powering tomorrow

Growatt

Energy Storage System Operating Mode Setting

Global Leading Inverter Brand

1.33+ million	200+	70+	100+
Inverter Ship Globally	Professional R&D Engineers	Patents and Copyrights	Countries with Systems Installed

1、 Inverter Models

After TL-XH series connect with BDC, the time period of the BDC can be set.
The following models include in this series:
MIN 2500TL-XH、MIN 3000TL-XH、MIN 3600TL-XH、MIN 4200TL-XH、MIN 4600TL-XH、MIN 5000TL-XH、MIN 6000TL-XH
Please make sure the inverter is the latest firmware version and is a single-phase inverter model with RS485 port.

2、 Operating Mode Setting

The BDC time setting function enables the inverter to run different modes in different time periods. The modes that can be set include: load first, battery first and grid first. In the battery first mode, if you need to take power from the grid, please enable the grid charging function in advance.
Note: When the BDC time is set, the start time of the latter period must be greater than the end time of the previous period.

3、 Setting

Please ensure that the inverter and BDC communication are normal and in the on-grid state. After set the BDC priority time period and enable the grid charging function, the inverter will run continuously according to the set priority mode and time period. This document describes four BDC time setting methods.

3.1. Setting through OLED

<table>
<tr><td rowspan="6">OLED Touch Button instructions</td><td colspan="2">The inverter can support multiple touch modes: single touch, two consecutive touches, three consecutive touches, and long press 5S. Different touch methods have different functions. Advanced setup password: 123</td></tr>
<tr><td>Touch Methods</td><td>Definition</td></tr>
<tr><td>Single Touch</td><td>Move、page turning or number add 1</td></tr>
<tr><td>two consecutive touches</td><td>Enter setting mode or confirm the setting</td></tr>
<tr><td>Three consecutive touches</td><td>Return to the previous page</td></tr>
<tr><td>Long press 5S</td><td>Data zeroing</td></tr>
</table>

Table.1. OLED Touch Button instructions

The OLED can only set three time periods, and the start time of the latter time period must be greater than the end time of the previous time period.

First a single touch to enter the " Set Parameter" interface, select "Advanced " and enter the password, press twice to enter the "Storage Setting", select "Time Period" to set the BDC priority time period: first select the priority mode, Touch twice to enter the time setting, select whether to enable the setting, and then touch twice to set successfully. The schematic diagram of the OLED flow is as follows:

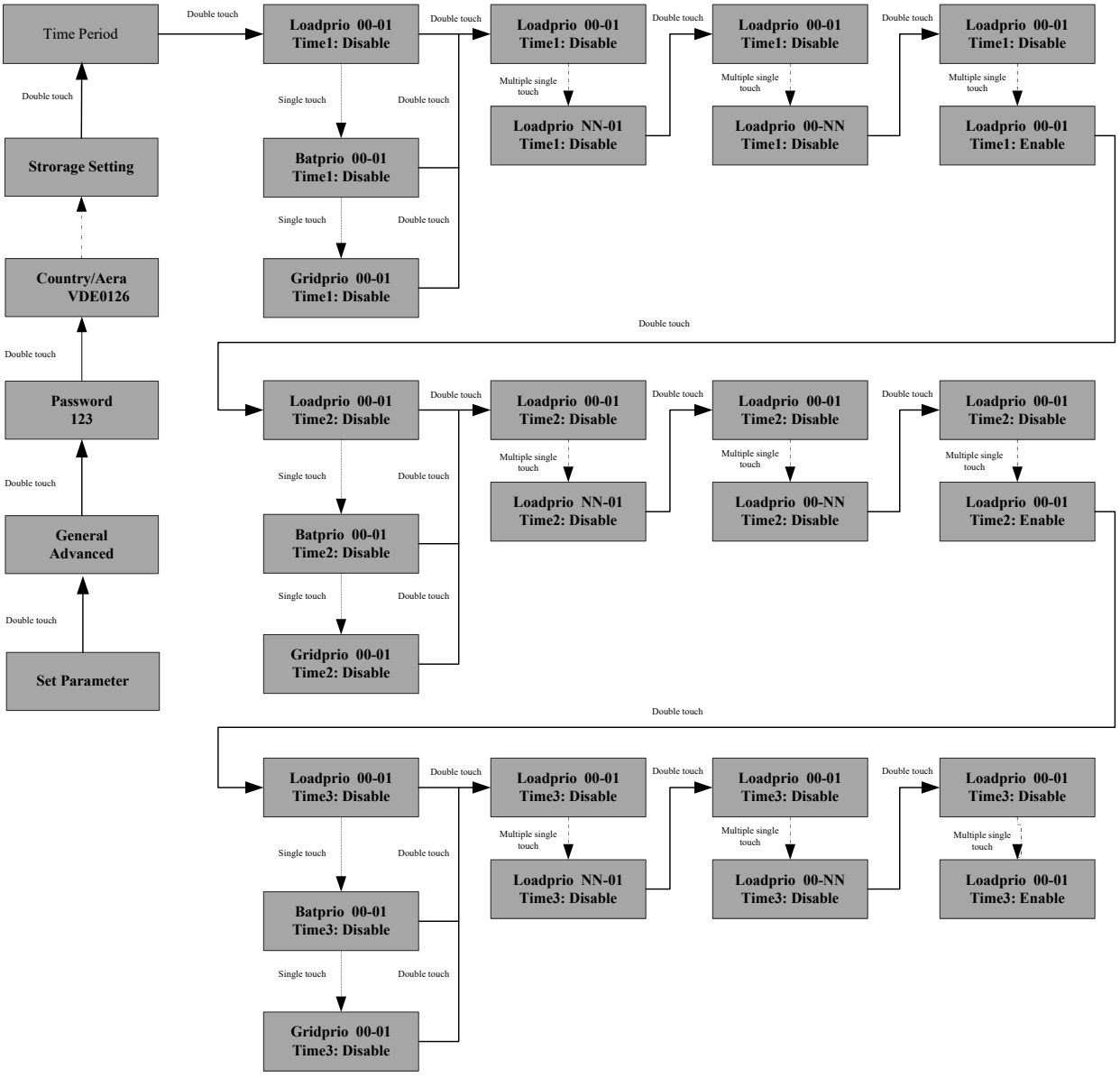

Figure.1. OLED Setting Flows

3.2. Setting through ShineServer

If the inverter is monitored online via the Growatt monitoring system, you can setting the mode and time periods via ShineServer. First login to ShineServer, click "Plant" and go to the "Device List" interface, select to enter "Min", you can see the inverter list. Select the inverter and click the setting icon to enter the setting interface.

