATIONS

Part Number	**BL23E22-01D-RO**
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^2
Weight	1.41 lb [0.64 kg]
Electrical Time Constant	0.9 ms
Mechanical Time Constant	3.8 ms

DIMENSIONS



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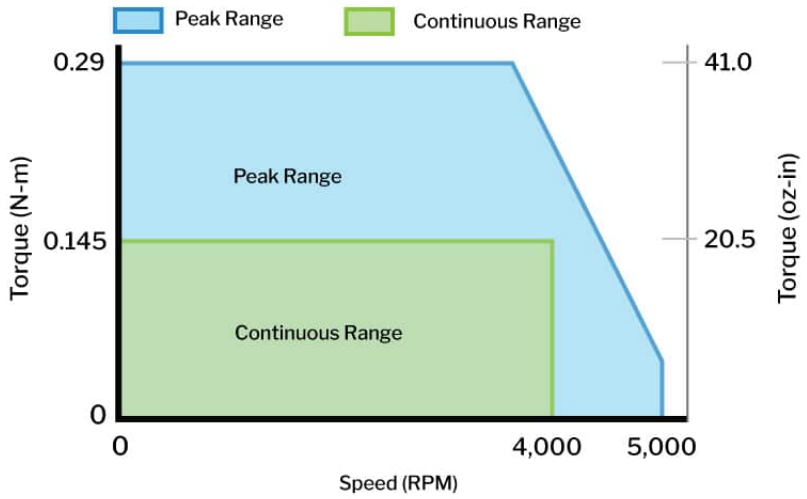
PERFORMANCE CURVE

BL23E22-01

Rated Voltage: 24Volts, Rated Current: 3.2 Amps

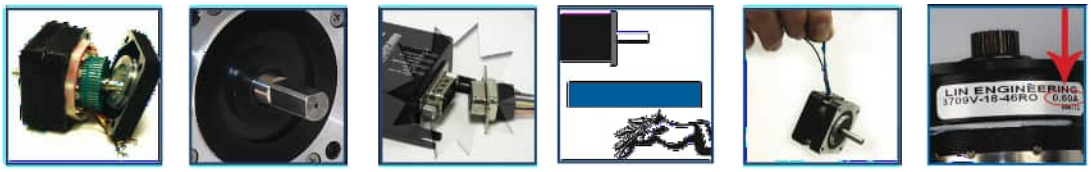


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



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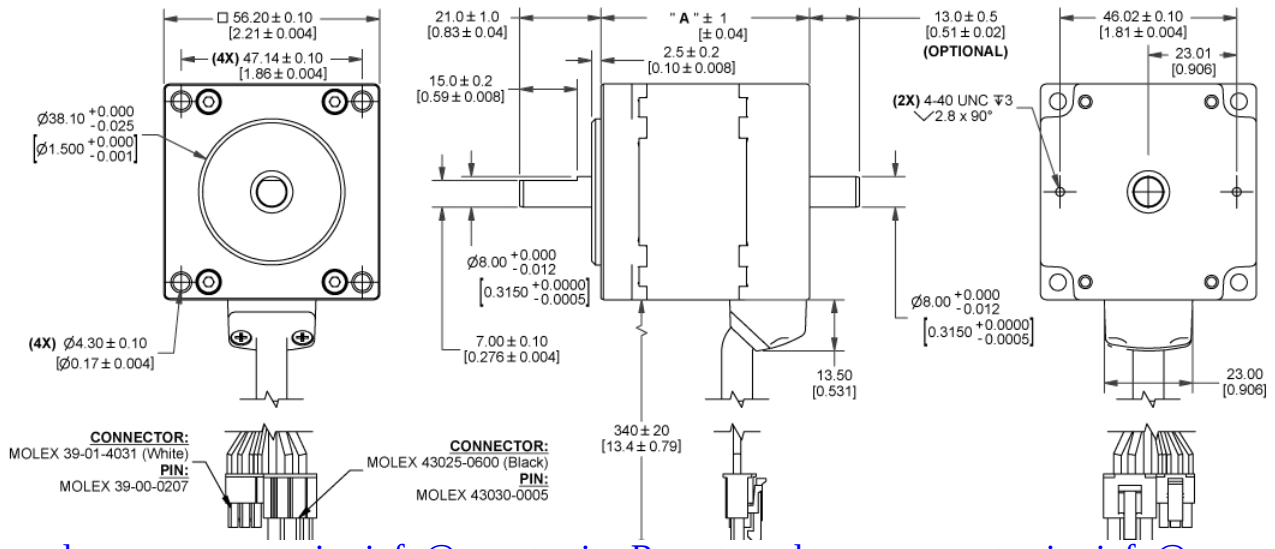

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PERFORMANCE CURVE

BL23E22-01

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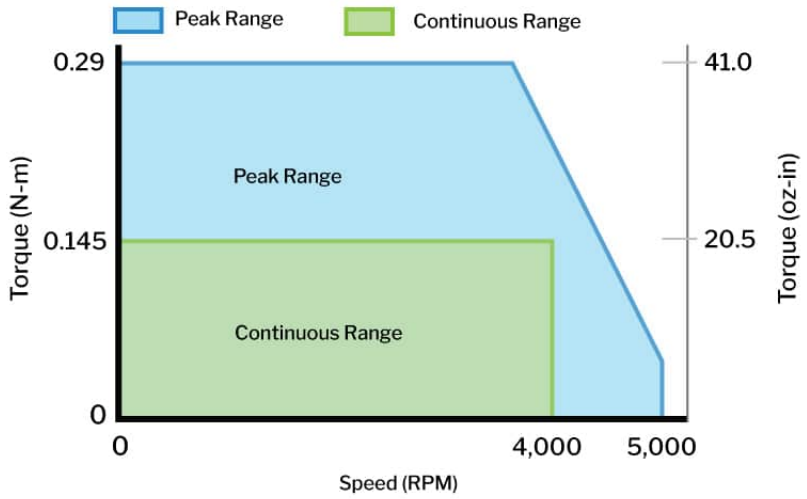

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PIN #	COLOR	PHASE
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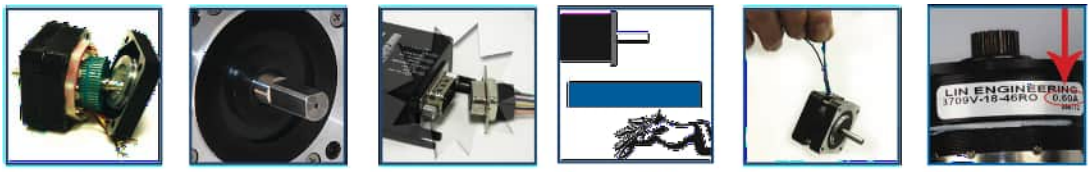
5	YELLOW	V

OPERATION & USAGE TIPS



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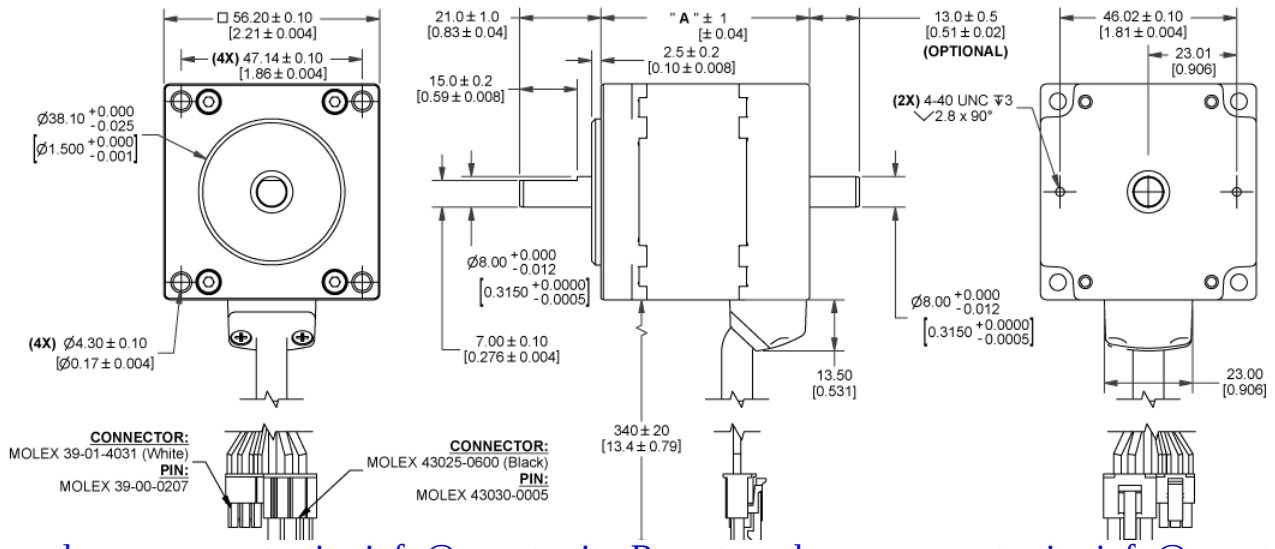
MOTOR SPECIFICATIONS

Part Number	**BL23E22-02D-RO**
Dimension “A” Max	2.19 in [55.5mm]
Rated Voltage	48 VDC
Rated Torque	20.53 oz-in [0.145N-m]
Rated Speed	4000 RPM
Rated Power	60 Watts
Rated Current	1.6 Amps
Peak Torque	41.07 oz-in [0.29N-m]
Peak Current	3.2 Amps
Torque Constant (kt)	12.74 oz-in/Amp
Back EMF Constant (Ke)	8.95 Vp/KRPM
Motor Constant (Km)	9.5 oz-in/√W [0.067 N-m/√W]
Resistance	1.8 Ohms
Inductance	1.9 mH
Rotor Inertia	0.81 oz-in^2
Weight	1.41 lb [0.64 kg]
Electrical Time Constant	1.1 ms
Mechanical Time Constant	3.5 ms

DIMENSIONS



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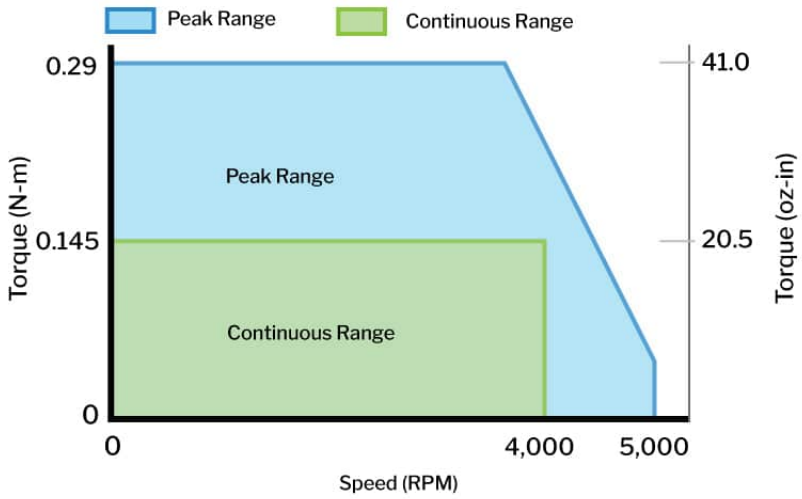
PERFORMANCE CURVE

