Guangzhou Cooli New energy Technology Co.,Ltd.

用户手册

Household energy storage lithium battery

Table of contents

Table of contents.....2
Safety Guide.....3
1: Battery introduction.....4
2: Battery settings.....5
2.1： Overview.....5
2.1.1： Battery on/off.....5
2.1.2： CAN communication.....5
2.1.3： Battery dry contact.....6
2.1.4： Network port introduction.....6
2.1.5： ADDR introduce.....6.7
2.2： Introduction to battery paralleling.....7
2.2.1： Maximum number of batteries in parallel.....8
2.2.2: Battery parallel communication.....8
2.2.3： Power line specifications.....8
3： Victron Inverter GX settings.....9
3.1:Victron Inverter GX device display battery information..9
3.2： Turn on DVCC.....9
4： VictronInverter settings.....10
4.1： Log in Victron Inverter background export ESS.....10
4.2： General Tab.....10
4.3： Grid Tab.....11
4.4： Inverter Tab.....12
4.5： Charge Tabe.....13
4.6： Assistant tab （a）.....14
4.6： Assistant tab （b）.....14
4.6： Assistant tab （c）.....15
4.6： Assistant tab （d）.....15
4.6： Assistant tab （e）.....16
4.6： Assistant tab （f）.....16

Safety Guide

The work and maintenance of energy storage batteries should be left to professionals. Please do not attempt to repair them.

Open and remove batteries or cells.

The battery core contains highly corrosive electrolyte. If the battery core is damaged or leaks,

Please handle with care to prevent contact with skin or eyes.

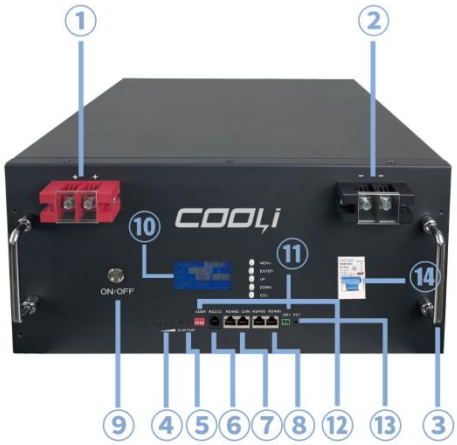
The battery terminals should be considered to be live at all times, so do not place metal tools or otherwise work on the terminals. Do not penetrate, throw or hit the battery in any way. Do not short-circuit or reverse the positive and negative terminals of the battery.

Fire Hazard: Do not lower the battery voltage below the specified minimum battery voltage as this will increase the risk of fire. Do not attempt to charge a swollen or damaged battery. If a fire occurs, use a carbon dioxide or dry powder fire extinguisher. Class D fire extinguishers are not suitable.

Used batteries cannot be recycled or discarded as ordinary garbage. Please dispose of used batteries in accordance with local regulations.

1： Battery introduction

Battery pin diagram



① Positive Terminal
② Negative Terminal
③ Handle
④ Capacity Indicator
⑤ Alm Run
⑥ RS232
⑦ RS485-1 CAN
⑧ RS485-2
⑨ ON/OFF Switch
⑩ LCD Display
⑪ DRY
⑫ ADDR
⑬ RST
⑭ Circuit Breaker

2： Battery settings

2.1： Overview

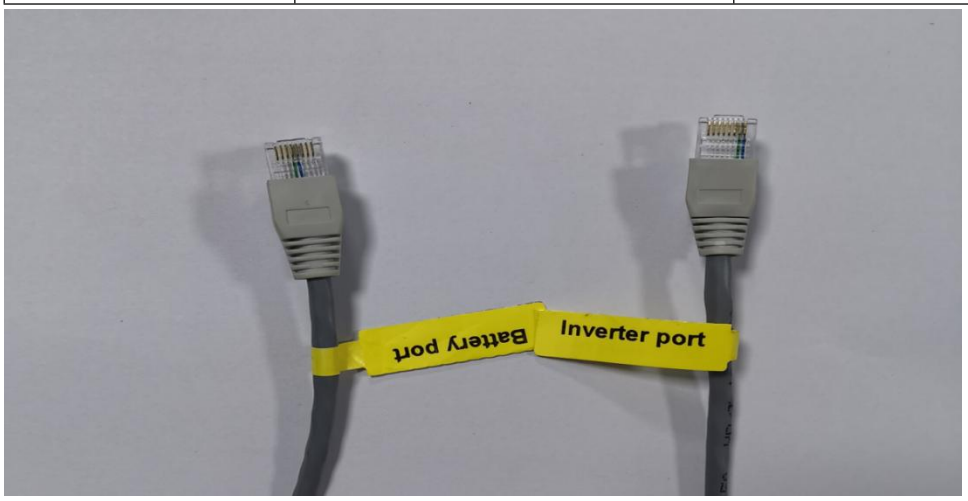
2.1.1： Battery power on and off

The battery can be turned on by pressing the battery switch once, and the battery can be turned off by pressing the battery switch again.

2.1.2： CAN communication

The inverter GX-BMS-Bus network port is connected to the battery CAN-Bus network port to realize communication between the battery and GX, and then the GX-VE-Bus network port is connected to the inverter GX-VE-Bus network port to realize the battery and inverter. communication.