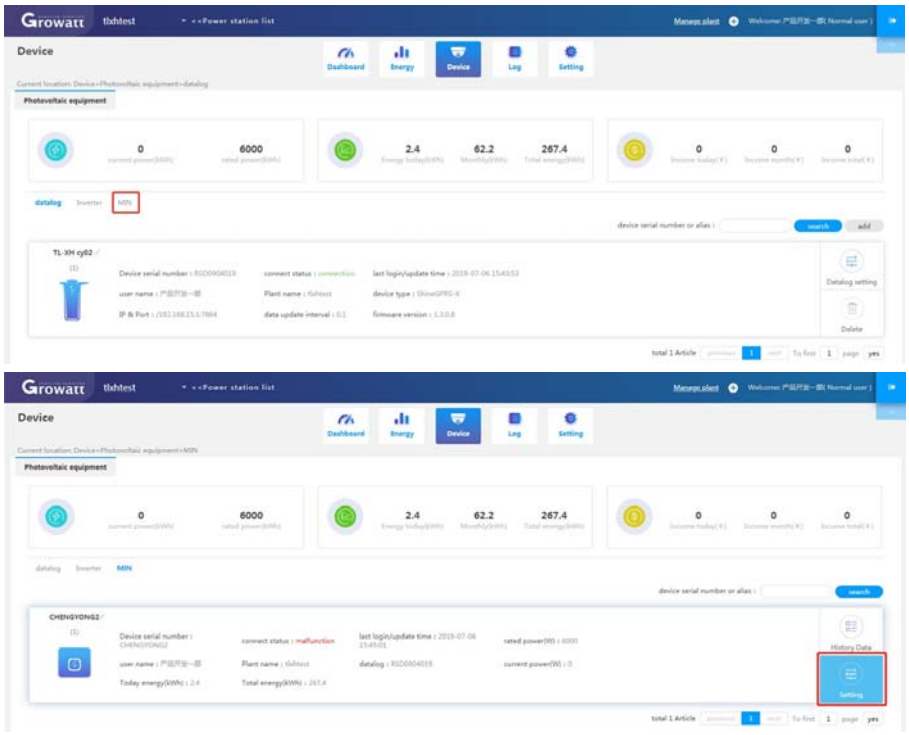

Figure.2. Indication of setting the inverter on the ShineServer

Select the time period you want to set, select the priority mode and fill in the end time and start time. Finally, select whether to enable it. After entering the password, click Save to successfully set it.

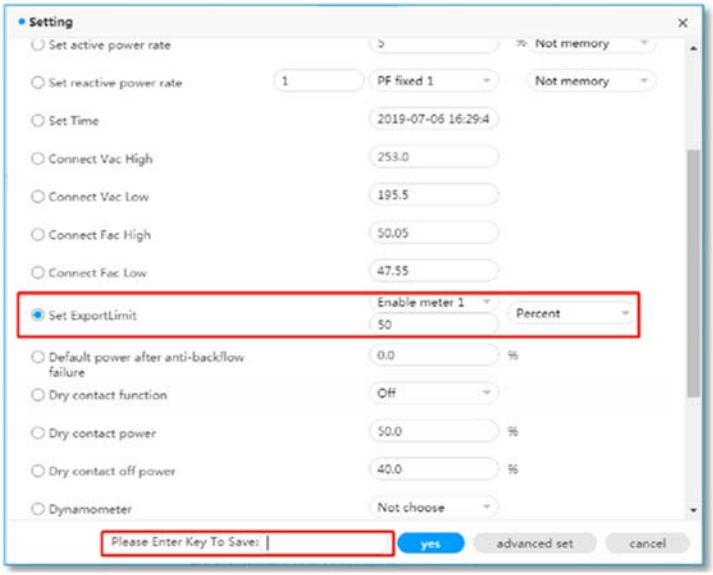

Figure.3. Indication of setting the mode and time periods on shineserver

3.3. Setting through ShinePhone

If the inverter is monitored online via the Growatt monitoring system, you can set mode and time periods via the ShinePhone. First login to the shinephone, click on "Plant" to see the inverter list. Select the inverter, enter the details page and click the “Control” to enter the setting interface.

