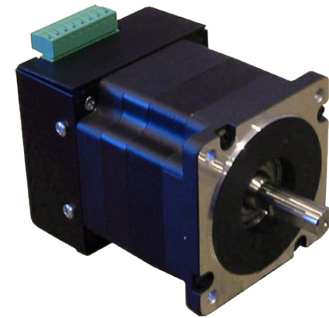


BLY34MDA Integrated BLDC Motor/Controller



FEATURES

- Constant Velocity Mode Within 5%
- 0.5V to 5V External Voltage Speed Control
- 2-Quadrant Operation
- Hall Sensor Feedback
- Short Circuit Protection
- Maximum Current Limit at 30.0 Amps Peak
- Speed Out
- Run/Stop, Direction, and Freewheel Inputs
- TTL-CMOS Compatible Inputs
- Compact Size
- Screw Type Terminal Block
- Motor Frame: 3.4" Square (Similar to NEMA34)



DESCRIPTION

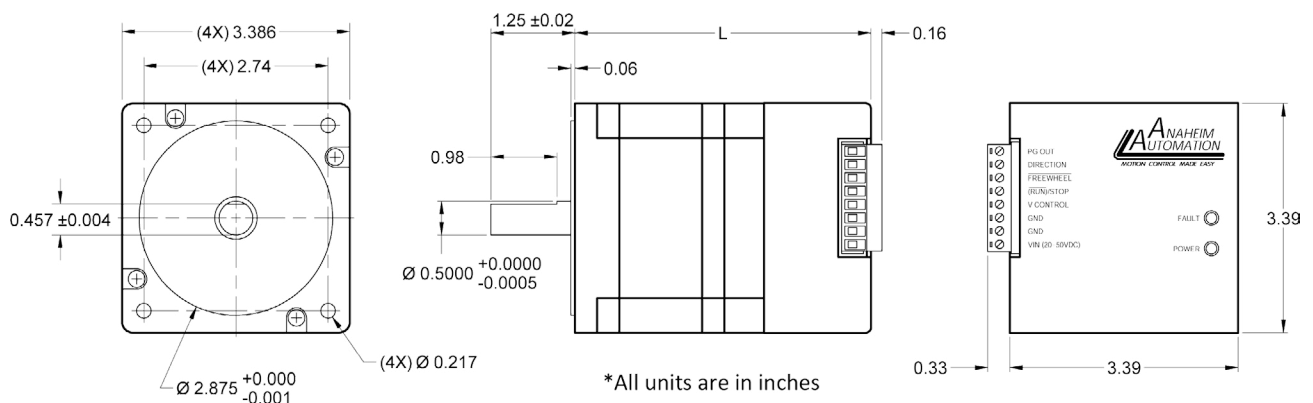
The BLY34MDA Series is a compact construction that implements a DC Brushless controller and a DC Brushless motor in one streamline package. With the two part combined into one casing, the need to wire the motor has been eliminated. The DC Brushless controller operates off a 24VDC or 48VDC power supply. The high-speed DC Brushless motor can operate at 3000RPM, can generate up to 300 oz-in of continuous torque, and deliver as much as 700W, with the BLY134MDA4 offering. Using hall sensor feedback, the DC Brushless controller operates in a constant velocity mode. The driver is protected against over current (cycle-by-cycle), hall sensor error and under voltage. An external potentiometer (10K) or external voltage (0.5-5VDC) can be used to control the speed. The direction of the motor can be preset by the direction control input. A Stop function can be done by grounding the Run/Stop input. A Stop function can be done by grounding the Run/Stop input.

SPECIFICATIONS

Model #	Motor Frame	Max Speed (RPM)	Rated Torque (oz-in)	Peak Torque (oz-in)	Max Power (W)	Max Torque Constant (oz-in/A)	Rotor Inertia (oz-in-sec ²)	L Length (in)	Weight (lbs)
BLY34MDA1S-48V-3200	3.4 in. Square	3200	49.6	148.7	117.5	13.3	0.005664	4.49	3.80
BLY34MDA2S-48V-3200	3.4 in. Square	3000	99.1	297.3	234.7	17.0	0.011328	4.99	4.59
BLY34MDA3S-48V-3200	3.4 in. Square	2700	198.2	594.6	469.4	20.4	0.022656	6.09	6.24
BLY34MDA4S-48V-3200	3.4 in. Square	3200	297.4	892.2	704.3	15.9	0.033984	7.09	9.30

Winding Type:	Star, 8 Poles	Max Radial Force:	49.5 lbs. @ 20mm from Flange
Hall Effect Angle:	120 Degree Electrical Angle	Max Axial Force:	13.5lbs - Force
Shaft Run Out:	0.5mm	Insulation Class:	Class B
Radial Play:	0.02mm@450g	Dielectric Strength:	500VDC for one minute
End Play:	0.08mm@450g	Insulation Resistance:	100Mohm, 500VDC

DIMENSIONS



L010936

BLY34MDA SERIES

Pin #	Description
1	PG Out
2	Direction
3	Freewheel
4	Run/Stop
5	VCONTROL
6	AGND
7	PGND
8	VIN

