

Parameters:

Input voltage range: DC5.0-30.0V (with reverse connection protection)
 Load voltage range: DC1.5-25.0V (with reverse connection protection)
 Load current range: 0.00-5.00A
 Discharge power: 35W
 Constant current precision: $\pm(1\%+3\text{digits})$
 Voltage precision: $\pm(0.5\%+1\text{digit})$
 Over voltage protection(OVP): default 25.2V (can be reset)
 Over current protection(OCP): default 5.10A (can be reset)
 Over power protection(OPP): default 35.5W (can be reset)
 Low voltage protection(LVP): default 1.5V (can be reset)
 Over temperature protection(OTP): default about 80°C (cannot be reset)
 Fan rotation speed: 8000 $\pm$ 10%RPM

Note:

If it trigger the protection, the LCD display will be flashing and showing the protection, such as OVP, OCP.

When it is applying for battery discharge testing, setting the appropriate LVP value can effectively prevent battery over discharging, so as not to damage the battery.

Module Instruction:

When input load voltage (DC1.5-25V), it will display "IN"

Coding potentiometer button, short press to switch display, long press to set parameters

Load voltage

Can display load current, power, capacity and time

"ON/OFF" button to turn on or turn off the load

TTL serial communication

Load voltage range
DC1.5-25.0V

Input voltage range
DC5.0-30V

Function Instructions:

A. The initial state of electronic load when power on:

The electronic load automatically saves the ON/OFF state before shutting down and acts as the initial state of the next power-on.

B. Count the discharge capacity and discharge time:

1. Count the discharge capacity: it begins to count when the load current value is not zero, until the next load current is zero, it is believed that the completion of a discharge process, the count ends.
2. Count the discharge time: it begins to count when the load current value is not zero, until the next load current is zero, it is believed that the completion of a discharge process, the count ends.

C. Set the maximum capacity (OAH) and set the maximum discharge time (OHP):

1. Set maximum Capacity (OAH): when the OAH function is turned on, if the load discharge capacity value is greater than the setting maximum capacity value, the electronic load stops automatically, the LCD flashes and displays "OAH", and when the OAH alarm is removed, the capacity statistics are automatically emptied;
2. Set the maximum discharge time (OHP): when the OHP function is turned on, if the load running time value is greater than the setting maximum discharge time value, the electronic load stops automatically, the LCD flashes and displays "OHP", and when OHP alarm is removed, the time statistics are automatically emptied.

Note: when the OAP and OHP function are turned off, the electronic load will record the discharge capacity and discharge time, after turning on the OAH and OHP function, the electronic load will stop working when it reaches the setting value; when the OHP function is turned on, the running time of the electronic load is under the countdown mode.

OAP and OHP function, can be used to achieve unattended power aging testing.

D. Data group function:

Divided into "DAT0", "DAT1"

DAT0: Flashing shows only the capacity value and running time of the previous stage, and does not add up to the next stage;

DAT1: Flashing shows the capacity value and running time of the previous stage, and automatically adds up to the next stage;

Interface Operation Instructions:

A. The operation interface operation instructions:

1. The electronic load is powered on and then enters the operating interface, which is used to turn the electronic load on or off by short pressing the "ON/OFF" button, and to modify the current of the electronic load in real time by rotating the coding potentiometer;
2. Short press the coding potentiometer button to switch display (current/power/capacity/time);
3. In any display interface, rotating coding potentiometer will automatically switch to the current display interface;
4. In the current display interface, long press "ON/OFF" button to turn the data lock function on or off, if the data lock function is turned on, the locking symbol "I-" will be displayed in front of the current, at this time cannot adjust the load current in real time by rotating the encoding potentiometer to prevent disoperation;
5. In the capacity/time interface, long press "ON/OFF" button to empty the corresponding capacity/time data.

Short press the coding potentiometer button to switch display

Current



Power



Capacity



Time



Set maximum capacity (OAH)



Set maximum discharge time (OHP)



Set data group (DAT)
Default 0



Long press "ON/OFF" button to turn the data lock function on or off, if the data lock function is turned on, time cannot adjust the load current in real time by rotating the coding potentiometer to prevent disoperation



B. The setting interface operation instructions:

1. In the running interface, long press coding potentiometer to enter the setting interface;
2. By rotating the coding potentiometer, adjust the parameters, clockwise to increase, and counterclockwise to decrease; switch the parameters that need to be modified by short pressing the coding potentiometer;
3. In the maximum capacity (OAH)/Maximum discharge time (OHP) parameters interface, short press "ON/OFF" button to select the corresponding function of the turn on or off, if turned off, the LCD displays "----";
4. In the maximum capacity (OAH) parameter interface, short press "ON/OFF" button to select the capacity range (9.999Ah/99.99Ah/999.9Ah/9999Ah);
5. Finishing parameter setting, long press coding potentiometer, exit the Setting interface, set parameters will be automatically saved.

Long press the coding potentiometer to enter the Setting interface

Set over voltage protection (OVP)
Default 25.2V



Set over current protection (OCP)
Default 5.10A



Set over power protection (OPP)
Default 35.5W



Set low voltage protection (LVP)
Default 1.5V



Serial port Control (single-chip TTL level communication)

Baud Rate: 9600 bps

Data bits: 8

Stop bits: 1

Check bit: None

Flow control: None

Serial Port Commands	Note
start	Start upload
stop	Stop upload
on	Turn on load function
off	Turn off Load function
x.xx A	Set load current
LVP:xx.x	Set low voltage
OVP:xx.x	Set over voltage
OCP:x.xx	Set over current
OPP:xx.xx	Set over power
OAH:x.xxx	Set maximum capacity
OHP:xx:xx	Set maximum discharge time
read	Read product parameter settings

Data upload format:

No alarm status:

Load supply voltage, load current, capacity value, discharge time;
11.90V,0.11A,0.004Ah,00:02 ➡ Load voltage 11.90V, load current 0.11A, capacity 0.004Ah, discharge time 00:02;
Note: If the maximum discharge time is turned on, 00:02 indicates a countdown;

Alarm Status:

Upload Alarm status code (OVP/OCP/OPP/LVP/OAH/OHP/OTP)

Read product parameter settings:

OVP:25.2, OCP:5.10, OPP:35.5, LVP:1.50, OAH:0222, OHP:00:00,
Over voltage, over current, over power, low voltage, maximum capacity, maximum discharge time