

# BLZ48 Series - Brushless DC Motors



## FEATURES

- **NEMA Size 48 BLDC Motors**
- **Compact Size with High Power Density**
- **Cost Effective Solution**
- **Long Life and Highly Reliable**
- **Can be Customized for**
  - Maximum Speed
  - Winding Current
  - Shaft Options
  - Cables and Connectors



## DESCRIPTION

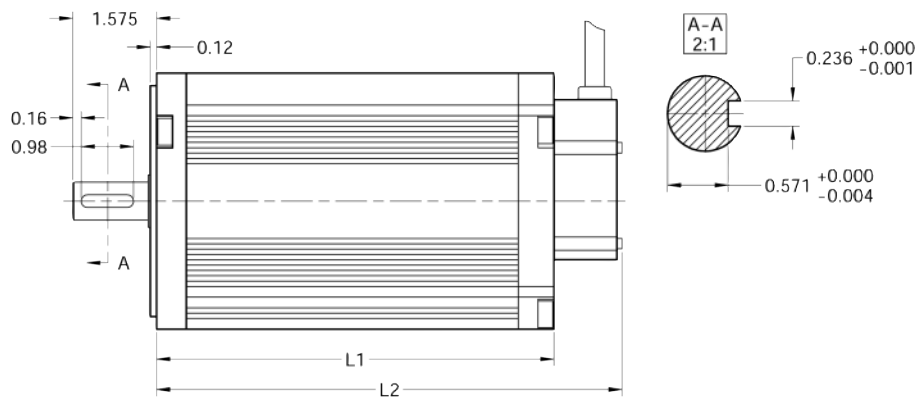
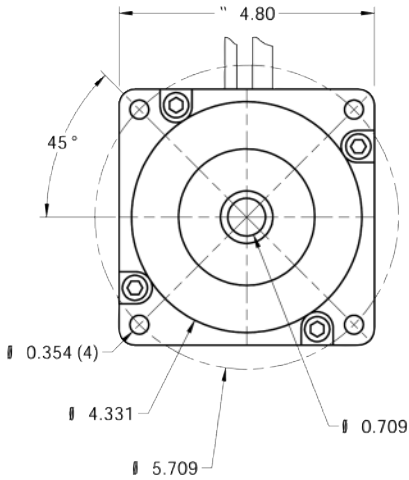
The BLZ48 Series Brushless DC Motors come in a compact package with high power density. These motors are cost effective solutions to many velocity control applications. A number of windings are available off-the-shelf and the motors can be customized to fit your machine requirements. The motors come in a standard 8-lead configuration. We can also customize the winding to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request.

## SPECIFICATIONS

Model #	Rated Voltage (VDC)	Rated Speed (RPM)	No Load Speed (RPM)	Rated Power (Watts)	Rated Torque (oz-in)	No Load Current (A)	Rated Current (A)	Torque Constant	Line to Line Resistance (ohms)	Rotor Inertia (oz-in-se <sup>2</sup> )	Weight (lbs)
BLZ482S-48V-4000	48	4000	4200	1500	595	4.5	36	17	0.04	1.09	19.8
BLZ482S-160V-3500	160	3500	4000	1500	595	1.35	11	51	0.14	1.09	19.8
BLZ482S-320V-3500	320	3500	4000	1500	595	1.35	5.65	106	0.57	1.09	19.8
BLZ483S-48V-4000	48	4000	4000	2200	877	5	58	50	0.09	1.27	23.1
BLZ483S-160V-3500	160	3500	4000	2200	877	5	17.5	15	0.1	1.27	23.1
BLZ483S-320V-3500	320	3500	4000	2200	850	5	-	-	-	1.27	23.1

Notes: Custom leadwires, cables, connectors, and windings are available upon request.

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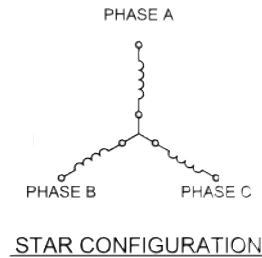


(All units are inches)

Model #	Length "L1" (inches)	Length "L2" (inches)	Model #	Length "L1" (inches)	Length "L2" (inches)
BLZ482S-48V-4000	7.6	8.6	BLZ483S-48V-4000	8.8	9.5
BLZ482S-160V-3500	7.6	8.6	BLZ483S-160V-3500	8.8	9.5
BLZ482S-320V-3500	7.6	8.6			

Wire Color	
Blue	U (A)
Brown	V (B)
Red	W (C)

Wire Color	Description
Green	Phase U (A)
Yellow	Phase V (B)
Red	Phase W (C)
Red	Hall Supply
Yellow	Hall A
Orange	Hall B
Brown	Hall C
Black	Hall Ground



Winding Type :	Star, 8 Poles	Max Radial Force :	28N @ 20mm from the flange
Hall Effect Angle :	120° electrical angle	Max Axial Force :	10N
Shaft Run Out :	0.025mm	Insulation Class :	Class B
Radial Play :	0.02mm@450g	Dielectric Strength :	500VDC for one minute
End Play :	0.08mm@450g	Insulation Resistance :	100MΩ, 500VDC