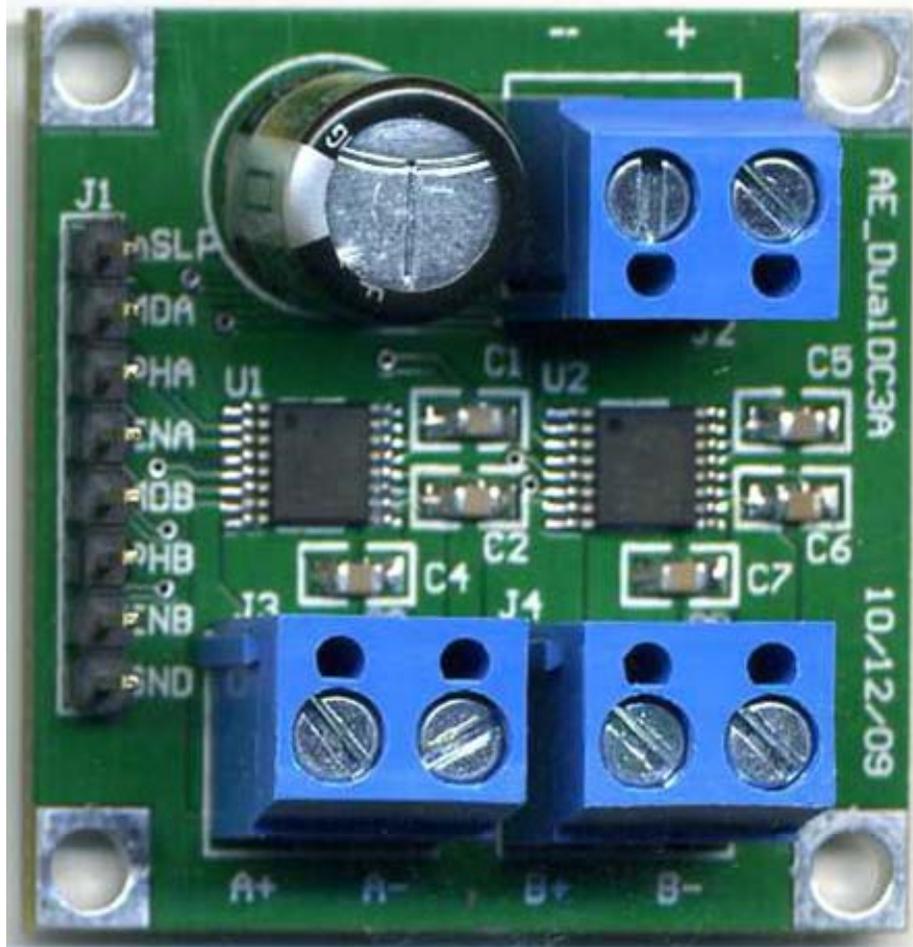
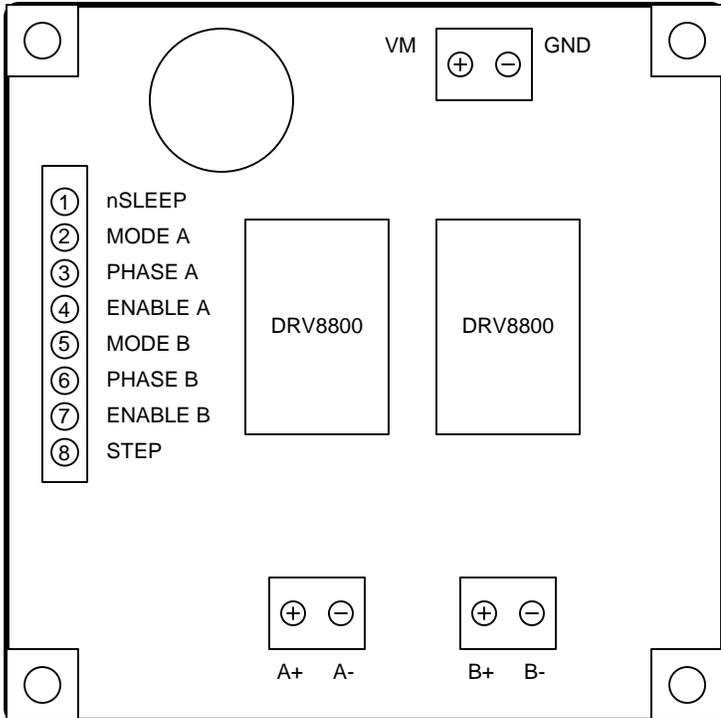


# AE-DualDC3A Manual



# 3A Dual DC Motor Controller



## AE-DualDC3A:

- Controls 2 small sized DC motors with up to 3A of current
- Shared nSLEEP for fully disabling all logic and reducing power consumption to a minimum
- Individual ENABLE for motor turn ON/OFF and speed control by providing a PWM signal
- Individual PHASE input for direction of rotation control
- No need to select RSENSE. It is internally set at ~3A.

## Ease of Use Features:

- Input Power Wires screwed into terminal block
- Motor wires screwed into respective terminal blocks
- Only measures 1.5" by 1.5"
- 8 pin .100" header connector with all control signals available

The AE-DualDC3A module is a small 1.5" by 1.5" dual H Bridge for DC Motor Driving designed around Texas Instruments' DRV8800 single H Bridge motor driver. It will run motors with up to 3A peak.

**nSLEEP (Shared):** Disables both H Bridges and places the module under the lowest of power consumption rates. When nSLEEP is LO, the device is completely disabled and can not be operated.

**ENABLE:** Turns Motor ON (ENABLE = HI) and OFF (ENABLE = OFF). A PWM on this signal will effectively control the speed of the motor with said speed varying directly proportional to applied PWM Duty Cycle percentage.

**PHASE:** Selects the direction of rotation. A PWM on this pin will effectively allow the control of both enablement (as long as ENABLE is HI) and direction of rotation. At 50% Duty Cycle, the motor will not move. As PWM increases towards 100% Duty Cycle, motor speed will increase on one direction. As PWM decreases towards 0% Duty Cycle, motor speed will increase on the opposing direction.

**MODE:** Selects current recirculation mode from fast (MODE = HI) or slow (MODE = LO). On fast decay, the current decays the fastest it can, but DC motor speed coasts down. On slow decay mode, the current decays the slowest it can, but DC motor stops abruptly. This is referred to as braking.