Third generation upgraded

ZK-SK150C
150W

Color screen

CNC DC voltage Buck-Boost power supply

Silicon Rubber Keypads | Full view enlarged LCD screen | Beeper On | Double snap shell

7-36V	0.5-40V	0-8A	150W	11groups
Input voltage	Output voltage	Output current	Output power	Storage space

Multiple protection

- ☑ Anti reverse connection
- ☑ Anti-backflow
- ☑ Under voltage protection
- ☑ Overvoltage protection
- ☑ Overcurrent protection
- ☑ Over temperature protection
- ☑ Over power protection

Higher voltage
Higher current

Anti-backflow

Support serial communication
Standard Modbus protocol

Independent silicone button to set voltage or current

One click entry, one click exit, fast and concise, rejecting complexity.

1.8-inch large color screen display

The display content is more rich and intuitive, and the operation settings are simpler.

Double snap shell

The connection between the upper and lower boards is more reliable and stable.

Further improvement in performance

Power upgrade, including an external fan port for expandable fans.

Independent architecture for upper and lower boards, independent MCU

Replace the LCD or color display board at will, and the power board can also be used independently.

Upgrade silicone buttons

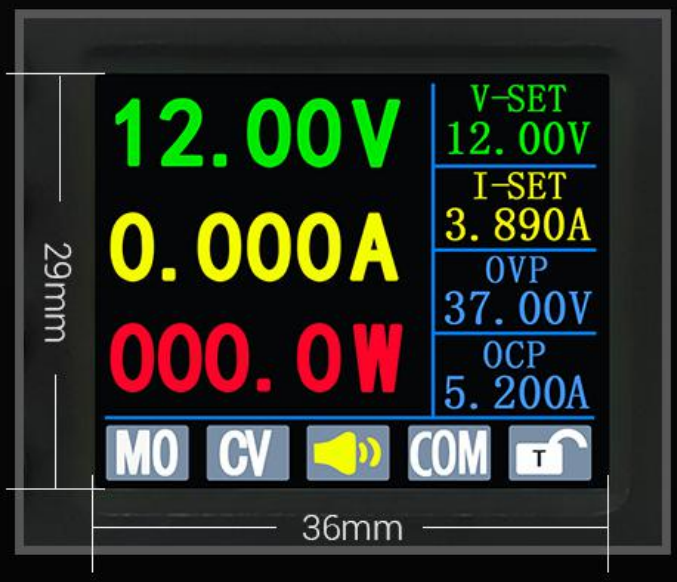
Effortless Silent	Soft Durable	Damping perception	Waterproof Dustproof

- The silicone button material is soft, comfortable to touch, and has an excellent hand feel.
- Compared to mechanical buttons, they can withstand long-term use and frequent pressing without wear or failure, making them more durable and have a longer service life.

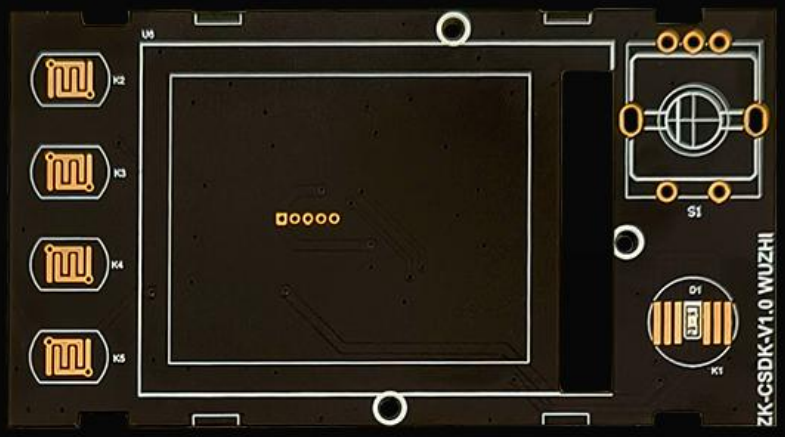
Upgrade the large screen

1.8-inch large screen

Visualization range 36 * 29mm



PCB sinking gold process



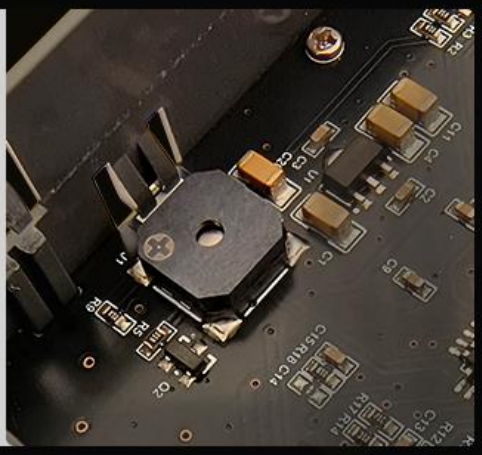
Protection **Conductivity** **Reliability**

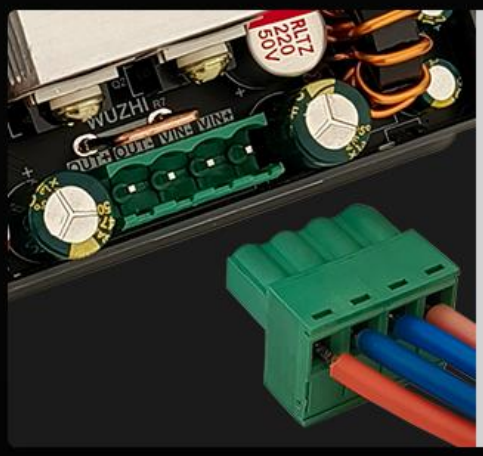
- Prevent missing segments in LCD after long-term use
- Protect circuit board pads from oxidation
- Improving PCB conductivity
- Reduce line impedance and contact resistance

Detail display

Built in buzzer

Key prompt, alarm prompt, and echo for everything





Upgrade plug-in terminals

Easy to disassemble and replace.


