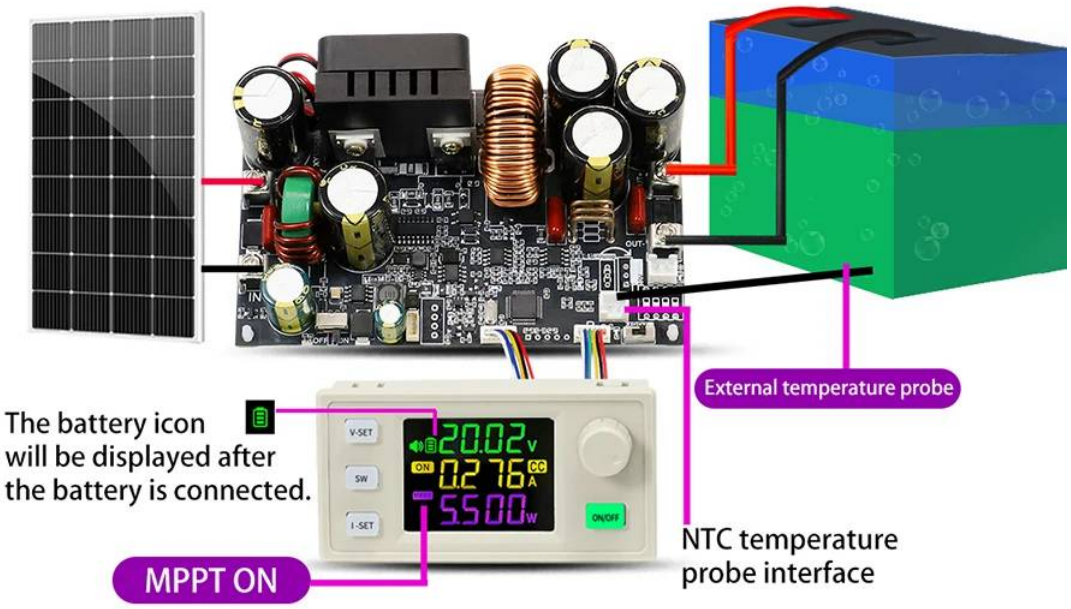
Features: 1. Support firmware upgrading, support MPPT solar charging, support serial communication, standard MODBUS agreement 2. Visualization range of 38 * 29mm, LCD screen layout is reasonable, full and rounded fonts, professional power supply LCD screen, you want the function it has! 3. Adopt one-piece injection molding shell, flame retardant material is safer! Double-layer buckle design, double circuit board fixed more firmly; display board using immersed gold design, anti-oxidation, better conductivity and more durable! 4. High-precision external clock crystal, to ensure the accuracy of the time, capacity/energy statistics more accurate, 48-pin powerful MCU controller, 64M frequency computing speed faster! 5. Upgraded PCB welded terminals (M3), greater current, lower heat, more reliable Parameter: Product name: CNC DC step-down power supply Input voltage: 12.00~140.0V Output voltage: 0~125.0V Output Current: 0~22.00A Output power: 2000W Voltage resolution: 0.01V Storage data group: 10 groups Conversion efficiency: 95% or so Support MPPT solar charging Precautions: 1. Input can not be connected to AC power, not to mention 220V utility. 2. The maximum input voltage can not exceed 145V, it is recommended to use within 140V, positive and negative poles can not be connected to the reverse. 3. The output is not anti-reverse irrigation, when connecting the battery to ensure that the power supply output voltage is always higher than the battery voltage or in the power supply output positive series diode single conduction, to prevent the battery voltage reversal burns the power supply. 4. This product has no output reverse connection protection, the battery positive and negative poles will be reversed to damage the equipment. Battery charging requires a certain degree of expertise, non-professionals please do not charge directly to prevent fire and explosion. 5. The product is a step-down power supply, maximum output voltage = input voltage * 0.945. Package include: Package A: adjustable power supply *1 + meter *1 + cable *2 Package B: adjustable power supply *1 (base plate can be used independently)


2000W Peak Power
DC buck power supply cc-cv.cw
12-140.0V Input voltage
0-125.0V Output voltage
0-22.00A Output current
2000W Power output
10 groups Storage space
V-SET
SW
I-SET
ON
125.0
CV
V
16.00
A
2000
W
ON/OFF
. Support firmware upgrade . support MPPT solar charging Supports the standard Modbus -protocolforserial communication Independent dual serial ports, serial port TTL and on-board

Without anti-backflow function, the output terminal can be connected with an anti-backflow diode to charge various rechargeable batteries (if you are a professional, you can connect it without the anti-backflow diode).