Function	Victron BMS-Bus（GX）	Battery CAN-Bus
GND	Pin3	Pin2
CAN-H	Pin7	Pin4
CAN-L	Pin8	Pin5



2.1.3： dry contact

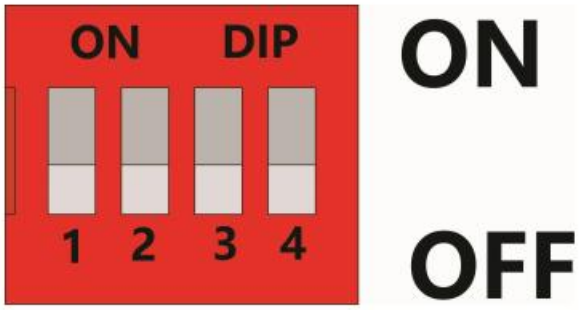
When the battery alarms or protects, the dry contact will output a DC power supply equal to the current voltage of the battery, but the current is small, and an external warning light or alarm can be connected.

Pin1	Dry contact positive
Pin2	Dry contact negative

2.1.4： Network port introduction

The RS232 network port is used for host computer communication, the RS485-1 network port is used for inverter communication, the CAN network port is used for inverter communication, and the RS485-2 network port is used for battery parallel communication.

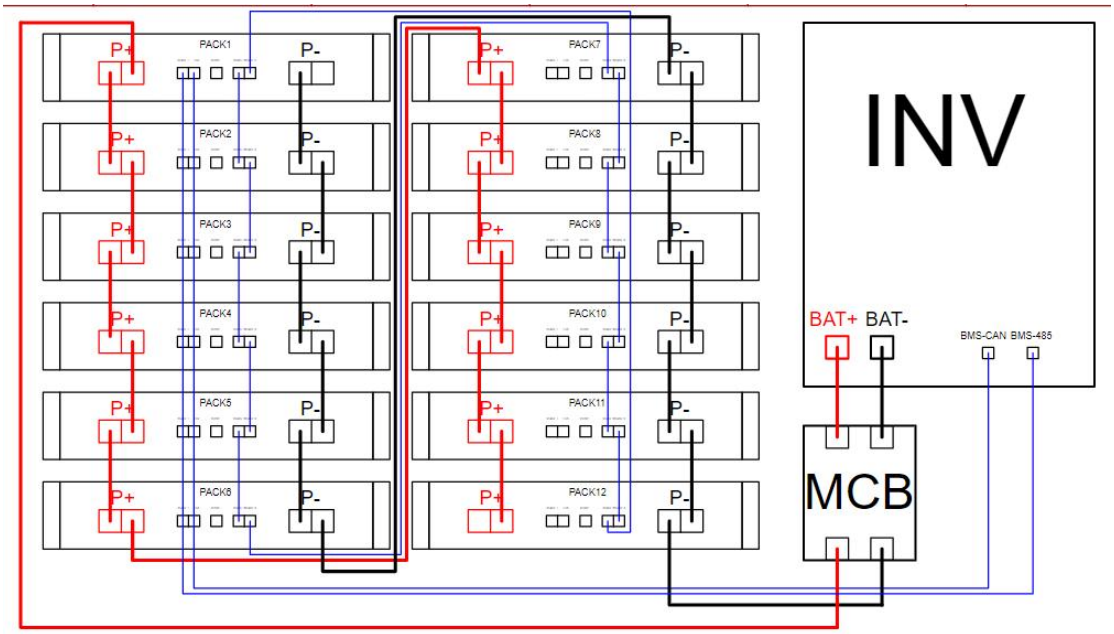
2.1.5： ADDR introduce



address	PACK Number	DIP SWitch position			
		1	2	3	4
0	PACK1	OFF	OFF	OFF	OFF
1	PACK2	ON	OFF	OFF	OFF
2	PACK3	OFF	ON	OFF	OFF
3	PACK4	ON	ON	OFF	OFF
4	PACK5	OFF	OFF	ON	OFF
5	PACK6	ON	OFF	ON	OFF
6	PACK7	OFF	ON	ON	OFF
7	PACK8	ON	ON	ON	OFF
8	PACK9	OFF	OFF	OFF	ON
9	PACK10	ON	OFF	OFF	ON
10	PACK11	OFF	ON	OFF	ON
11	PACK12	ON	ON	OFF	ON
12	PACK13	OFF	OFF	ON	ON

13	PACK14	ON	OFF	ON	ON
14	PACK15	OFF	ON	ON	ON
15	PACK16	ON	ON	ON	ON

2.2： Introduction to battery paralleling



Circulation wiring + daisy link wiring diagram

2.2.1： Maximum number of batteries in parallel

Up to 8 batteries can be connected in parallel. Each battery needs ADDR to set the address. Please refer to 2.1.5 for specific methods.

2.2.2: Battery parallel communication

When the batteries are paralleled, information transmission is realized by connecting RS485-2. The battery RS485-2 connection can be connected through a standard network cable. When the number of parallel batteries reaches 8, it is recommended to use a daisy chain connection to reduce the risk of information loss.

2.2.3： Power line specifications

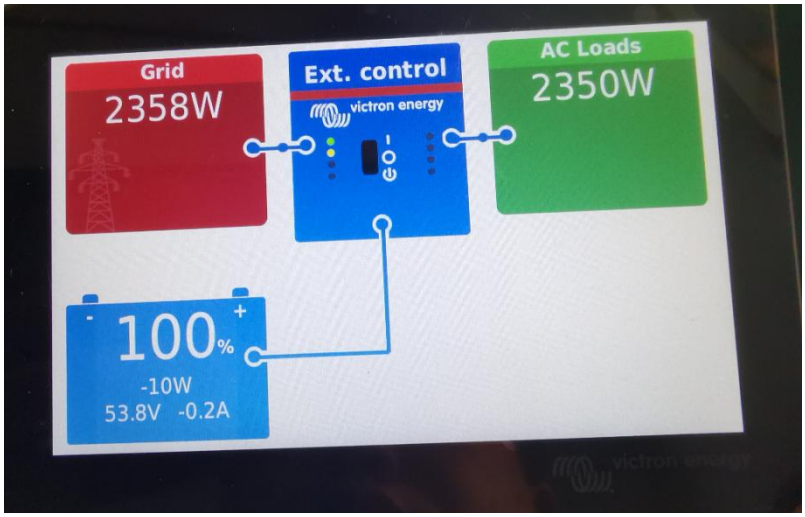
P+P-parallel power line wire specifications and lengths need to be consistent, and the power line model needs to match the maximum power of the inverter.