Product highlights
Integrated knob with increased damping for better hand feel
1.8-inch large screen
36mm
29mm
M/↑
V-SET
I-SET
OK/↓
12.00V
0.000A
000.0W
V-SET
12.00V
I-SET
3.890A
OVP
37.00V
OCP
5.200A
MO
CV
COM
Silicon Rubber Keypads

Product parameters

Product name	CNC DC voltage buck-boost power supply (Color screen)	Product model	ZK-SK150C
Input voltage	7-36.00V	Output voltage	0.5-40.00V
Output current	0-8.000A	Voltage accuracy	±0.3%+3 words (Calibratable)
Output power	150W	Output current accuracy	±0.5%+3 words (Calibratable)
Voltage resolution	0.01V	Current resolution	0.001A
Data group storage	11 groups	Silicon rubber keypads	5
Screen size	Upgraded 1.8-inch large screen, 36 * 29mm visible range	Buzzer	Yes
Conversion efficiency	About 88%	Soft	Yes
Product size	83x48x48mm (Height does not include rotary encoder)	Product weight	Net weight of product: 112g Weight with packaging: 132g

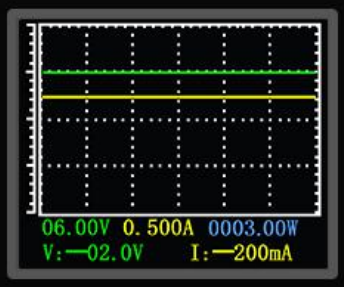
Protection mechanism			
Input anti reverse connection	Yes	Output anti backflow	Yes

Under voltage protect (LVP)	6.0-40V adjustable, factory default value of 6.0V
Output overvoltage protection (OVP)	0.5-42V adjustable, factory default value 42V
Output overcurrent protection (OCP)	0.001-8.2A adjustable, factory default value 8.2A
Output overpower protection (OPP)	0.1-180W adjustable, factory default value 160W
Over temperature protection (OTP)	30-150 ℃ adjustable, factory default value of 100 ℃
Timeout protection (OHP)	1-99 hours and 59 minutes, factory default off
Overcapacity protection (OAH)	0.001-9999Ah, Factory default off
Superenergy protection (OWH)	0.001-4000KWh, Factory default off