BL23E22-02

Rated Voltage: 48Volts, Rated Current: 1.6 Amps

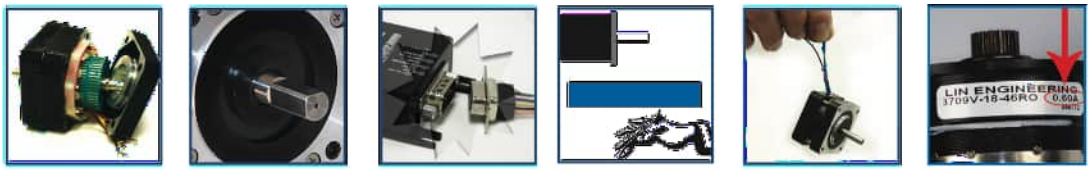


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



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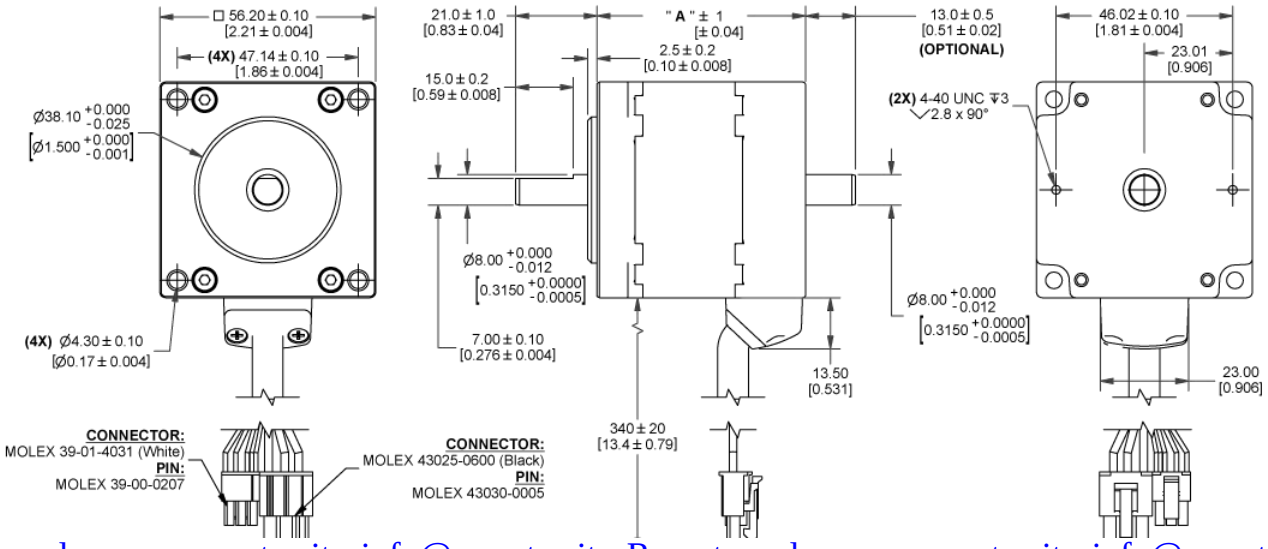

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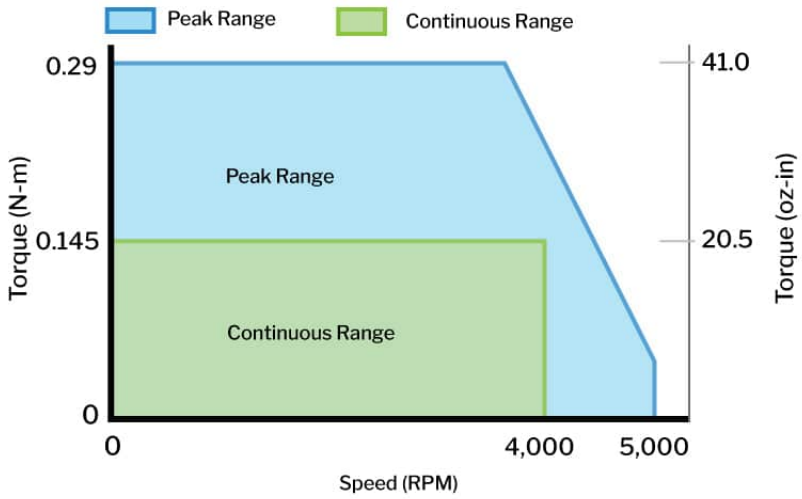

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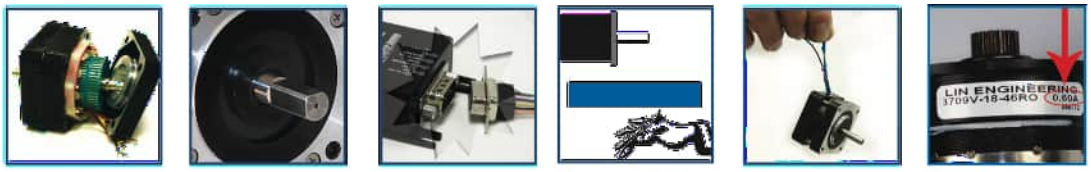
2	ORANGE	U
5	YELLOW	V

OPERATION & USAGE TIPS



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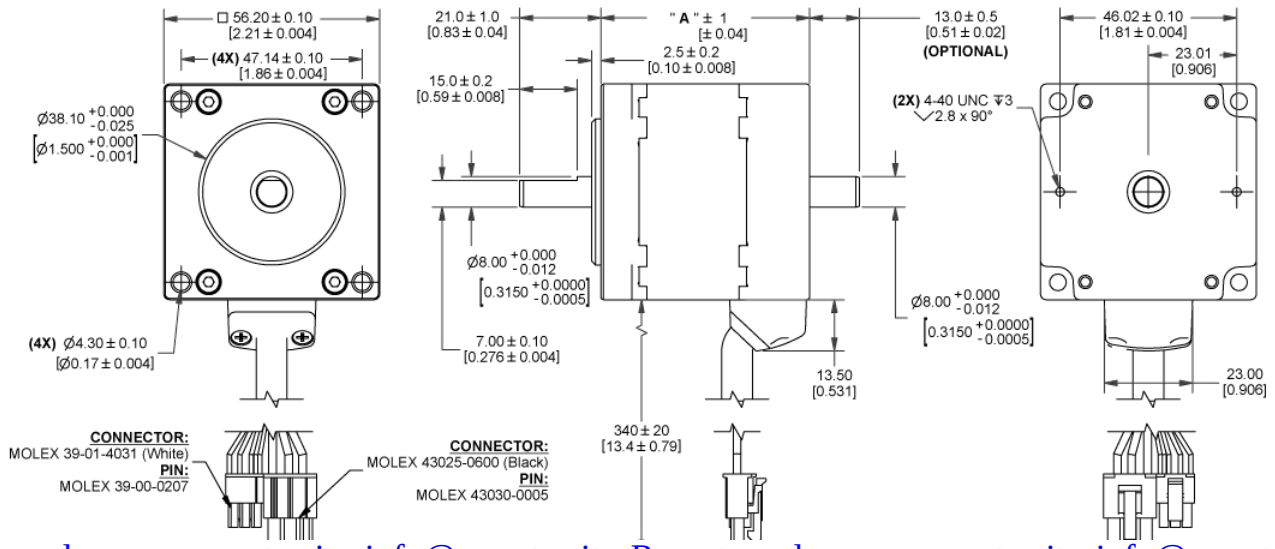
MOTOR SPECIFICATIONS

Part Number	**BL23E33-01D-RO**
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/√W [0.099 N-m/√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

DIMENSIONS



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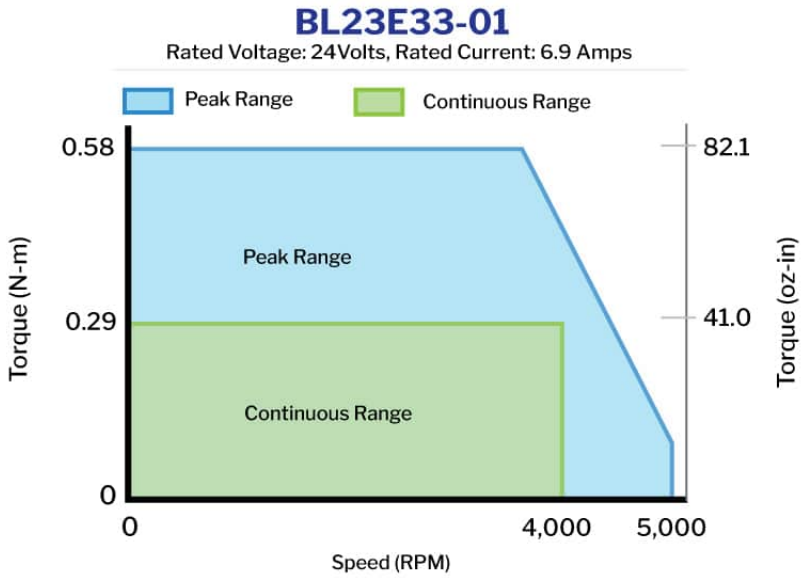

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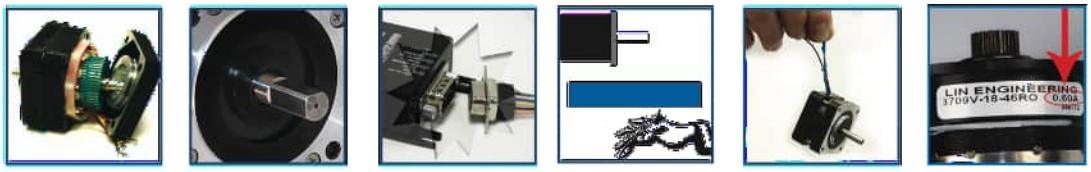

