

**Product: SZ-BT07CCCV-S / 240375**

**Features:**

- The power supply module uses double Inductors winding with 1.2mm copper wires.
- Fitted with 100V/210A low resistance MOSFETS with High power and current input, suitable for high power applications.
- Support reverse input protection with MOSFET so there is no worry about wrong input connections.
- Low voltage protection will protect module and battery against damage from over-discharge when use a storage battery as input.
- Thickened heatsink and intelligent temperature control cooling fan dissipate heat better.

**Specifications:**

Type: Non-isolated step-up module (BOOST)

Input Voltage: DC10V to 60V

Max. Input Current : 30A(input voltage 10V to 30V)  
: 20A(input voltage 31V to 60V)

Quiescent Current : 15mA(will increase when convert 12V to 20V)

Output Voltage : 12V to 90V (adjustable, default is 19V)

Max. Output Current : 20A (related to the input and output voltage difference, the greater voltage difference is, the smaller output current will be. please enhance heat dissipation when current is over 10A)

Constant Current Range : 0.8A to 20A(+/-0.3A)

Reverse Input Protection : Yes (150A MOSFET)

Lower Voltage Protection : Yes (V8 to 50V adjustable, self-recovery)

Operating Temperature : - 40°C to +85 °C(if temperature is too high, please enhance heat dissipation)

Frequency : 150KHz

Conversion Efficiency : 92% to 97% (Efficiency is related to input/output voltage, current and voltage difference. The smaller difference is, the higher efficiency will be)

Input Over-current Protection: Yes (automatically protect when input is more than 3, and power supply voltage will not increase)

Short Circuit Protection : Yes(input 30A fuse)

Wiring Method: Terminals(please use large current copper wire)

Max. Output Power = Input Voltage\*Max Current (If input 12V, the max output power=12V\*30A = 360W)

Size:130 x 84 x 52mm / 5.11 x 3.3 x 2.04"

### **Instruction:**

Voltage Adjustment:

Power on module while not connect to load, then adjust "V-ADJ" potentiometer clockwise to increase, counterclockwise to decrease. Due to large output capacitance capacity, response will be slow when adjust high voltage to low voltage.

Current Adjustment:

Adjust "CC A-ADJ" potentiometer counterclockwise about 30 circles to minimize the output current before connecting to load. Then adjust "CC A-ADJ" clockwise to the current value you need. If you use as a battery charger, connect to output after battery is fully discharged. Because if the more energy is left in battery, the less charging current will be.

Low Input Voltage Protection Adjustment:

If we set a low input voltage protection for a 12V battery, connect input to a 10V voltage, then adjust RV1(clockwise to increase, counterclockwise to decrease) till UVLO light up. Now the protection voltage is 10V, that is to say, when battery voltage drops to 10V, module won't step up voltage and the output voltage will be same as input voltage.

Note:

1. Output wiring cannot be reversed or short circuit.
2. If the module is connected to inductive load, the minimum input voltage should be higher (e.g. 24V) and maximum output power should be lower(e.g. 500W).
3. If a storage battery, switch power supply, solar panel or electric generator is used

as input power source, the low voltage protection value should be adjusted lower, otherwise it might cause damage.

