Product highlights:

1. The voltage and current can be adjusted by numerical control, which is convenient, fast, industrial quality and high precision, and can be directly used in engineering projects;

2. Professional power supply LCD is adopted, with clear interface, simple operation and nearly perfect protection mechanism;

3. Hardware protection: anti reverse connection protection at the input end, no burn in reverse connection; short circuit protection at the output end, no burn in short connection; anti reverse filling at the output end, no additional anti reverse filling diode when charging the battery;

4. Software protection: over voltage protection (OTP), over current protection (OCP), over power protection (OPP), over temperature protection (OTP), input under voltage protection (LVP);

5. The default regulating voltage or constant current value can be set, which can be adjusted quickly in various applications;

6. Voltage and current can be locked to prevent misoperation!

7. Full of materials, stable performance and wide use.

1. Product parameters:

Input voltage: DC5.0V-30V (LVP with undervoltage protection when the input voltage is lower than 4.7V, it is recommended to use it when the input voltage is higher than 7V. When the input voltage is lower than 7V, the output power will decrease. The lower the input voltage, the smaller the output power)
Output voltage: DC0.6V-30v
Output current: 0-4.0A
Output power: 35W under natural heat dissipation, 50W under air cooling
Voltage accuracy: ± 0.5% + 1 word, resolution: 0.01V, factory calibrated accuracy
Current accuracy: ± 0.8% + 3 words, resolution: 0.001A, factory calibrated accuracy
Conversion efficiency: about 88%
Soft start: Yes
Input reverse connection protection: Yes, reverse connection does not burn
Anti backflow at output: Yes, it can be connected to battery directly
Output short circuit protection: Yes, it can directly short the output terminal
Temperature protection (OTP): Yes, 100 ℃
Working frequency: 180KHZ

Key Description:

Press the UP/DOWN key briefly, and the voltage will be adjusted by default. Long press (fast

increase / decrease) is supported.

Long press the SET button for 1 second to adjust the constant current value (current limit value);

Set and CV flash when adjusting voltage and set and CC flash when adjusting current.

Press the SET key briefly to switch the display current A / power W / capacity Ah / energy WH / time h;

Press the ON/OFF key briefly to turn ON/OFF the power output;

Long press the ON/OFF button for 2 seconds to switch the display input and output voltage.

When CC is set, constant current value will be adjusted by default. When LED is driven, fast dimming can be realized by pressing UP/DOWN key, which is very convenient!

2. Operation instructions of setting interface:

2.1. Press and hold the SET button for 3 seconds to enter the setting interface;

2.2. Adjust the parameter size through UP/DOWN key, support long press (fast increase / decrease), short press set key to switch the parameter to be adjusted;

2.3. In the OAH / OPH / OHP interface, short press the "ON/OFF" button to select the opening or closing of the corresponding function. If it is closed, display "----";

2.4. In the OAH / OPH parameter interface, long press the "ON/OFF" button to select the capacity range (9.999Ah/99.99Ah/999.9ah/9999Ah, 9.999Wh/99.99Wh/999.9Wh/9999Wh)

2.5. After the parameter is set, press and hold the set button for 3 seconds to exit the setting interface and save the setting parameters automatically;

Note: after product protection, the output will be turned off, and the LCD will display the corresponding protection code (LVP / OVP / OCP / OPP / OAH / OPH / OHP). The power chip itself also has various protections. If the chip itself is protected, the OEP will be displayed.

3. This product has locking function:

Long press the set button for 5 seconds to lock the set voltage and current to prevent misoperation! After locking, press and hold the set key for 5 seconds to unlock!

4. Product usage:

4.1. It is used as a common voltage rising and falling power supply with over-voltage /

over-current / over power / over temperature / under voltage protection;

(1) set the voltage value.

(2) set the constant current value (overcurrent protection value); (for example, if the constant current value is 3.00A, the maximum current can only reach 3A when you use the product, and when the current reaches 3A, the LCD will display "CC" status, otherwise the LCD will display "CV" status)

4.2. Use as battery charger

Products without constant current function cannot be used to charge the battery. Due to the large pressure difference between the consumed battery and the charger, the charging current is too large and the battery is damaged. Therefore, the battery should be charged with constant current at the beginning. When the charging reaches a certain degree, the battery can be automatically switched back to constant voltage charging.

(1) determine the floating charge voltage and charging current of the battery you need to charge; (if the parameter of lithium battery is 3.7v/2200mAh, the floating charge voltage is 4.2V; if it is a 12V rechargeable battery, generally set the floating charge voltage to about 14V)

(2) under no-load condition, set the voltage value to make the output voltage reach floating charge voltage; (if 3.7V lithium battery is charged, adjust the output voltage to 4.2V).

(3) under no-load condition, set constant current value (charging current of battery);

(4) connect the battery and charge.

4.3. Used as LED constant current driver

(1) determine the working current and maximum working voltage of the led you need to drive;

(2) under no-load condition, set the voltage value and current value to make the output voltage reach the maximum working voltage and current of LED;

(3) connect led and test the machine.