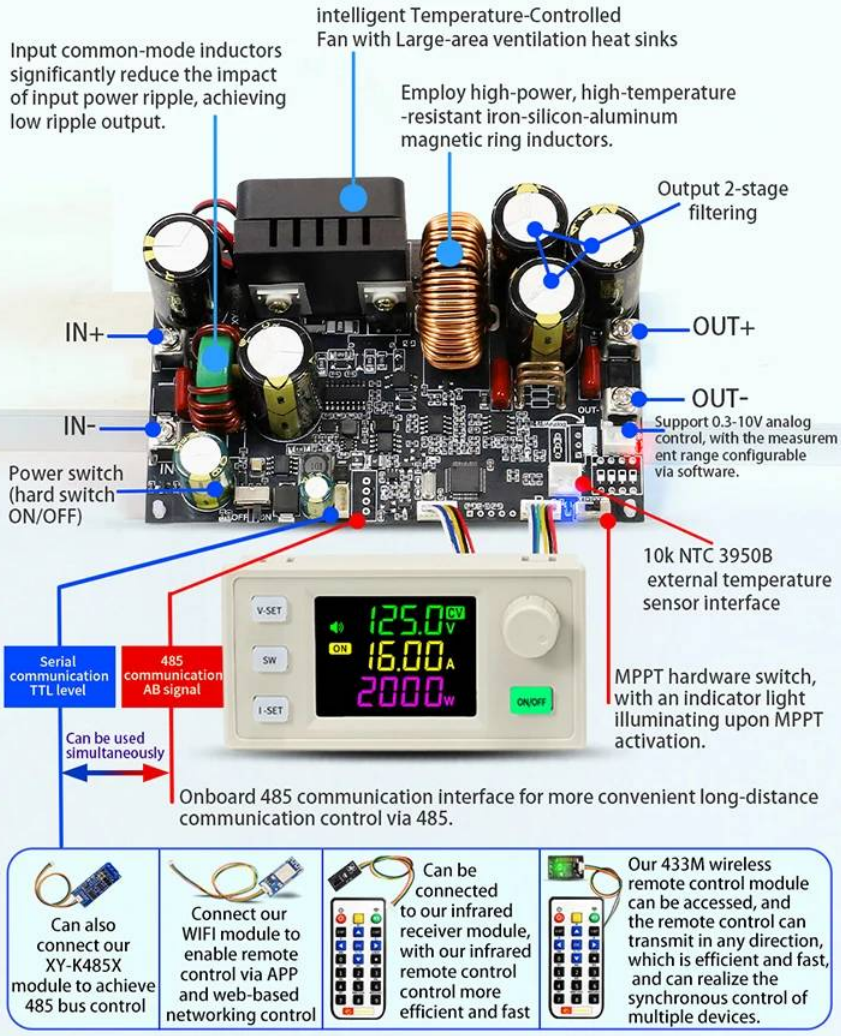
With MPPT function, it supports MPPT solar charging

External temperature probe can be connected, supporting over-temperature protection. Attach the external temperature probe to the battery, and it will automatically stop charging in case of over-temperature.



Attention: This product does not have output reverse connection protection. Reversing the positive and negative terminals of the battery will damage the device.Battery charging requires certain professional knowledge. Non-professionals are not allowed to charge directly to prevent fire and explosion.