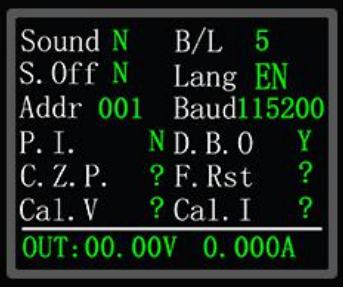
Multiple interface displays

Main interface of power supply

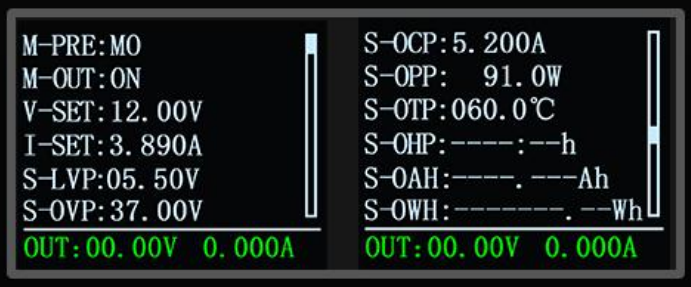
Statistics Interface



Voltage/current display



Menu interface



Data group settings

APP interface

Supports Android and iOS

Android

IOS

APP online method

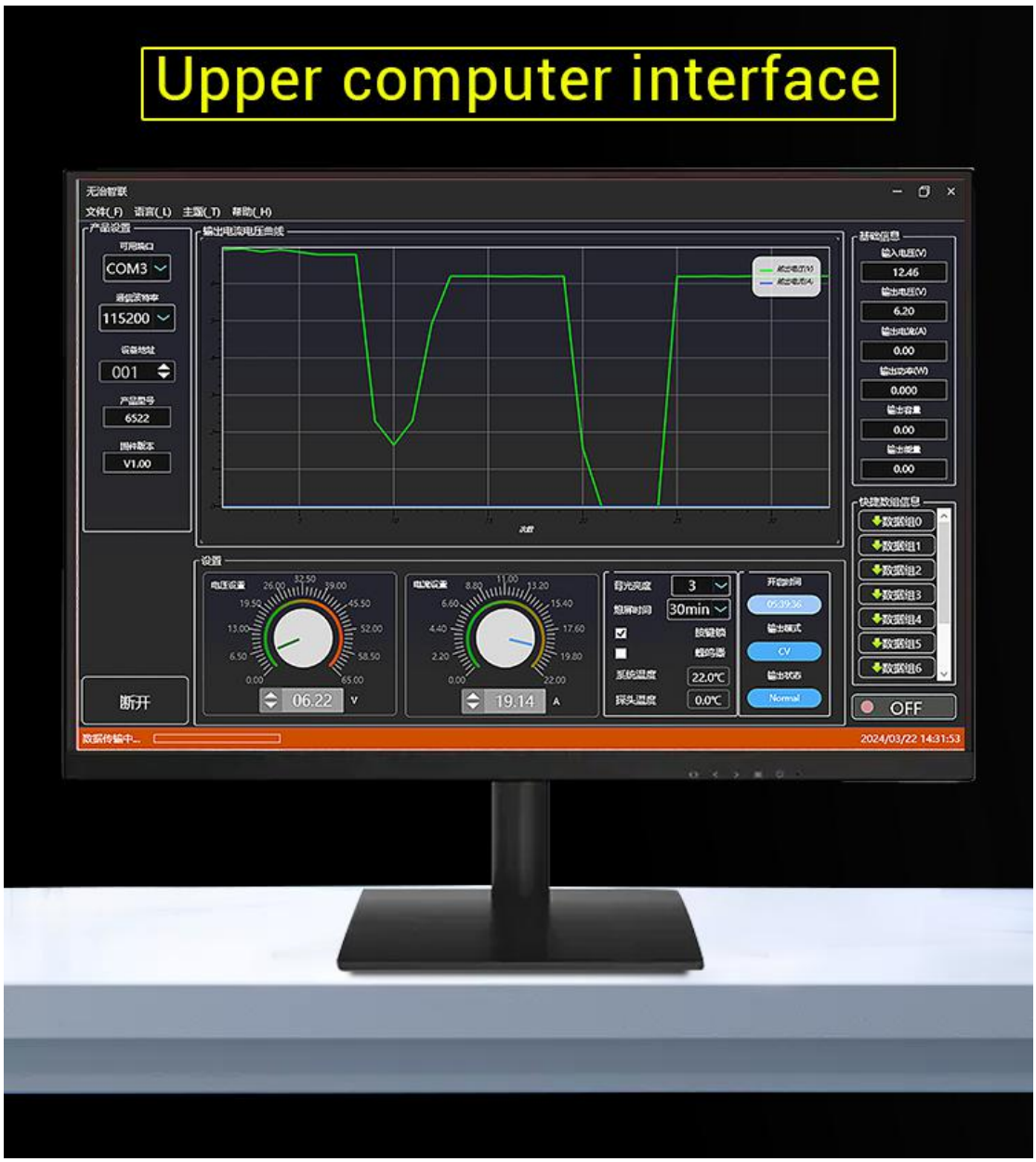
① Insert the communication interface of the power motherboard into the ZK-BT BT board, and the ZK-BT indicator light will flash once when inserted.

② Open the Wuzhi Zhilian APP and mobile BT, click "Add Device" on the APP interface, and Wuzhi Power will be automatically searched for. After clicking, it will automatically connect.

③ Display successful connection, click complete.

④ Click on the device icon to enter the normal operation interface. Long press the product icon to change the name or delete the device.

Upper computer interface



Online method of upper computer

① Insert a data cable into the computer and connect it to the ZK-U2T (USB to TTL module). The other end of the ZK-U2T module has a 4P cable inserted into the communication port of the power motherboard;

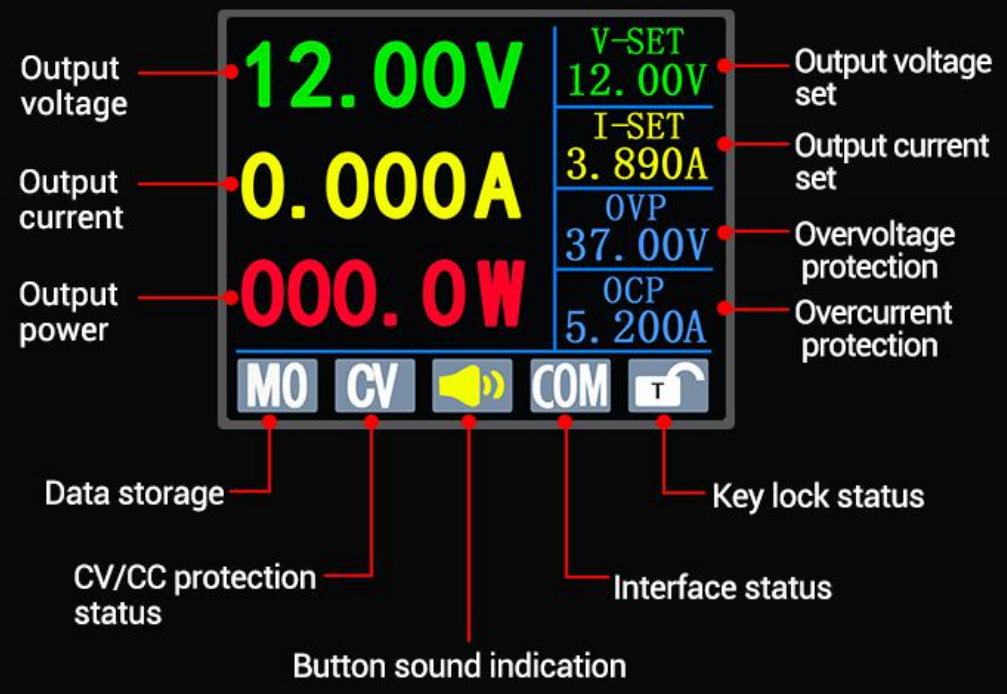
② Find the port number COMx corresponding to USB-Serial CH340 in my computer - Device Manager - Ports;

③ Open the "Wuzhi Zhilian" upper computer, select the corresponding port number COMx, and click the "Connect" button in the bottom left corner of the upper computer to automatically connect.