This product can adjust the constant current value (between 0 - working current) to realize the LED's stepless dimming and no stroboscopic!!

5. Function details

5.1 capacity / energy / operation time statistics:

Statistics will be started automatically after the power is turned on (ON), and the value of the previous state will be displayed after the power is turned off (OFF). After the power is turned on again (ON), recording will be started automatically again; in the corresponding interface, long press the on / off button for 3 seconds will automatically reset the corresponding data.

5.2 set maximum capacity / maximum energy / maximum operation time

5.2.1. Set the maximum capacity (OAH) / energy (OPH): when the OAH / OPH function is started, when the statistical capacity / energy is higher than the set maximum capacity / energy, the power automatically turns off the output and flashes "OAH" / "OPH"; after the alarm is released, the capacity / energy statistical data will be automatically cleared;

5.2.2. Set the maximum discharge time (OHP): when the OHP function is started, when the power operation time is greater than the set maximum discharge time, the power automatically turns off the output and flashes "OHP"; after the OHP alarm is released, the time statistics will be automatically cleared;

This function can well realize the power supply of quantitative / timing.

Note: when the OAP / OPH and OHP functions are not turned on, the power supply will automatically record the capacity / energy and operation time. When the OAH / OPH and OHP functions are turned on, the power supply will automatically turn off the output when the set value is reached; when the OHP function is turned on, the operation time of the power supply is the countdown mode;

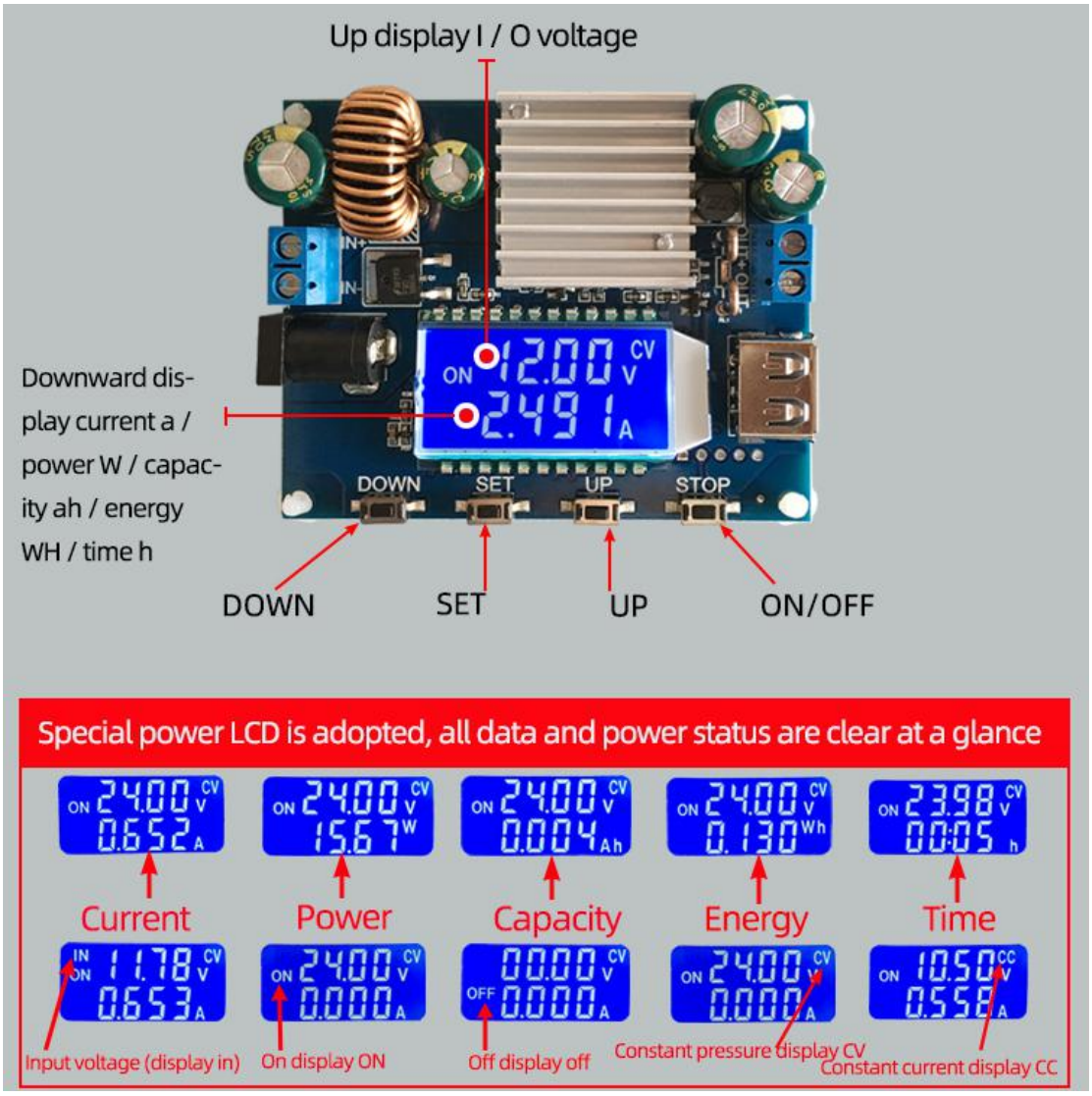
6. Precautions:

6.1. Input VIN- of module is prohibited to be short circuited with output OUT-, otherwise constant current function will fail.

