

XYS3580 DC-DC Adjustable Buck-Boost Converter Module



User Manual

OverView



There are nearly perfect protection mechanisms:

Hardware protection: Output short circuit protection, short circuit without burning, output anti backflow, can directly charge the rechargeable battery, without additional anti backflow diode

Software protection: Over voltage protection (OVP), over current protection (OCP), over power protection (OPP), over temperature protection (OTP), input under voltage protection (LVP), power chip self protection (OEP)

Power main interface

Capacity recording interface

Voltage / current curve boundary

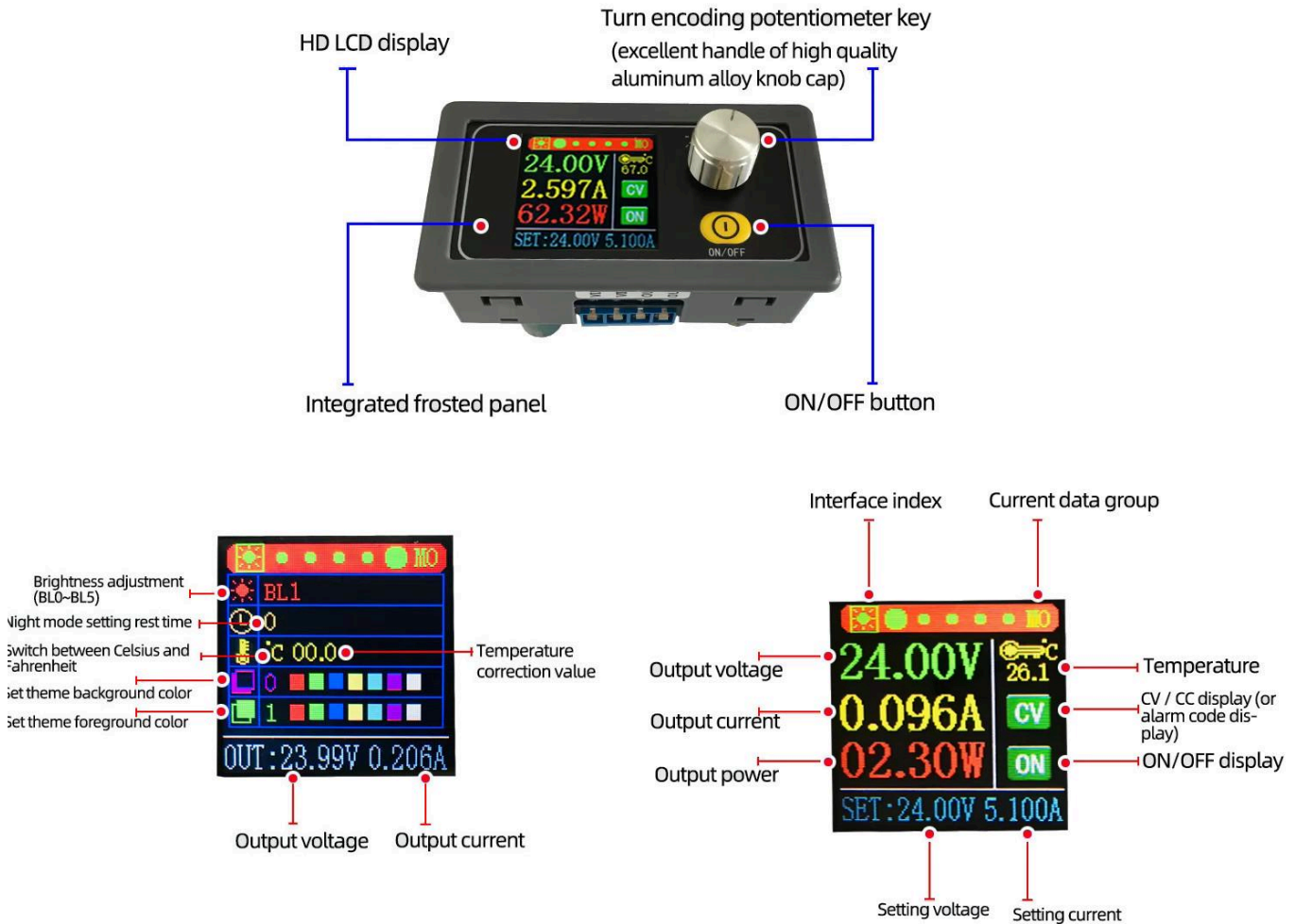
Power parameter setting interface

System parameter setting interface

With scroll bar indication

| Product parameters | |
|----------------------|--|
| Input voltage: | Dc6.0 ~ 36V (limit low voltage 5.5V, limit high voltage 38V) |
| Output voltage: | DC0.6V~36V |
| Output current: | 0.000A~5.000A |
| Output power: | 80W |
| Input current limit: | Max 7A |
| Voltage resolution: | 0.01V |
| Current resolution: | 0.001A |
| Voltage accuracy: | ±0.3%+1 byte |
| Current accuracy: | ±0.4%+3 bytes |
| Capacity: | 0-999999AH |
| Energy: | 0-999999WH |
| Time: | 0-1000 hours |

