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1 Production Introduction

1.1 Product Overview
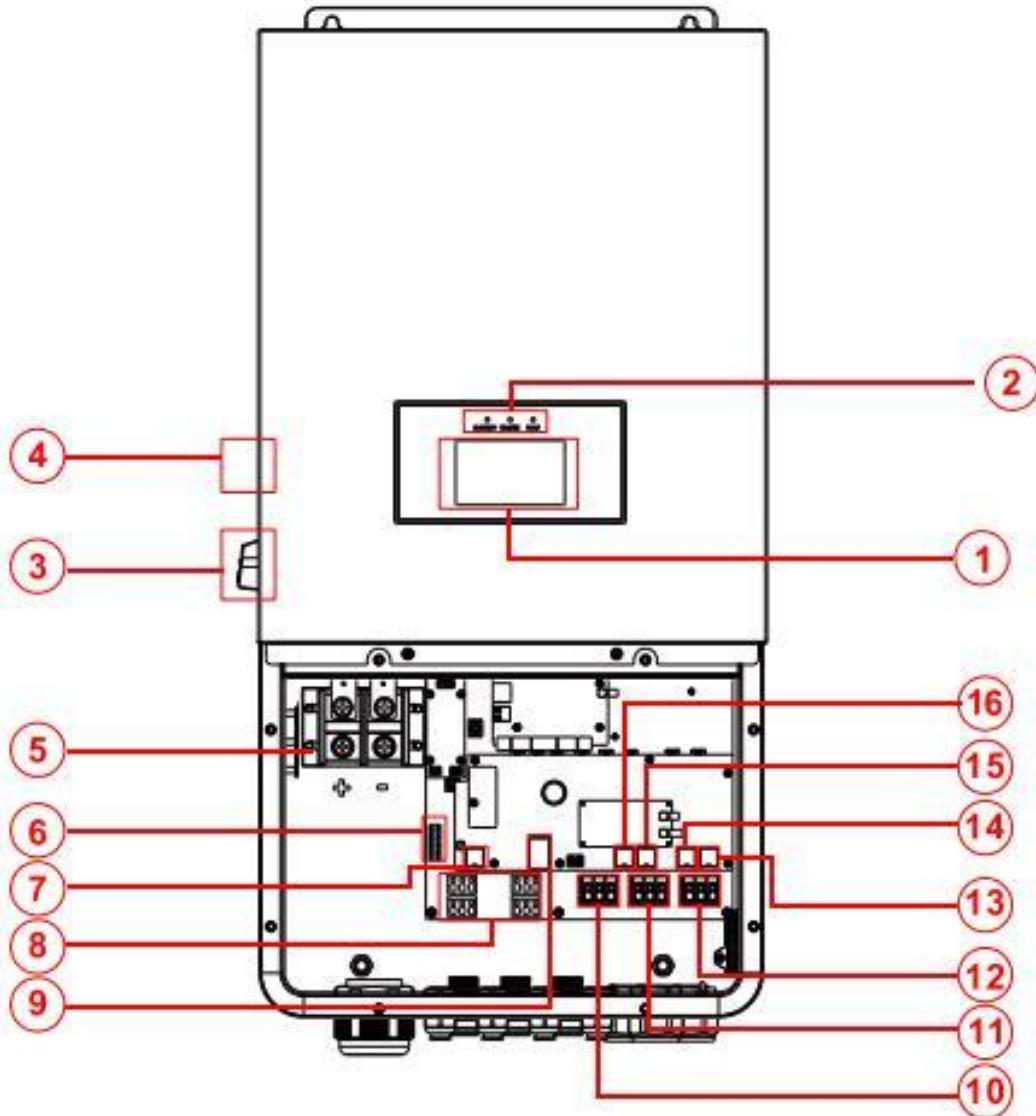
1: LCD display

2: Inverter Indicators

3: DC Switch

4: Power on/off button

5: Battery input connectors

6: Function Port

7: DRMS Port

8: PV input with three MPPT
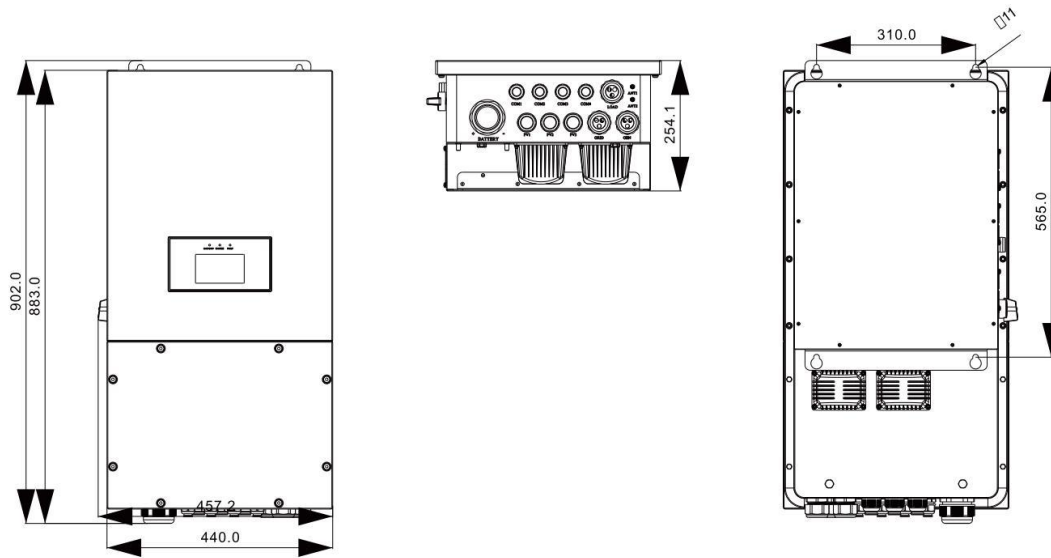
9: Burn port

10: Grid

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15: Computer Port

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1.2 Product Size

Inverter Size

1.3 Product Features

- Supports Single phase 220Vac、230Vac、240Vac
- Self-consumption and feed-in to the grid.
- Auto restart while AC is recovering.
- Programmable supply priority for battery or grid.
- Programmable multiple operation modes: On grid, off grid and UPS.
- Configurable battery charging current/voltage based on applications by touch screen setting.
- Configurable AC/Solar/Generator Charger priority by touch screen setting.
- Compatible with mains voltage or generator power.
- Overload/over temperature/short circuit protection.
- Smart battery charger design for optimized battery performance.
- Supporting WIFI monitoring and build-in 3 strings of MPP trackers
- Smart settable three stages MPPT charging for optimized battery performance.
- Time of use function.

1.4 Basic System Architecture

The following illustration shows basic application of this inverter.

It also includes following devices to have a Complete running system.

- Generator or Utility
- PV modules

Consult with your system integrator for other possible system architectures depending on your requirements.

This inverter can power all kinds of appliances in home or office environment, including motor type appliances such as refrigerator and air conditioner.

