

Specifications



- Voltage: 11V - 28V
- Max Current: 8A (12V/ 24V)
- Current Protection: 9A (12V/ 24V)
- Max Electric Speed: 240000 RPM (No Hall); 60000 RPM (Hall)

Functionality



Speed Control Model: Open loop or closed loop control.

Speed Adjustment 1 (SPD2):

- Internal potentiometer, reduce speed by rotating CCW and increase by rotating CW
- Short circuit between "SPD" and "GND"

Speed Adjustment 2 (SPD):

- Add a potentiometer between "SPD" and "GND"
- Linear relationship between speed and voltage
- Rotate internal potentiometer to MINIMUM in CCW direction

(Normally, we select 1 as it has a better result than an external potentiometer).

Start/Stop (RUN):

- Short circuit between "RUN" and "GND"
- Stop if open circuit

Reverse (REV):

- Short circuit between "RUN", "REV" and "GND"
- Stop if open circuit

Pulses (PLS):

- 3 pulses = 1 RPM
- Pulse amplitude is +5VDC
- Rotor Speed = Electric Speed/Poles (pairs)



Notes

Protection Function: Current protection, thermal protection, voltage protection, motor stall protection, starting protection, etc.

When using the Hall Effect (suitable for 120 degree phase of sensor), be mindful of the +5v and GND. Connect the 3 wires of motor as 3 phase of Hall (if motor works abnormally, modify connection of motor wires). When power is applied, the controller will recognize if a Hall is connected.

Error Codes:

Times of flashing	Items	Reason
1	Over Current	The current of motor is has exceeded rated current.
2	Abnormal Voltage	Low or high voltage.
3	MOS Power tube	The temperature of power tube is above 110°C
4	Start Failure	The motor has malfunctioned.
5	Hardware Failure	MOS tube failure or Drive IC failure.
6	Motor Phase	Three phase motor is not connected.



Pin Out Diagram

