

PMC-2615-16

MICRO-STEP MOTOR DRIVER

USER'S MANUAL (V1.0)

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1 Features

- 1.1 PWM constant current source
- 1.2 Micro-step for 200 , 400 , 800 , 1600 steps
- 1.3 Build in auto power down mode
- 1.4 Wide range DC power input 12VDC ~ 36VDC

2 Specifications

Model	PMC2615
Power source	DC12V to DC36V, 4A(min)
Driving Mode	PWM Switching, unipolar with Constant Current Driving
Maximum Current	1.5A/Phase
Resolution	200 , 400 , 800 , 1600 pulse/rev, selectable
Input Signal	CW and CCW Pulse Signal : Pulse Width : Above 5 μ Sec. Holding Current OFF Signal : HIGH for Release Holding.
Motor current	VR adjustable
DIP Selectors	Auto-Current-Down (0.2s after no pulse input)
LED Indicators	Power status

3 I/O Functions

RUN : RUN current adjustment

Motor current while running.

STOP : STOP current adjustment

Only valid for ACD is enabled.

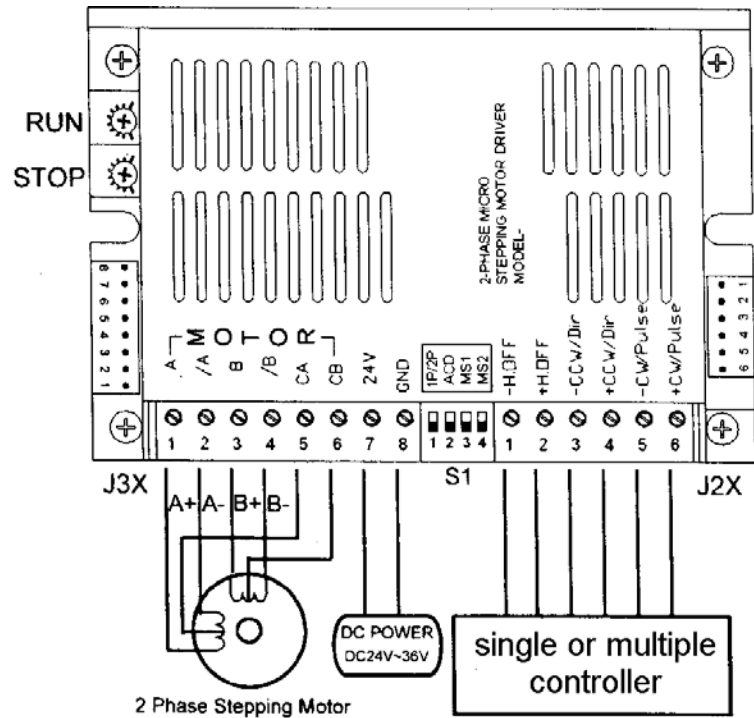
While ACD function enabled and the pulse train is stopped for more than 0.5s, the motor current will decrease to the adjustment value.

J3X Connectors :

1. Motor A
2. Motor /A
3. Motor B
4. Motor /B
5. Motor Common A
6. Motor Common B
7. 8. DC power input
(12VDC ~ 36VDC)

J2X Connectors :

- 1,2: input of Holding Current Off
- 3,4: CCW/DIR input
 - CCW for dual pulse mode
 - DIR for single pulse mode
- 5,6: CW/PLS input
 - CW for dual pulse mode
 - PLS for single pulse mode



S1 Switch :

1. 1P/2P mode

- 1P mode: Pulse (PLS) and direction

(DIR) controls the motion operation.

- 2P mode: Clockwise(CW) and counter-clockwise(CCW) controls the motion operation.

2. ACD, auto current down

Auto current down while no pulse in. Use this function to reduce the heat of step motor, but if you need to hold the torque while stand by , switch off to disable this function

3,4.: MS1 · MS2. Micro-step mode selection

S1 Resolution site switch

Resolution	MS1	MS2
200	ON	ON
400	ON	OFF
800	OFF	ON
1600	OFF	OFF

4 LED indicator

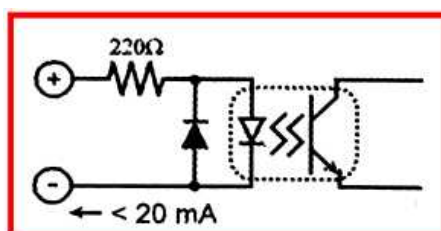
4.1 POWER: green LED, power OK will light.

5 CONTROL SIGNAL

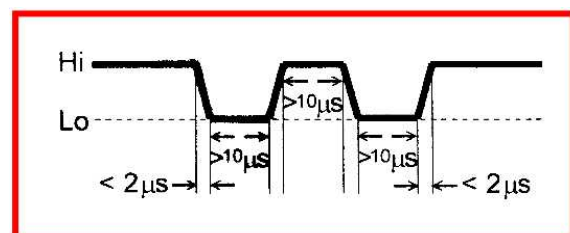
5.1 The control signal is isolated by photo-isolator and the external signal transit state from HIGH to LOW will drive one step.

5.2 The minimum pulse width is 5 micro second, the transition time is less than 2 micro second.

5.3 The input voltage range is from 5VDC to 24VDC and the current must limit to under 20ma. The driver output signal is limited to under 15ma.



Input Signal circuit

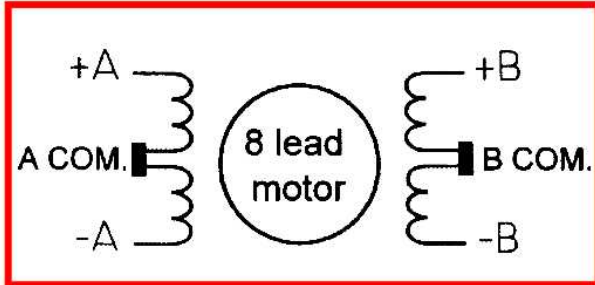


Pulse Width Diagram

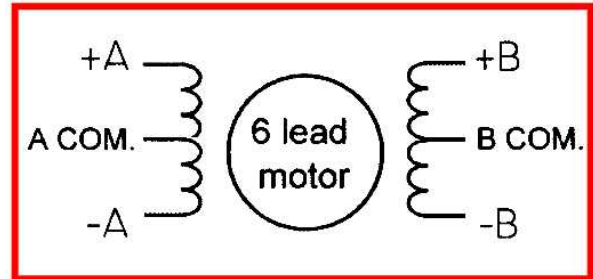
6 Wiring Diagrams

PMC2615 is a unipolar constant current driver, use a 6 wire or 8 wire motor is required.

8wire connection



6wire connection



Notes on wiring:

- *For a stable operation, power supply of DC12V ~DC36V 4A (minimum) is required.
- *Be sure to power off while motor is being wired.
- *Wrong wiring or wire may damage the driver.
- *The external force cooling is required, if you the driver case temperature is higher than 55 degree C at normal operation.
- *Please use the driver at good ventilation environment.
- *Please do not use the driver at wet or the environment may have condensed water.

7 Dimension