Top-quality materials and first-class texture



XY12522 Bare board

The bare board can be used independently

Output voltage 0-125V Output current 0-22A

Independent dual serial ports
TL level communication and on-board 485 communication

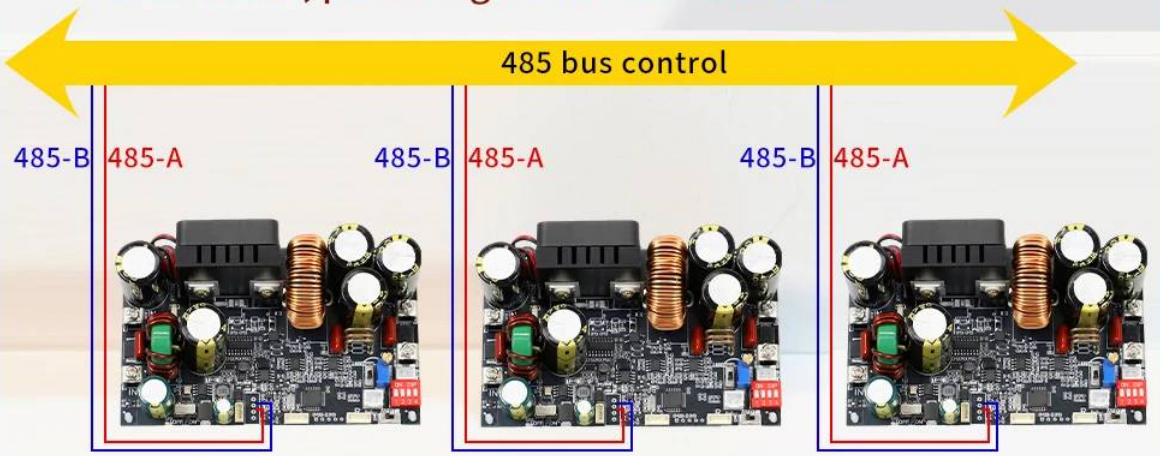


NOTE: When purchasing a bare device, switches, potentiometers, and dial switches will be welded on. Ifa set with screen meter is purchased, they are not welded by default.

Low-cost communication power supply

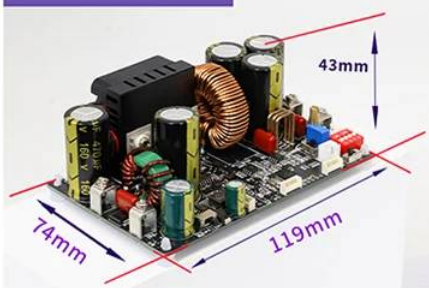
Onboard 485 communication enables remote multi-machine control, and with our multi-serial port PC software, the functions are more powerful.

Communication control can be achieved with a separate bare board, providing a low-cost solution.

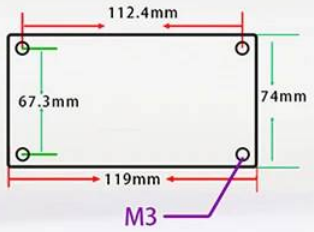


Independent dual serial ports (usable simultaneously) featuring serial TTL level communication and onboard 485 communication.

Product size

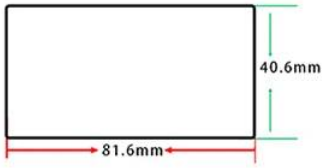


The dimensions of the bare board are shown below:

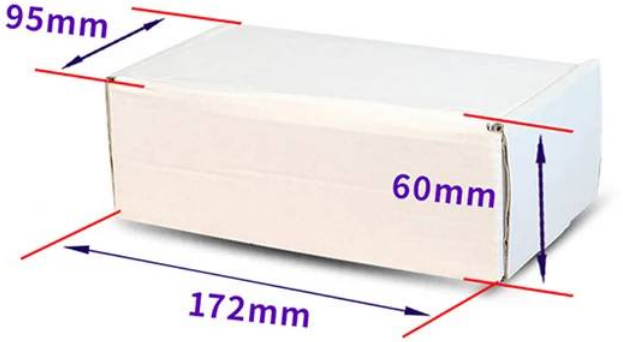




The recommended opening size is as follows:



Package size



- The bare board can be used independently, supporting MPPT and analog 0.3-10V control, with serial communication + on-board 485 communication (both can be used simultaneously).
- The output voltage is adjustable from 0-125V, and the output current is adjustable from 0-22A.

Support 0.3-10V analog control, with the measurement range configurable via software.
Note: Analog control is only available in the numerical control screen mode



Serial communication interface

485 communication interface



MPPT ON/OFF

0.5A	1.5A	2.5A	3.5A
5A	6.5A	8A	10A
12A	14A	16A	18A
20A	22A	24A	25A

NOTE:
When purchasing a bare device, switches, potentiometers, and dial switches will be welded on. If a set with screen meter is purchased, they are not welded by default.