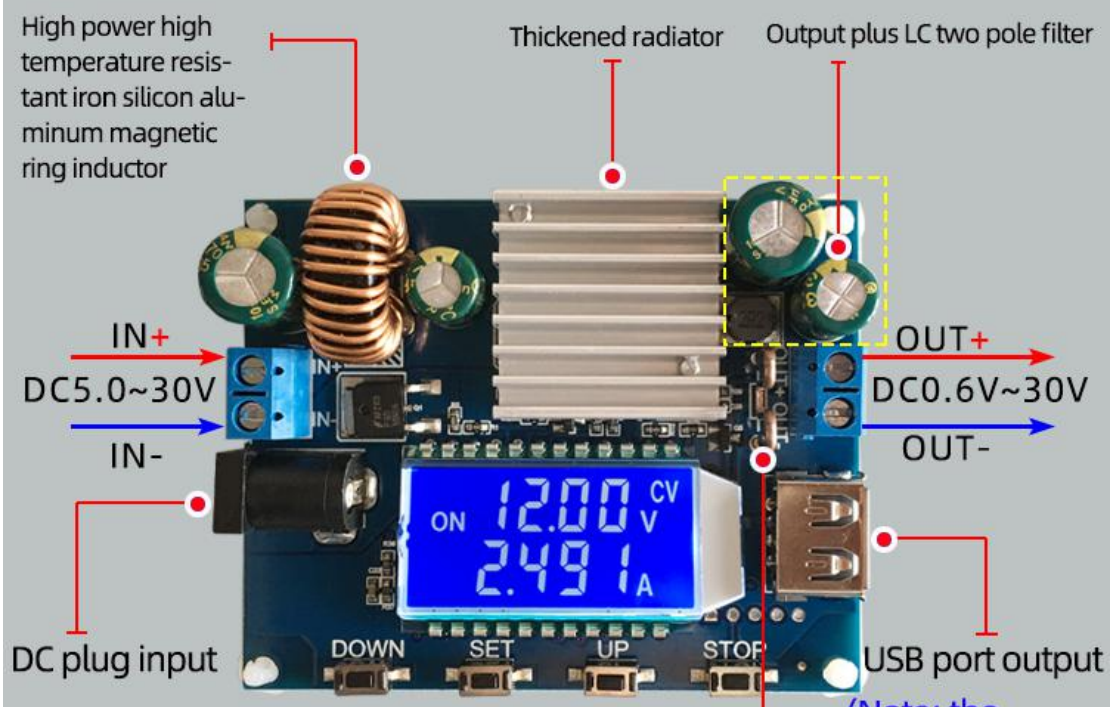
6.2. Please ensure that the power of the power supply is always greater than the power required by the output load!

6.3. If the module wants to output at full load, the input voltage shall be more than 8V. When the input voltage is 5V, the output power is about 15W; the maximum module current value is 4a, provided that the maximum output power is limited, such as output 18V, the current shall not be greater than 2A.

6.4. The module has the function of input undervoltage protection, which is about 4.7V by default. When it is lower than this value, it will automatically disconnect the output, and when the voltage is higher than 4.7V, it will automatically recover the output (Note: 4.7V is the voltage at the product port, when the input current is relatively large, do not ignore the partial voltage on the input wire).


Up display I / O voltage
Downward display current a / power W / capacity ah / energy WH / time h
DOWN
SET
UP
ON/OFF
Special power LCD is adopted, all data and power status are clear at a glance
Current
Power
Capacity
Energy
Time
Input voltage (display in)
On display ON
Off display off
Constant pressure display CV
Constant current display CC

Stable performance of materials



In the setting, you can set the default adjustment parameters of up / down key.