5KW Inverter	10KW Inverter	15KW Inverter
6AWG	4AWG	2AWG

3： Victron Inverter GX settings

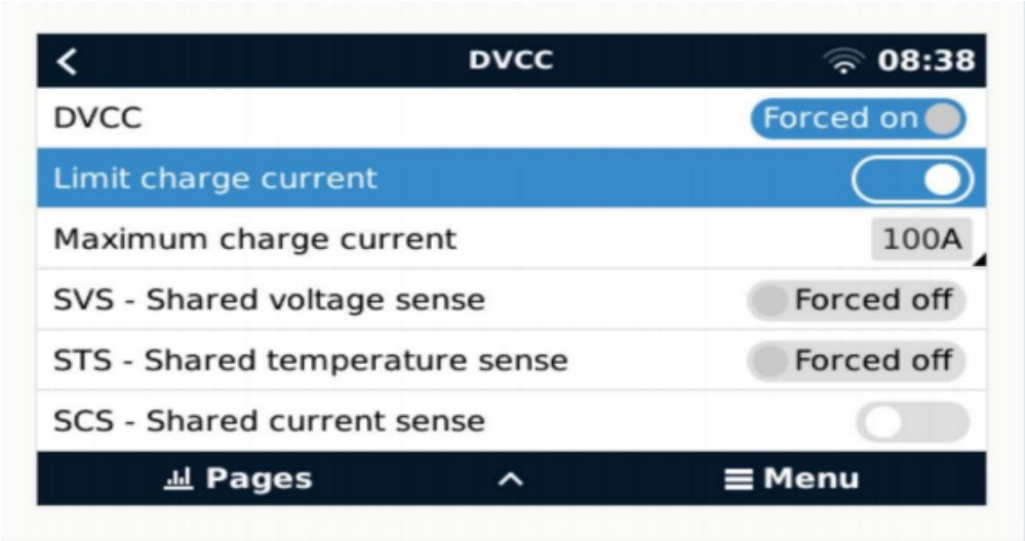
3.1:Victron Inverter GX device display battery information

When the battery communicates successfully with the Victron inverter, the battery SOC, voltage, operating current, and power will be displayed at the battery icon on the GC display.



3.22 DVCC

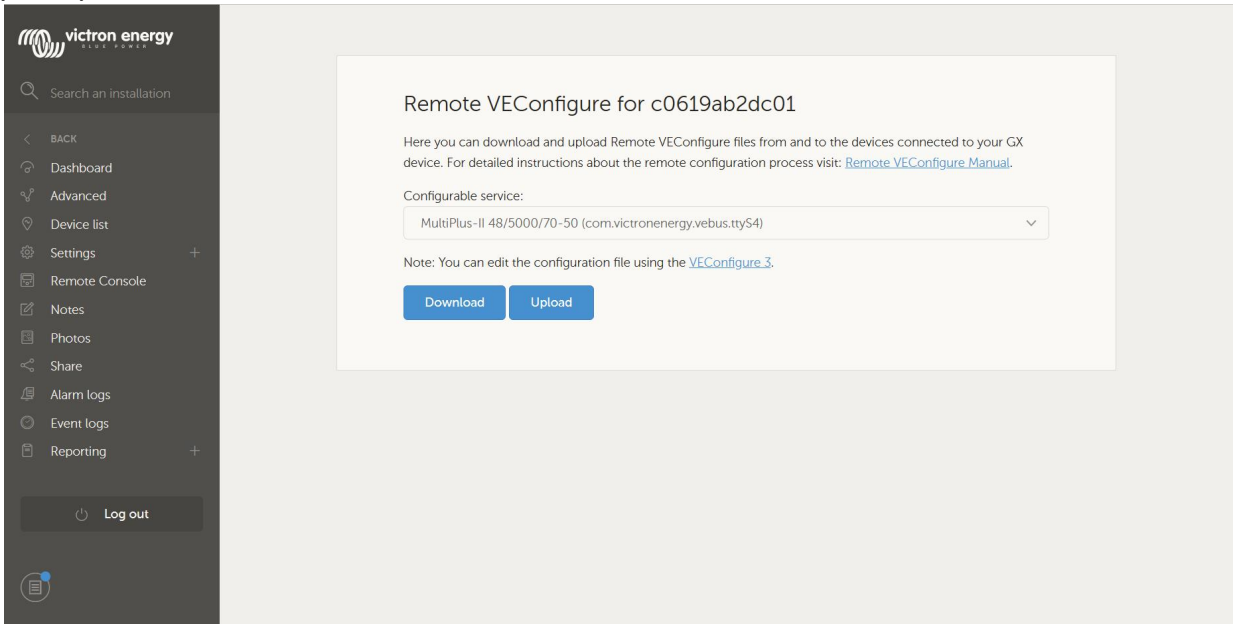
Enter the DVCC settings, turn on the DVCC switch, turn on the limit charging current, and set the maximum charging current to 50A/each battery. The rest of the settings have reasonable parameters uploaded by BMS, so no settings are required.



