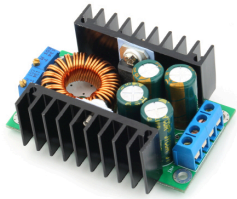
DC-DC STEP-DOWN CONVERTER WITH CONSTANT VOLTAGE AND CONSTANT CURRENT



Description

1. Module Properties: non-isolated step-down constant current, constant voltage module (CC CV) charging module
2. Input voltage: DC 7-32V
3. Output voltage:DC 0.8-28V continuously adjustable
4. Output Current: 12A (when power tube\'s temperature exceeds 65 degrees, please add cooling fan)
5. Constant current range: 0.2-12A (adjustable)
6. Turn lamp current: constant current value * (0.1) , turn the lamp current and constant value linkage, such as constant current value is 3A, turn the lamp current is set to a constant current is 0.1 times (0.1 * 3A = 0.3A).
7. Lowest pressure: 1V
8. Output Power: Maximum power is about 300W
9. Conversion efficiency: up to about 95%
10. Operating frequency: 300KHZ
11. Output ripple: 20M bandwidth
12. Input 24V Output 12V 5A ripple around 50mV (Excluding noise)
13. Output short circuit for protection : Yes, constant current
14. Input Reverse Polarity for Protection: None
15. Output prevent backflow: None
16. Wiring: Terminal
17. No-load current: Typical 20mA (24V switch 12V)
18. Load regulation: ± 1% (constant)
19. Voltage regulation: ± 1%
20. Dynamic response speed: 5% 200uS
21. Potentiometer adjustment direction: clockwise (increase) , counterclockwise (decrease). the potentiometer(CV) closed to the input voltage is used to regulate voltage, the potentiometer(CC) closed to output voltage is used to regulate current (CC)
22. Operating temperature: Industrial grade (-40 °c to +85 °c) (please note the actual use of the power tube temperature , high temperature heat strengthened please)
23. Indicator: dual color indicator, charging indicator light is red, the green light means fully charged (No load is green)
24. Size(approx): 65 x 47 x 22mm(L x W x H)

Features

1. Fixed turn lamp current is 0.1 times the current value (Used to identify whether the battery is fully charged When charging).
2. Made from a dedicated benchmark for IC and high-precision current sensing resistor, proving a more stable constant current, (when 20° to 100° constant current 1A, temperature drift less than 1%). Particularly suitable for LED driver.
3. High output current, the max output current can reach 12A.
4. Four high frequency capacitance, can lower output ripple, enhance the work stabilization.

Applications

1. High-power LED driver
2. Lithium battery(or lead accumulator) charge
3. Vehicle-mounted power supply
4. Low voltage system power supply
5. 6V, 12V, 14V, 24V battery charge

Battery charge

1. Make sure of the battery float voltage and charging current that you need, as well as the input voltage of the module.
2. Adjust the constant voltage potentiometer and adjust the output voltage to about 5V.
3. Use the multimeter in 10A current scale to measure output short-circuit current, and adjust the current potentiometer to make the output current to the expected charging current value.
4. Adjust the constant voltage potentiometer to make the output voltage reaches the float voltage.
5. Connected to the battery, try to charge.

(1,2,3,4 steps to connect the power module input,output no-load does not connect battery.)

LED constant current drive

1. Make sure the operating current and Max operating Voltage of the LED you need to drive.
2. Adjust the constant voltage potentiometer, adjust the output voltage to about 5V.
3. Use the multimeter in 10A current scale to measure output short-circuit current, and adjust the current potentiometer to make sure the output current to the expected LED operating current.
4. Adjust the constant voltage potentiometer to make the output voltage reach the maximum LED operating voltage.
5. Connect LED, test.

(1,2,3,4 steps to connect the power module input, output No-load does not connect LED.)