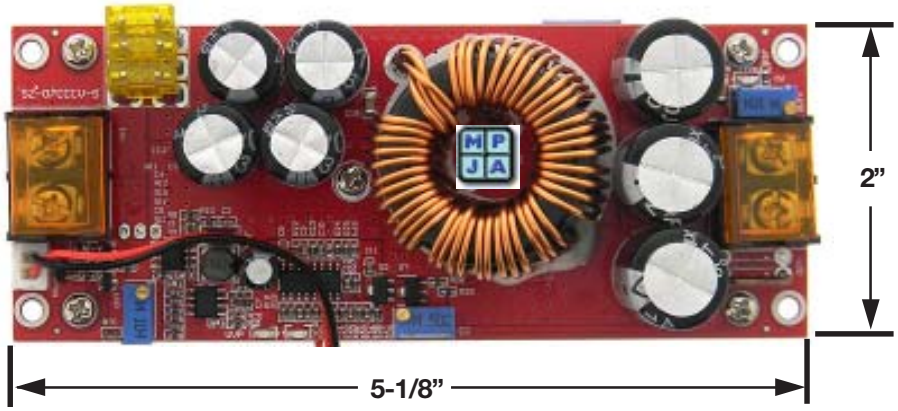
36843-PS

1800W Boost (Step Up) Module

High power, Non Isolated, Step up (Boost) adjustable DC/DC Converter. Adjustable Constant Voltage/Current and Input Under Voltage. Temperature controlled fan. CC/CV LED, Undervoltage LED, Output ON LED
Terminal strips In/Out.
Input: 10-60VDC
Rated Input Current: 40A Fused at 60A
No Load Standby: <20mA
Output: ~13-95VDC
Input/Output Differential: 2V Min.
Rated Current: 22A 1800Wmax Output
Regulation: .5%
Efficency: >95%
L: 5-1/8" **W:** 2" **H:** 2-7/8 **WT:** 1



Features:

1. The heat sink has very good heat dissipation. Output power can be up to 1800W when input voltage is >48V
2. The temperature-controlled fan provides a balance between noise and heat dissipation. When the load is light, the fan is off and will automatically turn On after the temperature reaches 60°C.
3. The 100V 210A TO-247 Power transistor has large power margin and good dynamic response.
4. Large size iron-silicon-aluminum toroid transformer with four, parallel, 1.2mm enameled copper windings, provides low heat and high efficiency.
5. This design has a conversion efficiency of up to 98.1% (see the Efficiency Chart).
6. Type 3296W multi-turn potentiometer has high adjustment precision and low drift.
7. The output current is sampled. The constant current is stable and the temperature drift is small.
8. The undervoltage protection is adjustable, which can effectively protect various batteries and can also be used for solar cells.
9. The Constant Current function can be used for battery car boost, battery charging and so on.
10. Three 20A Input fuses, in parallel to protect against the risk of an unexpected short circuit on the output.
11. Three LED Operational indicators: Undervoltage, Overcurrent and Power.

NOTE: Factory Default: The Output voltage is about 60V, the current limit is about 10A, and the undervoltage protection is about 10.5V.

CV Voltage regulation, **CC** current regulation, **UVP** input undervoltage protection regulation

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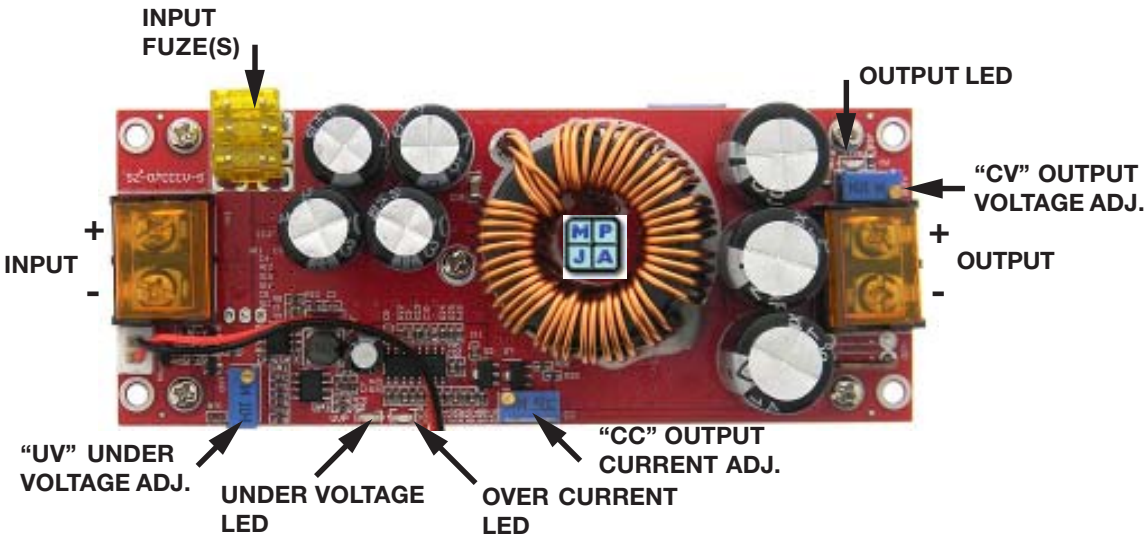
Applications:

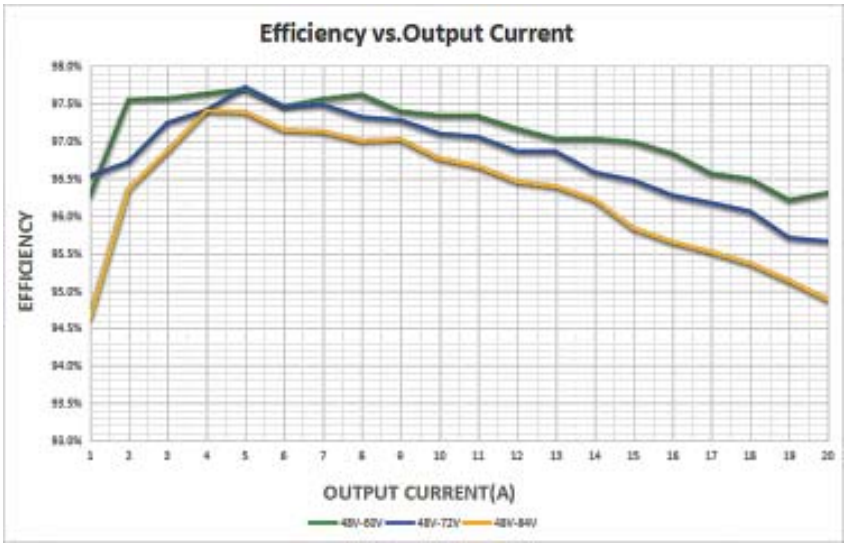
QS-4884CCCV-1800W is designed for lead-acid batteries, lithium batteries, solar cells or power supply boosting for electric vehicle boost and battery charging. It is very powerful.

1. For example, the original battery of the electric vehicle is 48V, which can be boosted to 60V to supply electric vehicles, which can improve the speed and acceleration of the electric vehicle.
2. Charge your electric bicycle. (1: For example, if you have a 12V or 24 idle battery in your hand, you can charge the original battery after boosting this boost power supply, which is equivalent to charging a battery for an electric car. 2: Simultaneous input It can also be connected to solar cells, wind power, generators and other power boosts to charge the primary battery to increase the battery life.)
3. The battery voltage can be increased to make the electric car run faster, and the built-in instrument should not exceed 10V.
4. Solar panel boost regulator.

Connections:

IN+ input positive, **IN-** input negative, **OUT+** output positive, **OUT-** output negative





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Instruction:

Voltage regulation:

Connect a Voltmeter (Digital or Analog) across the Output.
When the power supply is unloaded, use a flat-blade screwdriver to adjust the output **“CV” Adj.** potentiometer (marked in the figure below). To increase Output Voltage; turn clockwise, to decrease turn counterclockwise. Because the output capacitor capacity is large, the output voltage will respond rapidly on increase but will fall slowly on decrease.

Current regulation (Constant Current):

DO NOT SHORT CIRCUIT THE OUTPUT TO MAKE THIS ADJUSTMENT!
Adjust the **“CC” Adj**, potentiometer counterclockwise for about 30 turns,
Connect a Ammeter (Digital or Analog) in series with the load (such as an LED, battery etc) and adjust the **“CC” Adj.** potentiometer clockwise to the current you need. For battery charging: After the battery is discharged, Connect to the output, and adjust the **“CC” Adj.** potentiometer to the current you need.
When charging, be sure to use the discharged battery to set. The more the charge, the smaller the charge current. The factory default output is ~10A

Low Battery (UV) protection adjustment:

Low battery protection mainly prevents over-discharge of the battery. When the input Voltage is so low that it can damage the power module and/or the battery.

Method 1: For example: To set a 12V battery low battery protection. Connect a voltage of 11V to the input terminal of the power module. Adjust **“UV**” potentiometer (clockwise: protection voltage value is increased, counterclockwise: protection voltage is turned down) until the **UVLO** LED is on. At this time, the low battery protection voltage is 11V. When the voltage drops to 11V, the power module does not boost (the Output voltage will track (~equal) the Intput voltage). Only when the input voltage is higher than 11V, the power supply will resume boosting.

Method 2: Connect the battery or switch power supply to the Input. If the **UVLO** LED is Off, adjust the **“UV”** potentiometer clockwise, until the **UVLO** LED lights, and then turn it clockwise two turns.

If the **UVLO** LED is On, turn the potentiometer counterclockwise, until turn off the **UVLO** LED turns Off, and then turn it two turns. (Adapt to 10V-45V voltage)

Precautions:

(1) The output positive and negative poles cannot be reversed and cannot be short-circuited.
(2) If used for electric vehicle boost drive power supply, the input voltage must be 24V or more. The electric vehicle power is less than 500W. Because the electric motor is an inductive load, the current will be large at the moment of starting and uphill. There must be sufficient power headroom.
(3) When using battery, switching power supply, solar panel, generator, etc. as input source, you must lower the battery protection, otherwise it will damage the battery and power supply.
(4) Pay attention to ventilation and heat dissipation when working for a long time, high current, high power and full load, in order to extend the service life of the power supply.
(5) The module can only boost the voltage and cannot supply voltage to the electrical equipment below the input voltage. For example, charge the 12V battery with a 24V battery or charge the capacitor. Powering the LED below the input voltage
(6) Do not work at full load for a long time. Please keep 20% margin when working continuously. Pay attention to ventilation and heat dissipation.