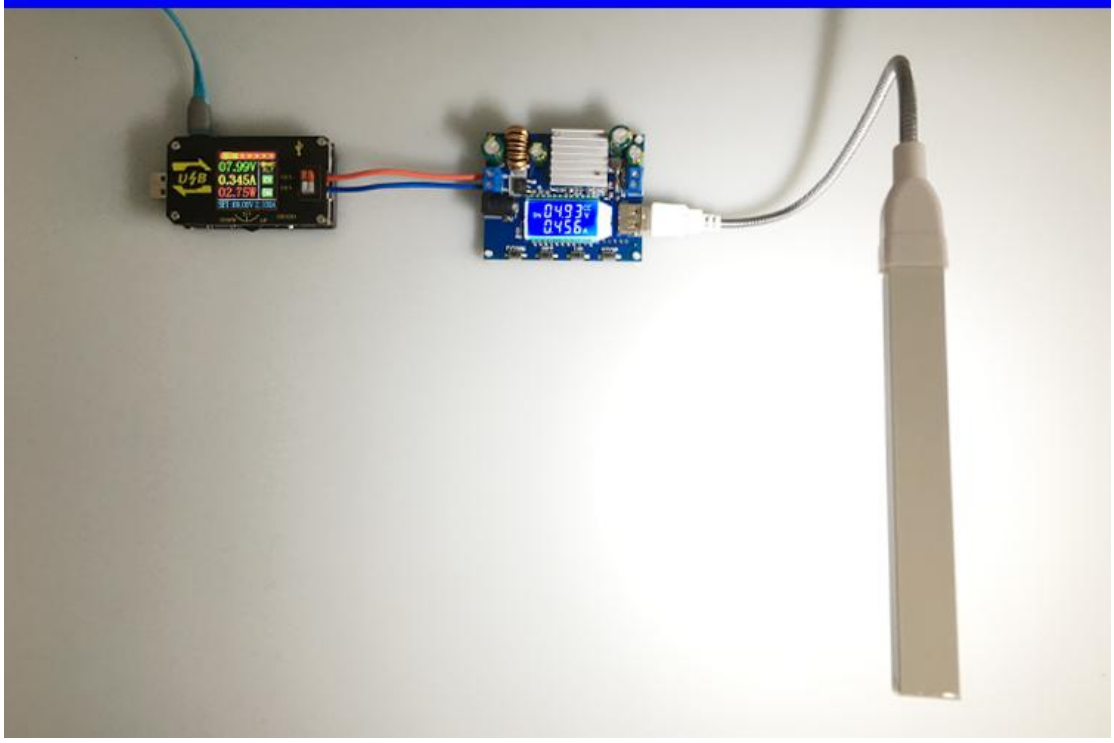
CV: default regulating voltage, long press set button for 1 second to adjust constant current value

CC: adjust the constant current value by default, press and hold the set button for 1 second to adjust the voltage

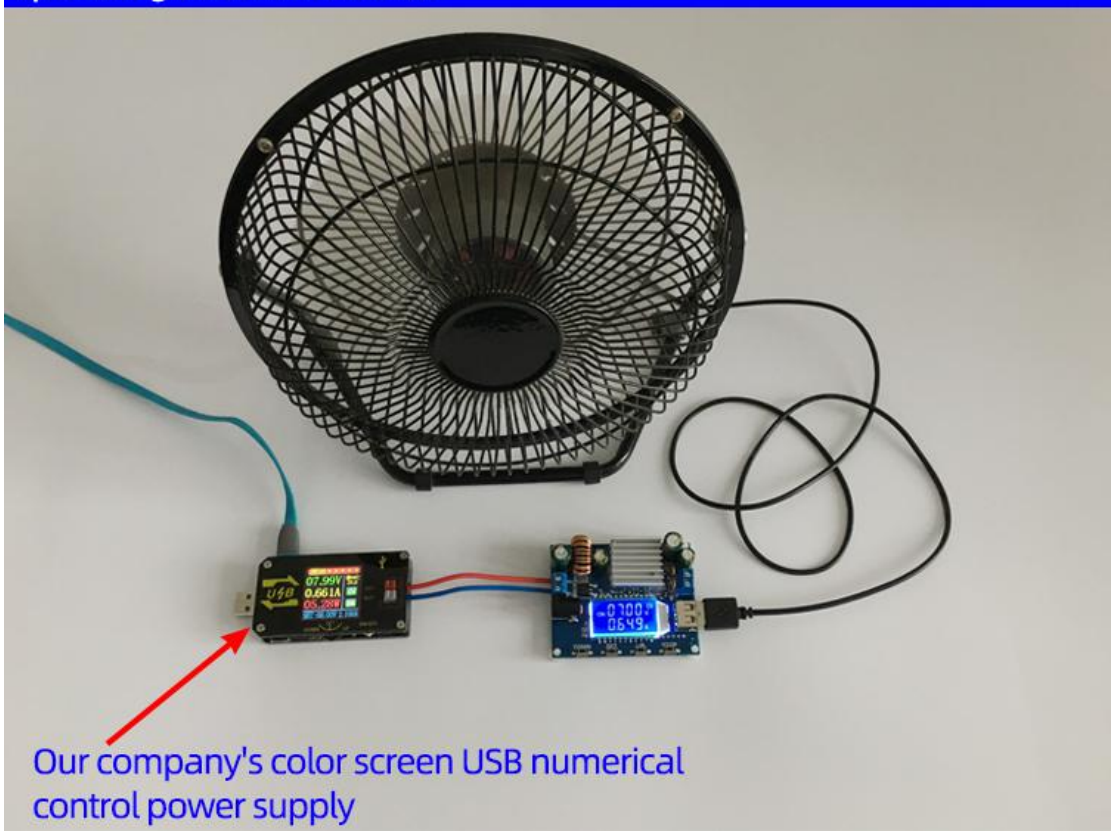
Product with USB female output, convenient for USB device access