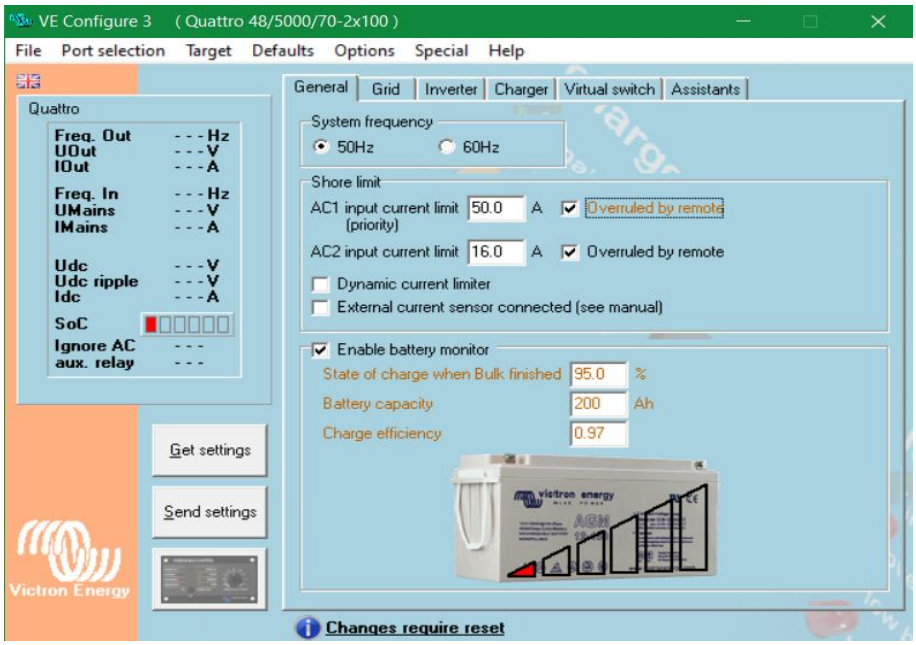
4： Victron Inverter settings

4.11 Logn in Victron inverter background export ESS

After exporting the ESS application, install ESS according to the application prompts.



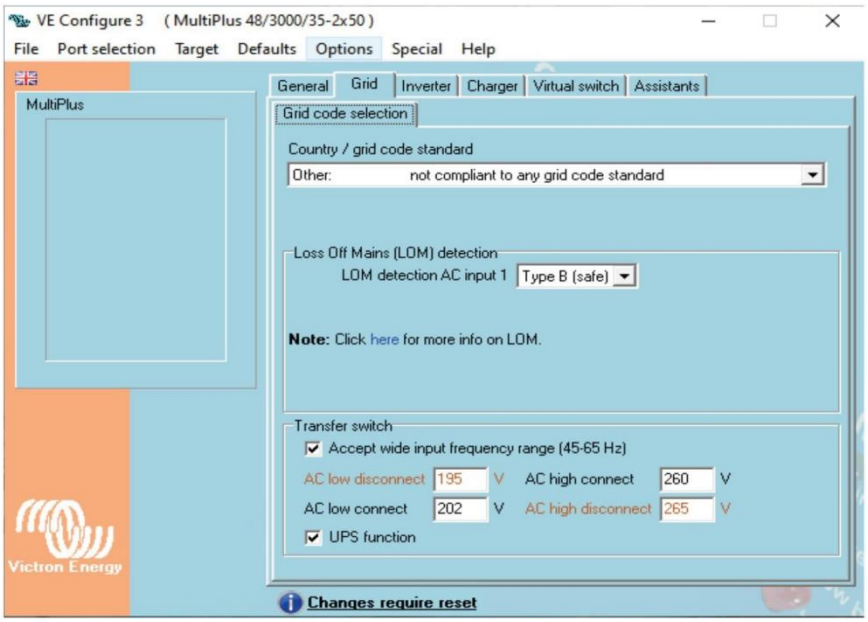
4.2： General Tab



4.3： Grid Tab

The power grid setting interface can set the power grid code of the country where it is located and some power grid related parameters.

Note: The National Grid code needs to be set before using ESS mode. Please read the software prompts carefully. Once the National Grid code is set, it cannot be modified or revoked. Please pay attention! (PS: If domestic users want to use ESS mode, they can set the grid code to UK)



4.4： Inverter Tab

1：The inverter AC output voltage is set according to the local power grid.