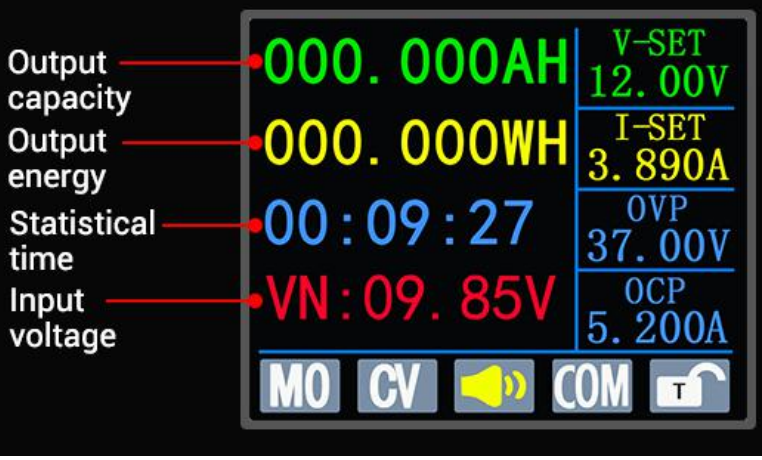
④ The operating environment is If NET Framework 4.8 cannot run, you can download and install it from the. net official website

