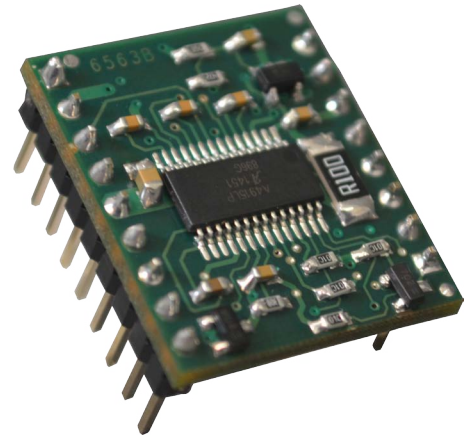


# MDC020-024031 - 24V, 3A Brushless Controller



## FEATURES

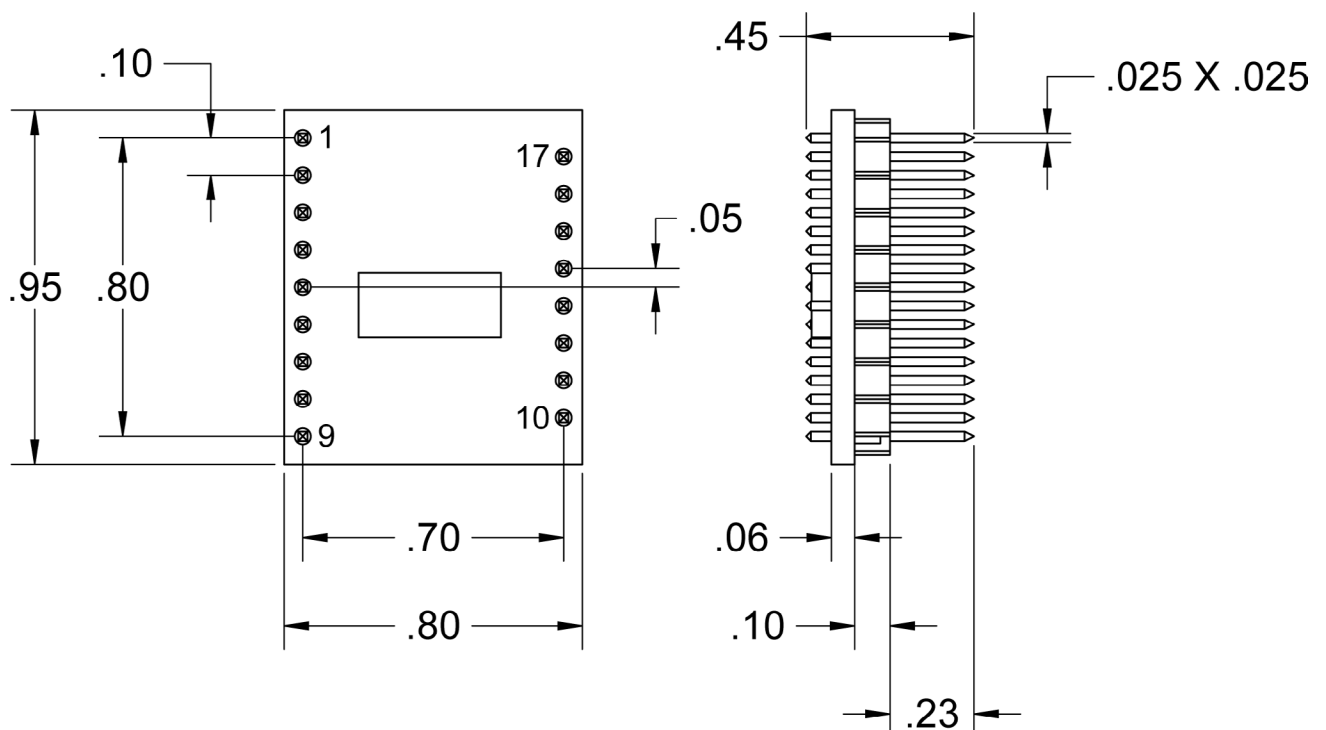
- Open Loop Operation
- 8 - 24VDC Voltage Range
- 0.75V to 4V External Voltage Speed Control
- 2-Quadrant Operation
- Hall Sensor Feedback
- Short Circuit Protection
- Maximum Current Limit at 3.0 Amps (peak)
- Freewheel and Direction Input
- TTL-CMOS Compatible Inputs
- Compact Size
- Easy Connectivity/Integration into Motherboard



