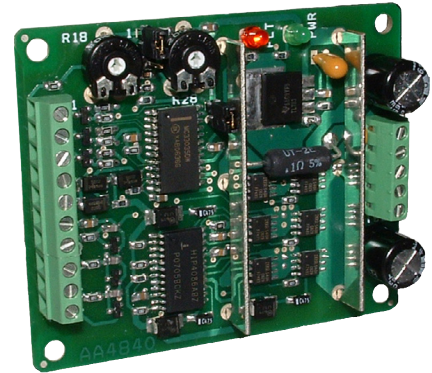


MDC050-050051 - 50V, 5A Brushless Controller



FEATURES

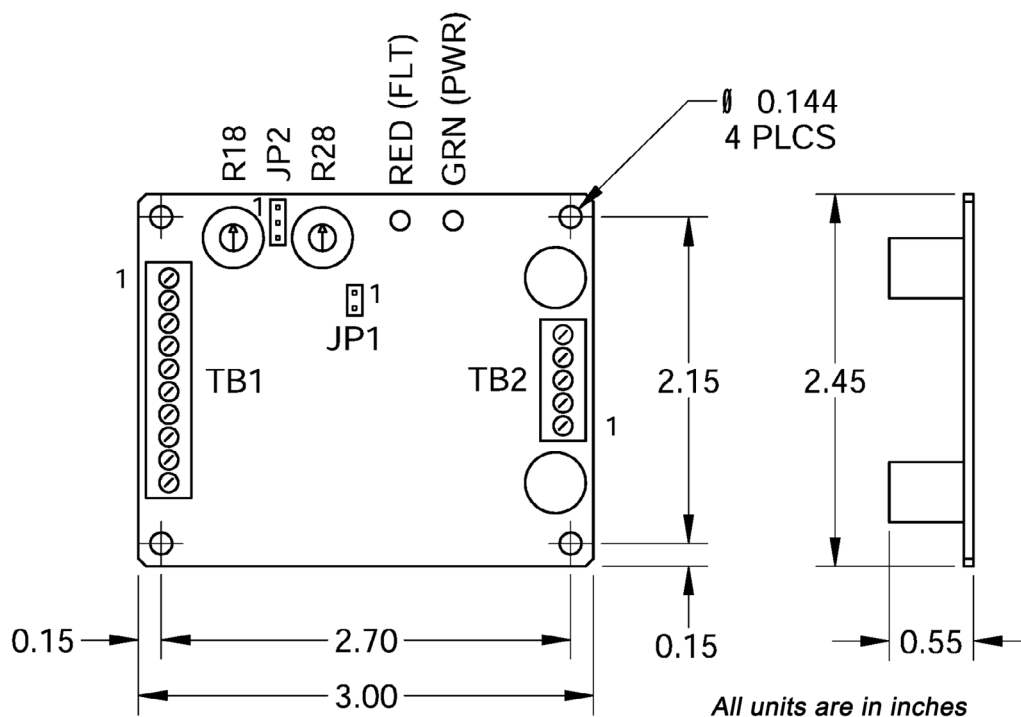
- **Open Loop Operation**
- **1.5V to 4V External Voltage Speed Control**
- **5V 10Khz External PWM Speed Control**
- **2-Quadrant Operation**
- **Hall Sensor Feedback**
- **Short Circuit Protection**
- **Maximum Current Limit Setting up to 5.0 Amps (peak)**
- **Run/Stop, Freewheel and Direction Inputs**
- **TTL-CMOS Compatible Inputs**
- **Compact Size**
- **Screw Type Terminal Block**
- **CE Certified and RoHS Compliant**



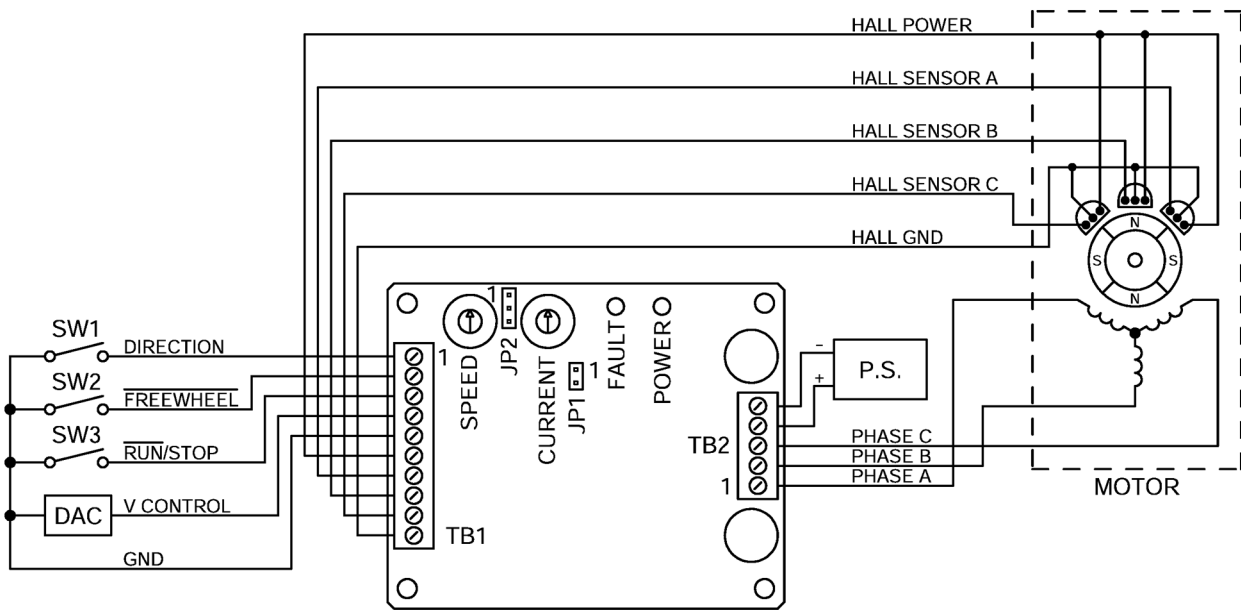
DESCRIPTION

The MDC050-050051 driver is designed to drive DC brushless motors at currents of up to 5A (peak) and 50V. The driver operates in the basic open loop configuration with either 60° or 120° DC brushless motors. The driver is protected against over current (cycle-by-cycle), 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 voltage (1.5-4VDC) or 10Khz PWM signal (30%-90%) 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. The freewheel input overrides all other inputs into the driver.

DIMENSIONS



L010472



Model #	Description
PSAM24V2.7A	DC Power Supply 24VDC at 2.7 Amps
PSA40V4A	DC Power Supply 40VDC at 4.0 Amps
PSA40V8A	VDC Power Supply 40VDC at 8 Amps

Power Requirements:	20 - 50VDC
Output Current Range:	1.0 - 5.0 Amps (Peak) 0.5 - 2.5 Amps (Continuous)
Control Inputs: (TB1, Pins 1-3)	TTL-CMOS Compatible Logic "1" = Open Logic "0" = 0.8 VDC All three inputs (run/stop, freewheel and direction) are pulled up through 10Kohm resistors
Direction Control: (TB1, Pin 1)	Logic "1" (open) - Clockwise Logic "0" - Counterclockwise
Freewheel: (TB1, Pin2)	Logic "1" (open) - Motor is Enabled Logic "0" - Motor is de-energized and will coast to a stop
Run/Stop: (TB1, Pin 3)	Logic "1" (open) - Motor will not run Logic "0" - Motor will run and will accelerate according to speed setting
Operation Temperature:	0°C to 70°C
Maximum Open Loop Motor Speed	50,000 RPM