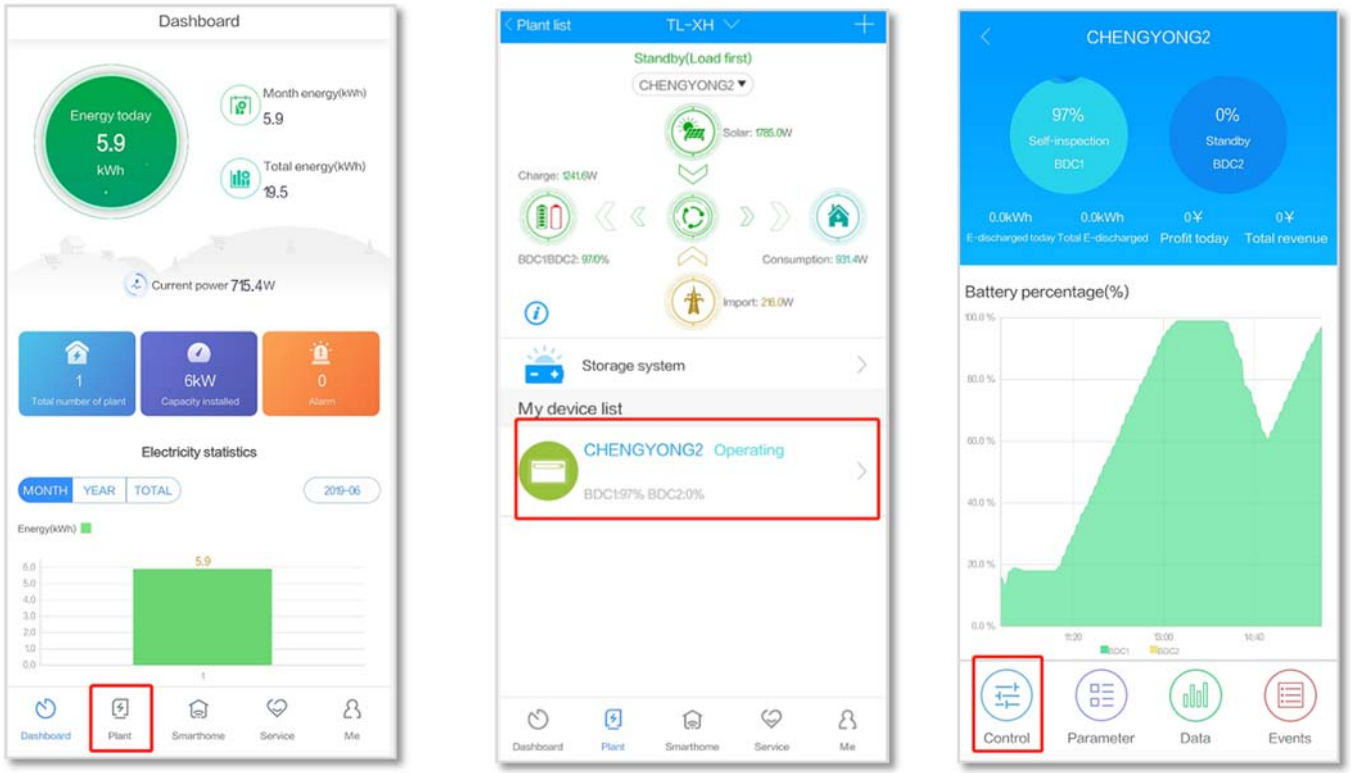

Figure.4. Indication of finding the setting interface on ShinePhone

Select “Set the priority of charging and discharging period”, enter the password, select the time period, the priority mode, then select end time and start time, finally select whether to enable it. Click “Yes” to set it successfully.