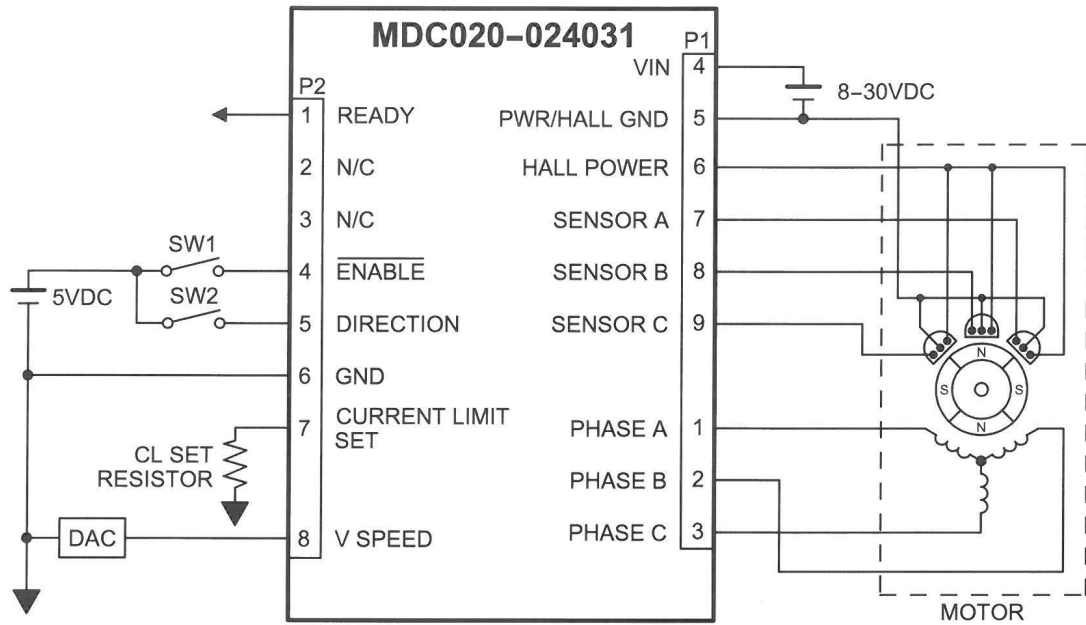
## DESCRIPTION

The MDC020-024031 driver is designed to drive DC Brushless motors at currents of up to 3A (peak) and 24V. The driver operates in the basic open loop configuration with 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 output is turned on to notify the user. An external voltage (0.75-4VDC) is used to control the speed of the motor. The direction of the motor can be preset by the direction control input. The freewheel input overrides all other inputs into the driver. With two connector arrays arranged in a 2.54 mm pattern, it allows easy integration and connectivity to the MDC020-EVALBOARD or the OEM-side mother board.

## DIMENSIONS



L011529



Part #	Description
MDC020-024031	Featured BLDC driver 3A, 24V
PSAM24V2.7A	DC Power Supply 24VDC at 2.7 Amps
PSAM48V1.3A	DC Power Supply 48VDC at 1.3 Amps
MDC020-EVALBOARD	Evaluation Board for Board Level OEM BLDC and DC Speed Controllers MDC020-024031, MDC020-050101, MBDC020-24031, and MBDC020-050101

- Power Requirements:** 8 - 24VDC
- Output Current Range:** 0.5 - 3.0 Amps (Peak)  
0.25 - 1.5 Amps (Continuous)
- Ready: (P2, Pin 1)** Logic "1" - Ready  
Logic "0" - Fault or Disabled
- Enable: (P2, Pin 4)** Logic "1" - Motor phases on (enabled)  
Logic "0" (open) - Motor phases off (disabled)
- Direction: (P2, Pin 5)** Logic "1" - Motor moves clockwise  
Logic "0" (open) - Motor imves counter clockwise
- Current Limit Set: (P2, Pin 7)** Logic "1" (open) - 3A current limit  
Resitor to GND - Sets current limit (Refer to User's guide for values)
- V Speed: (P2, Pin 8)** 0.75V - 4V
- Operation Temperature:** 0°C to 70°C