

BLY6534 Series - Brushless DC Motors



FEATURES

- **NEMA Size 34 BLDC Motors**
- **IP65 Rated**
- **Compact Size and Power Density**
- **Lifetime of over 20,000 hours**
- **Long Life and Highly Reliable**
- **Can be Customized for**
 - **Maximum Speed**
 - **Winding Current**
 - **Shaft Options**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



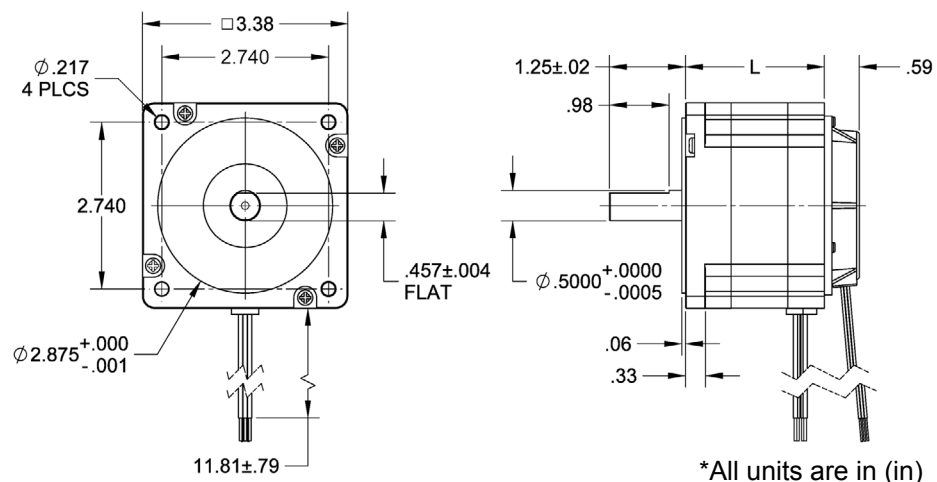
DESCRIPTION

The BLY6534 Series Brushless DC Motors come in a compact package with high power density. These motors are cost-effective solutions to many velocity control applications. They are available in both single and dual shaft options, and come in four different stack lengths to provide you with just the right torque for your application. A number of windings are available off-the-shelf and the motors can be customized to fit your machine requirements. The motor comes in a standard 11-lead configuration and can be wired for either delta or star configurations. 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 / DIMENSIONS

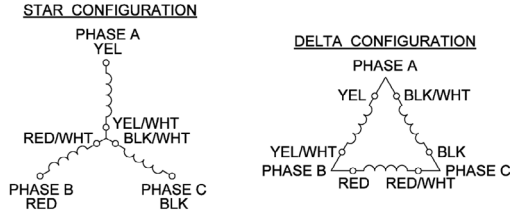
| Model # | Rated Voltage (V) | Rated Speed (RPM) | Rated Power (W) | Line to Line Resistance (ohms) | Line to Line Inductance (mH) | Torque Constant (oz-in/A) | Motor Efficiency | Back EMF Voltage (V/kRPM) | Rotor Inertia (oz-in-sec ²) | Weight (lbs) | "L" Length (in) |
|--------------------|-------------------|-------------------|-----------------|--------------------------------|------------------------------|---------------------------|------------------|---------------------------|---|--------------|-----------------|
| BLY65342S-24V-3000 | 24 | 3000 | 220 | 0.06 | 0.07 | 7.93 | - | 6.48 | 0.034000 | 4.30 | 2.80 |

Note: The above specs are for motors hooked up with the star configuration. For different rated speeds, please contact the factory. Custom leadwires, cables, connectors, and windings are available upon request.



L011382

| Description | Motor Wire Color |
|-------------|------------------|
| Hall Supply | Red |
| Hall A | Blue |
| Hall B | Green |
| Hall C | White |
| Hall Ground | Black |
| Phase A | Yellow, Yel/Wht |
| Phase B | Red, Red/Wht |
| Phase C | Black, Blk/Wht |



NOTE:
 1. STAR CONFIGURATION IS DEFAULT.
 2. FOR DELTA CONFIGURATION:
 REMOVE PLASTIC CAP.
 REMOVE 3 SCREWS HOLDING PCB,
 ROTATE HALL PCB TO LINE UP WITH
 RED MARKER, REPLACE SCREWS.
 REPLACE PLASTIC CAP.

| 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 |

| | | | |
|---------------------|---------------------------|------------------------|-----------------------|
| Hall Effect Angle: | 120° Electrical Angle | Insulation Class | Class B |
| Shaft Run Out: | 0.05mm | Dielectric Strength | 500VDC for one minute |
| Radial Play: | 0.02mm@450g | Insulation Resistance: | 100MOhms Min, 500VDC |
| End Play: | 0.08mm@450g | Number of Poles | 8 |
| Max. Radial Force: | 220N@20mm from the flange | Number of Phase: | 3 |
| Max. Axial Force: | 60N | Temperature Rise: | 70°C |
| Typical Efficiency: | 80% | Life Expectancy: | Over 20,000 hours |