Flip the switch down to light up the green indicator light, entering the potentiometer mode. Conversely, it operates in the digital control meter mode.

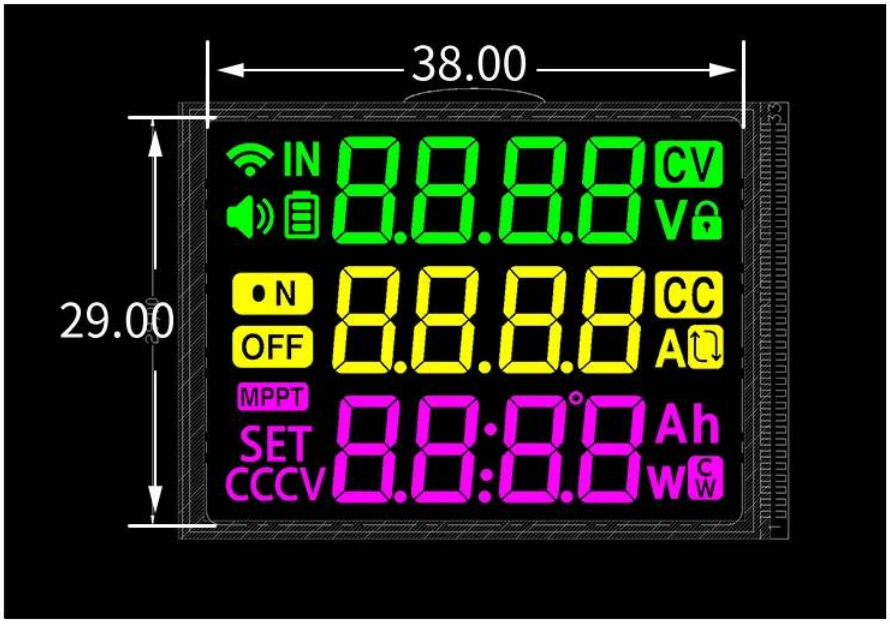
In potentiometer mode, the output voltage (constant voltage) can only be controlled through the potentiometer; the constant current value can be set via a dip switch, with a total of 16 gears to meet most scenarios (can also be set via Modbus).

The advantage of setting the constant current value through the dip switch is that it eliminates the need to use a multimeter's current range for measurement, thereby avoiding the potential burnout of the multimeter due to insufficient range of most multimeters' 10A gear.


Network control anytime, anywhere
LAN penetration, real-time communication
Remote control via external network, unlimited distance
Support email notification, cloud record
Sinilink Cloud
PC host computer
Mobile APP Sinilink control
Support Android/iOS

The all-viewing-angle VA color LCD

Colorful LCD with large font



Visual range: 38*29mm The LCD screen is over 1.8 inches!

The LCD screen has a reasonable layout with large, full, and rounded fonts.

This professional power supply LCD screen has all the features you want!

Set UI Parameter Settings within Data Groups

Press and hold the ISET button on the main interface to enter the settings menu.
The first parameter is to select the data group Cd0-9.

Press VSET briefly to select the next parameter, and press ISET briefly to s
elect the previous parameter. After completing the settings,
press and hold the ISET/SW/encoder button to exit the settings interface.



System Parameter Settings

Press and hold the SW button on the main interface to enter the settings menu. The first parameter is the buzzer setting (bEP). Press VSET briefly to select the next parameter and press ISET briefly to select the previous parameter.

After completing the settings, press and hold the SW/encoder button to exit the settings.

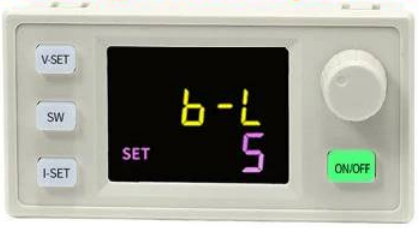
bEP Settings (Beeper Enable)



Rotary encoder to turn on/off the beeper.

For example, selecting OFF will disable the beeper, and there will be no keystroke prompt tone or alarm one.

b-L Settings (LCD Brightness Adjustment)



Rotary encoder to adjust the brightness level.