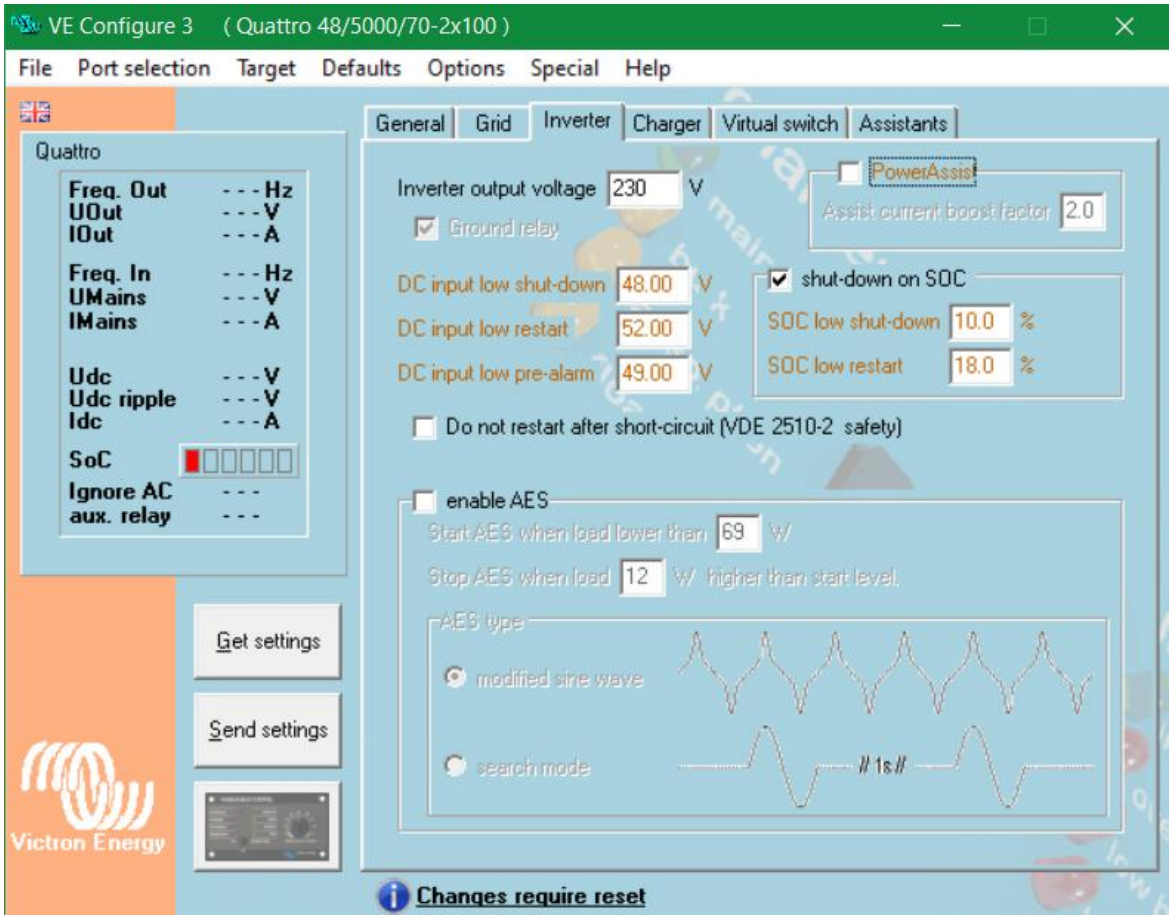
2： DC input shutdown voltage is set to 46V

