

PWM-MCC830 DC PWM MOTOR SPEED CONTROL 30A WITH SOFT START

This uniquely designed circuit uses IC microcontroller for controlling the operation with a built-in soft start to prevent electric shock. In addition, voltage control and MOSFET driver circuits are provided to increase working efficiency in both high and low frequency plus resistant to noisy signal.

TECHNICAL SPECIFICATIONS

- Motor speed: Using IC microcontroller PWM (Pulse Width Modulation) for motor speed control.
- Built-in soft start for protecting electric shock when supply the voltage
- There is the limit voltage circuit at the gate of MOSFET for protecting the over voltage and noisy signal.
- Using the MOSFET driver circuit to greatly increase working efficiency of the circuit in the low-high frequency to 12.8kHz.
- Power supply: 8-30VDC. (select by jumper and motor)
- Load voltage: 8-30VDC./30A. max.
- Motor speed (PWM) can be adjusted from 0% - 100%
- PCB dimensions: 3.83 x 1.57 inches.

CONNECTING AND TUNING

- Point + 12V is to be connected to the positive pole of power supply
- Point + M is to be connected to the positive pole of DC motor
- Point - M is to be connected to the negative pole of DC motor
- Point G is to be connected to the negative pole of power supply
- JPI is used for selecting the power supply i.e.,
 - 8-15VDC when JP1 is connected
 - 15-30VDC when JP1 is disconnected



ADJUSTABLE SPEED

- Rotate SPEED for adjusting the speed
- If user wants to increase the speed, rotate clockwise. But if user wants to decrease the speed, rotate counter clockwise

ADJUSTABLE FREQUENCY RANGE

- Rotate SPEED to minimum counter clockwise
- Press switch FREQ for selecting the frequency, LED is blinking (1 time = 100Hz, 2 time = 200Hz, 3 time = 400Hz, 4 time = 800Hz, 5 time = 1.6kHz, 6 time = 3.2kHz, 7 time = 6.4kHz, 8 time = 12.8kHz)

NOTE

- If the current of motor is higher than 10A, it is recommended to use the fan for cooling.
- In case of normal operation, if SPEED is reduced to minimum, LED will be on. But if increase SPEED, LED will be off.