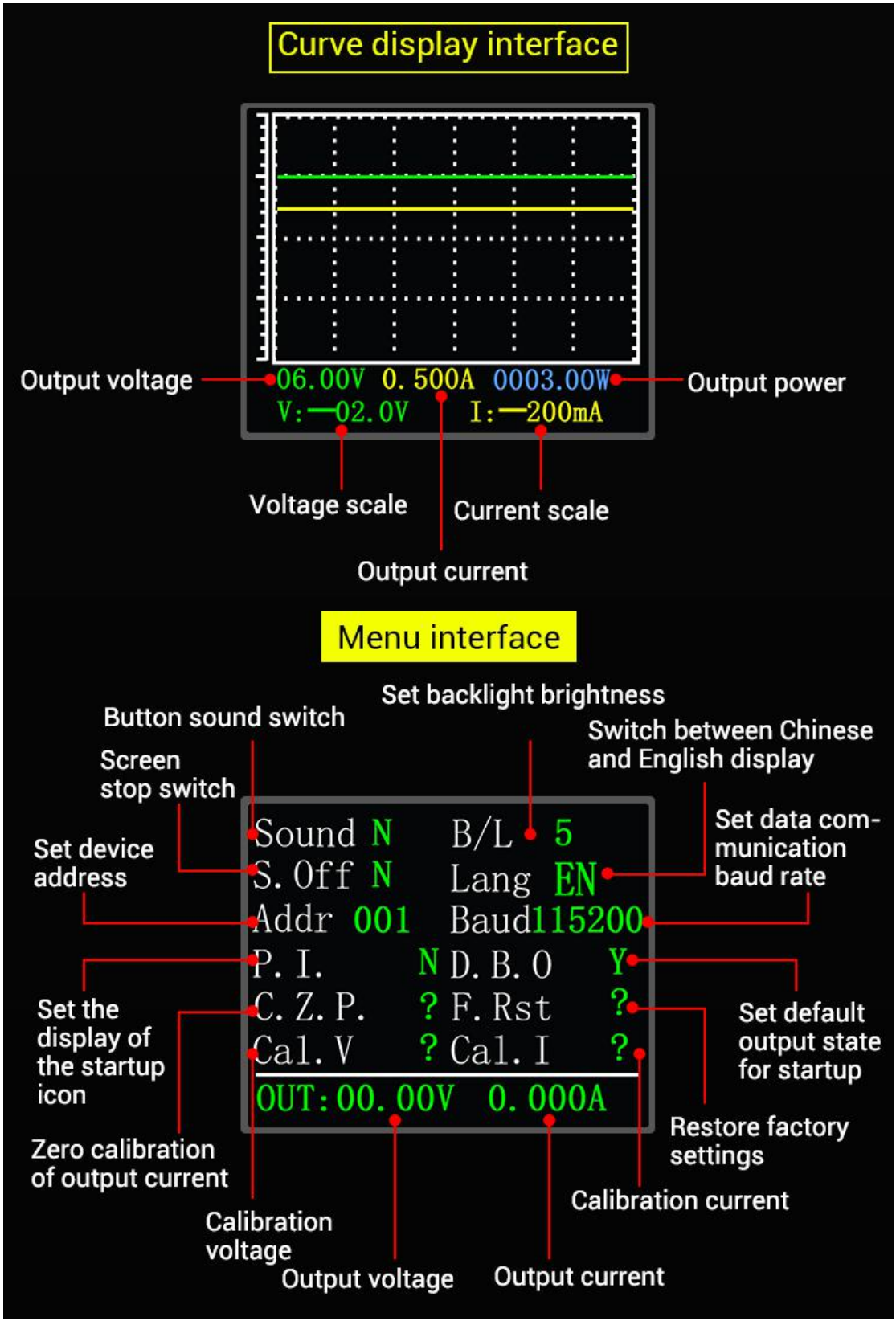
Interface Introduction

Main interface of power supply

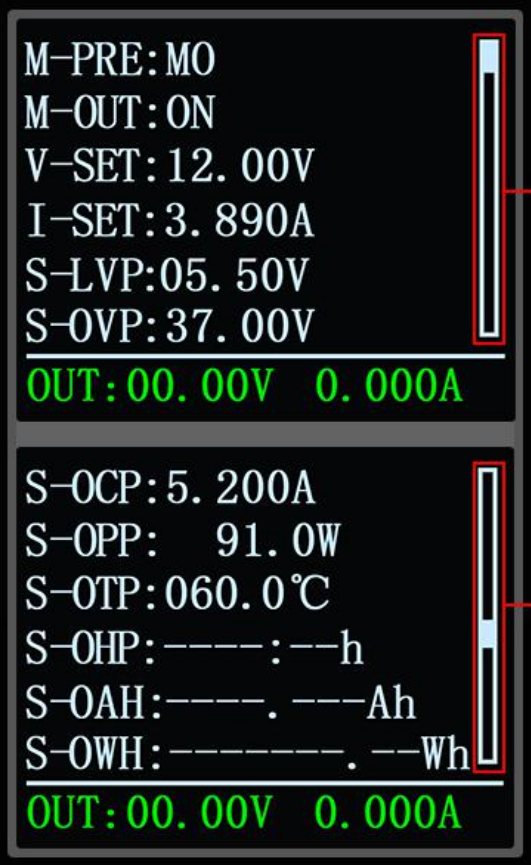


Statistics Interface




Curve display interface
06.00V 0.500A 0003.00W
V:—02.0V I:—200mA
Output voltage
Output power
Voltage scale
Current scale
Output current
Menu interface
Set backlight brightness
Button sound switch
Switch between Chinese and English display
Screen stop switch
Sound N B/L 5
S.Off N Lang EN
Addr 001 Baud115200
P.I. N D.B.0 Y
C.Z.P. ? F.Rst ?
Cal.V ? Cal.I ?
OUT:00.00V 0.000A
Set device address
Set data communication baud rate
Set the display of the startup icon
Set default output state for startup
Zero calibration of output current
Restore factory settings
Calibration current
Calibration voltage
Output voltage
Output current

Data group setting interface



M-PRE: Select data group M0-M10

M-OUT: Set the default switch when calling out the corresponding data group

V-SET: Set the output voltage value for the corresponding data group

I-SET: Set the output current value for the corresponding data group

S-LVP: Set the input undervoltage protection value for the corresponding data group, with a default of 6.0V

S-OVP: Set the output overvoltage protection value for the corresponding data group, default to 42V

S-OCP: Set the output overcurrent protection value for the corresponding data group, with a default of 8.2A

S-OPP: Set the output overpower protection value for the corresponding data group, with a default of 160W

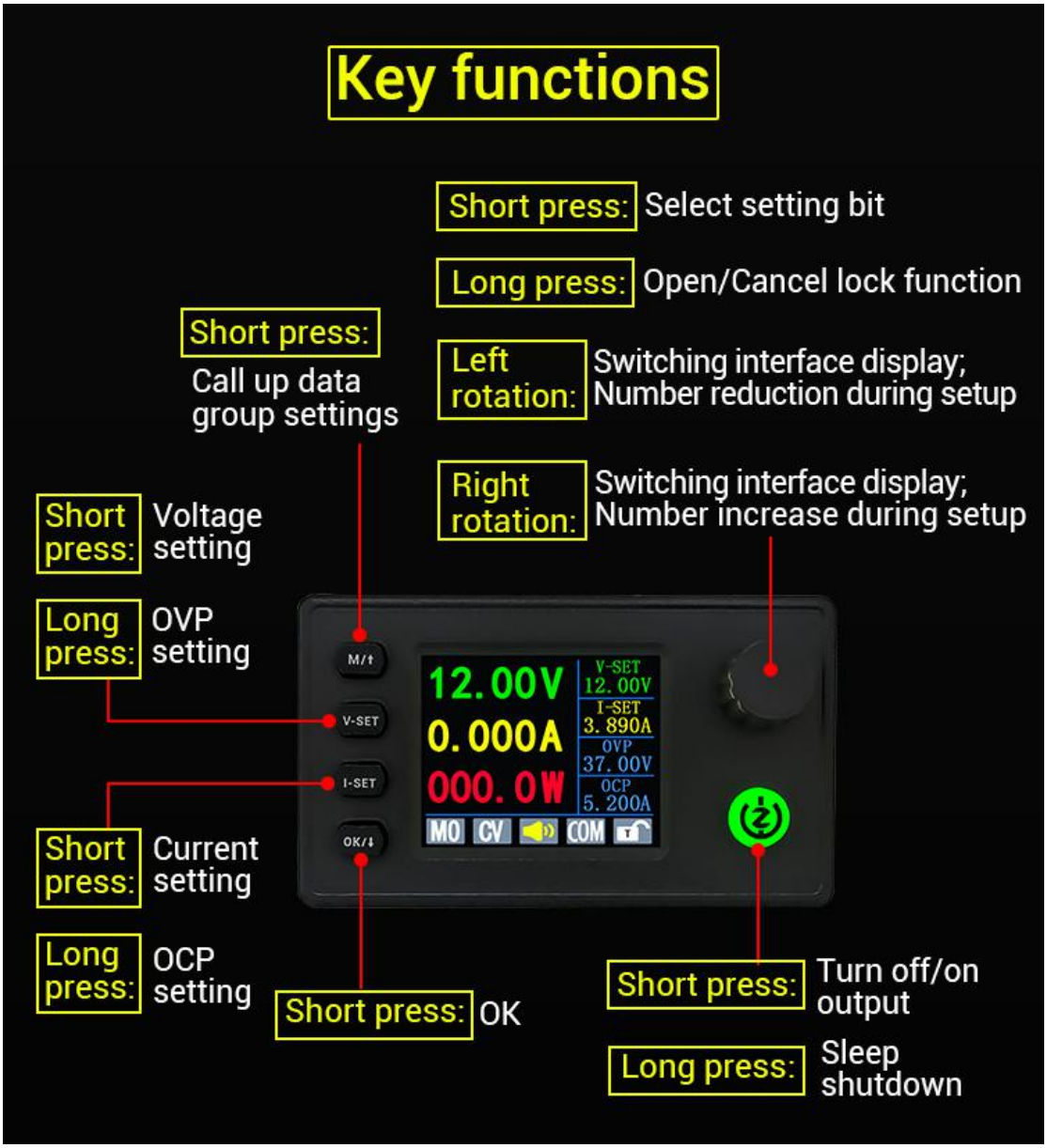
S-OTP: Set the over temperature protection value for the corresponding data group, default to 100℃