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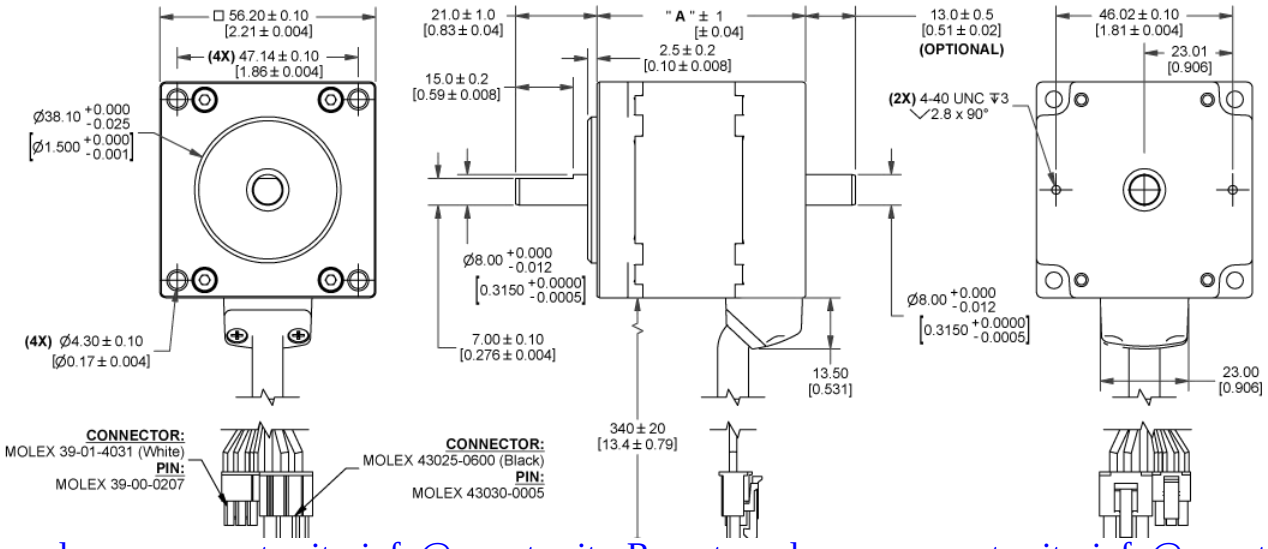

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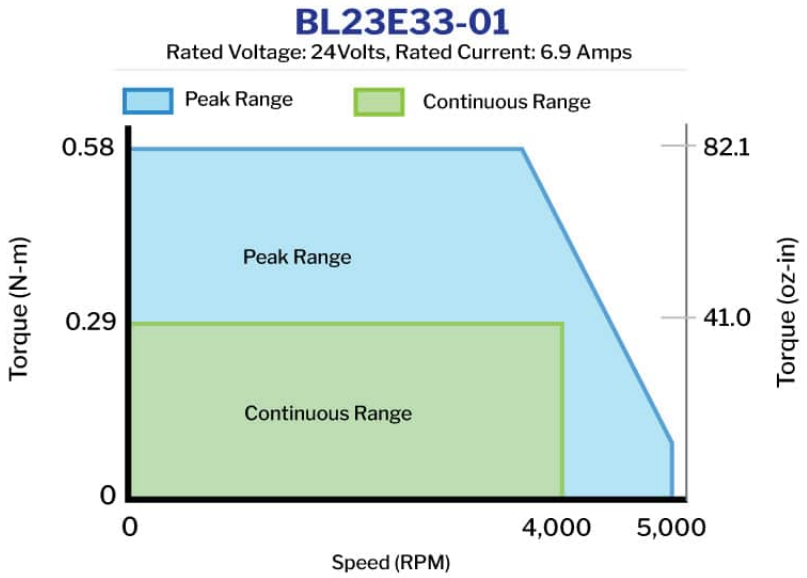

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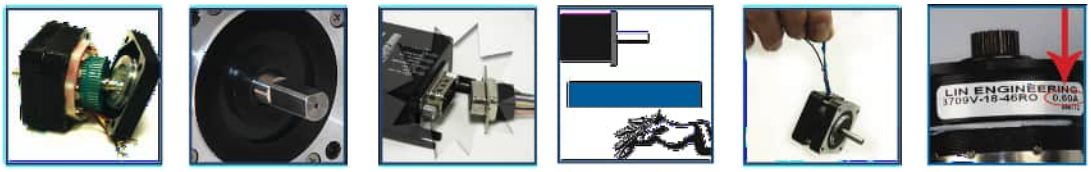

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Rated Current	3 Amps
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Peak Current	6 Amps
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Motor Constant (Km)	15.76 oz-in/√W [0.111 N-m/√W]
Resistance	0.76 Ohms
Inductance	0.84 mH
Rotor Inertia	1.53 oz-in^2
Weight	2.38 lb [1.08 kg]
Electrical Time Constant	1.1 ms
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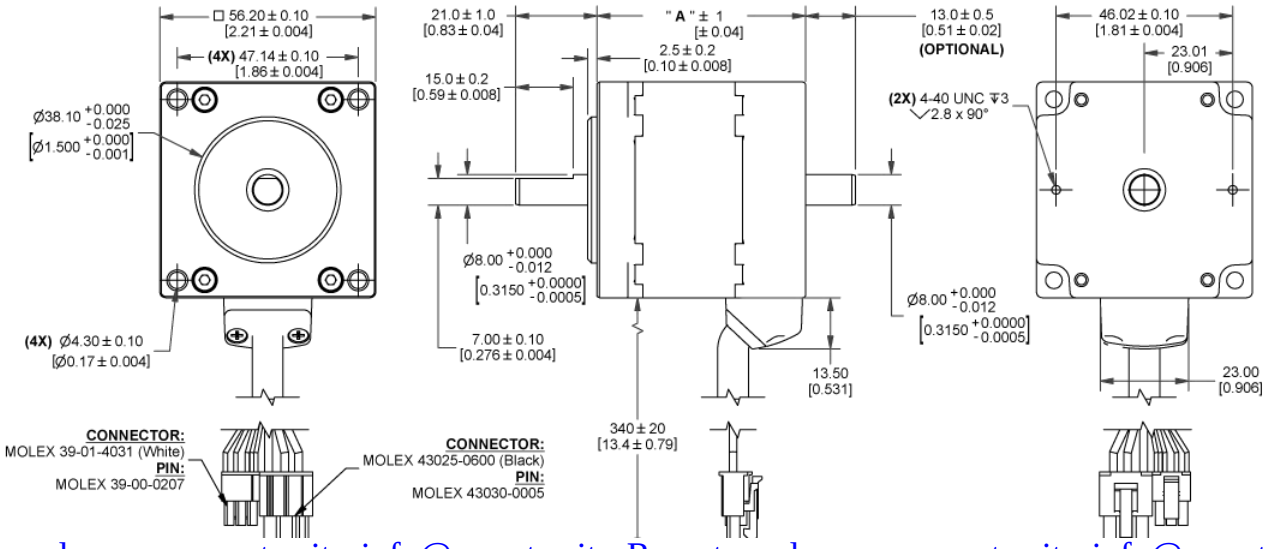

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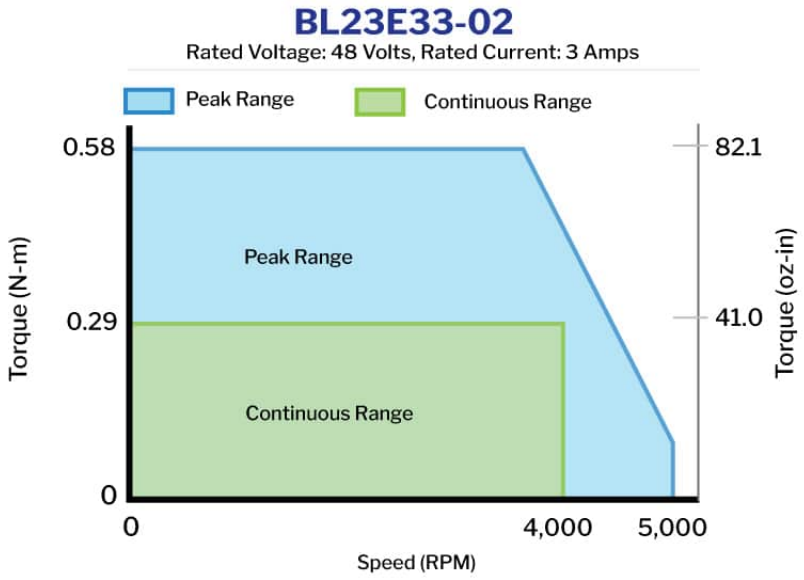

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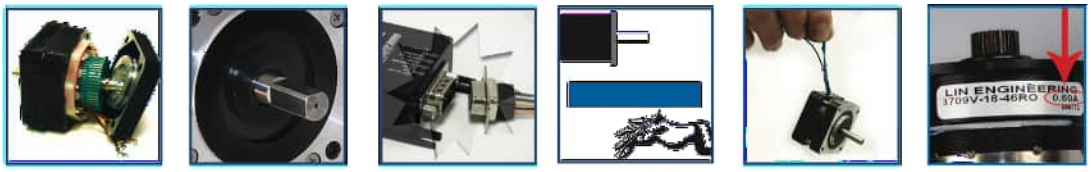

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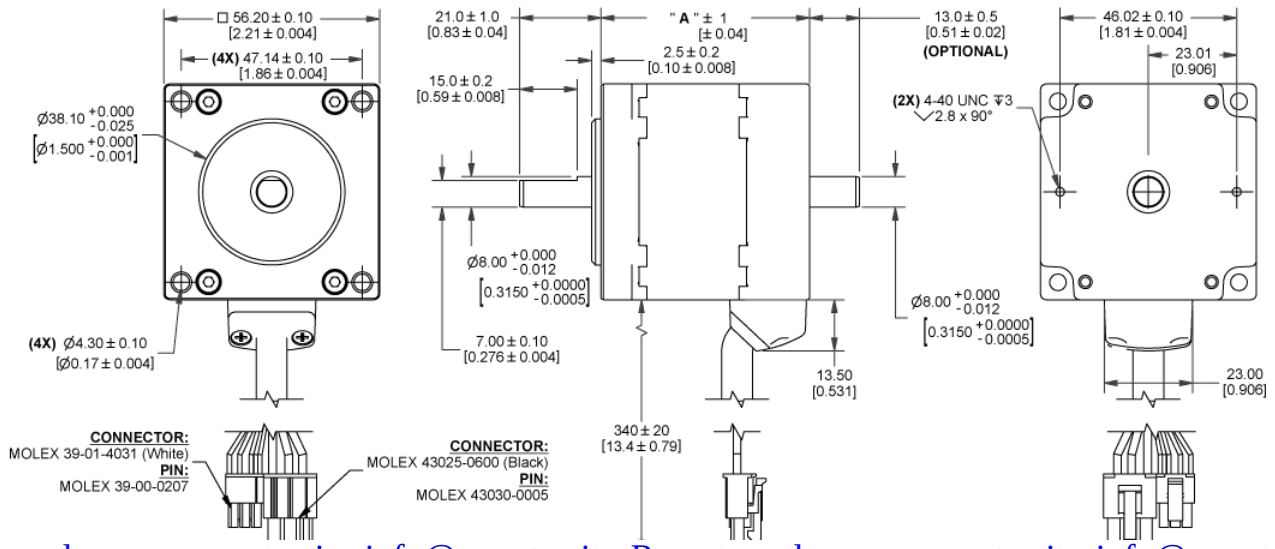