1-5 levels, factory default is level 5 (brightest).

C-F Settings (Choice between Celsius °C and Fahrenheit °F) 	Rotary encoder to select 'C' or '°F' Meeting the needs of different countries and regions worldwide.
FET Settings (Quick Adjustment of Voltage, Current, or Power) 	Rotary encoder to select CV/CC/OFF/CP. CV: Quickly adjust voltage using the rotary encoder on the main interface. CC: Quickly adjust current using the rotary encoder on the main interface. OFF: No action when rotating the encoder on the main interface. CP: Quickly adjust power using the rotary encoder on the main interface (when constant power is enabled).
Add Settings (Power Supply Address) 	Pressing the SW/encoder button briefly to select the bit, and rotate the encoder to adjust the numerical value. Value range: 1~247, factory default is 001. The product with serial communication is a low-cost communication power supply that supports the standard ModBus protocol and can be networked through 485 modules or WIFI modules.

bRE Settings (Communication Baud Rate Settings) 	Rotary encoder to set different values from 0-8. 0:9600 1:14400 2:19200 3:38400 4:56000 5:576000 6:115200 7:2400 8:4800 Default baud rate is 115200 at level 6.
PPT Settings (MPPT Solar Charging Settings) 	Rotary encoder to turn on/off the MPPT function.OFF: Disable. ON: Enable. After enabling, press the SW or encoder button briefly to switch to setting the maximum power point coefficient. Rotate the encoder to adjust the coefficient value between 0.75-0.85, with a default of 0.8.
CW Settings (Constant Power CW ON/OFF) 	To enable or disable the constant power CW function using a rotary encoder After enabling constant power, press ISET briefly on the main interface to modify the value of constant power.

bCH Settings **(Battery automatic charging threshold setting.)**  	Press the power button briefly to turn this function on or off ----This function is off by default. When the battery voltage falls below the threshold, the power output is automatically activated to commence charging. For instance, if the threshold is set at 12.00V, when the battery voltage drops below 12.00V, the power output is automatically activated to start charging the battery.
bTF Setting **(Charge Cutoff Current)**  	Press the power button briefly to turn this function on or off ----This function is off by default. After enabling this function, press the SW or encoder button briefly to select the digit, and rotate the encoder to adjust the value in mA. For example, if set to 10mA, when charging the battery, if the charging current is less than 10mA, it will be considered as fully charged, and the output will be disconnec -ted to prevent overcharging and damaging the battery.

CLU Setting
(Calibrate Output Voltage)



If the output voltage is inaccurate, you can calibrate it (do not connect any load during calibration).

1.Press and hold the power button to start calibration, and "01" will be displayed on the first line.
2.Measure the output voltage using a high-precision multimeter and input the actual voltage into the third line (SW shift operation is supported).
3.Press the power button briefly to enter the second step of calibration, and "02" will be displayed on the first line.
4.Repeat step 2 and input the actual voltage into the third line.
5.Press the power button again briefly, and "03" will be displayed on the first line. Wait for calibration to complete without any other operation. If successful, "SUC" will be displayed; if failed, "ERR" will be displayed.

Note: If calibration fails, you can try again. If you accidentally enter the calibration state, you can exit by pressing and holding the power button, and the parameters will not be saved after exiting.

CLA Setting
(Calibrate Output Current)



If the output current is inaccurate, you can calibrate it.

1.Connect a multimeter in current mode or an electronic load (the electronic load needs to be set to the maximum range of the product) directly to the output terminal.
2.Press and hold the power button to start calibration, and "01" will be displayed on the first line. Input the actual current value from the multimeter or electronic load into the third line (SW shift operation is supported).
3.Press the power button briefly to enter the second step of calibration, and "02" will be displayed on the first line.
4.Repeat step 2 and input the actual current into the third line.
5.Press the power button again briefly and wait for calibration to complete without any other operation. If successful, "SUC" will be displayed; if failed, "ERR" will be displayed.