3： DC input shutdown and restart voltage setting 51.2V

4： DC low voltage alarm is set to 50V

5： Low SOC shutdown set to 10%

6： Low SOC shutdown restart set to 15%



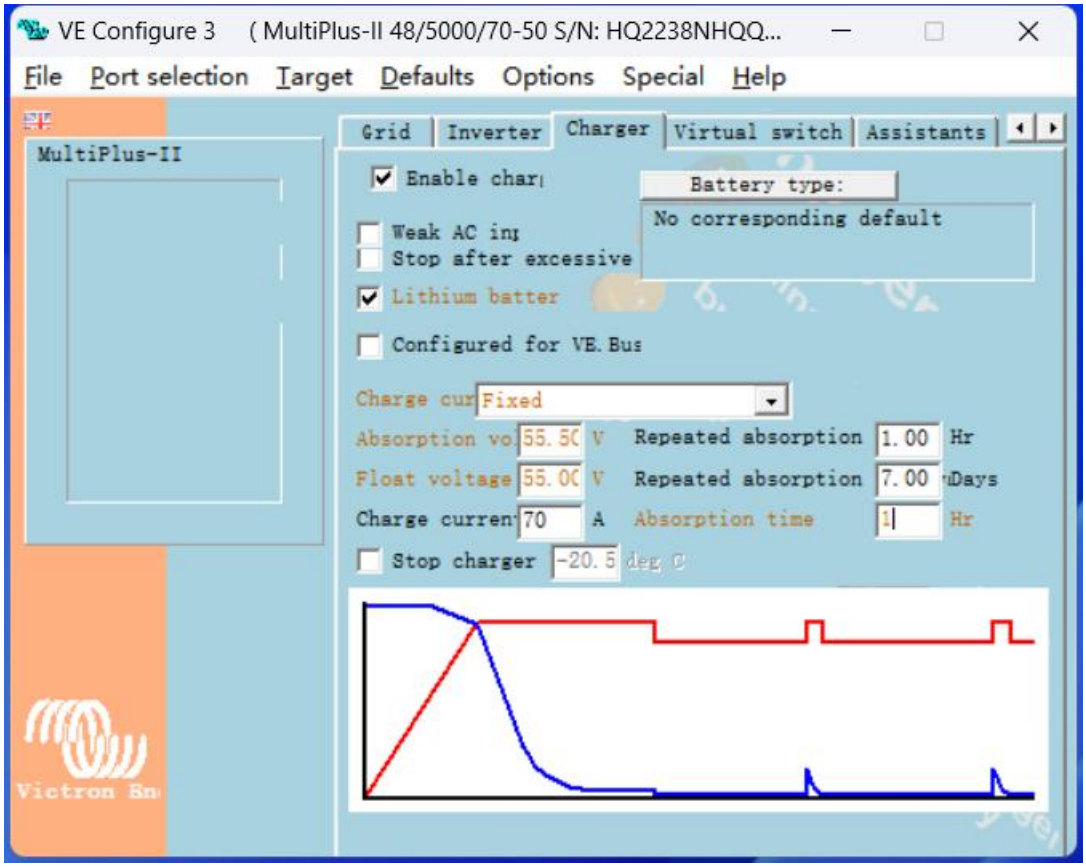
4.5： Charge Tabe

Set battery type to Lithium battery

Absorption voltage is set to 55.5V

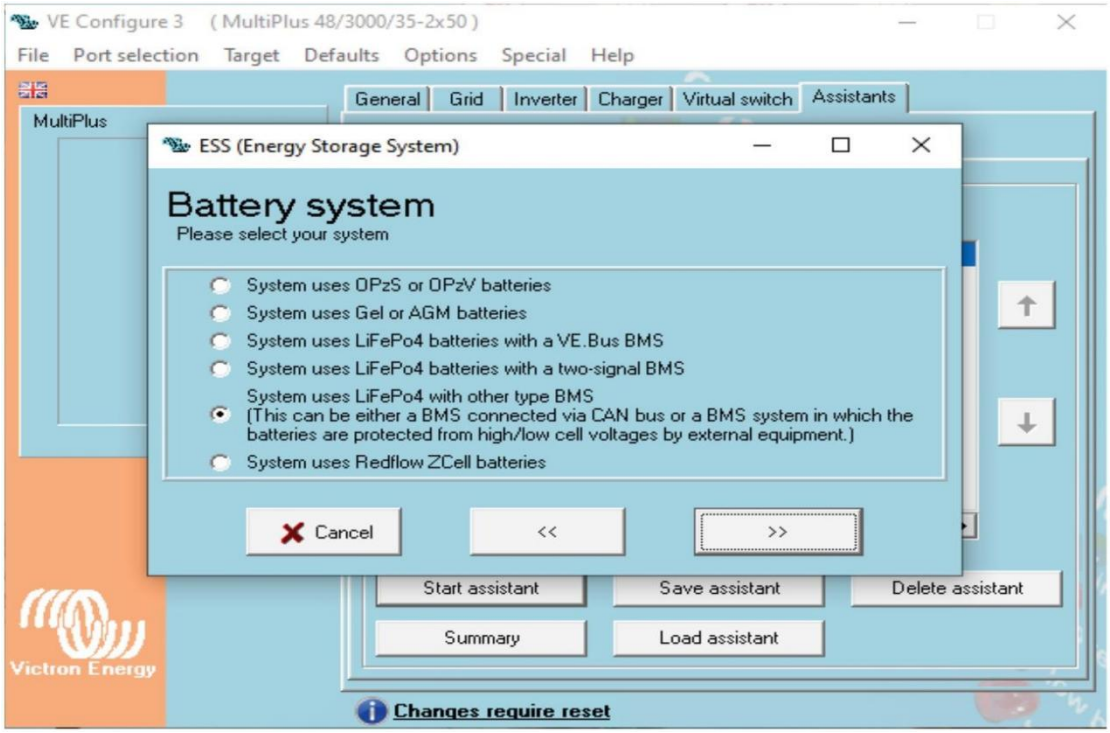
Float voltage is set to 55V

Note: The absorbed voltage needs to be less than the maximum charging voltage of the BMS uploaded battery, otherwise the inverter will only charge the battery with a small current.

