

FEATURES

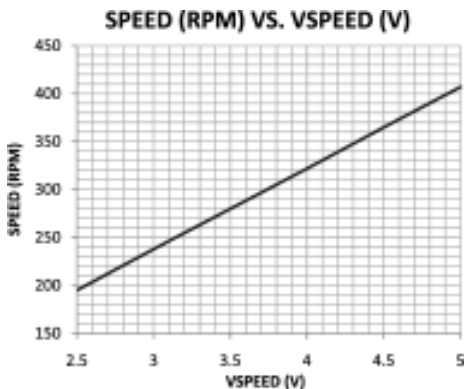
- **Constant Velocity Mode**
- **0V to 5V External Voltage Speed Control**
- **2-Quadrant Operation**
- **Hall Sensor Feedback**
- **Short Circuit Protection**
- **Maximum Current Limit Setting at 20.0 Amps**
- **Speed Output**
- **Direction Input**
- **TTL-CMOS Compatible Inputs**



DESCRIPTION

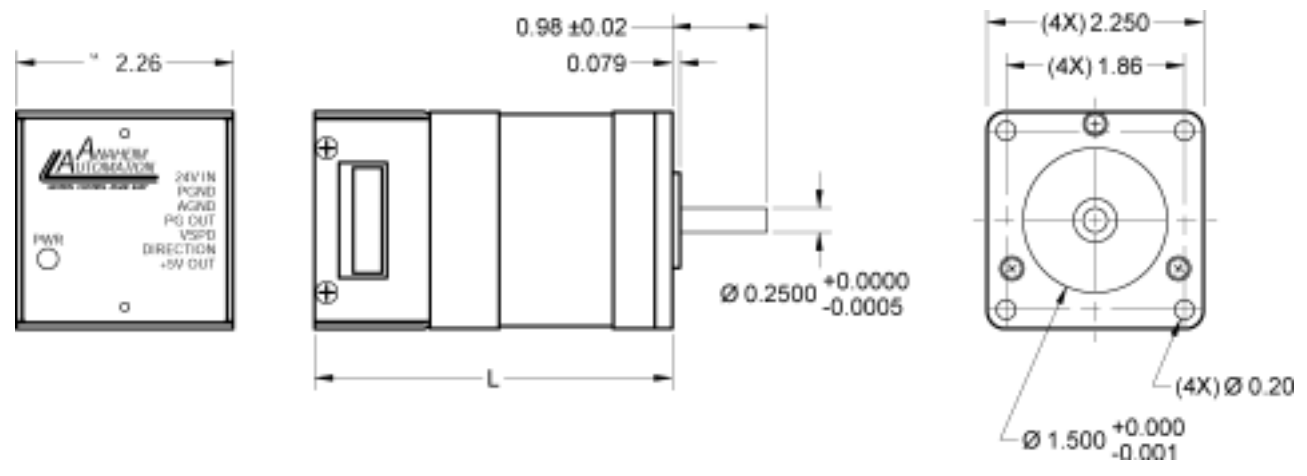
The BLWR23MDA5-160V-3000-01 is a compact construction that implements a DC Brushless controller and a DC Brushless motor in one streamline package. With the two parts combined into one casing, the need to wire up the motor has been eliminated. The DC Brushless controller operates off 24VDC. Using hall sensor feedback, this DC Brushless controller operates at a constant speed of 400RPM and can generate up to 40 oz-in of torque. The driver is protected against over current (cycle-by-cycle), hall sensor error and under voltage. An external potentiometer (10K) or external voltage (2.5V-5VDC) can be used to control the speed. For top speed open loop operation, 8VDC must be applied on the Vspeed input. The direction of the motor can be preset by the direction control input. A Stop function can be done by grounding the Vspeed input. Internally to this motor is constructed to hold to a $\pm .003$ " @12lb end play specification.

SPECIFICATIONS



Model #	FRAME Size	Rated Voltage (V)	Rated Speed (RPM)	No Load Speed (RPM)	Rated Torque (oz-in)	Torque Constant (oz-in/A)	Rated Power (W)	Weight (lbs)	L Length (Inch)
BLWS23MDA5S-160V-3000-01	NEMA 23	24	400	650	70	47	150	3.0	5.77

L010530



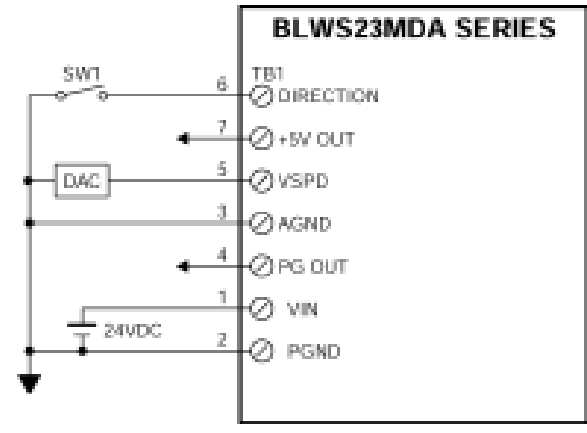
*All units are in inches

Pin #	Description
1	VIN (9-35VDC)
2	PGND
3	AGND
4	PG OUT
5	Vspeed
6	DIRECTION
7	+5Vout

TB1: Power In, Control Inputs and Outputs

Pin #	Description
1	VIN (9-35VDC)
2	PGND
3	AGND/Pot (-) Bottom
4	PG OUT
5	Pot Wiper
6	DIRECTION
7	+5Vout/Pot (+) Top

TB1: with 10K External Pot



Winding Type:	Delta, 4 Poles	Max Radial Force:	28N @ 10mm from Flange
Hall Effect Angle:	120 Degree Electrical Angle	Max Axial Force:	10N - Force
Shaft Run Out:	0.025mm	Insulation Class:	Class B
Radial Play:	0.02mm@450g	Dielectric Strength:	500VDC for one minute
End Play:	±.003" @ 12 lbs.	Insulation Resistance:	100Mohm, 500VDC