S-OHP: Set the timeout protection time for the corresponding data group, which is disabled by default

S-OAH: Set the over capacity protection value for the corresponding data group, which is disabled by default

S-OWH: Set the over energy protection value for the corresponding data group, which is disabled by default

Key functions



Instructions for use

Call out data group

Press M/↑ to call up the data group settings, rotate the encoder to switch to data group M0-M10;

Press OK/↓ to confirm and exit

Set voltage and current

Short press V-SET to enter the voltage setting, short press to rotate the encoder to shift and adjust the size.

After setting up, press V-SET or OK/↓ again to exit the setup.

Short press I-SET to enter the current setting, short press to rotate the encoder to shift and adjust the size.

After setting up, press I-SET or OK/↓ again to exit the setup.

Quick settings OVP/OCP

Long press V-SET to enter OVP settings, short press the rotary encoder to shift, rotate to adjust size.

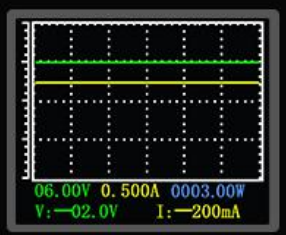
After setting up, press V-SET or OK/↓ again to exit the setup.

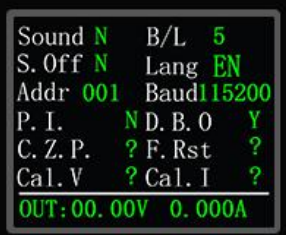
Long press I-SET to enter OCP settings, short press the rotary encoder to shift, rotate to adjust size.

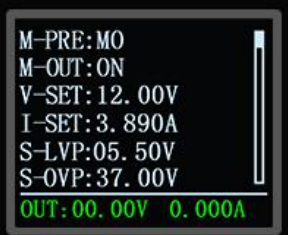
After setting up, press I-SET or OK/↓ again to exit the setup.

Switch display interface

Rotation encoder switch interface display







Locking function

On the normal display interface, long press and hold the rotary encoder for 2 seconds to lock the set voltage and current to prevent accidental operation; After locking, press and hold the encoder for 2 seconds to unlock.
After locking, the power button can still operate normally, ensuring that the power can be disconnected at any time.

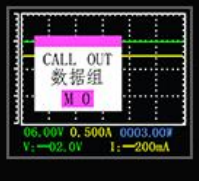
Introduction to parameter setting operations

On the normal interface, the rotary encoder switch interface displays

Curve display interface

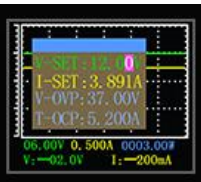
Press OK/↓ to set the voltage scale (display V:—02.0V), rotate the encoder to switch size, then press OK/↓ to switch to the current scale (display I:—200mA), rotate the encoder to switch size, and then press OK/↓ to exit; Short press the rotary encoder to pause.

Press M/↑ to call out the data group



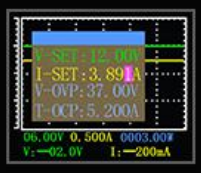
Rotating encoder switching data group M0-M10;
Press OK/↓ to confirm and exit

Press V-SET to bring up the settings interface



Can set voltage, current, overvoltage protection, overcurrent protection

Press I-SET to bring up the settings interface

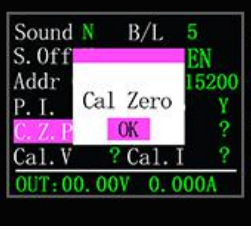


Can set voltage, current, overvoltage protection, overcurrent protection

Menu interface

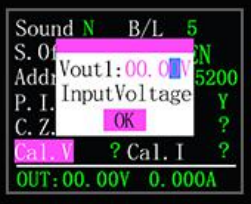
Short press M/↑ to select the settings option

1. Sound N : Rotating encoder on/off
2. S. Off N : Turn the rotary encoder on/off and set the screen rest time
3. Addr 001 : Set communication address for rotary encoder
4. P. I. N : Rotating encoder on/off
5. C. Z. P. ? : Short press OK/↓ to pop up the calibration zero point dialog box



Short press M/↑ to cancel and exit,
Short press OK/↓ to confirm and exit.