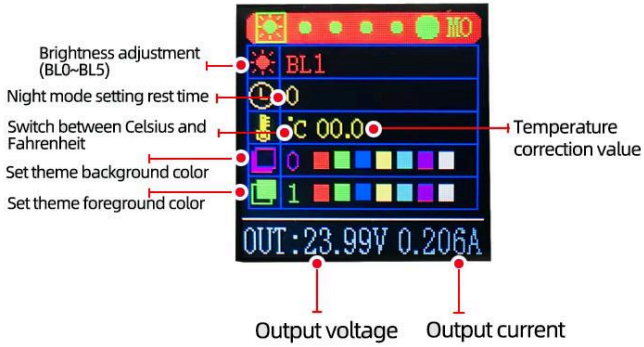
Interface and key functions:



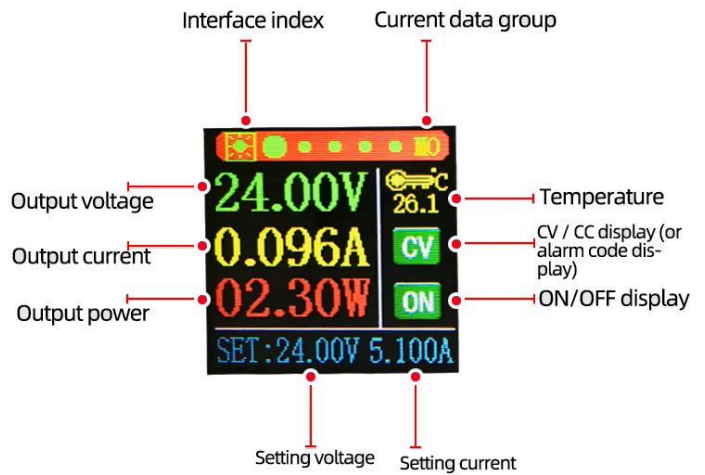
- Press the code potentiometer key briefly to activate the parameter (voltage/current) to be set
- Short press the key of the coding potentiometer to switch between full selection and bit selection
- When all is selected, the blue display will be reversed, and the set voltage/current will be switched through the rotary encoder
- After bit selection, the corresponding bit will be displayed in reverse blue, and parameters will be set by rotating the encoder
- After the setting is completed, long press the key of the encoding potentiometer for 2 seconds or more, and no key operation will automatically exit the setting
- All parameters are saved automatically after exiting

Parameter Settings:

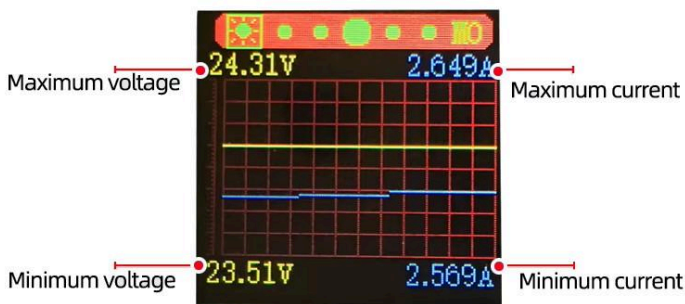
System parameter setting interface



Power main interface

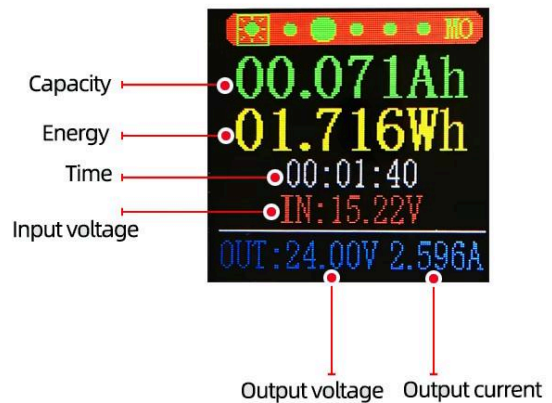


Voltage current curve interface

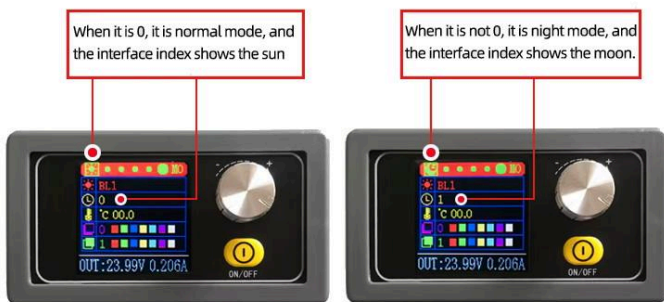


Each grid represents 0.1V/0.01A

Capacity recording interface



with night rest screen mode



It can be set to turn off the screen after 1-10 minutes and wake up with any key

When the power supply is not working (not heating), the ambient temperature can be measured
When the power supply is working, measure the temperature of the power supply itself, and the degree Celsius and degree Fahrenheit can be freely switched.



- Press the key of the coding potentiometer briefly to activate the parameter to be set.
- The switch of parameter name and bit selection is realized by short-pressing the key of the coded potentiometer.
- After selecting the parameter name, it will be displayed in reverse blue, and the parameter to be set will be switched by rotating the encoding potentiometer.
- After bit selection, the corresponding bit will be displayed in reverse blue, and parameters will be set by rotating the encoder.
- After the setting is completed, press the key of the encoding potentiometer for 2 seconds or more, and no key operation will automatically exit the setting.
- All parameters are saved automatically after exiting.

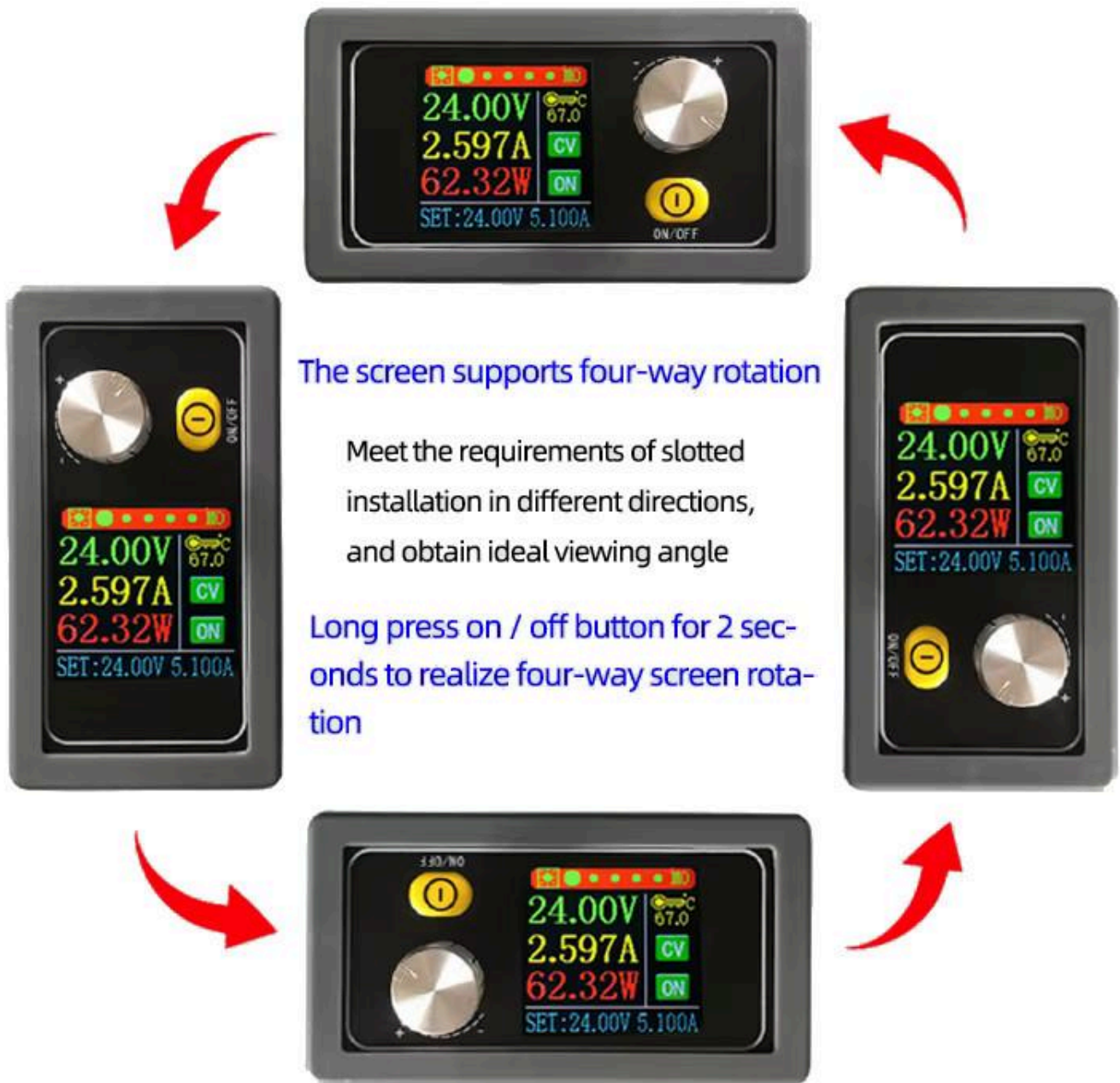
Data group function description settings:

- 10 sets of data groups of M0-M9 can be saved.
- By default, the data group M0 can be saved.
- Press and hold the key of the coding potentiometer for 2 seconds on any interface to quickly call up the M1/M2 data group, and the serial number of the current data group will be displayed at the interface index.
- In the power parameter setting interface, select the data group, and rotate the encoding potentiometer to call up the corresponding data group.
- After the parameters in the data group are modified and exited, the corresponding parameters are stored by default in the current data group.

Default Parameter Values and instructions:

- Power output is off by default after data group switching
- Set Output voltage Range U-SET:0.6-36V
- Set current I-SET:0-5.1A
- Input under voltage protection LVP default: 4.8V, self-setting
- Output overvoltage protection OVP default: 37V, can be set by itself
- Output over-current protection OCP default: 5.2A, can be set by yourself
- Output over power protection OPP default: 81W, self-setting
- Maximum operation time OHP: when the parameter is not set to 0, turn on this function.
- When the operation reaches the set time, the power will automatically turn off the output
- Maximum capacity OAH: when the parameter is not 0, turn on this function, when the capacity reaches the set parameter, the power will automatically turn off the output
- Maximum energy OWH: when the parameter is not 0, turn on this function, when the energy reaches the set parameter, the power will automatically turn off the output
- OHP / OAH / OWH function can well realize timing / quantitative power supply.

Screen Rotation Settings:



- Short press the "ON/OFF" button to turn on and off the power output, long press the "ON/OFF" button for 2 seconds, and the screen can rotate, 360 ° four-way rotation. Turn the encoding potentiometer to turn the page quickly.
- No key operation will automatically exit the setting.
- All parameters are saved automatically after exiting.

Instructions to Charge

Rechargeable battery charging:

- Determine the floating charge voltage and charging current of your rechargeable battery; (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)
- Under the no-load condition, set the output voltage to floating charge voltage; (if a 3.7V lithium battery is charged, adjust the output voltage to 4.2V)
- Set the charging current (constant current value) and set the current directly.
- Connect the battery for charging.

Note: when charging the battery, the positive and negative poles of the battery should not be connected reversely, which makes it easy to burn the product!

Instructions To drive the LED lamp:

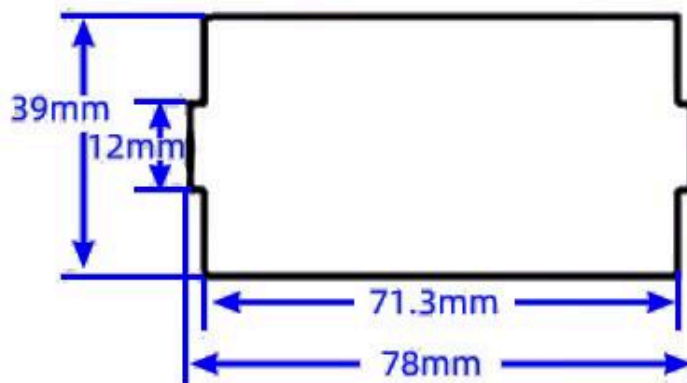
- Determine the working current and maximum working voltage of the LED you need to drive
- Under the no-load condition, set the voltage value and current value to make the output voltage reach the maximum working voltage and current of LED (Note: calculate the power when setting the current, charge within the power range, use over power, and the product will enter the protection state.)
- Connect led and tested the Lamp.
- Can adjust the constant current value (between 0 - working current) to realize the LED's step-less dimming and no stroboscopic

Dimensions:

All Dimensions are in mm



Panel Cutout Dimensions



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