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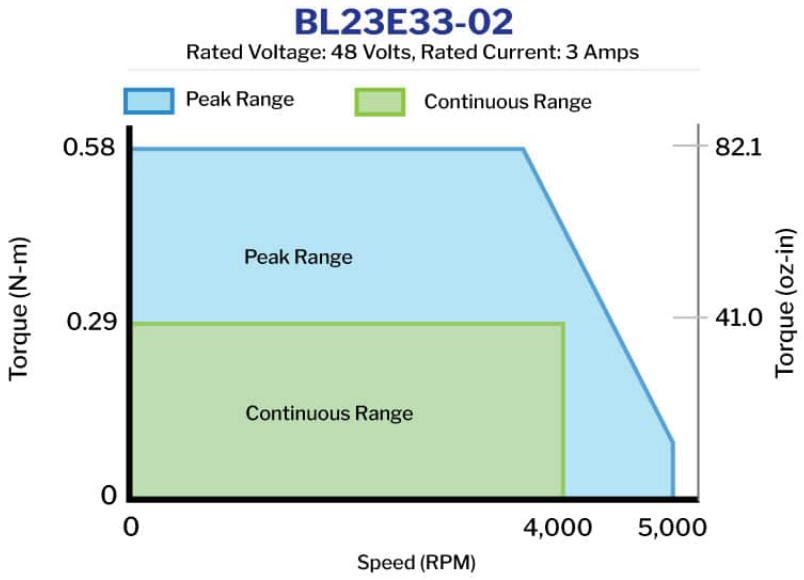

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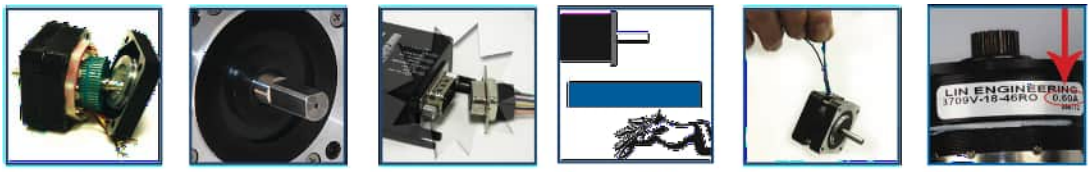

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MOTOR SPECIFICATIONS

Part Number	**BL23E48-02D-RO**
Dimension “A” Max	4.78 in [121.5mm]
Rated Voltage	48 VDC
Rated Torque	60.89 oz-in [0.43N-m]
Rated Speed	4000 RPM
Rated Power	180 Watts
Rated Current	4.5 Amps
Peak Torque	121.78 oz-in [0.85N-m]
Peak Current	9 Amps
Torque Constant (kt)	13.59 oz-in/Amp
Back EMF Constant (Ke)	9.09 Vp/KRPM
Motor Constant (Km)	20.49 oz-in/√W [0.145 N-m/√W]
Resistance	0.44 Ohms
Inductance	0.54 mH
Rotor Inertia	2.49 oz-in^2
Weight	3.75 lb [1.7 kg]
Electrical Time Constant	1.2 ms
Mechanical Time Constant	2.4 ms

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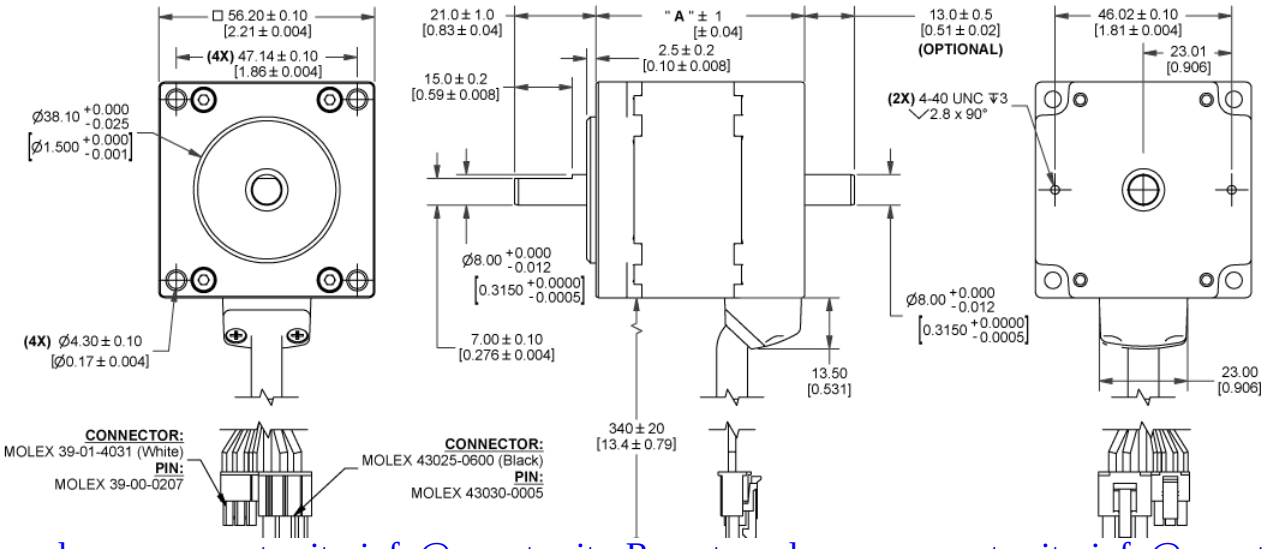

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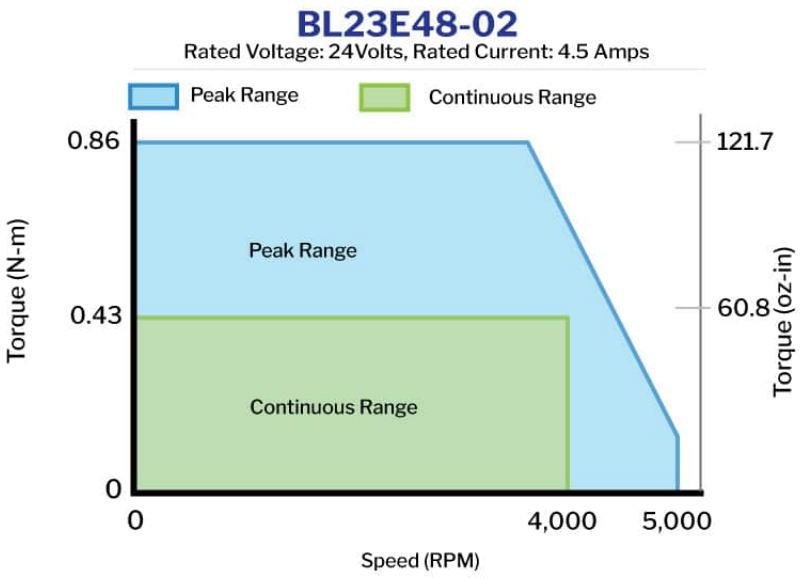

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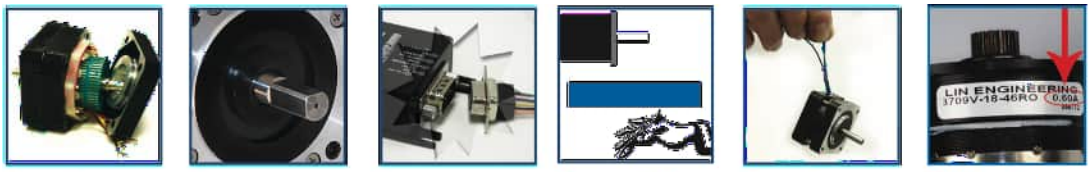
3	BLUE	HW
4	BLACK	GND
5	ORANGE	HU

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

OPERATION & USAGE TIPS



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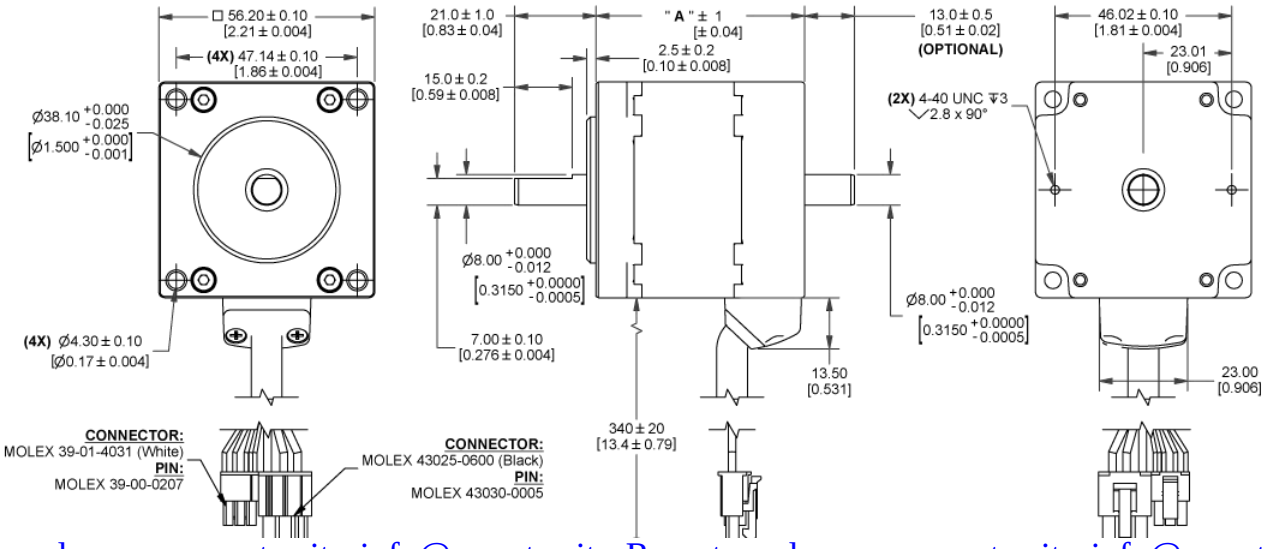
MOTOR SPECIFICATIONS

Part Number	**BL23E48-02-R0**
Dimension “A” Max	4.78 in [121.5mm]
Rated Voltage	48 VDC
Rated Torque	60.89 oz-in [0.43N-m]
Rated Speed	4000 RPM
Rated Power	180 Watts
Rated Current	4.5 Amps
Peak Torque	121.78 oz-in [0.85N-m]
Peak Current	9 Amps
Torque Constant (kt)	13.59 oz-in/Amp
Back EMF Constant (Ke)	9.09 Vp/KRPM
Motor Constant (Km)	20.49 oz-in/√W [0.145 N-m/√W]
Resistance	0.44 Ohms
Inductance	0.54 mH
Rotor Inertia	2.49 oz-in^2
Weight	3.75 lb [1.7 kg]
Electrical Time Constant	1.2 ms
Mechanical Time Constant	2.4 ms