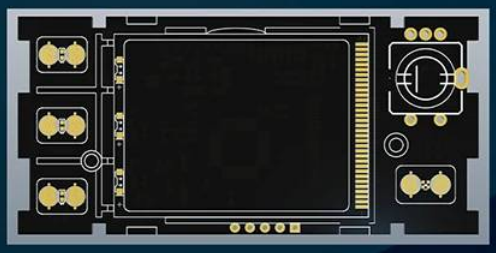
Note: If calibration fails, you can try again. If you accidentally enter the calibration state, you can exit by pressing and holding the power button, and the parameters will not be saved after exiting.

ZERO Setting **(Current Zero Calibration)** 	If there is a small current within 100mA when the output is not connected to a load, you can press and hold the power button to calibrate the zero point. Do not connect any load to the output terminal during zero calibration
CLOF Setting **(Force Power Output Off When Switching Data Sets)** 	Rotate the encoder to select ON or OFF for this function. ON: Enable this function. After enabling, when switching data sets, the power will be forcibly turned off to prevent high voltage from damaging the load. OFF: Disable this function. After disabl -ing, the power switch state will be maintained when switching data sets.
POFF **(ShutDown Function)** 	ON: Enable the ShutDown function. Press and hold the Power Key for 5 seconds to shut down;In the shutdown state, click the Power Key to start up; OFF: Disable the shutdown function;
RET Setting **(Restore Factory Settings)** 	Press and hold the power button ---- it stops blinking to restore factory settings.

WIFI Config **(Need WF-POW module)** 	Modify pairing mode with encoder -----: Invalid Wifi TOH: Touch Pair AP: AP Pair ROU: Connect Router nET: NetWorking
AnA Setting **(Analog Control)** 	Analog Control Voltage Range, which can be self-configured. Adjustable analog voltage range from 2 to 10V; For example, with an analog voltage range of 0~5V and a power output range of 36V, when the signal voltage is 2V, the output voltage = 2V / (5V - 0.3V) * 36V = 15.32V. When the signal voltage is below 0.3V, the output voltage is 0V. When the signal voltage exceeds the set maximum value, the output voltage is the set maximum range voltage.
UER View **(Firmware Version Number)** 	The firmware version number of the program. The product will support firmware upgrades to access new features.

True Third-Generation Upgrade Version, Upgraded Agai

The display board adopts immersion gold plating design,
which is anti-oxidation, has better conductivity, and is more durable!



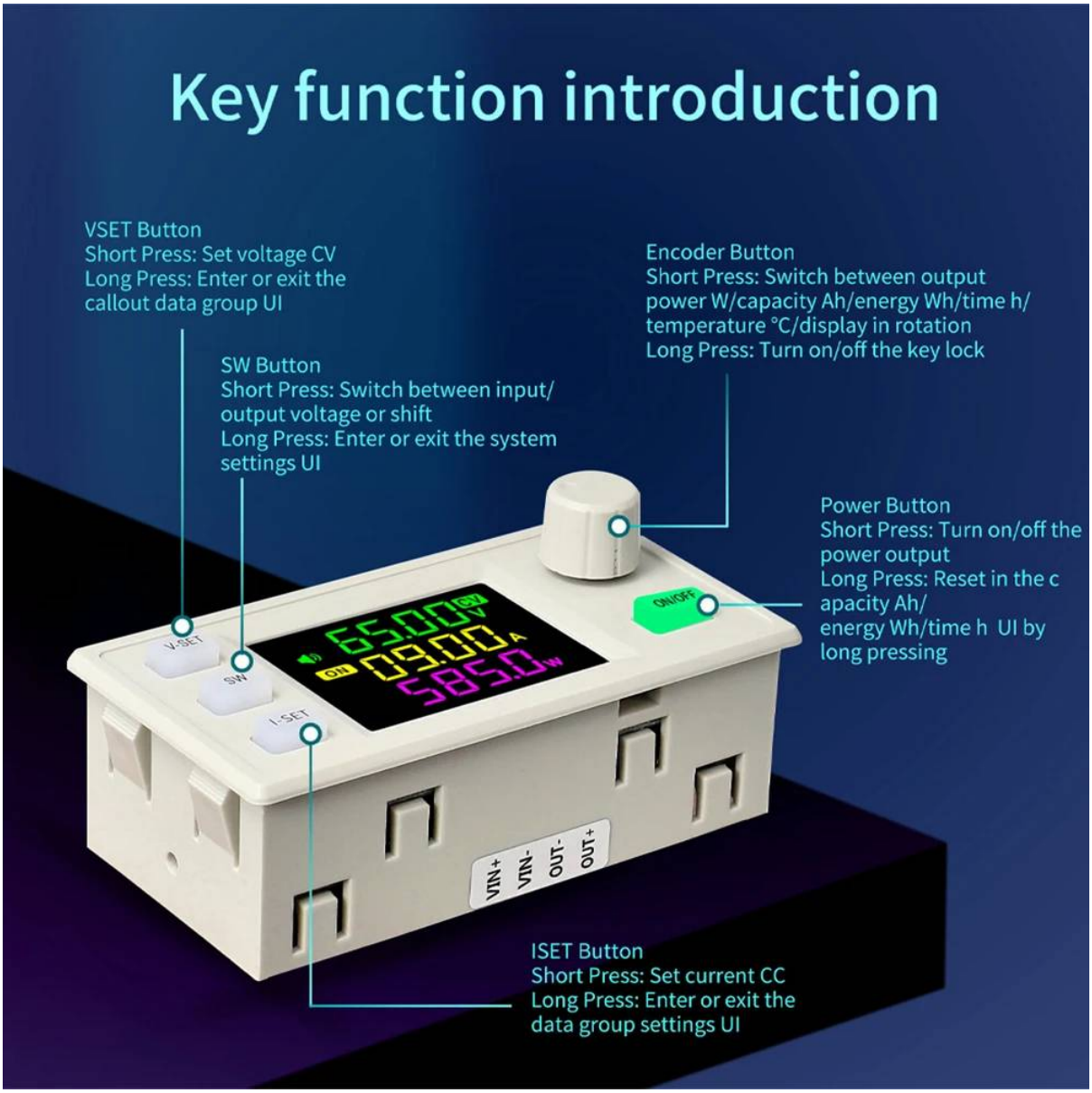
Using an integrated injection-molded shell made of flame-retardant material, making it safer! Double-layer buckle design ensures more secure fixation of the double-layer circuit board.



