

MDC150 - 012301 Brushless Speed Controllers



FEATURES

- **Maximum Current Limit Setting from 10.0-30.0Amps (Peak)**
- **Internal or External Potentiometer Speed Control**
- **2-Quadrant Operation**
- **Hall Sensor Feedback**
- **Constant Velocity Mode**
- **Short Circuit Protection**
- **Require 12VDC**
- **Speed Out, Fault Out**
- **Brake, Disable and Direction Inputs**
- **Selectable Ramp Up/Down**
- **TTL-CMOS Compatible Inputs**
- **Compact Size (5.25 x 3.06 x 1.65)**
- **Dual Mounting Option**
- **Detachable, Screw Type Terminal Blocks**
- **CE Certified and RoHS Compliant**



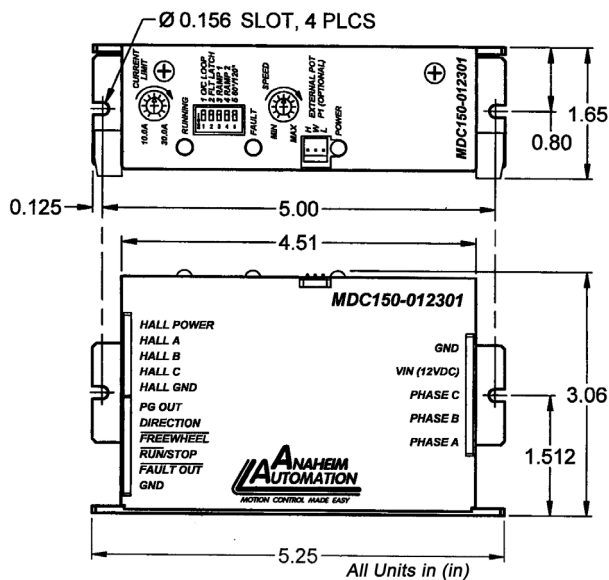
DESCRIPTION

The MDC150-012301 driver is designed to drive DC brushless motors at currents of up to 30A (peak) and 12V. Using hall sensor feedback, a constant velocity mode can be selected. The driver is protected against over current (cycle-by-cycle or latched), hall sensor error and under voltage. When an error occurs, a fault light notifies the user. If the fault latch is enabled and an error occurs, the fault output goes low to notify the user. Included on the driver is an internal potentiometer to control the maximum phase allowed into the motor and an internal potentiometer to control the speed of the motor. An optional external potentiometer (10K) or external voltage (1-4VDC) can be used to control the speed as well. The direction control input. Other inputs to the drive include a run/stop and motor freewheel input. When using the run/stop input, there are three ramp up profiles from standstill to select from. The run/stop input overrides all other inputs into the driver.

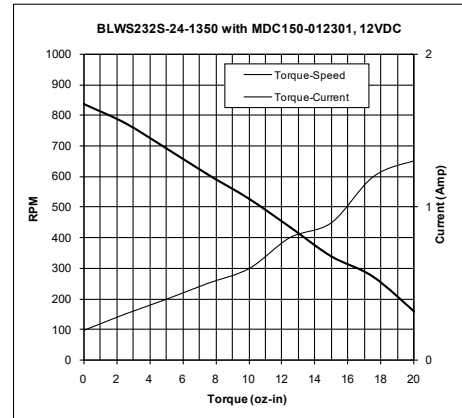
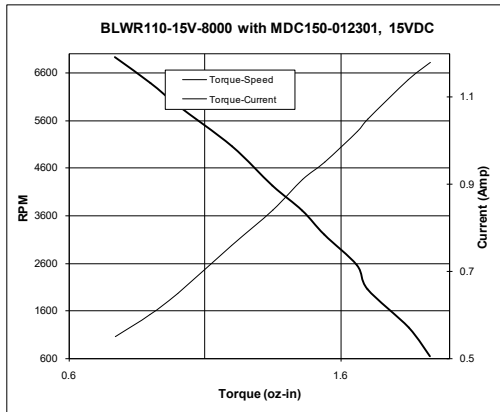
Ideal Applications

Automated machinery or processes that involve food, cosmetic, or medical packaging, labeling, or tamper-evident requirements, cut-to-length applications, electronic assembly, robotics, factory automation, special filming and projection effects, medical diagnostics, inspection and security devices, conveyor and material handling systems, metal fabrication (CNC machinery), pump flow control, XY and rotary tables, equipment upgrades or wherever precise positioning or speed control is required.

DIMENSIONS



L010364



Power Requirements:	10 - 15 VDC
Output Current Range:	10.0 - 30.0 Amps (Peak) 5.0 - 15.0 Amps (Continuous)
Hall Sensor Power Output:	6.25V @ 30mA (Max.)
Control Inputs:	(TB3, Pin2-4) TTL-CMOS Compatible Logic "0" = 0 - 0.8VDC Logic "1" = Open
Freewheel:	(TB3, Pin 3) Logic "1" (open) - Motor is Enabled Logic "0" = Motor is de-energized and will coast
Fault Output:	(TB3, Pin 5) Logic "1" (5V out) - normal operation Logic "0" - 1 of 3 fault conditions in 'Fault Protection' section <i>Enabled when fault latch is enabled.</i>
Run/Stop:	Logic "1" (open) - Motor will not run and will decelerate if running Logic "0" - Motor will run and accelerate according to ramp dip switch setting
Operating Temperature:	0°C to +70° C
Driver Type:	Bipolar, Compatible with 4, 6, and 8 Lead Motors. Series or Parallel connection.
Maximum Closed Loop Motor Speed	2 pole: 30,000 RPM 4 pole: 15,000 RPM 6 pole: 11,250 RPM 8 pole: 7,500 RPM
Maximum Open Loop Motor Speed	50,000 RPM

Model #	Description
PSA24V2.7A	DC Power Supply 24VDC at 2.7 Amps
PSA40V4A	DC Power Supply 40VDC at 4.0 Amps
PSA40V8A	DC Power Supply 40VDC at 8 Amps