DIMENSIONS



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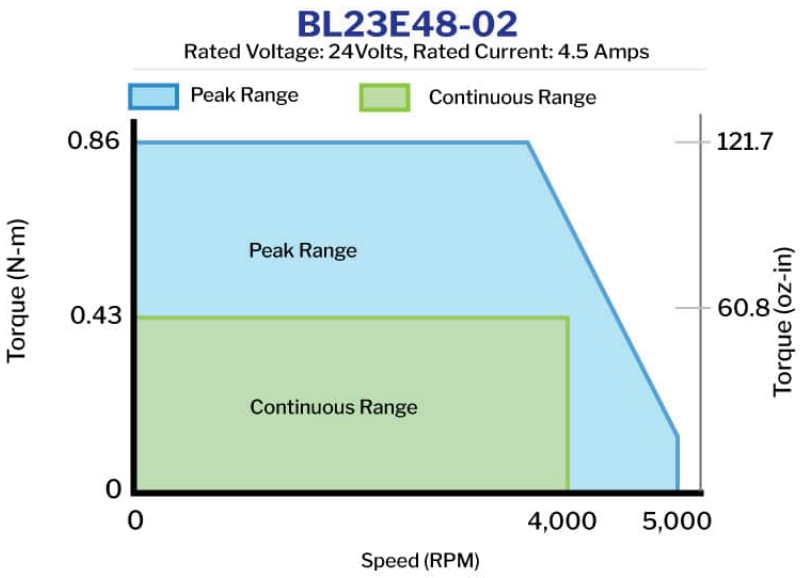
PERFORMANCE CURVE



PIN OUT CHARTS

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

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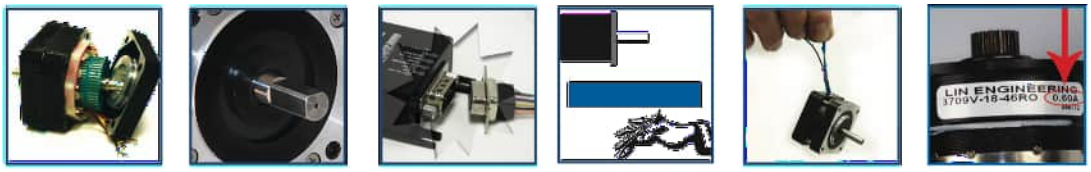
1	BLUE	W
2	ORANGE	U
5	YELLOW	V

OPERATION & USAGE TIPS



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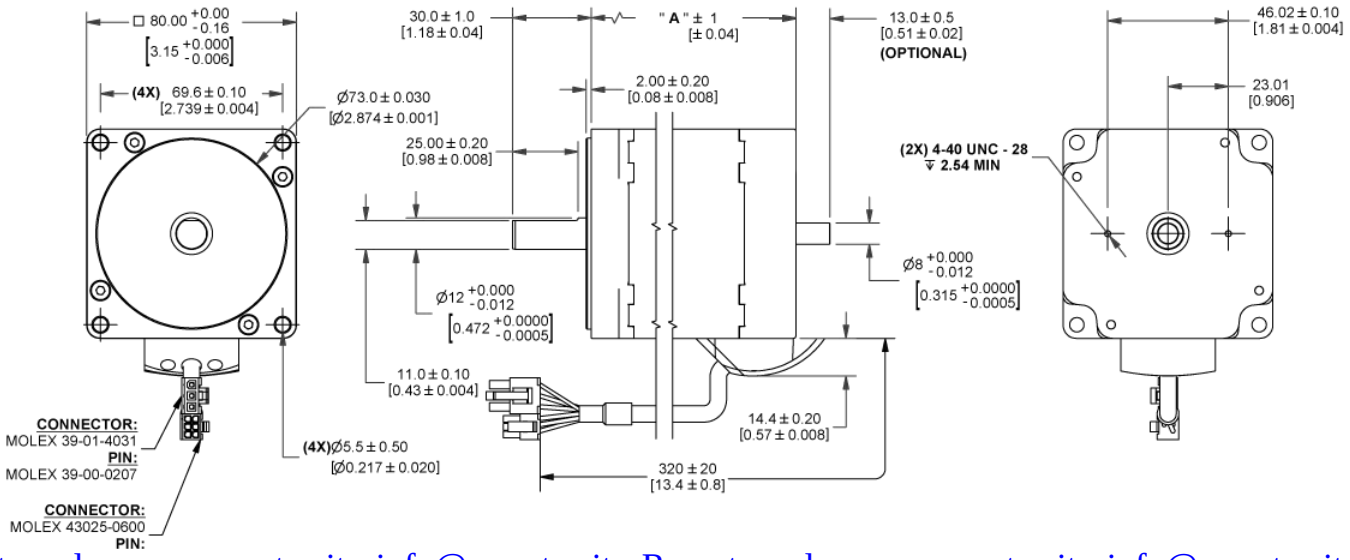
MOTOR SPECIFICATIONS

Part Number	**BL34E21-01D-RO**
Dimension “A” Max	2.01 in [51mm]
Rated Voltage	24 VDC
Rated Torque	33.99 oz-in [0.24N-m]
Rated Speed	4000 RPM
Rated Power	100 Watts
Rated Current	5 Amps
Peak Torque	68 oz-in [0.48N-m]
Peak Current	10 Amps
Torque Constant (kt)	6.8 oz-in/Amp
Back EMF Constant (Ke)	4.85 Vp/KRPM
Motor Constant (Km)	16.02 oz-in/√W [0.113 N-m/√W]
Resistance	0.18 Ohms
Inductance	0.34 mH
Rotor Inertia	2.08 oz-in^2
Weight	2.16 lb [0.98 kg]
Electrical Time Constant	1.9 ms
Mechanical Time Constant	3.1 ms

DIMENSIONS



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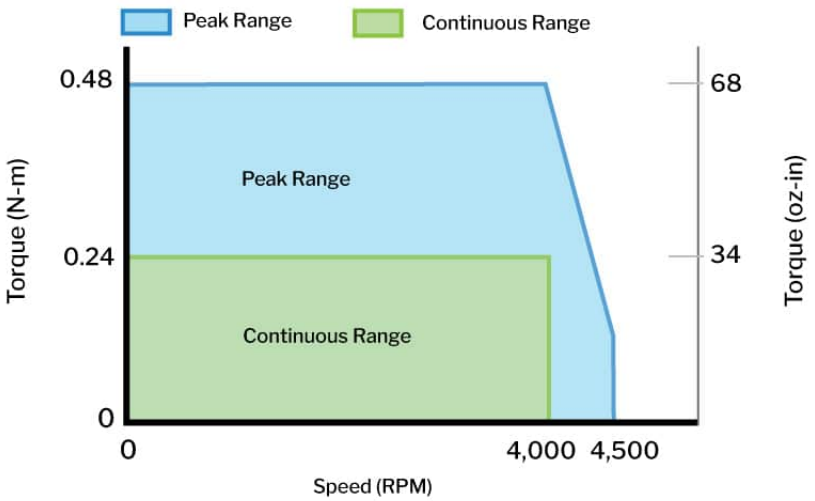
PERFORMANCE CURVE

BL34E21-01

Rated Voltage: 24 Volts, Rated Current: 5 Amps

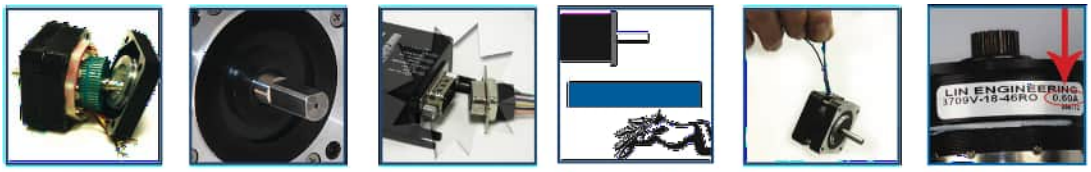


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



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MOTOR SPECIFICATIONS

Part Number	**BL34E21-01-RO**
Dimension “A” Max	2.01 in [51mm]
Rated Voltage	24 VDC
Rated Torque	33.99 oz-in [0.24N-m]
Rated Speed	4000 RPM
Rated Power	100 Watts
Rated Current	5 Amps
Peak Torque	68 oz-in [0.48N-m]
Peak Current	10 Amps
Torque Constant (kt)	6.8 oz-in/Amp
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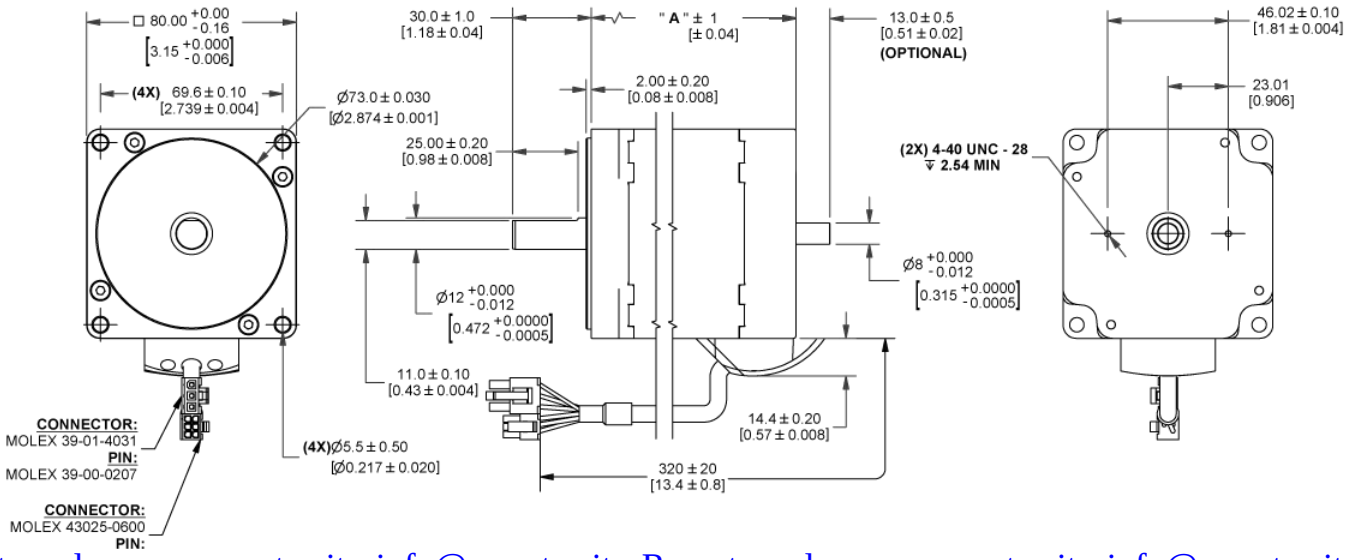

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PERFORMANCE CURVE

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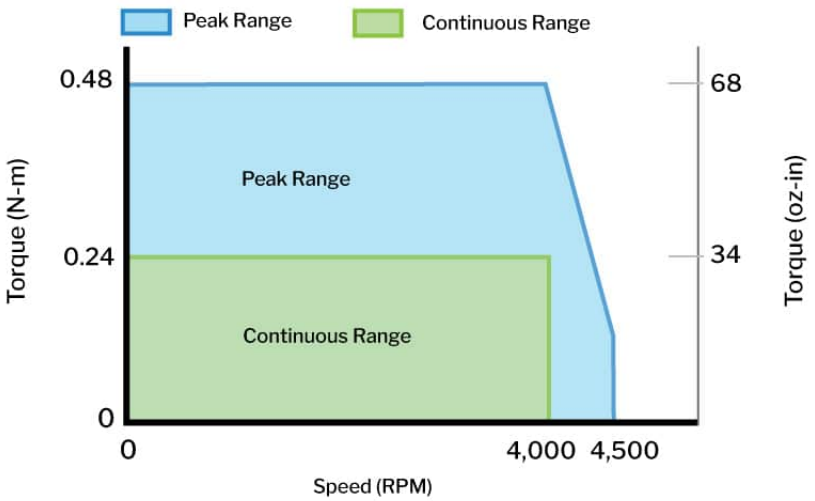
Rated Voltage: 24 Volts, Rated Current: 5 Amps