The power button features red and green indicator lights, with green indicating power output is on, red indicating power output is off, and a red breathing light for power off.

Silicone buttons provide a comfortable touch, and each button is equipped with an indicator light, making it super cool!

Key function introduction



Introduction to CV/CC/CW Functions



1 When the constant power function is not turned on, the power supply only has the functions of constant voltage (CV) and constant current (CC), which automati -cally switch based on the load;

1.1 When the load current is less than the set constant current value, the power supply is in the constant voltage mode, where the output voltage is the set voltage value CV, and the current is adaptive;

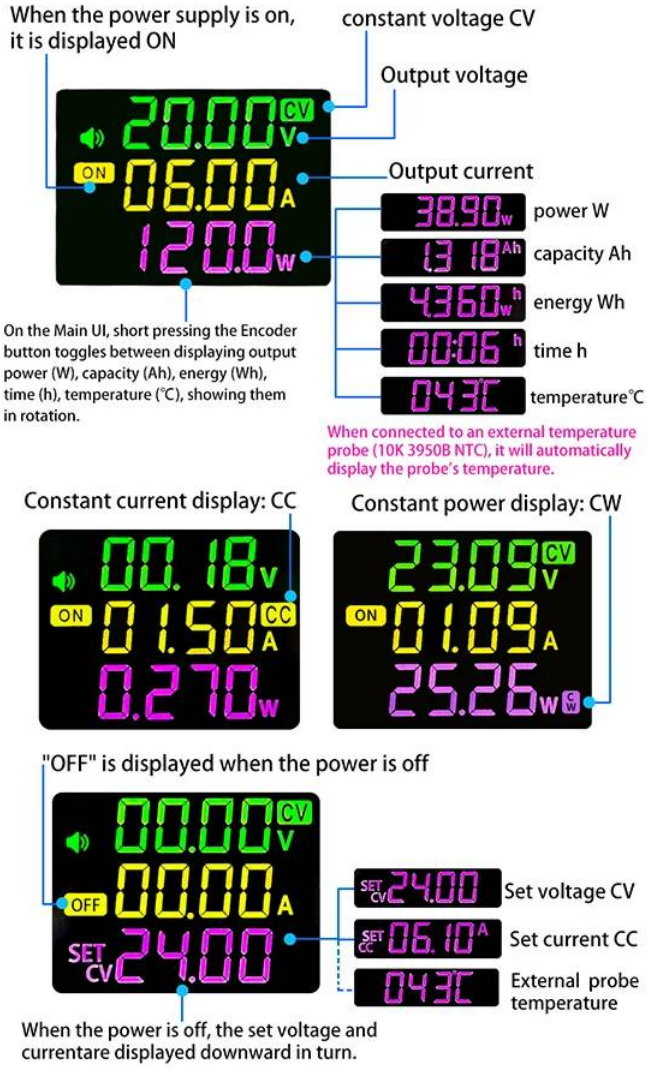
1.2 When the load current exceeds the set constant current value, the power supply automatically enters the constant current mode. At this time, the output current is the set constant current value CC, and the voltage is adaptive;