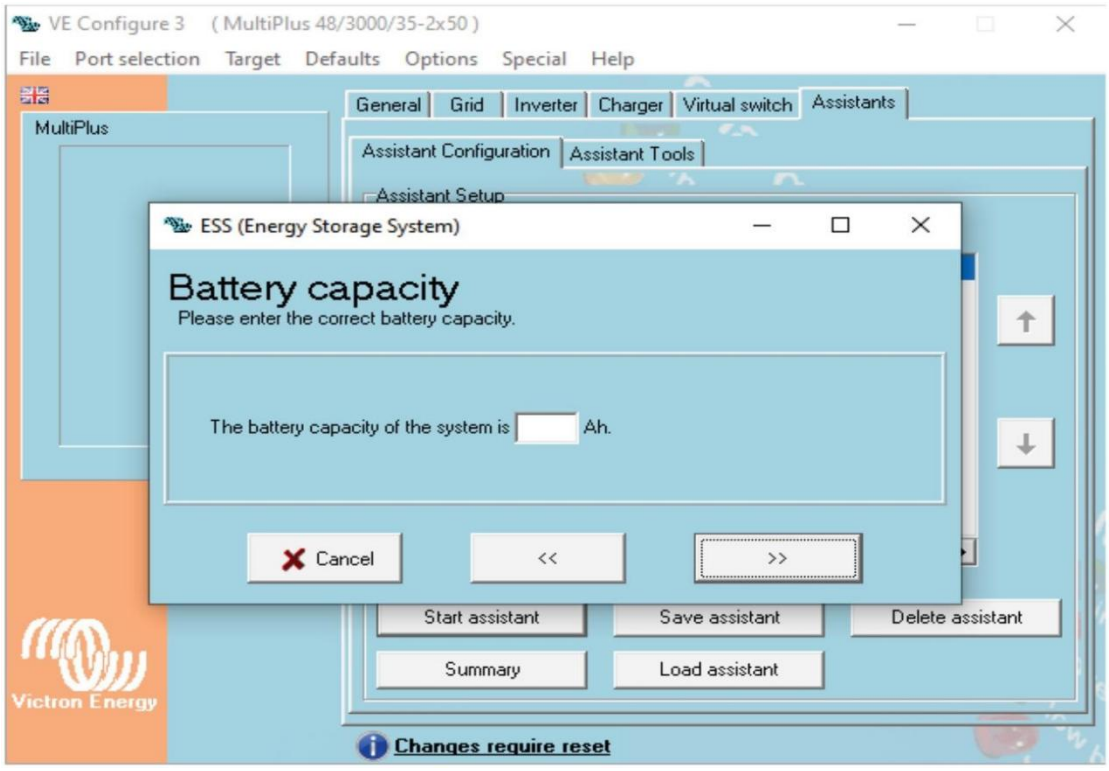


4.6：Assistant tab （a）

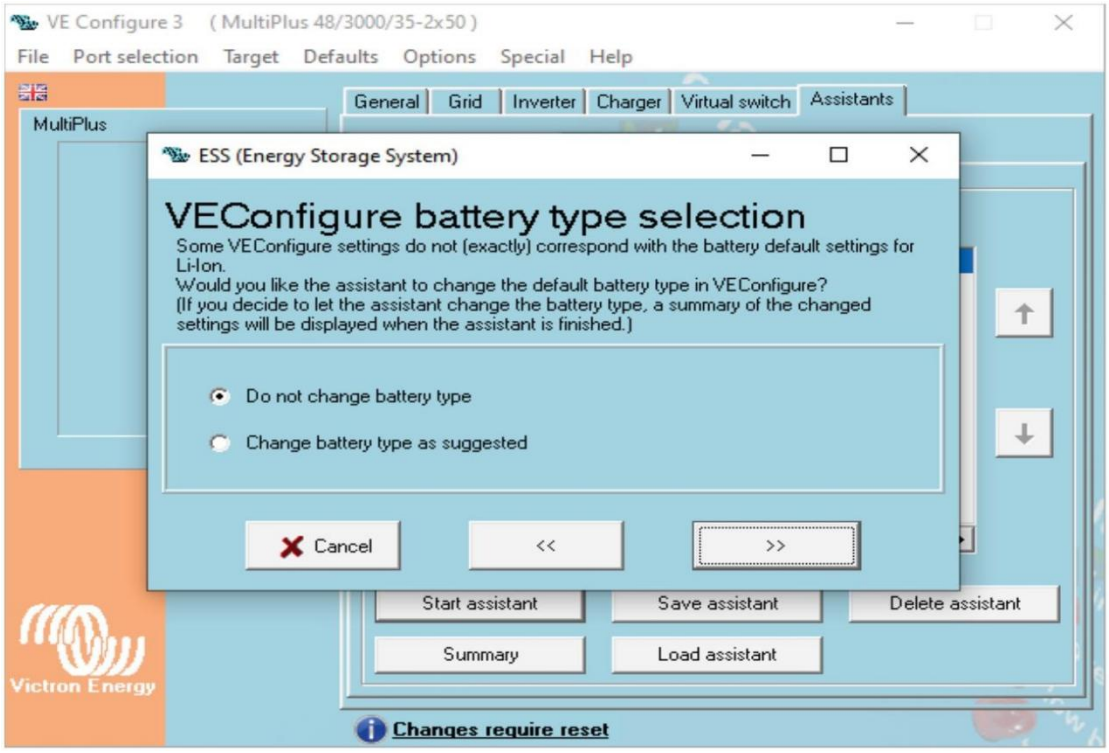
If VS mode is used, Assistant mode cannot be used