Application scenario: set the maximum operation time OHP at night, and turn off the output automatically when the time is up

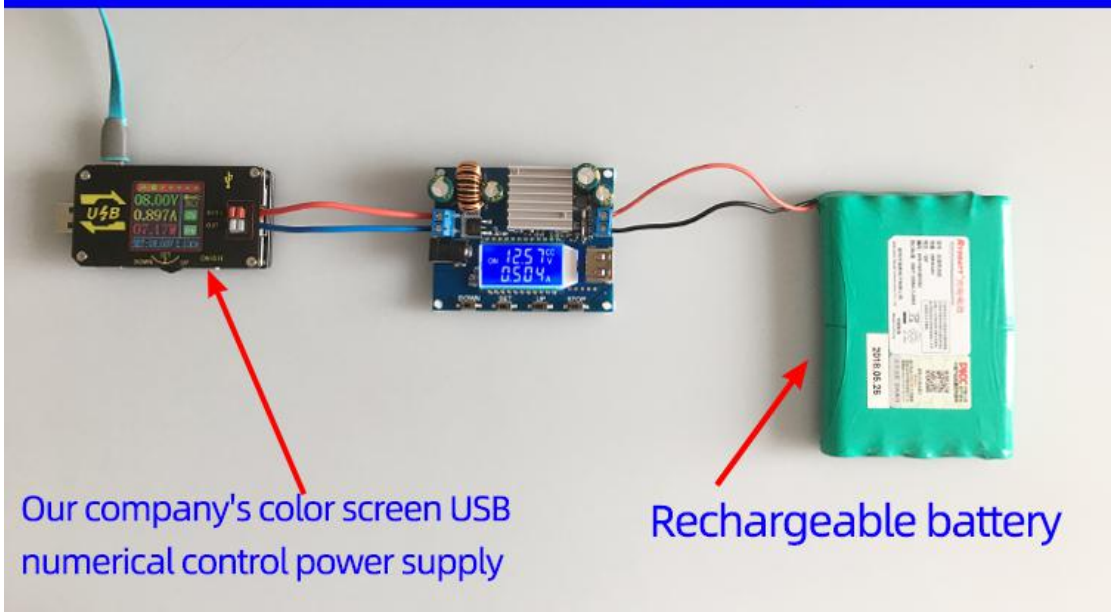
USB LED lamp, through adjusting current, realize led stepless dimming



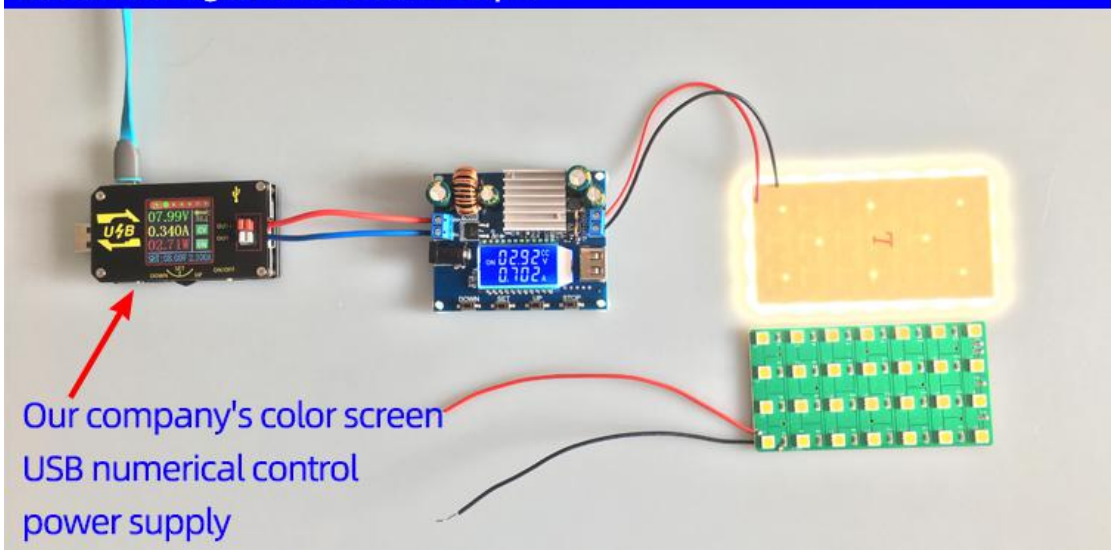
USB Fan, through adjusting the voltage or current, realize the stepless speed regulation of the fan!



