

MDC150-012301 - Brushless DC Driver

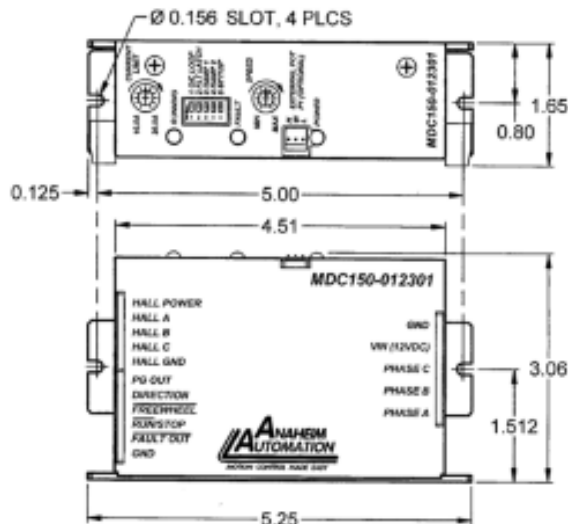


FEATURES

- **Maximum Current Limit Setting from 10.0-30.0 Amps (peak)**
- **Internal or External Potentiometer Speed Control**
- **2-Quadrant Operation**
- **Hall Sensor Feedback**
- **Constant Velocity Mode**
- **Short Circuit Protection**
- **Requires 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**



DIMENSIONS



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 is turned on to notify the user. Included on the driver is an internal potentiometer to control the maximum phase current allowed into the motor

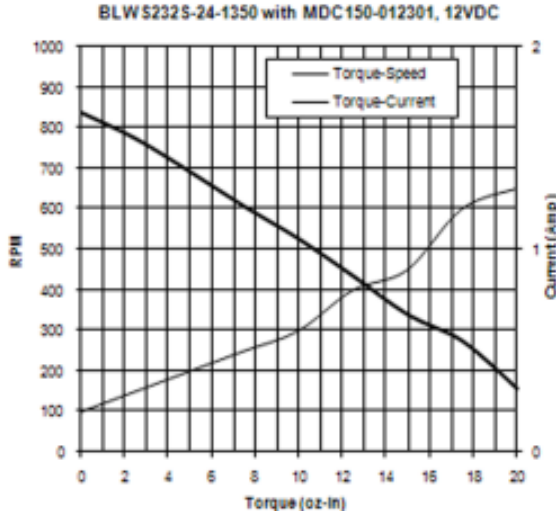
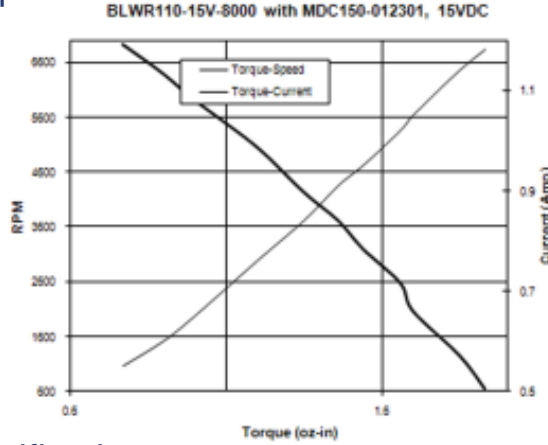
and an internal potentiometer to control the speed of the motor. An optional external potentiometer (10K) or external voltage (1-4VDC) can be used to control the speed as well. The direction of the motor can be preset by the direction control input. Other inputs to the drive include a run/stop and a 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.

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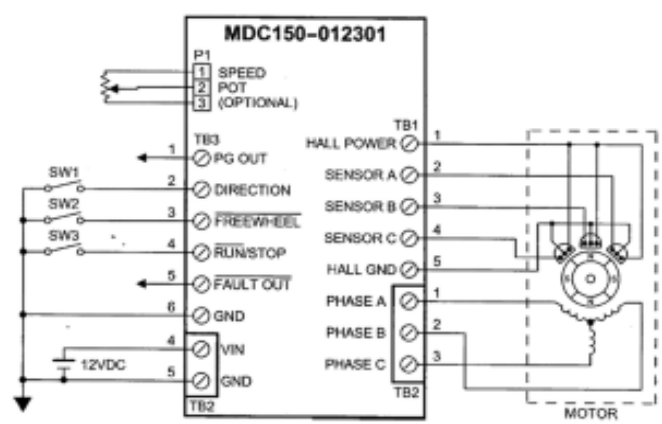
Torque Speed Curves



Specifications

- Power Requirements:** 10 - 15 VDC
- Output Current Range:** 10.0 - 30.0 Amps (Peak),
5.0 - 15.0 Amps (continuous)
- Hall Sensor Power Outputs:** 6.25V @ 30mA (Max.)
- Control Inputs:** (TB3, Pins 2-4) TTL-CMOS Compatible
Logic "0" = 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
- 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.

Hookup:



Additional Ordering Information

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

Notes: LW8 is for 8 leadwires, other leadwire options are available. All Shafts have a flat unless otherwise noted. The 7th character "S" denotes a single shaft, use "D" for double shaft. Double shafts include encoder mounting provisions. Custom leadwires, cables, connectors, and windings are available upon request.

ADDITIONAL INFORMATION