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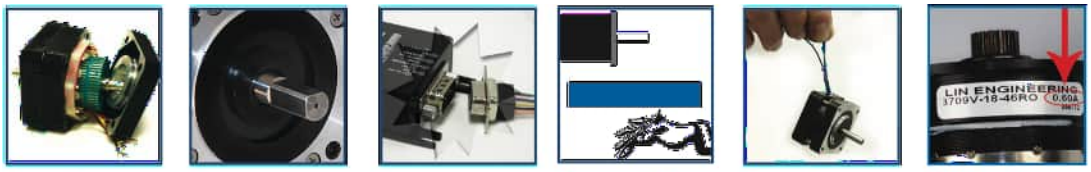

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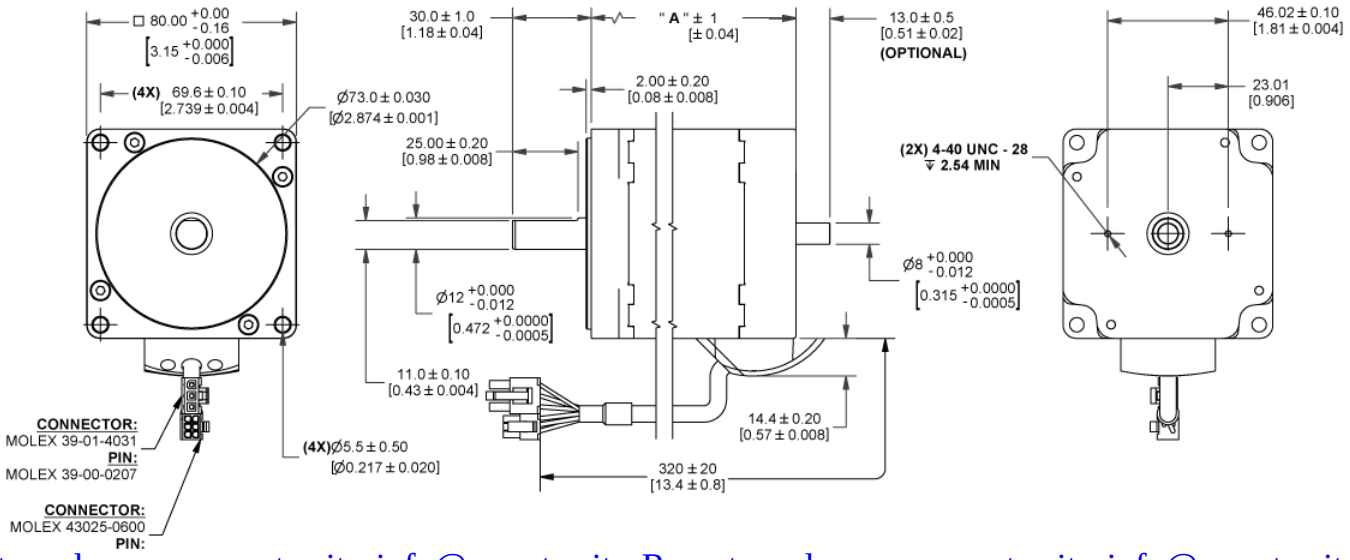
MOTOR SPECIFICATIONS

Part Number	**BL34E21-02D-RO**
Dimension “A” Max	2.01 in [51mm]
Rated Voltage	48 VDC
Rated Torque	33.99 oz-in [0.24N-m]
Rated Speed	4000 RPM
Rated Power	100 Watts
Rated Current	2.43 Amps
Peak Torque	68 oz-in [0.48N-m]
Peak Current	4.86 Amps
Torque Constant (kt)	14.02 oz-in/Amp
Back EMF Constant (Ke)	9.7 Vp/KRPM
Motor Constant (Km)	16.64 oz-in/√W [0.118 N-m/√W]
Resistance	0.71 Ohms
Inductance	1.35 mH
Rotor Inertia	2.08 oz-in^2
Weight	2.16 lb [0.98 kg]
Electrical Time Constant	1.9 ms
Mechanical Time Constant	2.9 ms

DIMENSIONS



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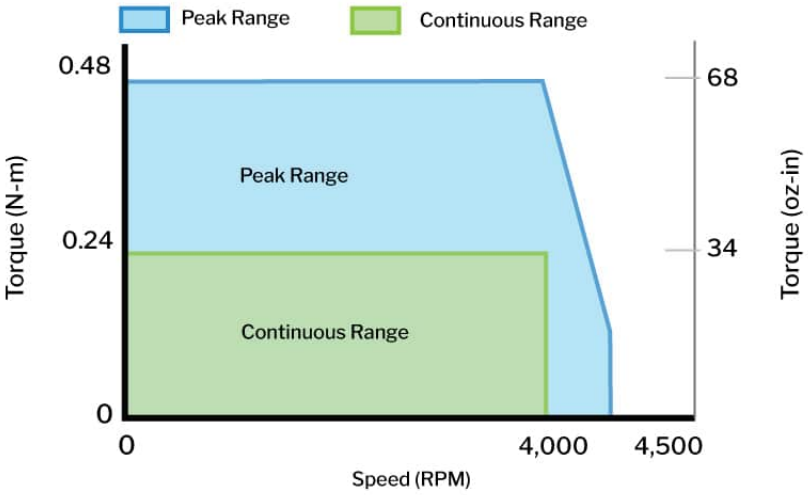
PERFORMANCE CURVE

BL34E21-02

Rated Voltage: 48 Volts, Rated Current: 2.43 Amps



PIN OUT CHARTS

PIN #	COLOR	PHASE
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2	YELLOW	HV
3	BLUE	HW
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5	ORANGE	HU

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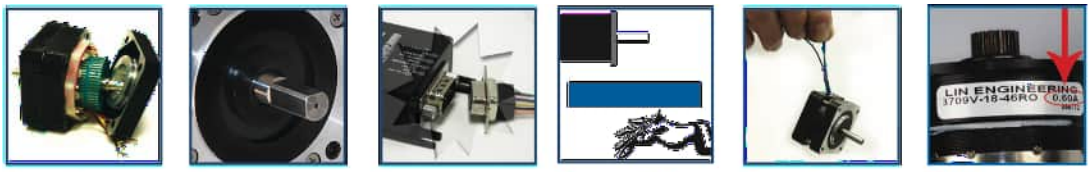
2	ORANGE	U
5	YELLOW	V

OPERATION & USAGE TIPS



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Part Number	**BL34E21-02-RO**
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Weight	2.16 lb [0.98 kg]
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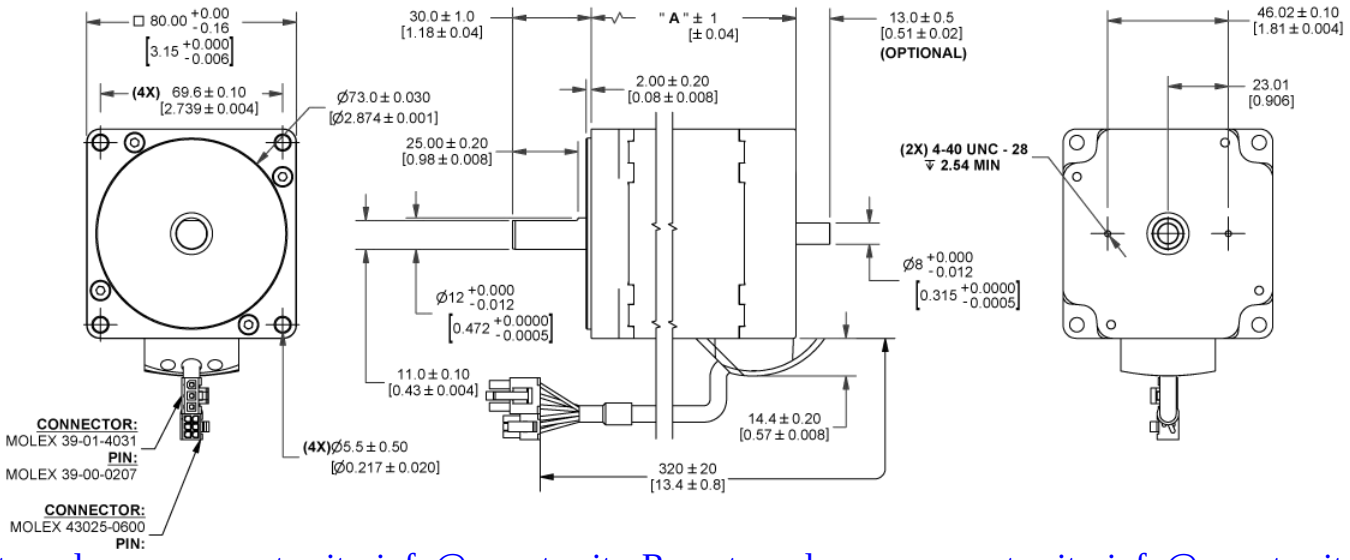

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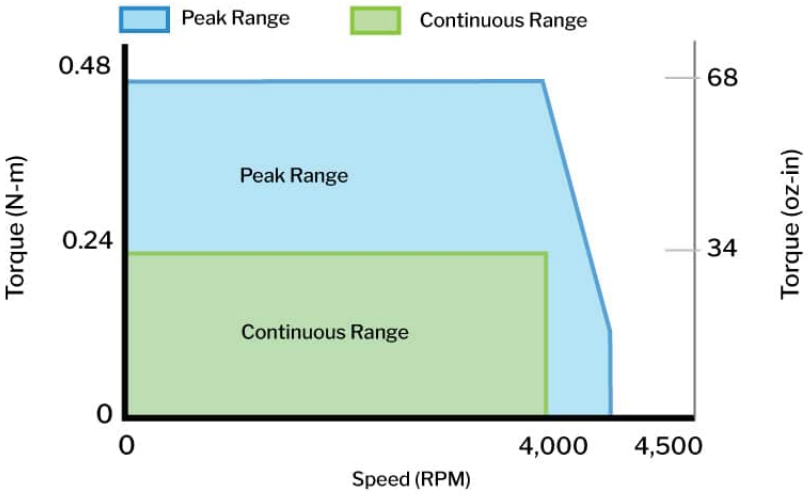
PERFORMANCE CURVE

BL34E21-02

Rated Voltage: 48 Volts, Rated Current: 2.43 Amps



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2	YELLOW	HV
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5	ORANGE	HU