AC cable | DC cable

WiFI
GPRS

Cloud services   phone

Solar

Backup Load   On-Grid Home Load   Grid

CT

Battery   Smart Load   Grid-connected Inverter   Generator

ATS
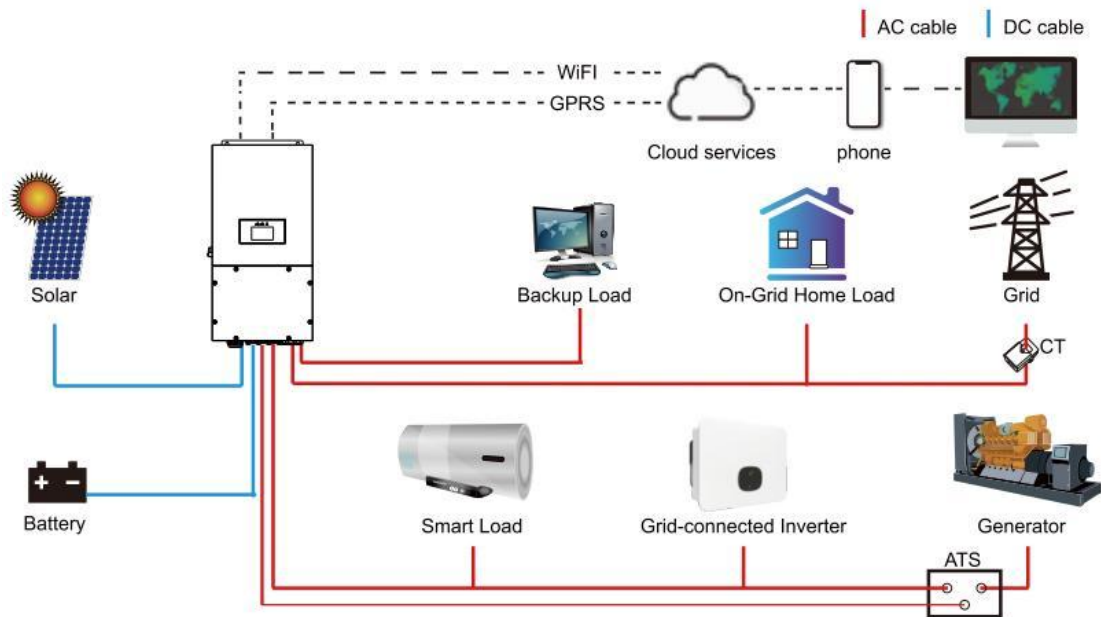
2 Installation

2.1 Part List

Check the equipment before installation. Please make sure nothing is damaged in the package.

You should have received the items in the following package:

Hybrid inverter x1

User manual x1

Locating hole diagram x1

Quick Installation Manual x1

Stainless steel anti-collision bolt M8×80 x4

Battery temperature sensor x1

Tube terminal :6AWG x6,10AWG x12

Fuse x1

CTx1

2.2 Mounting instructions

Installation Precaution

This Hybrid inverter is designed for outdoor use(IP65), Please make sure the installation site meets below conditions:

· Not in direct sunlight
· Not in areas where highly flammable materials are stored.
· Not in potential explosive areas.
· Not in the cool air directly.
· Not near the television Antenna or antenna cable.
· Not higher than altitude of about 2000 meters above sea level.
· Not in environment of precipitation or humidity(>95%)

Considering the following points before selecting where to install:

· Please select a vertical wall with load-bearing capacity for installation, suitable for installation on concrete or other non-flammable surfaces, installation is shown below.

· Install this inverter at eye level in order to allow touch screen display to be read at all times.

· The ambient temperature should be between -25~60°C to ensure optimal operation.

· Be sure to keep other objects and surfaces as shown in the diagram to guarantee sufficient heat dissipation and have enough space for removing wires.
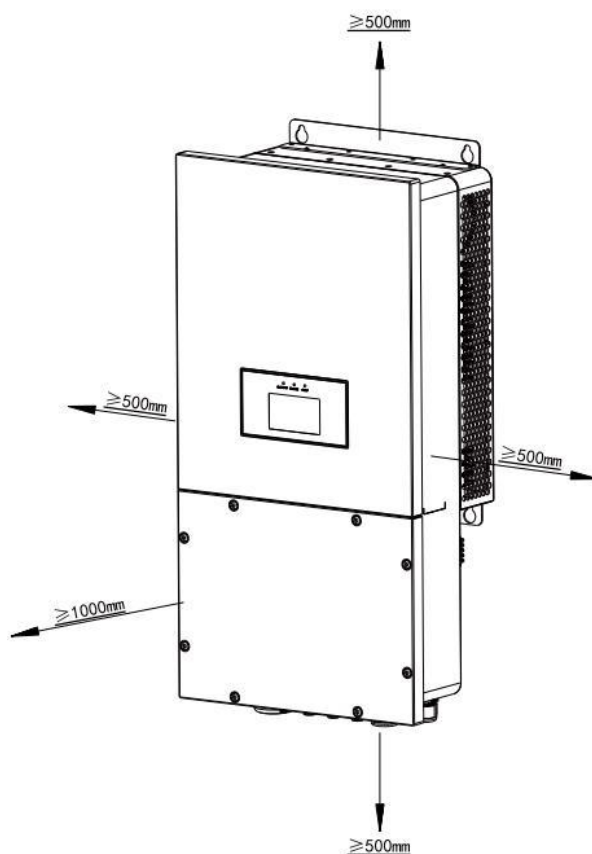
· For proper air circulation to dissipate heat, allow a clearance of approx. 50cm to the side and approx. 50cm above and below the unit. And 100cm to the front.