6. Cal.V ? : Short press OK/↓ to pop up the calibration voltage dialog box



Short press M/↑ in the dialog box to cancel calibration and exit.

Calibration steps:

1. Use a multimeter to measure the actual voltage at the current output terminal (output terminal unloaded, measure the power terminal) and input it.
2. Short press OK/↓ to display voltage 2.
3. Use a multimeter to measure the actual voltage at the current output terminal again and input it.
4. Short press OK/↓ to complete the calibration.

If calibration is successful, it will display "CALI Success" and exit; otherwise, it will display "CALI Failed" and exit. If it fails, you can try calibrating again.

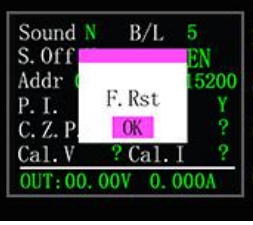
7. B/L 5 : Rotate the encoder to adjust the backlight brightness; 0-5 levels

8. Lang EN : Rotating encoder switching between Chinese and English

9. Baud 115200 : Rotation encoder switching communication rate size

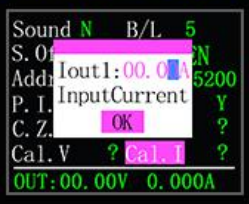
10. D.B.O Y : Rotate the encoder to adjust the default output on/off during startup

11. F.Rst ? : Short press OK/↓ to pop up the calibration and factory reset dialog box



Short press M/↑ to cancel and exit,
Short press OK/↓ to confirm and exit.

12. Cal.I ? : Short press OK/↓ to pop up the calibration current dialog box



Short press M/↑ in the dialog box to cancel calibration and exit.

Calibration steps:

1. Use a multimeter current range or electronic load to short circuit the output terminals and measure the current actual current and input it.
2. Short press OK/↓ to display current 2.
3. Use a multimeter to measure the actual current at the current output terminal again and input it.
4. Short press OK/↓ to complete the calibration.

If calibration is successful, it will display "CALI Success" and exit; otherwise, it will display "CALI Failed" and exit. If it fails, you can try calibrating again.

Data group setting interface

Short press M/↑ to select the settings option, and once the settings are complete, short press OK/↓ to confirm and exit.

1. M-PRE:MO : Set up data groups
   Rotating encoder selection data group

2. M-OUT:ON : Set default on/off when calling out
   Default on/off when calling up rotary encoder settings

3. V-SET:12.00V : **Set output voltage**
Short press the encoder to shift, rotate the encoder to adjust size

4. I-SET:3.890A : **Set output current**
Short press the encoder to shift, rotate the encoder to adjust size

5. S-LVP:05.50V : **Set input undervoltage protection**
Short press the encoder to shift, rotate the encoder to adjust size

6. S-OVP:37.00V : **Set output overvoltage protection**
Short press the encoder to shift, rotate the encoder to adjust size

7. S-OCP:5.200A : **Set output overcurrent protection**
Short press the encoder to shift, rotate the encoder to adjust size

8. S-OPP: 91.0W : **Set output overpower protection**
Short press the encoder to shift, rotate the encoder to adjust size

9. S-OTP:060.0℃ : **Set up over temperature protection**
Short press the encoder to shift, rotate the encoder to adjust size

10. S-OHP:----:--h : **Set timeout protection**
Long press the encoder to turn on/off

S-OHP:0000:01h
Short press the encoder shift in the open state, rotate the encoder to adjust size

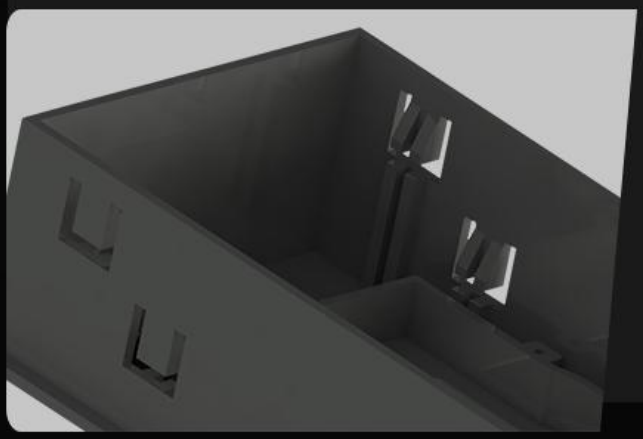
11. S-OAH:-----.--Ah : **Set up over capacity protection**
Long press the encoder to turn on/off

S-OAH:0000.001Ah
Short press the encoder shift in the open state, rotate the encoder to adjust size