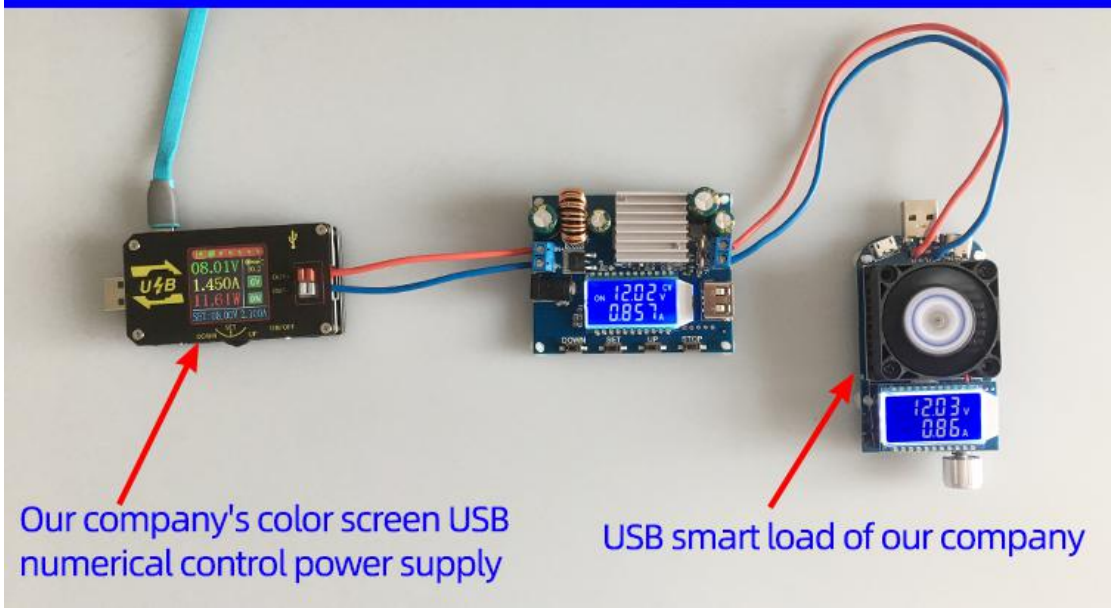
Used as a battery charger



By adjusting the constant current value, the LED can realize the step-less dimming and no stroboscopic!

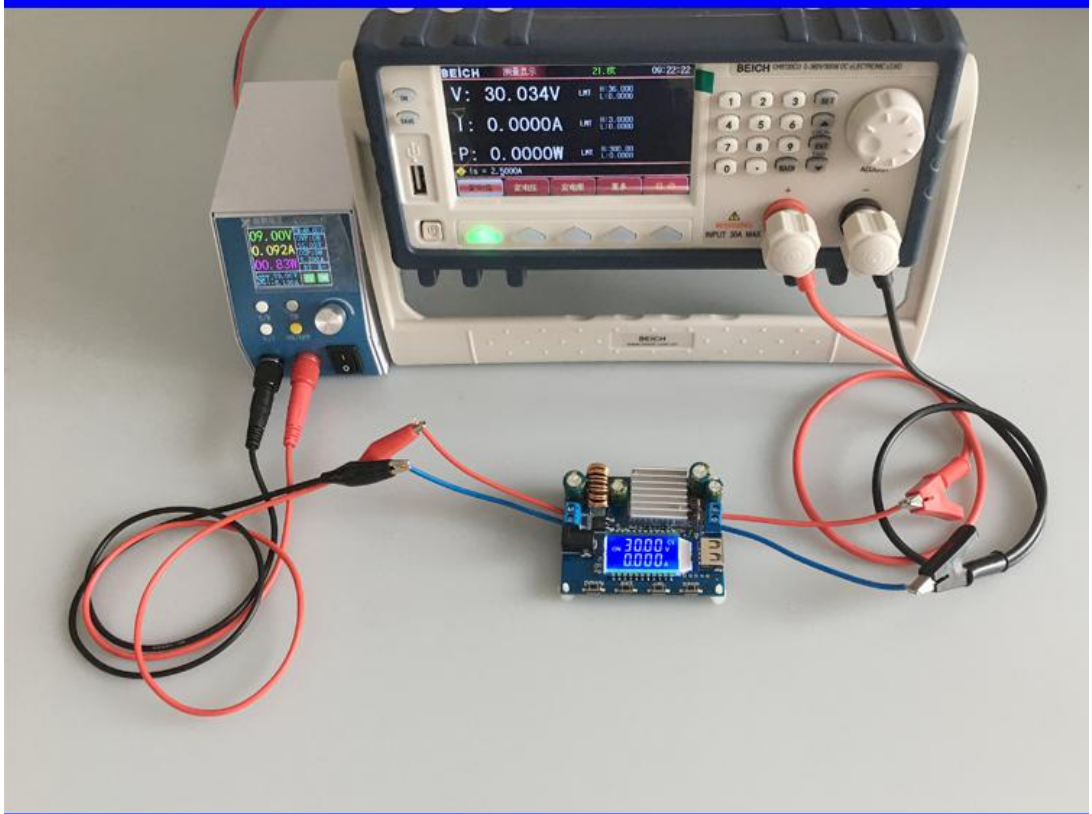


It is used as a common voltage regulator with over-voltage / over-current / over power / over temperature / under voltage protection.