Mounting the inverter

Remember that this inverter is heavy! Please be careful when lifting out from the package.

Choose the recommend drill head to drill 4 holes on the wall, 52-60mm deep.

1. Use a proper hammer to fit the expansion bolt into the holes.

2. Carry the inverter and holding it, make sure the hanger aim at the expansion bolt, fix the inverter on the wall.

3. Fasten the screw head of the expansion bolt to finish the mounting.
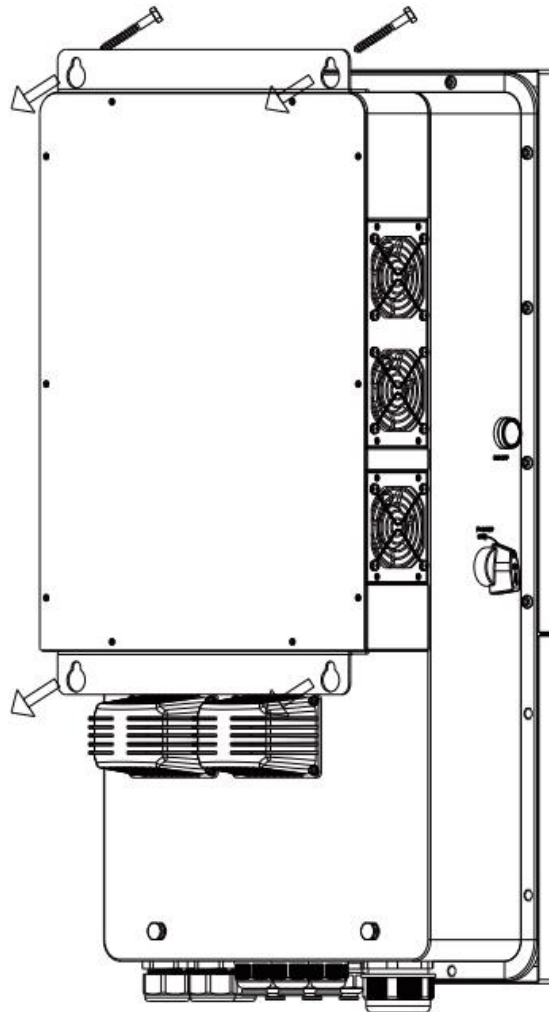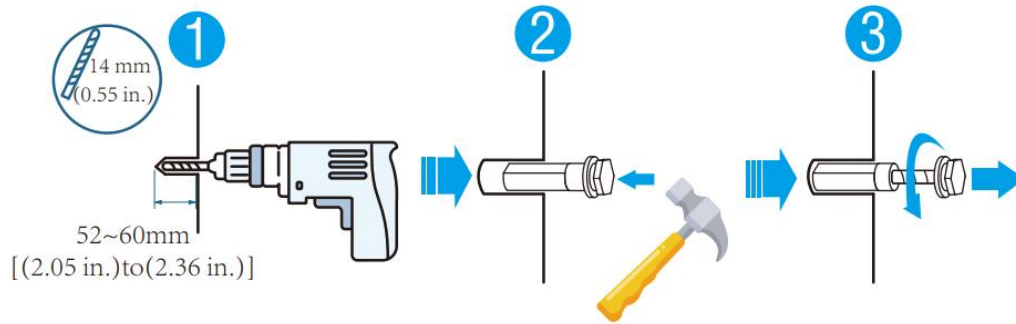
2.3 Battery connection

For safe operation and compliance, a separate DC over-current protector or disconnect device is required between the battery and the inverter. In some applications, switching devices may not be required but over-current protectors are still required. Refer to the typical amperage in the table below for the required fuse or circuit breaker size.