2 After the constant power function is turned on, the constant current value defaults to the maximum value , and the constant voltage value CV serves as the initial voltage (set to a reasonable value based on actual conditions). After the power supply is turned on, the equivalent resistance R of the load is calculated using Ohm's law R=U/I. Then, the corresponding voltage can be calculated based on the set constant power value using the power formula $P=U^2/R$. At this point, the constant power point algorithm automatically follows, and the constant power is achieved.

Constant Power Switch and Constant Power Value Setting

1. Press and hold SW on the main UI to enter system set.
2. Press ISET/VSET briefly to switch to the "-CP-" constant power switch option. Press ON to enable constant power and OFF to disable it.
3. After enabling constant power, press ISET briefly on the main interface to modify the value of constant power.

Product UI function details



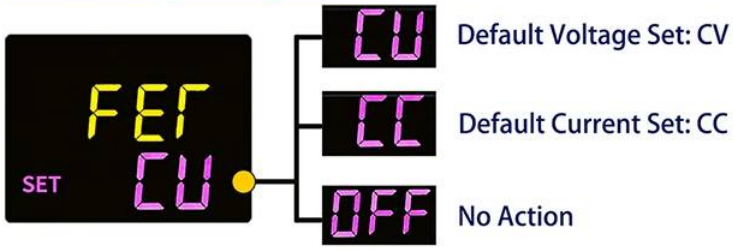
Instructions for Use

1.Setting Voltage and Current:



On the main UI, short press the VSET button to set the voltage. The LCD will display "SET" in the lower row, and "CV" will flash to indicate that the voltage setting position is selected and blinking. Then, short press the SW button or the encoder button to switch the voltage setting position. Adjust the value by rotating the encoder. After setting is complete, short press the VSET button to exit and save. To set the current, short press the ISET button, and the setting steps are the same as for voltage.

2.Quick Setting of Voltage or Current:



In the system parameter settings UI , set the parameter FET to CV or CC. Rotate the encoder on the main UI to enter the voltage or current setting UI. Rotate the encoder to quickly set the voltage or current.

3.Input/output voltage display:



On the main UI, press the SW button briefly to switch between input and output voltage displays.

4.Checking power (W)/capacity (Ah)/energy (Wh)/time (h):



On the main UI, press the encoder button briefly to switch between displaying power (W)/capacity (Ah)/energy (Wh)/time (h)/temperature (℃) in rotation.

5.key lock:



On the main UI, press and hold the encoder button for 2 seconds to lock the set voltage and current to prevent misoperation; press and hold the encoder button for 2 seconds after locking to unlock.

6.Data Group Function

This product has a total of 10 data groups from Cd0 to Cd9. Press and hold the VSET button on the main UI to access the data group UI



You can press VSET/ISET briefly to switch between constant voltage (CV) and constant current (CC) settings. It supports quick viewing and modification of voltage and current in the data group, as well as SW shift operation.

After confirming the data group, press and hold the VSET/SW button or press the encoder button briefly to select the desired data group.


Simply the all-viewing-angle VA color LCD
Large font color screen !
01 The LCD screen is more than 1.8 inches!
38mm
29mm
V-SET
SW
I-SET
ON
65.00 CV V
09.00 A
585.0 W
ON/OFF
03
Integrated fire
-retardant shell
with double
-buckle design.
02 Silicone buttons with indicators all included.