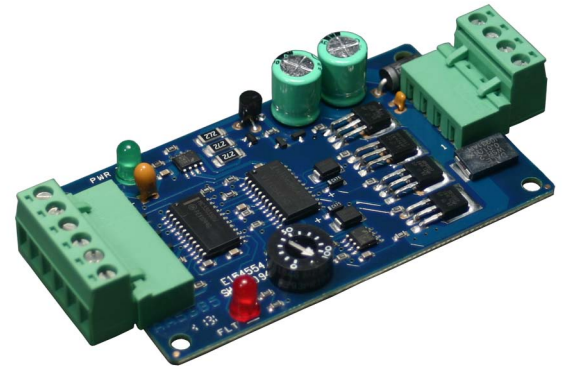


# MBDC050-050101 - DC Speed Controllers



## FEATURES

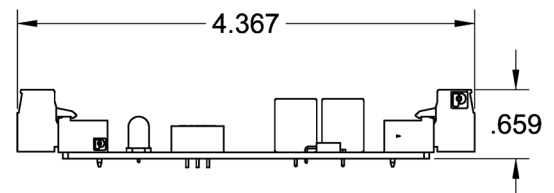
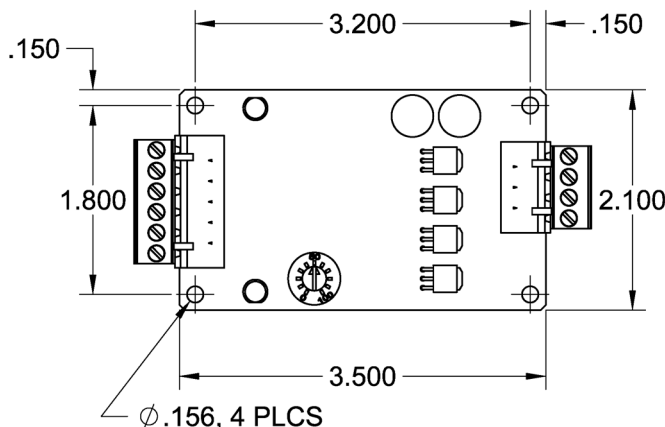
- **Maximum Current Limit Setting from 1.0-10.0 Amps**
- **Vary Speed Using an External Power Supply**
- **2-Quadrant Operation**
- **Open-Loop Velocity Mode**
- **Cycle-by-Cycle Over Current Protection**
- **Over Voltage Protection**
- **Requires 20-50VDC Input**
- **Run/Stop, Freewheel and Direction Inputs**
- **TTL-CMOS Compatible Inputs**
- **Screw-Type Terminal Box**
- **Molex Header Option:**
  - 4 Pin: 26-48-1045
  - 6 Pin: 26-48-1065



## DESCRIPTION

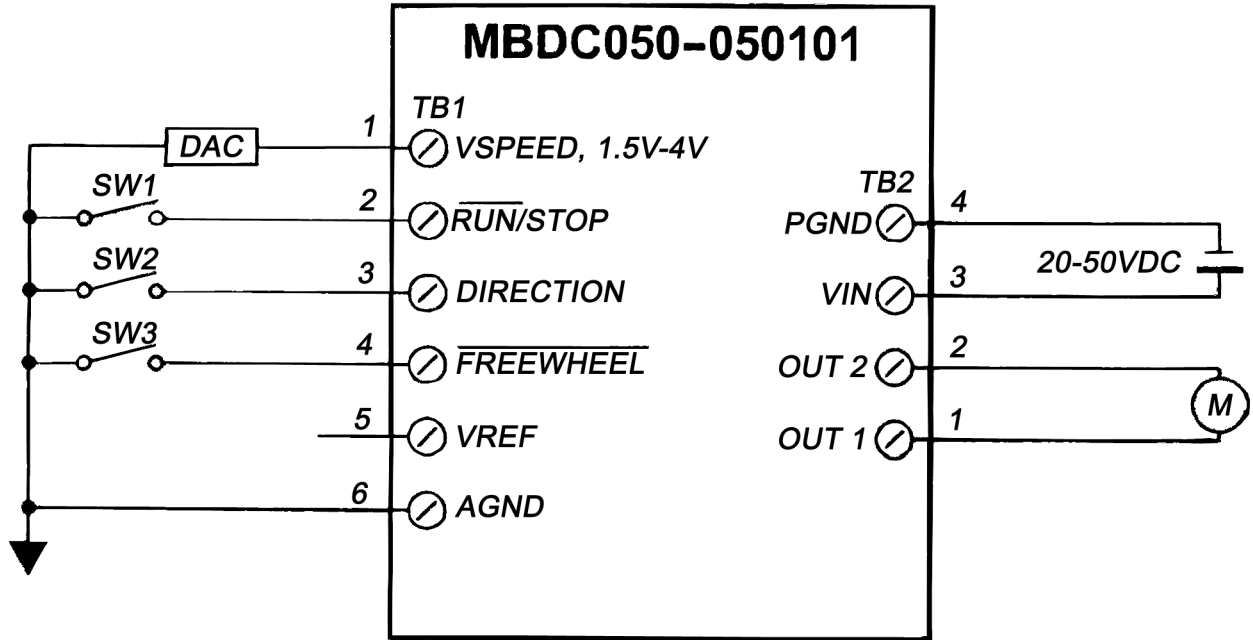
The MBDC050-050101 is a speed controller designed to drive DC Brush Motors at currents up to 10A peak at an input voltage range of 20-50VDC. An external 10k potentiometer is used to set the peak motor current limit between 1.0-10.0A. The direction of the motor can be preset by the direction control input on terminal block 1. The freewheel input will override all other inputs into the driver. This speed controller features protection from over current (cycle-by-cycle) and over voltage. The fault protection is set for a cycle-by-cycle motor turn-off. Cycle-by-cycle over current limiting is done by monitoring the peak motor current and when the current is above the value set by the external potentiometer, the motor phases are immediately turned off and held off for the remainder of the internal PWM oscillation. A red fault LED illuminates to notify the user when an error occurs.

## DIMENSIONS



All units are in inches

L010730



Power Requirements:	20 - 50VDC
Output Current Range:	1.0 - 10.0 Amps (Peak) 0.5 - 5.0 Amps (Continuous)
Control Inputs:	(TB1, Pins 2-4) TTL-CMOS Compatible Logic "0" = 0.0 - 0.8VDC Logic "1" = Open
Run/Stop:	(TB1, Pin 2) Logic "1" (open) - Motor will not run and if running will decelerate rapidly Logic "0" = Motor will run
Freewheel:	(TB1, Pin 4) Logic "1" (open) - Motor is Enabled Logic "0" - Motor is de-energized and will coast
Direction Control:	(TB1, Pin 3) Logic "1" (open) - Counterclockwise Logic "0" - Clockwise
Operating Temperature:	0°C to +70°C

Model #	Description
MBDC050-024031	DC Power Supply 24VDC at 2.7 Amps
PSA24V2.7A	DC Power Supply 40VDC at 4.0 Amps
PSA40V8A	DC Power Supply 40VDC at 8.0 Amps