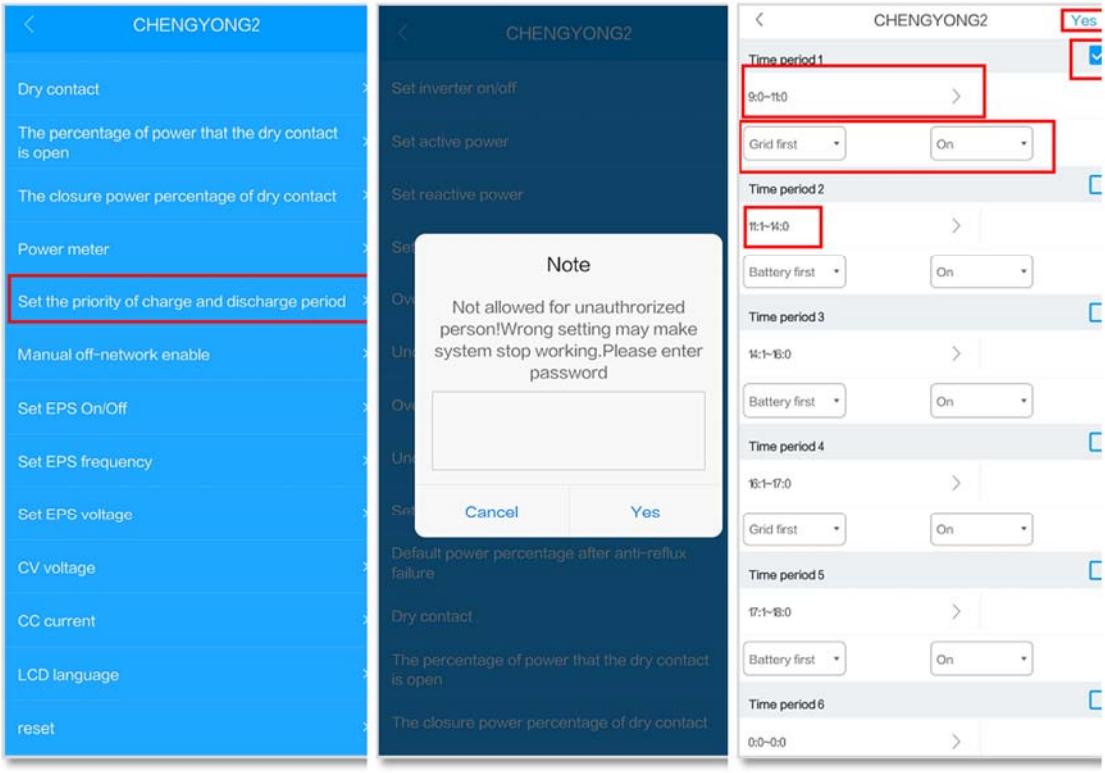

Figure.5. Indication of setting the mode and time periods on ShinePhone

3.4. Setting through ShineBus

To set up the inverter with ShineBus, you need connect the inverter to the host computer with the communication cable, connect the RS485 port to the BAT COM 1-2 pin of the inverter, and connect the USB port to the host computer.

After connect the communication cable, first, click “Configuration” to use ShineBus to read the inverter information to ensure that the inverter communicates successfully with the host computer; After that, enter the “BDC Time Set” interface and write “start time” and “end time” (note: The start time of the next time period must be greater than the end time of the previous time period. After selecting the priority mode, select “Enable” and click “Time”, when display “Set Successfully” means the setting is enable now.
To read a single time period, please select “Read” and click “Time” to successfully read the single time period priority mode and time data.