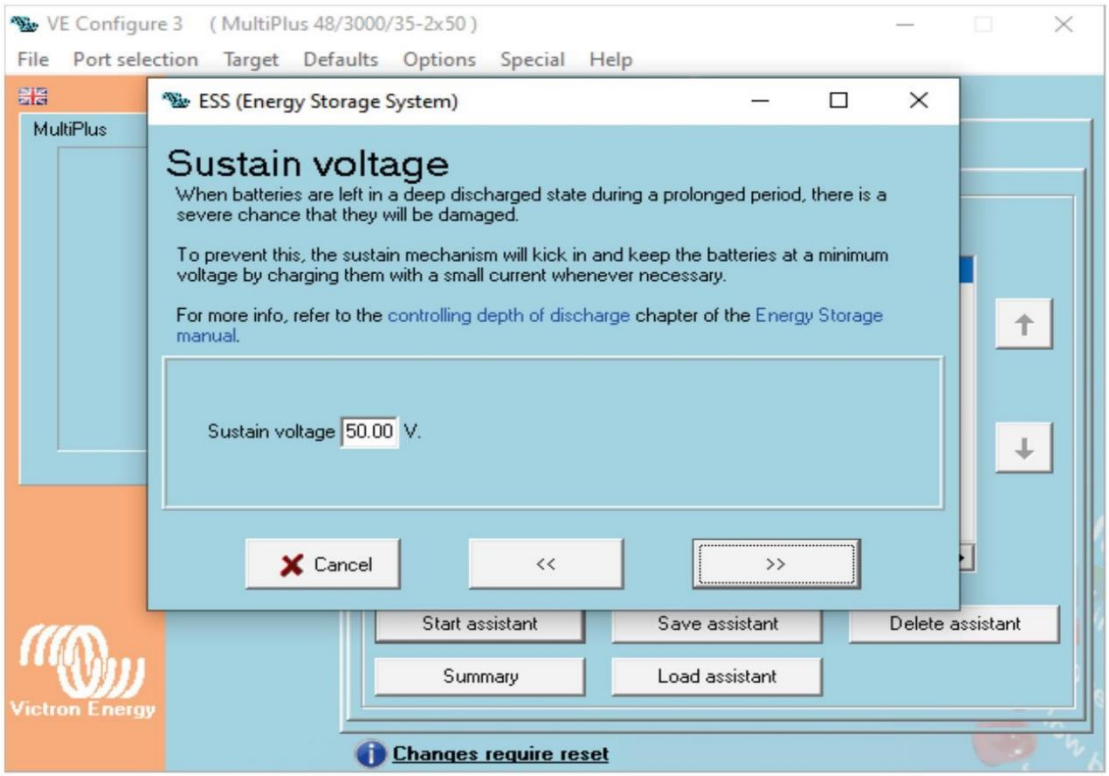
4.7：Assistant tab （b）



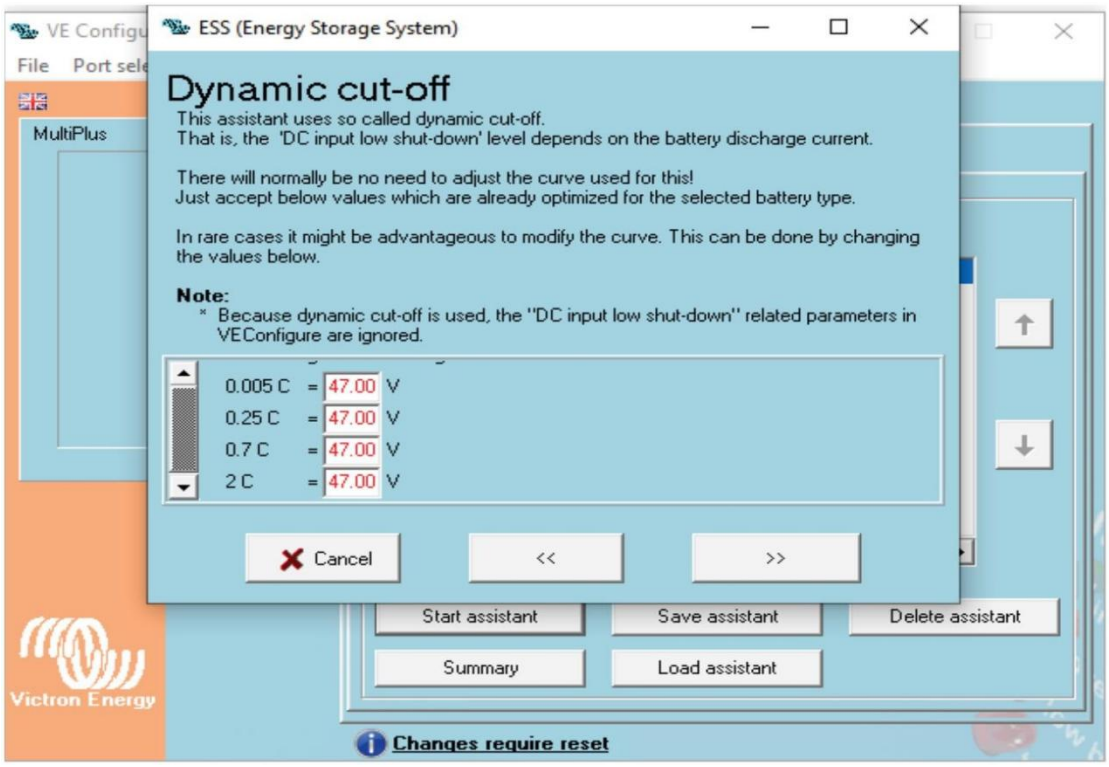
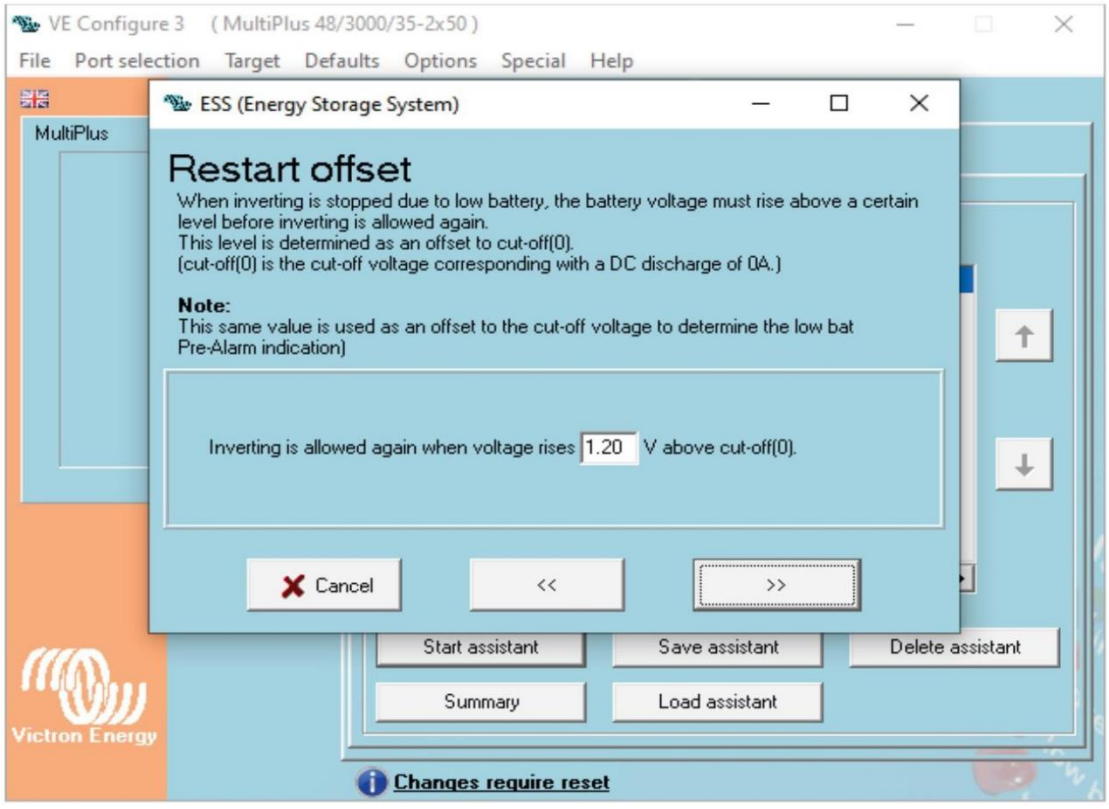
4.8:Assistant tab （c）



4.9： Assistant tab （d）



4.10： Assistant tab （e）



4.11： Assistant tab （f）