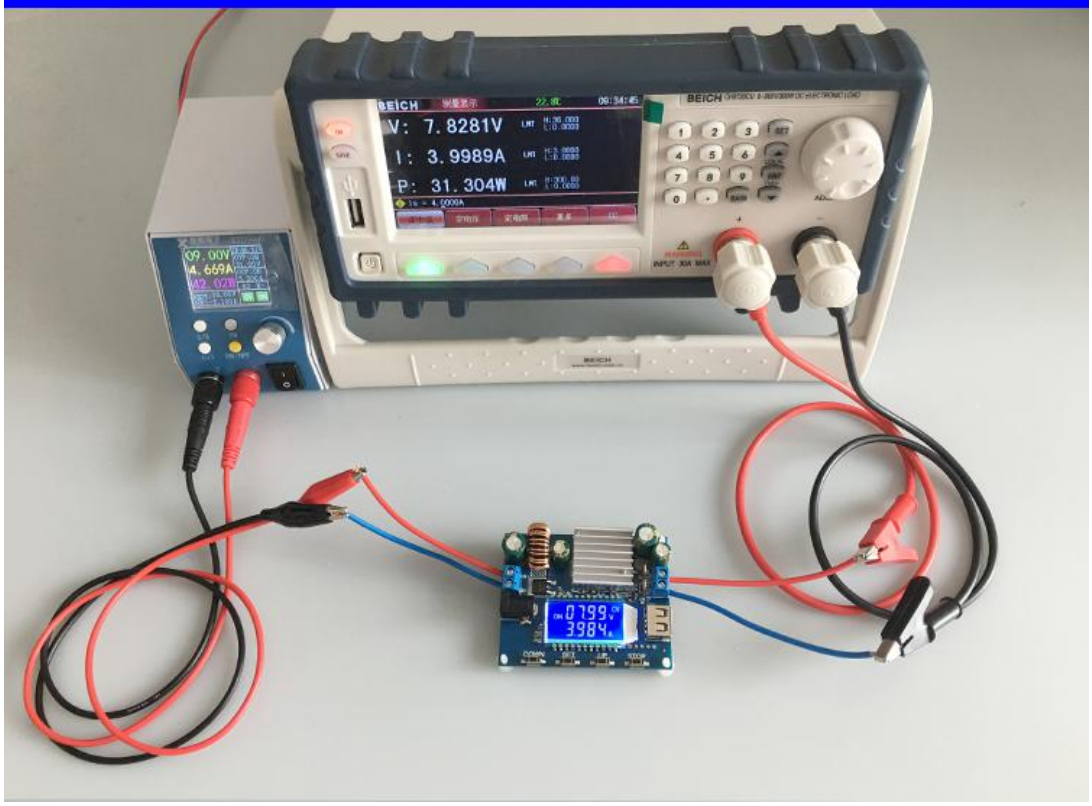


Each set is calibrated by professional equipment before leaving the factory

Voltage comparison voltage accuracy: ± 0.5% + 1 byte



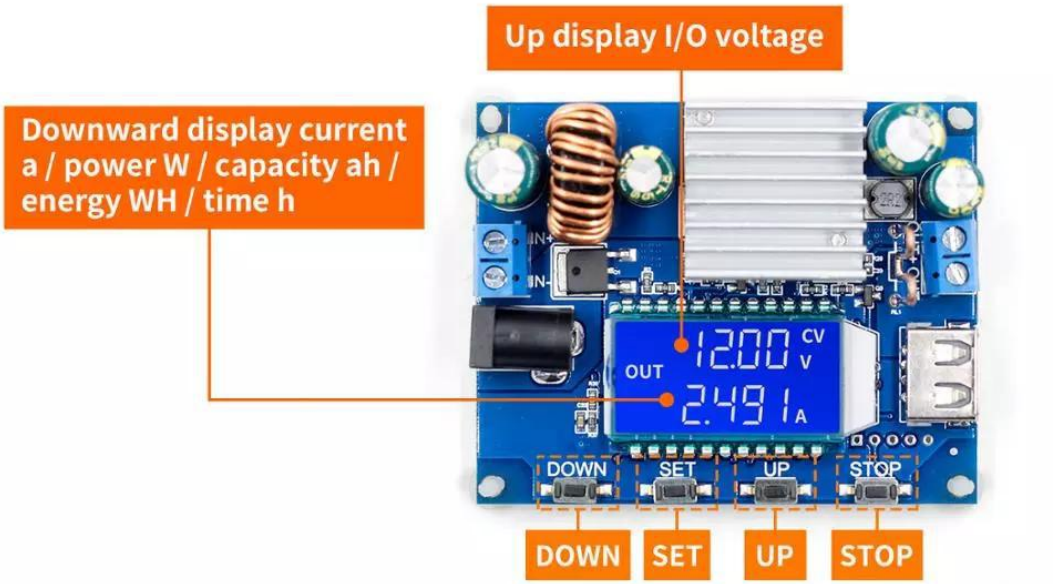
Current comparison current accuracy: ± 0.8% + 3 bytes