Figure.6. Indication of read information of inverter on ShineBus

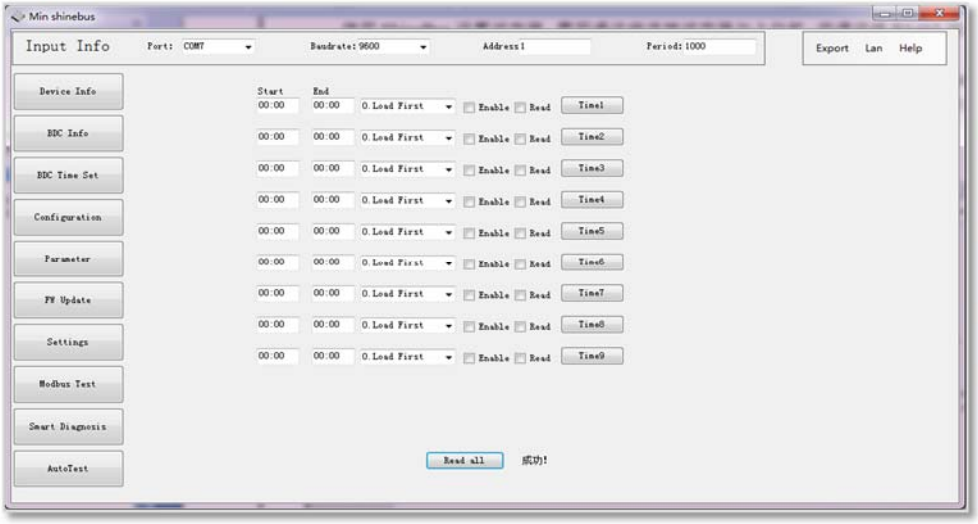

Figure.7. Indication of setting the mode and time periods on ShineBus

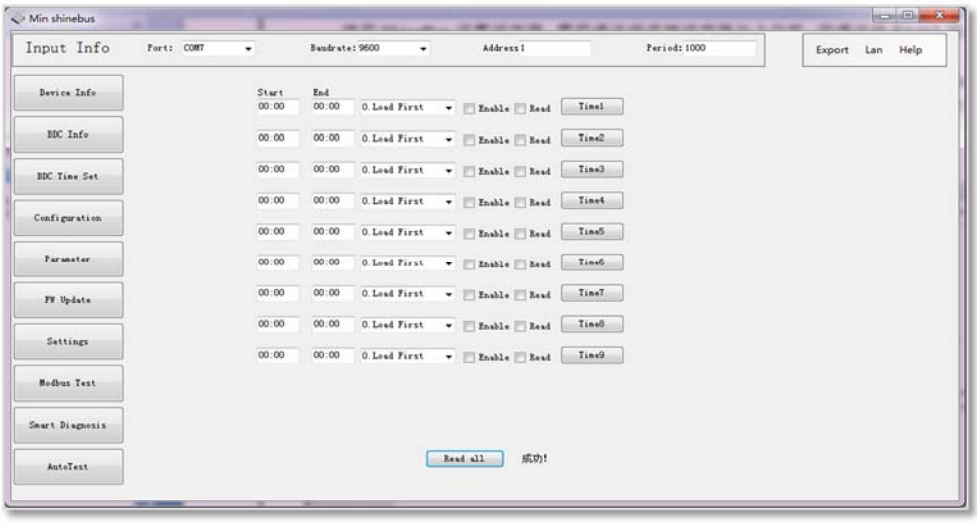

Figure.8. Indication of reading the mode and time periods on ShineBus

4、 BDC Mode Real Test

The MIN series inverters have realized that the inverters operate different priority modes in different time periods. Set the load first, battery first and grid first separately. We can observe the priority mode of the device through the monitoring device.

Taking the PV1000W and the load power 2000W as examples, the load first, battery first and grid first operation status are observed respectively. As shown in the figure below, it can be monitored that the inverter operates normally in different modes.