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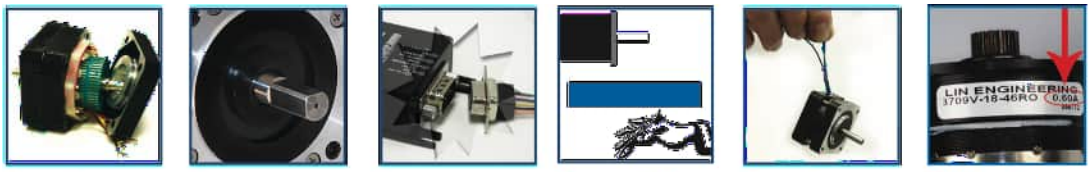
OPERATION & USAGE TIPS



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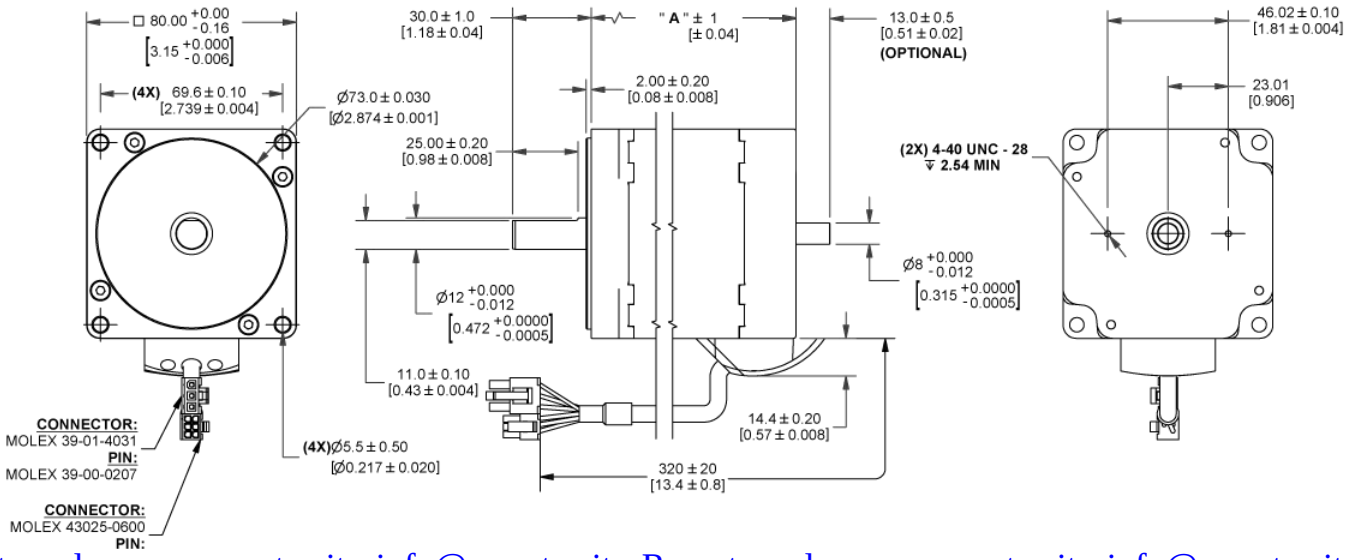
MOTOR SPECIFICATIONS

Part Number	**BL34E27-02D-RO**
Dimension “A” Max	2.68 in [68mm]
Rated Voltage	48 VDC
Rated Torque	67.97 oz-in [0.48N-m]
Rated Speed	4000 RPM
Rated Power	200 Watts
Rated Current	5.06 Amps
Peak Torque	136 oz-in [0.96N-m]
Peak Current	10.12 Amps
Torque Constant (kt)	13.45 oz-in/Amp
Back EMF Constant (Ke)	9.53 Vp/KRPM
Motor Constant (Km)	23.78 oz-in/√W [0.168 N-m/√W]
Resistance	0.32 Ohms
Inductance	0.7 mH
Rotor Inertia	4.05 oz-in^2
Weight	3.44 lb [1.56 kg]
Electrical Time Constant	2.2 ms
Mechanical Time Constant	2.7 ms

DIMENSIONS



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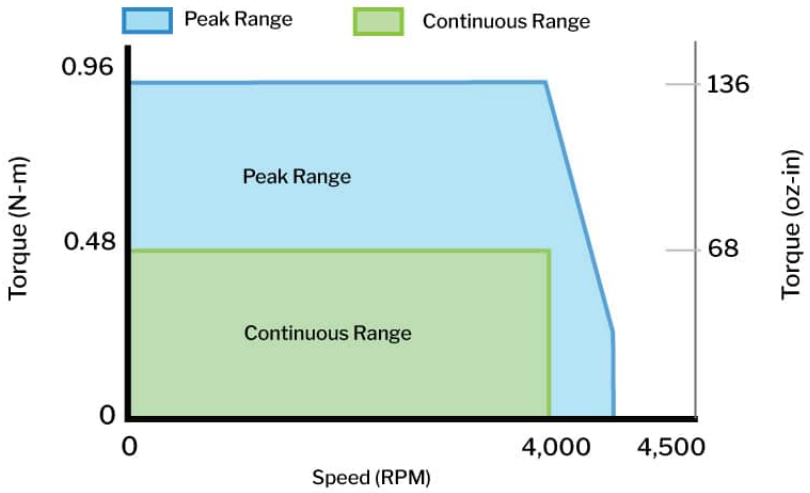
PERFORMANCE CURVE

BL34E27-02

Rated Voltage: 48 Volts, Rated Current: 5.06 Amps

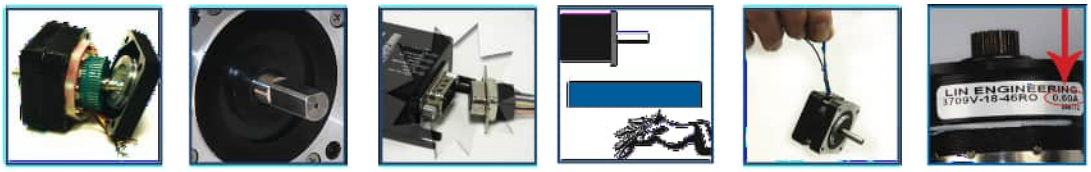


PIN OUT CHARTS

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

OPERATION & USAGE TIPS



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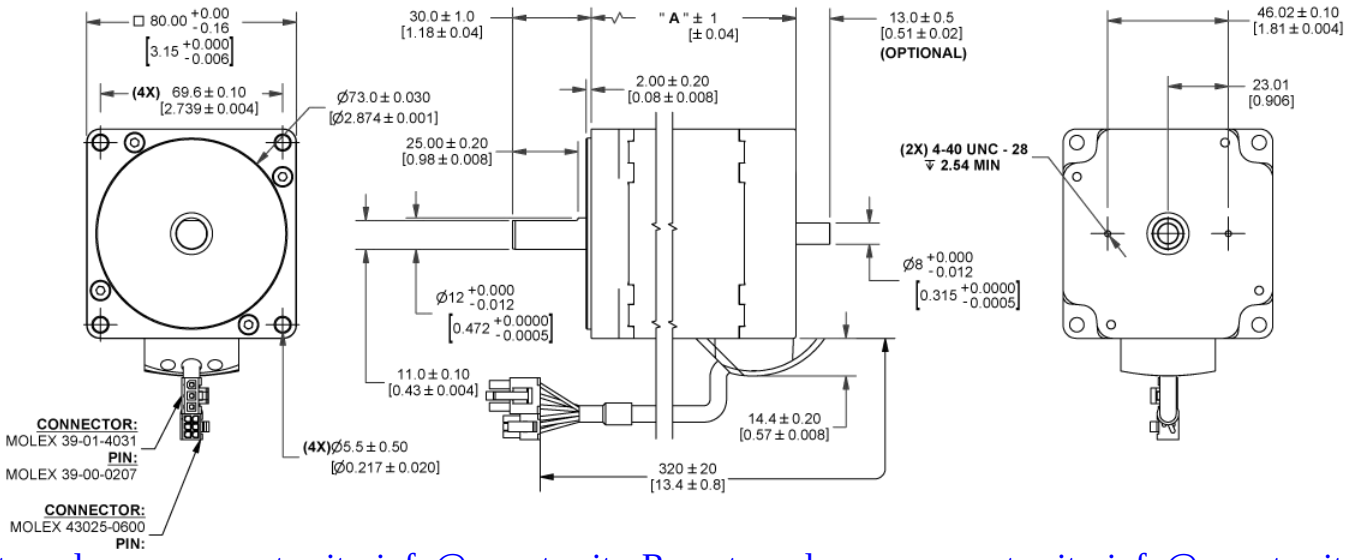
MOTOR SPECIFICATIONS

Part Number	**BL34E27-02-R0**
Dimension “A” Max	2.68 in [68mm]
Rated Voltage	48 VDC
Rated Torque	67.97 oz-in [0.48N-m]
Rated Speed	4000 RPM
Rated Power	200 Watts
Rated Current	5.06 Amps
Peak Torque	136 oz-in [0.96N-m]
Peak Current	10.12 Amps
Torque Constant (kt)	13.45 oz-in/Amp
Back EMF Constant (Ke)	9.53 Vp/KRPM
Motor Constant (Km)	23.78 oz-in/√W [0.168 N-m/√W]
Resistance	0.32 Ohms
Inductance	0.7 mH
Rotor Inertia	4.05 oz-in^2
Weight	3.44 lb [1.56 kg]
Electrical Time Constant	2.2 ms
Mechanical Time Constant	2.7 ms

DIMENSIONS



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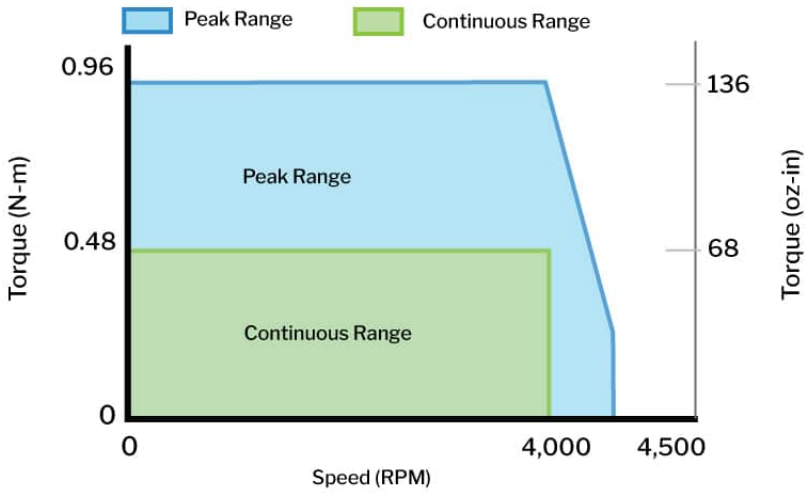
PERFORMANCE CURVE

