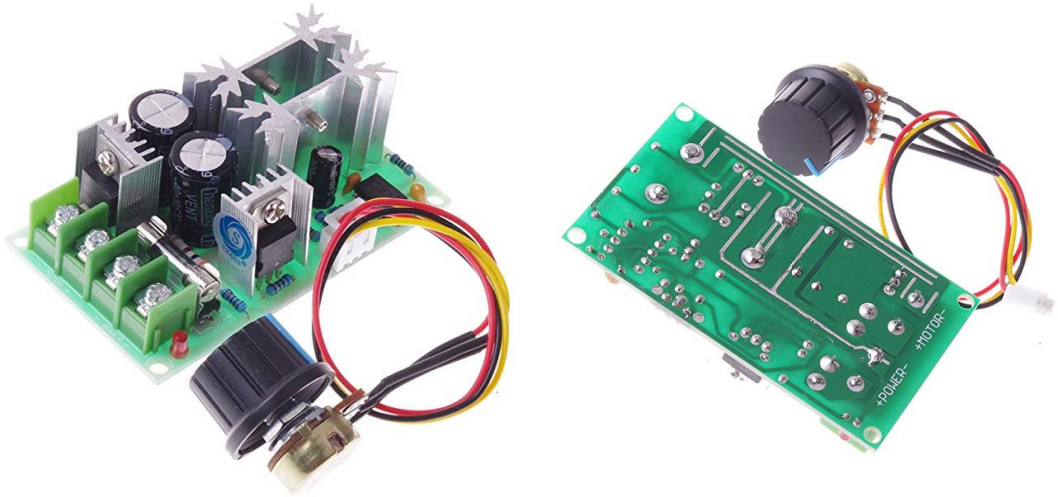
PWM 20A DC Motor Speed Controller Module



Description:

DC 10-60V 20A 1200W Motor Speed Control PWM Motor Speed Controller allows controlling speed of a DC motor using a Pulse-Width-Modulated (PWM) DC voltage with a Duty Cycle fully adjustable from 10%-100%. The motor speed controller can provide a continuous current of 0-20A to your DC motor or other DC load. Speed Regulator is an important electronic DIY equipment. It uses a linear potentiometer as a speed regulation method. The 1200W speed regulator uses a barrier terminal block as it's wiring type. The output voltage is linear under load and features a control frequency of 25KHz.

Specifications:

- Input Supply Voltage (V): DC 10-60V.
- Output voltage: linear under load.
- Output Current (A): 0-20A.
- Continuous Power: 1200W
- Speed regulation type: flow regulation.
- Speed regulation method: potentiometer (linear)
- Speed adjustment range: 0-100%

- Control frequency: 25KHz.
- Wiring type: Barrier terminal block
- Knob specifications: 97
- Dimensions (L×W×H) mm: 77×45×28
- Weight (grams): 74g

Functional description:

- It is used as a DC circuit lighting dimmer or DC motor speed. This circuit is the use of pulse width modulation (PWM) principle of making the motor controller. Adopt the ways to control the motor speed has two advantages:
- It is primarily by changing the duty cycle of the output square wave, such that the average load on the on-time changes from 0-100%, to achieve the purpose of adjusting the brightness of the load / speed. The use of pulse width modulation (PWM) mode to achieve the benefits of dimming / governor's energy supply can be fully utilized, the high efficiency of the circuit. For example: When the output is 50% of the square wave, pulse-width modulation (PWM) power supply circuit are consumed energy is 50%, that is, almost all the energy is converted to a load power output. The use of a common resistance when the buck converter, the power to make the load to get the maximum output power of 50% of the power supply must provide more than 71% of the output power, of which 21% is consumed in the resistor voltage drop and heat dissipation.
- The use of pulse width modulation (PWM) mode allows the load to get the full supply voltage at work, this will help to overcome the inherent motor winding resistance leaving the motor produce more torque.

Operating instructions:

- Connect your DC motor (or DC load) to the motor terminals.

- Connect a voltage of 10V-48V DC to the circuit making sure of the correct polarity of the connection. Note that the voltage applied to the motor will be supply voltage applied to the circuit. It is recommended to add an appropriately rated fuse inline with a positive supply in order to protect the circuit from any possible short circuits.
- You can now control the speed of the motor through a potentiometer.

Pin function:

Pin Name	Description
Motor+	Motor Positive Terminal
Motor-	Motor Negative terminal
Power+	DC 10V – 60V
Power-	GND

Applications:

- For Speed Control Of all Types of DC Brush Motors
- For Controlling Automotive Cooling Fan Speed, Auto Fan Speed, Windshield Wipers, Auto Air Conditioning.
- For Controlling Belt Speed, Pipeline Exhaust Fan Speed, Treadmill Speed, Multi-Speed Parallel Computer Fan, Electronic Fan Speed.