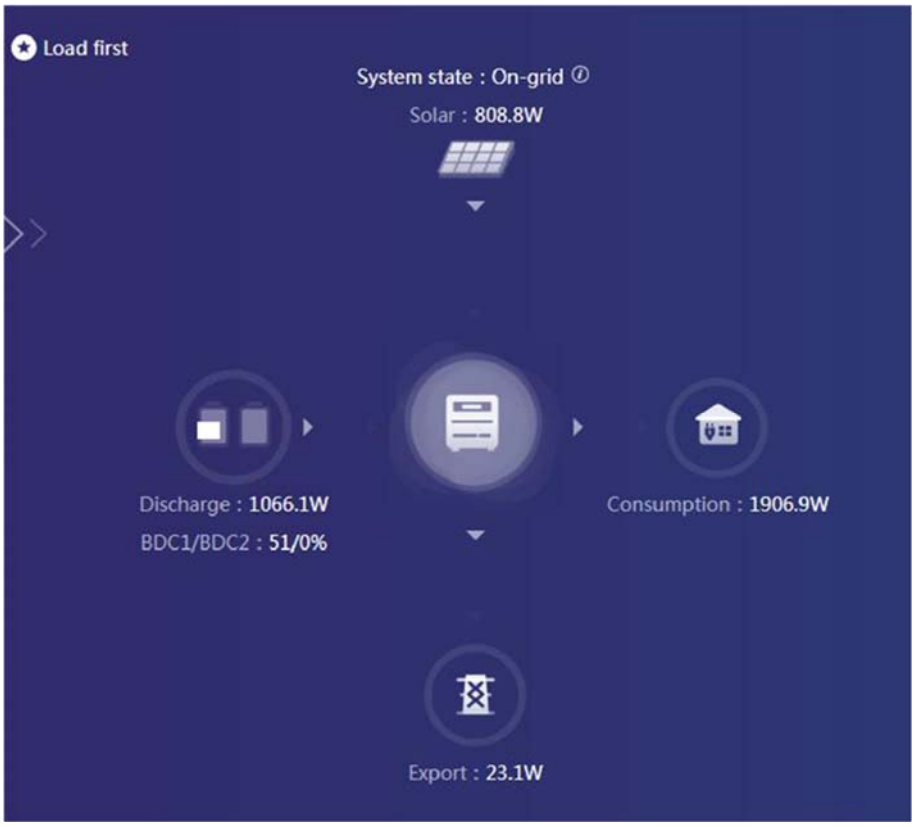

Figure.9. Load first

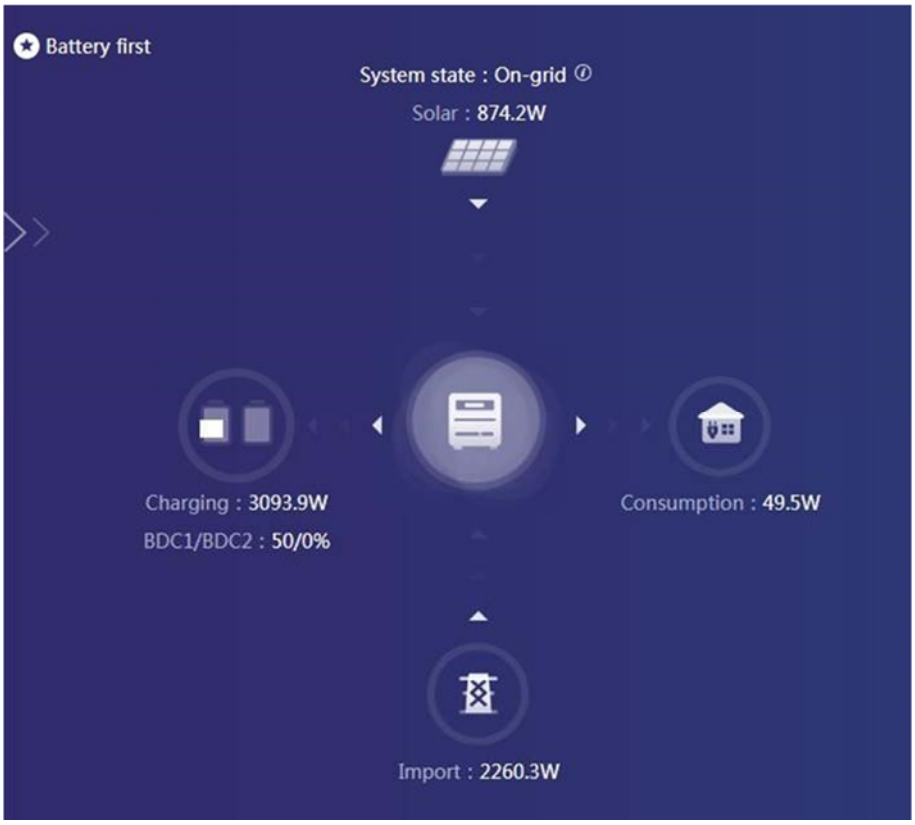

Figure.10. Battery first

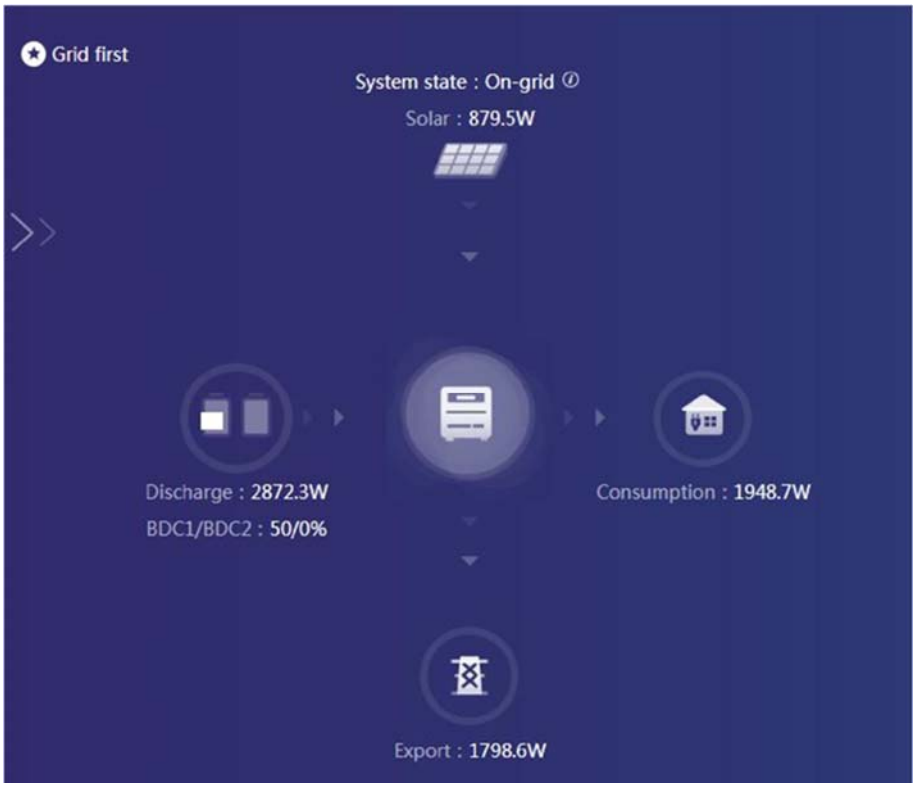

Figure.11.Grid first