Product with USB female output, convenient for USB device access

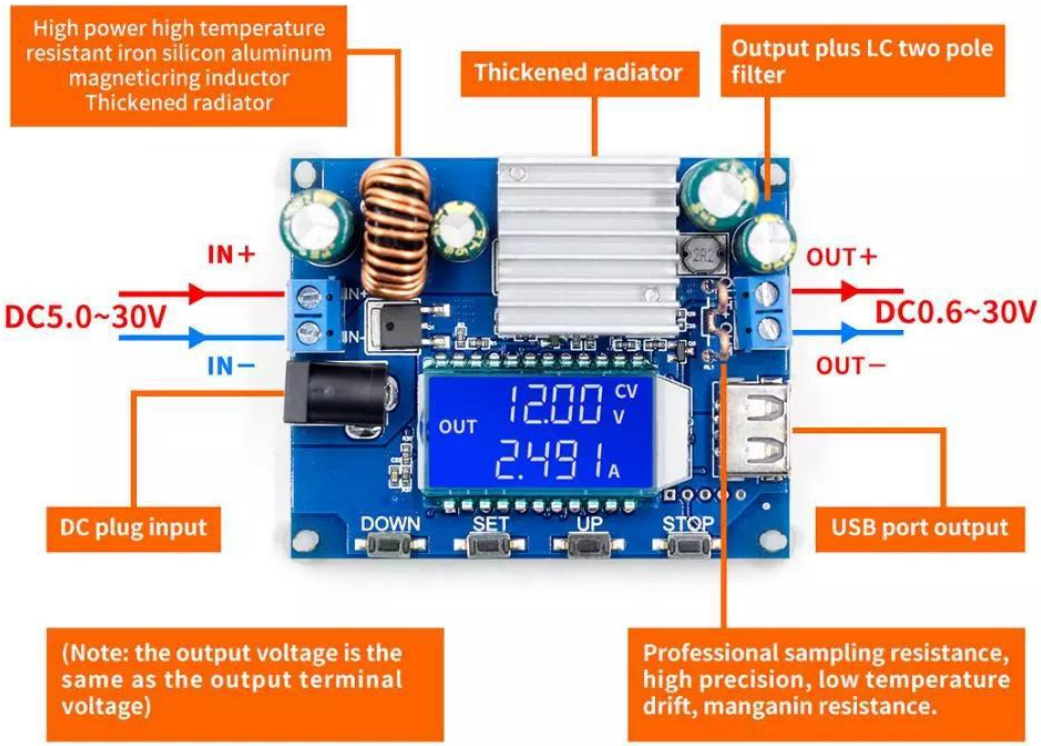
The voltage of USB port is the same as that of terminal. Please pay attention to the voltage before connecting USB device.

Application scenario: set the maximum operation time OHP at night, and turn off the output automatically when the time is up.



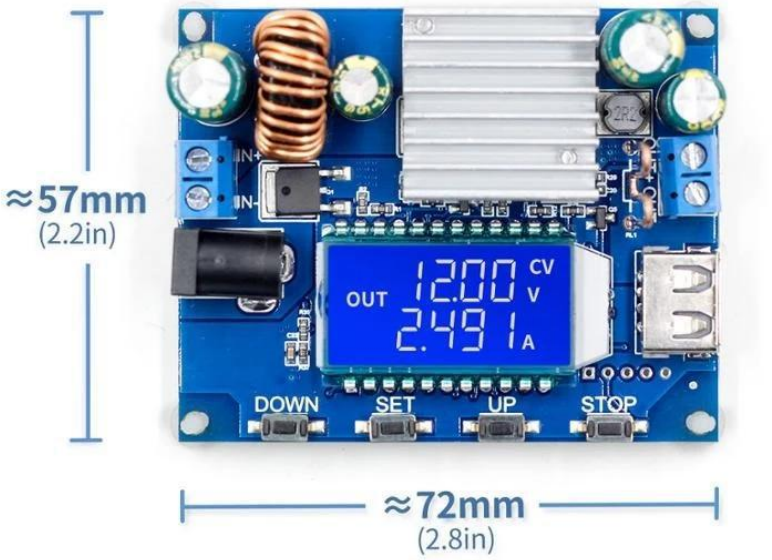
Special power LCD is adopted, all data and power status are clear at a glance

Stable performance of mataerials



Liquid crystal display PWM module

Adjustable duty ratio / Wide voltage



Input 5.0~30V, output 0.6V~30V, 4A/35W

In the setting, you can set the default adjustment parameters of up/down key.

CV: default regulating voltage, long press set button for 1 second to adjust constant

CC: adjust the constant current value by default, press and hold the set button for 1