12. S-OWH:--------.-Wh **Set up over energy protection**
Long press the encoder to turn on/off

S-OWH:0000000.01Wh
Short press the encoder shift in the open state, rotate the encoder to adjust size

Increase and upgrade the shell

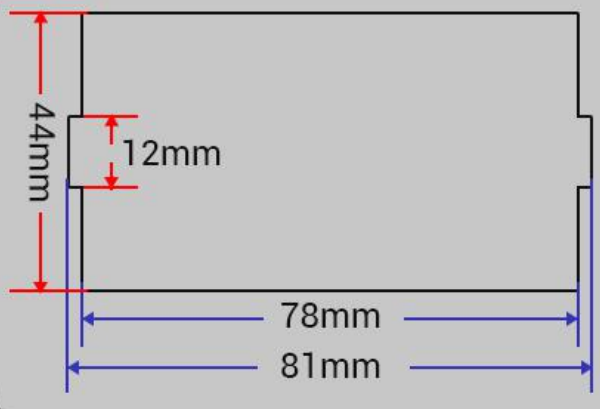


Double buckle

Double layer circuit board fixation is more reliable

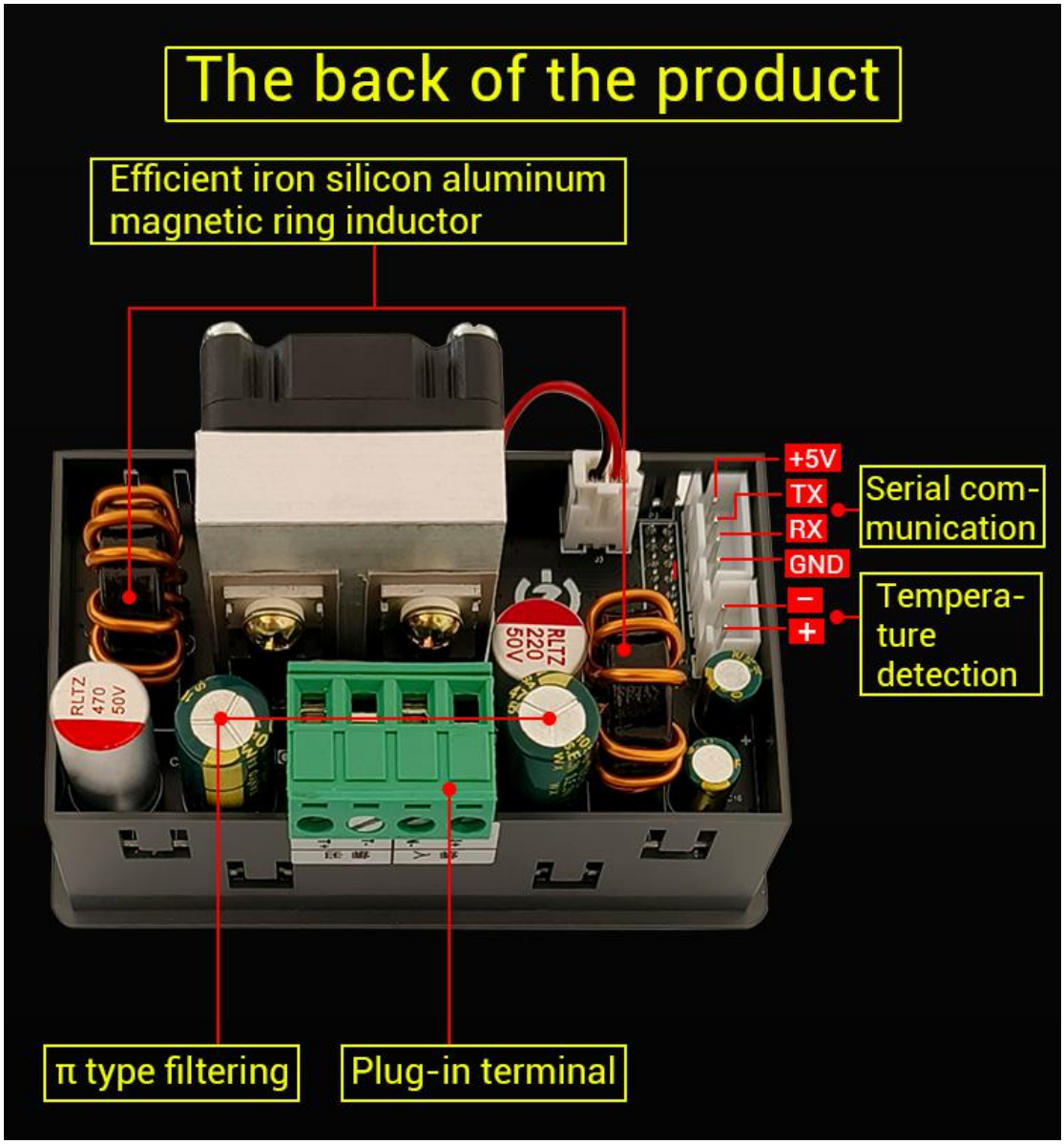
Product size

83*48*25mm



Suggested opening size

As shown in the left figure


The back of the product
Efficient iron silicon aluminum magnetic ring inductor
+5V
TX
RX
GND
Serial com-munication
−
+
Tempera-ture detection
RLTZ 220 50V
RLTZ 470 50V
π type filtering
Plug-in terminal


Product packaging
Net weight of product: 112g
Weight with packaging: 132g