

## Motion Control Made E

# **BLY17MDA - Brushless Motors with Integrated Speed Controllers**

- •Constant Velocity Mode
- •0V to 5V External Voltage Speed Control
- •2-Quadrant Operation
- •Hall Sensor Feedback
- •Short Circuit Protection
- •Maximum Current Limit Setting at 3.0 Amps
- •Run/stop, Freewheel and Direction Inputs
- •Compact Size
- •Screw type Terminal Block

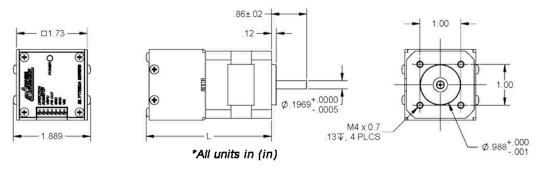


The BLY17MDA Series is a compact construction that implements a DC Brushless controller and a DC Brushless motor in one package. With the two parts combined into one casing, the need to wire up the motor has been eliminated. The high-speed DC Brush can operate at 4000RPM and can generate up to 50 oz-in of torque. The DC Brushless controller operates off 24VDC with a maxir intake of 52W. Using hall sensor feedback, the DC Brushless controller operates in a constant velocity mode.

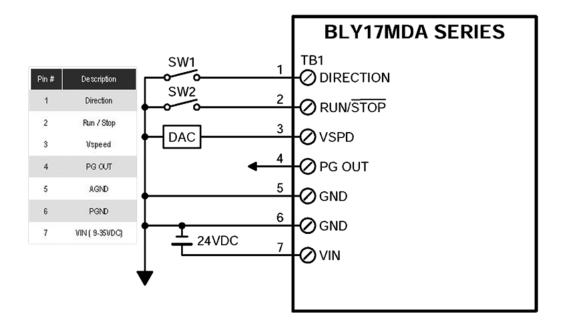
Item	Single Piece Price (USD)	50 Piece Price (USD)	Frame Size or Diameter (in)	Length (in)	Max Power (W)	Rated Torque (oz-in)	Peak Torque (oz-in)	Max Rated Speed (RPM)	Max Torque Constant (oz-in/A)
BLY17MDA1S-24V-4000	\$143.00	\$125.30	NEMA 17	2.975	26	8.9	30	4000	4.8
BLY17MDA2S-24V-4000	\$158.00	\$135.20	NEMA 17	3.775	52	17.7	60	4000	5.8
BLY17MDA3S-24V-4000	\$172.00	\$144.80	NEMA 17	4.575	78	26.2	80	4000	5.4
BLY17MDA4S-24V-4000	\$183.00	\$152.10	NEMA 17	5.275	104	35.4	106	4000	5

Notes: The 10th character "S" denotes a single shaft, use "D" for double shaft. Custom leadwires, cables, connectors, and windings are available upon request.

#### **Dimensions**



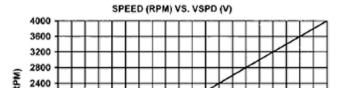
#### **Wiring Diagram**

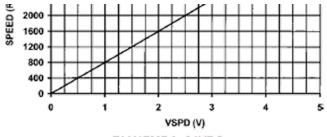


## **Specifications**

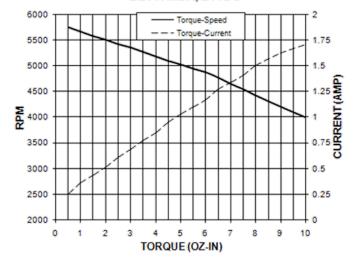
Winding Type:	Delta, 8 Poles	Max Radial Force:	6.29 lbs @ 10mm from Flange
Hall Effect Angle:	120 Degree Electrical Angle	Max Axial Force:	2.25 lbs - Force
Shaft Run Out:	0.025mm	Insulation Class:	Class B
Radial Play:	0.02mm@450g	Dielectric Strength:	500VDC for one minute
End Play:	0.08mm@450g	Insulation Resistance:	100Mohm, 500VDC

## **Torque Curves**

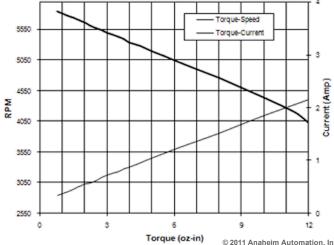




### BLY17MDA, 24VDC



#### BLY172S-24V-4000 with BLY17MDA, 24VDC



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