BL34E27-02

Rated Voltage: 48 Volts, Rated Current: 5.06 Amps



PIN OUT CHARTS

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
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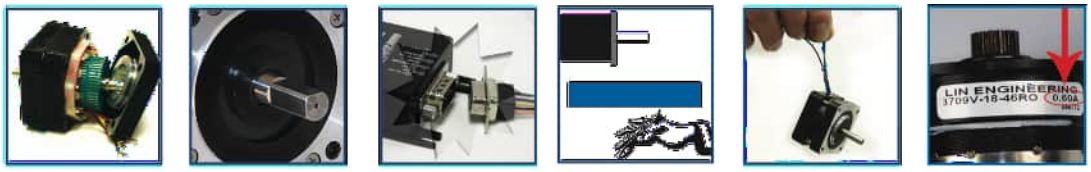
OPERATION & USAGE TIPS



Do not disassemble motor as 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

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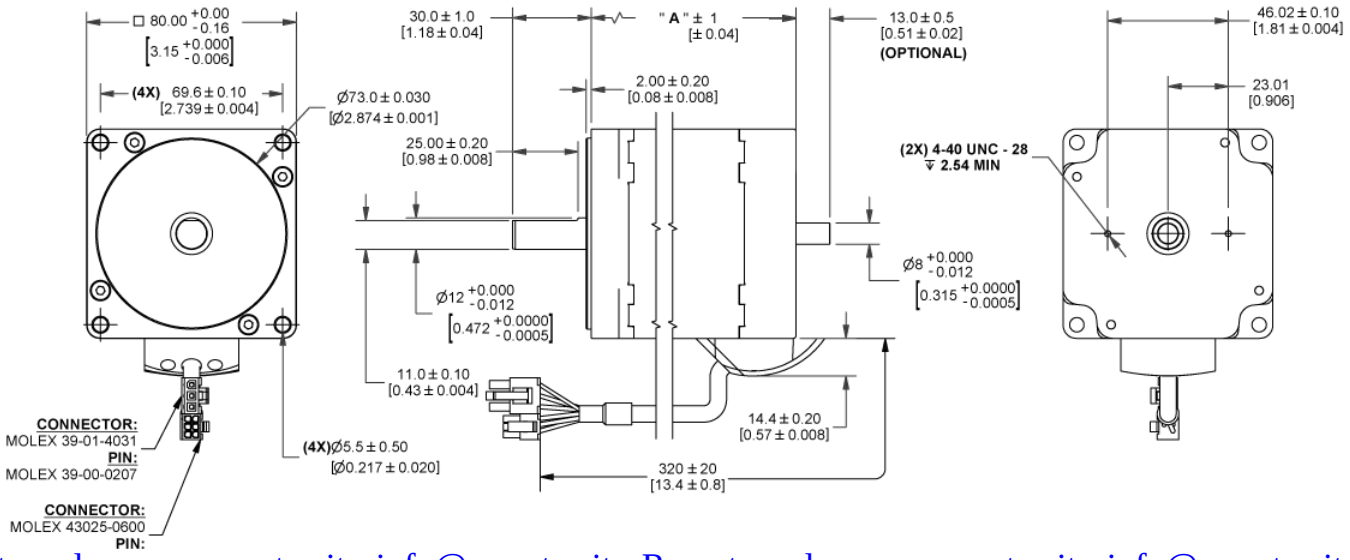
MOTOR SPECIFICATIONS

Part Number	**BL34E34-01D-RO**
Dimension “A” Max	3.35 in [85mm]
Rated Voltage	48 VDC
Rated Torque	101.96 oz-in [0.72N-m]
Rated Speed	4000 RPM
Rated Power	300 Watts
Rated Current	7.49 Amps
Peak Torque	204 oz-in [1.44N-m]
Peak Current	14.98 Amps
Torque Constant (kt)	13.59 oz-in/Amp
Back EMF Constant (Ke)	9.91 Vp/KRPM
Motor Constant (Km)	30.4 oz-in/√W [0.215 N-m/√W]
Resistance	0.2 Ohms
Inductance	0.47 mH
Rotor Inertia	5.9 oz-in^2
Weight	5.64 lb [2.56 kg]
Electrical Time Constant	2.4 ms
Mechanical Time Constant	2.4 ms

DIMENSIONS



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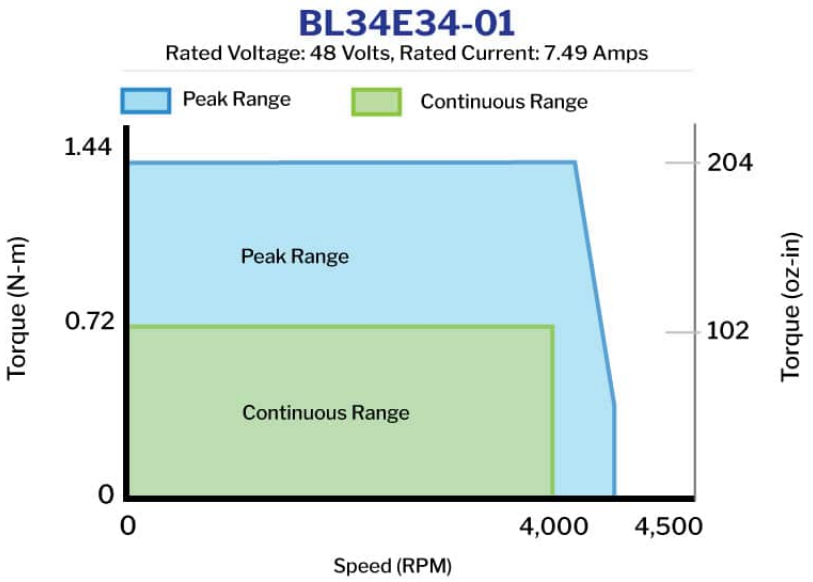
PERFORMANCE CURVE



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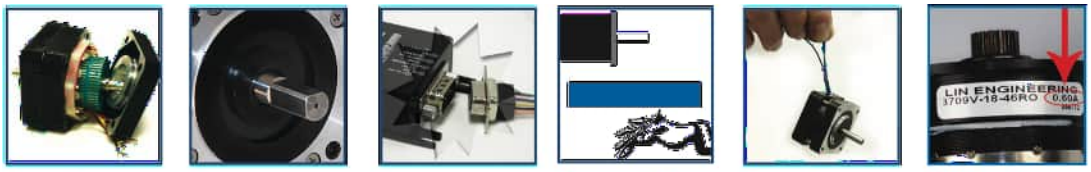

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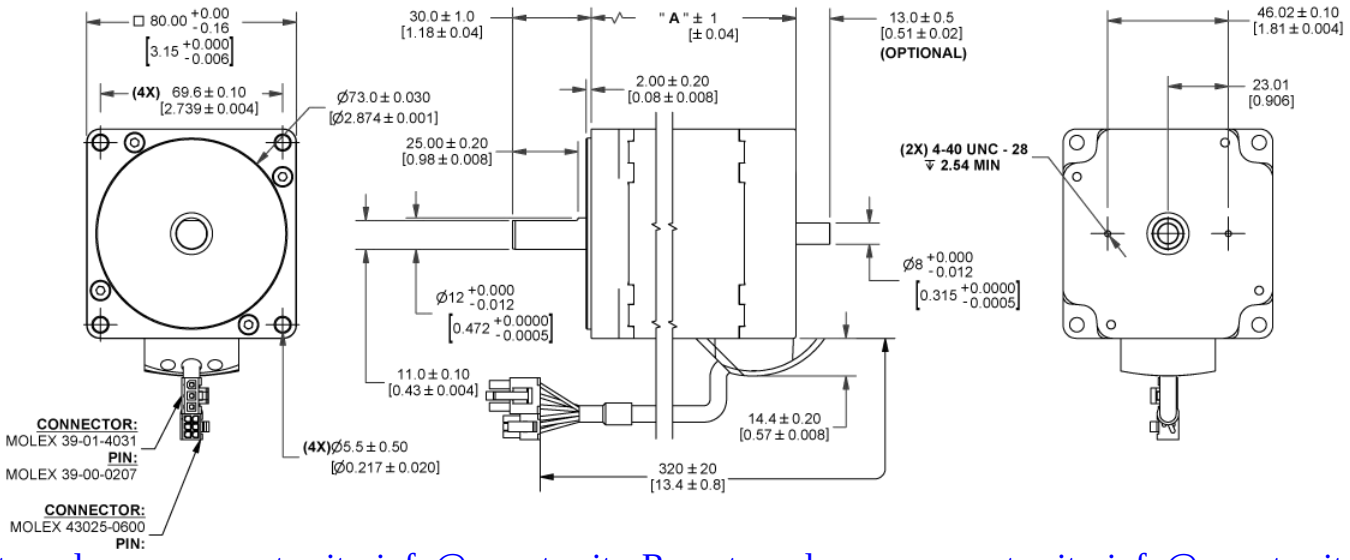

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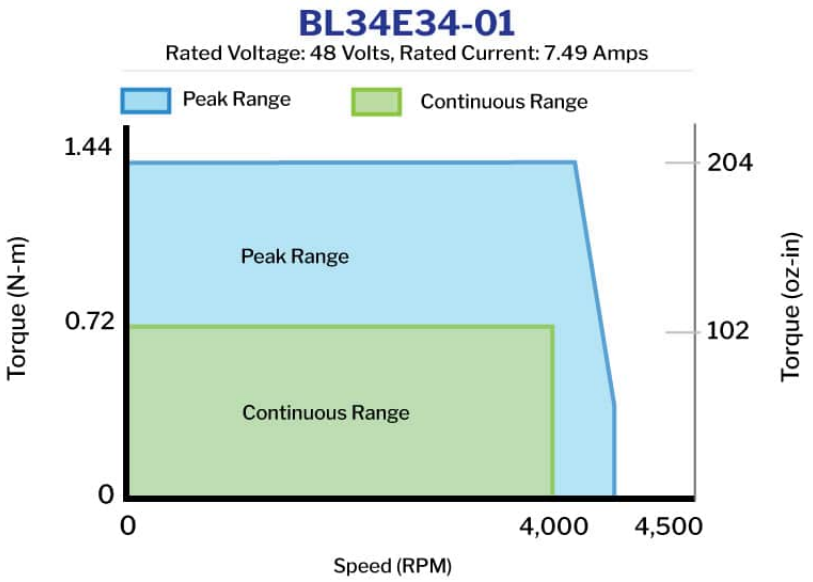

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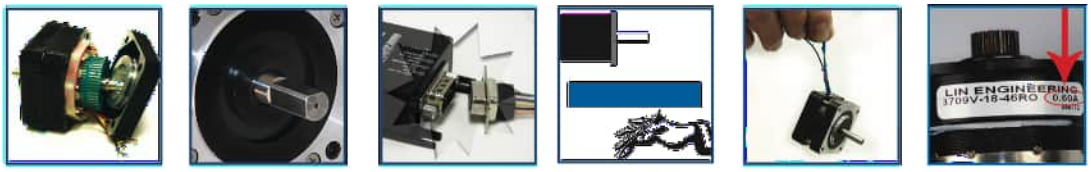

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