

# BLWS24 Series - Brushless DC Motors



## FEATURES

- **NEMA Size 24 BLDC Motors**
- **Compact Size and Power Density**
- **Cost Effective Solution**
- **Long Life and Highly Reliable**
- **Can be Customized for**
  - **Maximum Speed**
  - **Winding Current**
  - **Shaft Options**
  - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



## DESCRIPTION

The BLWS24 Series Brushless DC Motors come in a compact package with high power density. These motors are cost effective solutions to many velocity control applications. The motors come in a standard 8-lead configuration. We can also customize the windings to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request.

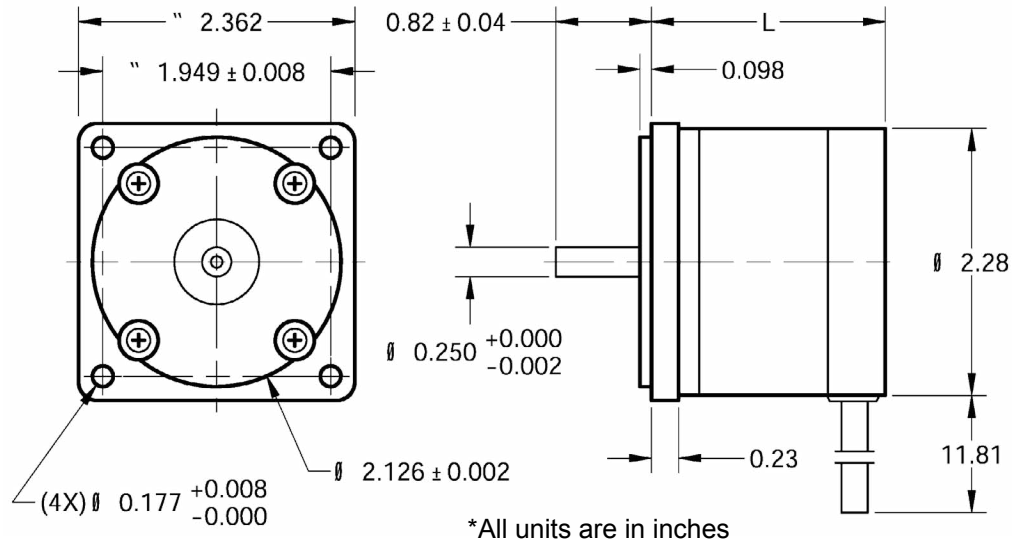
## SPECIFICATIONS

Model #	FRAME Size	Rated Voltage (V)	Rated Speed (RPM)	Rated Power (W)	Peak Torque (oz-in)	Peak Current (A)	Line to Line Resistance (ohms)	Line to Line Inductance (mH)	Torque Constant (oz-in/A)	Back EMF Voltage (V/ kRPM)	Rotor Inertia (oz-in-sec <sup>2</sup> )	Weight (lbs)	"L" Length (in)
BLWS242S-24V-2300	NEMA 24	24	2300	57	78	11	1.4	1.7	7.1	5.5	0.0028	1.4	2.04

Note: The 8th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windngs are available upon request.

L010797

DIMENSIONS

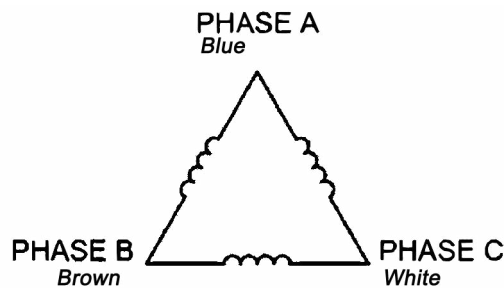


WIRING INFORMATION

Wire Color	Description
Orange	Hall Supply
Red	Hall A
Yellow	Hall B
Green	Hall C
Black	Hall Ground
Blue	Phase A
Brown	Phase B
White	Phase C

Hall Sensor Specifications
Supply Voltage: 4.5VDC to 28VDC
Current, $I_{off}$ : 10mA max
Current, $I_{on}$ : 11.3mA max
Rated Sinking Current: 20mA
Saturation Voltage: 0.4VDC max @ 25°C
Output Leakage Current: 10µA
Output Switching Time @ 25°C
Rise, 10% to 90% 1.5µs
Fall, 90% to 10% 1.5µs
Output Type: Open Collector

SPECIFICATIONS



Winding Type:	Delta, 4 Poles	Max. Radial Force:	75N @ 20mm from the Flange
Hall Effect Angle:	120 Degree Electrical Angle	Max. Axial Force:	15N
Shaft Run Out:	0.025mm	Insulation Class:	Class B
Radial Play:	0.02mm@460g	Dielectric Strength:	500VDC for one Minute
End Play:	0.025mm@4000g	Insulation Resistance:	100MOhm, 500VDC