Model	Wire Size	Cable(m㎡)
SUNXT-4810KP1-EU	0AWG	53.5

Please follow below steps to implement battery connection:

1. Please choose a suitable battery cable with correct connector which can well fit into the battery terminals.

2. Use a suitable screwdriver to unscrew the bolts and fit the battery connectors in, then fasten the bolt by the screwdriver

3. Make sure polarity at both the battery and inverter is correctly connected.
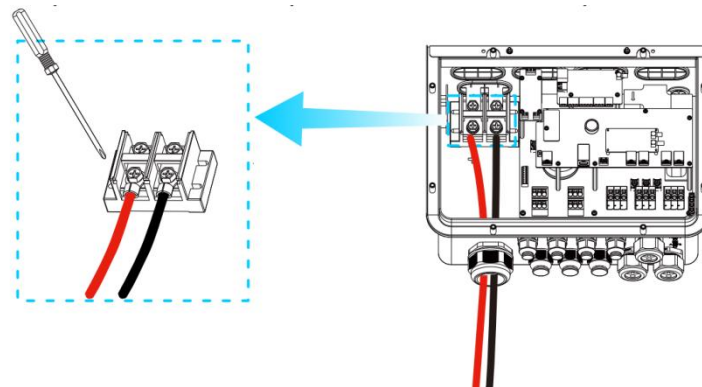
4. In case of children touch or insects go into the inverter, Please make sure the inverter connector is fasten to waterproof position by twist it clockwise.

Battery temperature connection for lead-acid battery
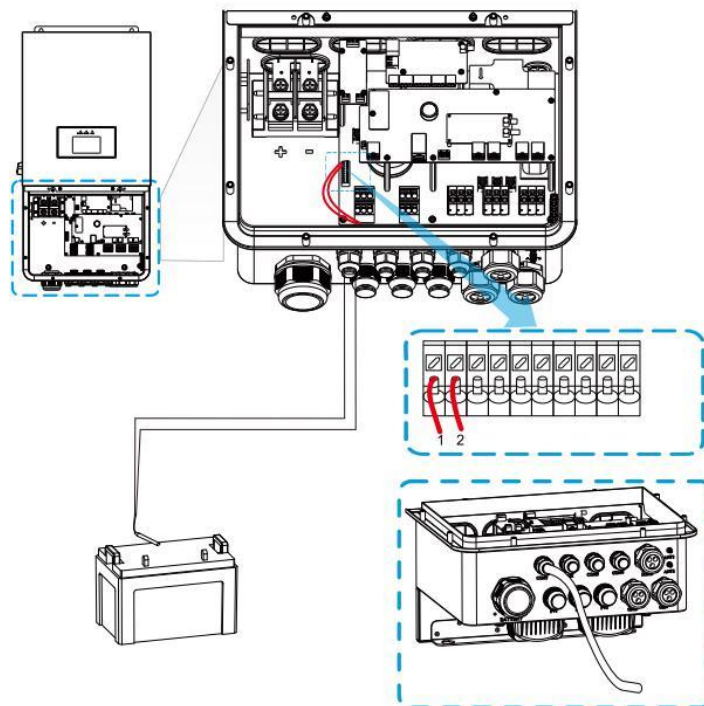
2.4 Grid connection and backup load connection

· Before connecting to grid, please install a separate AC breaker between inverter and grid. Also, it is recommended that installs an AC breaker between backup load and inverter. This will ensure the inverter can be securely disconnected during maintenance and fully protected from over current. The recommended of AC breaker is 80A for 10kw.

· There are three terminal blocks with "Grid" "Load" and "GEN" markings. Please do not misconnect input and output connectors.

Attention

All wiring must be performed by a qualified personnel.It is very important for system safety and efficient operation to use appropriate cable for AC input connection. To reduce risk of injury, please use the proper recommended cable as below.

| Model	Wire Size	Cable(m ㎡)
SUNXT-4810KP1-EU	6AWG	13.3

Recommended Size for AC wires

Please follow below steps to implement AC input/output connection:

1. Before making Grid, load and Gen port connection, be sure to turn off AC breaker or disconnector first.

2.Use crimping pliers to press the 6AWG cable onto the attached tubular terminal to form a quadrilateral, insert the flathead screwdriver into the hole above the terminal, insert the quadrilateral cable into the corresponding terminal, and remove the flat-head screwdriver.
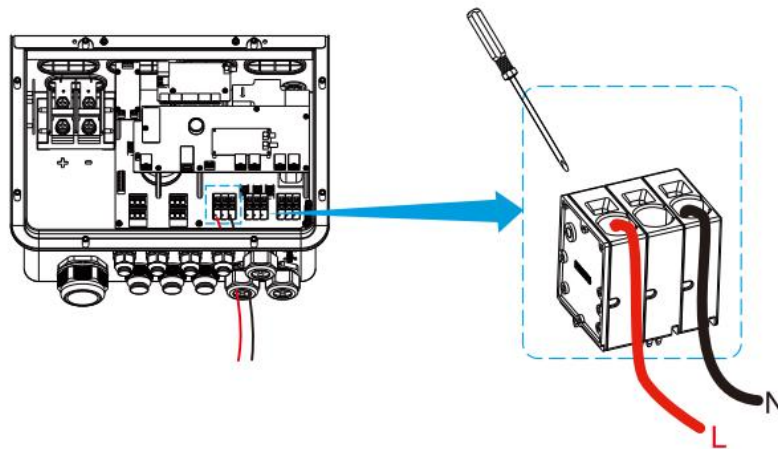
Attention:

Be sure that AC power source is disconnected before attempting to wire it to the unit.

3. Then, insert AC output wires according to polarities indicated on the terminal block and tighten terminal. Be sure to connect corresponding N wires to related terminals as well.

4. Make sure the wires are securely connected.

5. Appliances such as air conditioner are required at least 2-3 minutes to restart because it is required to have enough time to balance refrigerant gas inside of circuit. If a power shortage occurs and recovers in short time, it will cause damage to your connected appliances. To prevent this kind of damage, please check manufacturer of air conditioner if it is equipped with time-delay function before installation. Otherwise, this inverter will trigger overload fault and cut off output to protect your appliance but sometimes it still causes internal damage to the air conditioner

2.5 PV Connection

Before connecting to PV modules, please install a separately DC circuit breaker between inverter and PV modules. It is very important for system safety and efficient operation to use appropriate cable for PV module connection. To reduce risk of injury, please use the proper recommended cable size as below.

Model	Wire Size	Cable(m㎡)
SUNXT-4810KP1-EU	10AWG	5.26

Cable size

Attention:

To avoid any malfunction, do not connect any PV modules with possible current leakage to the inverter. For example, grounded PV modules will cause current leakage to the inverter. When using PV modules, please be sure NO grounding. It is requested to use PV junction box with surge protection. Otherwise, it will cause damage on inverter when lightning occurs on PV modules.

2.5.1 PV Module Selection

When selecting proper PV modules, please be sure to consider below parameters:

1) Open circuit Voltage (Voc) of PV modules not exceeds max. PV array open circuit voltage of inverter.

2) Open circuit Voltage (Voc) of PV modules should be higher than min. start voltage.

Inverter Model	SUNXT-4810KP1-EU
PV Input Voltage	370V(130V-525V)
PV Array MPPT Voltage Range	150V-450V
No. of MPPT Trackers	3

2.5.2 PV Module Wire Connection:

Please follow below steps to implement PV module connection:

1. Remove insulation sleeve 10 mm for positive and negative conductors.

2. Use crimping pliers to press the 10AWG cable onto the attached tubular terminal to form a quadrilateral, insert the flathead screwdriver into the hole above the terminal, insert the quadrilateral cable into the corresponding terminal, and remove the flat-head screwdriver

3. Check correct polarity of wire connection from PV modules and PV input connectors. Then, connect positive pole (+) of connection wire to positive pole (+) of PV input connector. Connect negative pole (-) of connection wire to negative pole(-)of PV input connector.
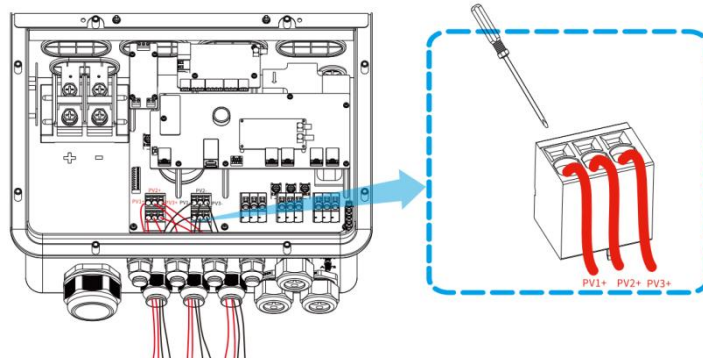
2.6 CT Connection
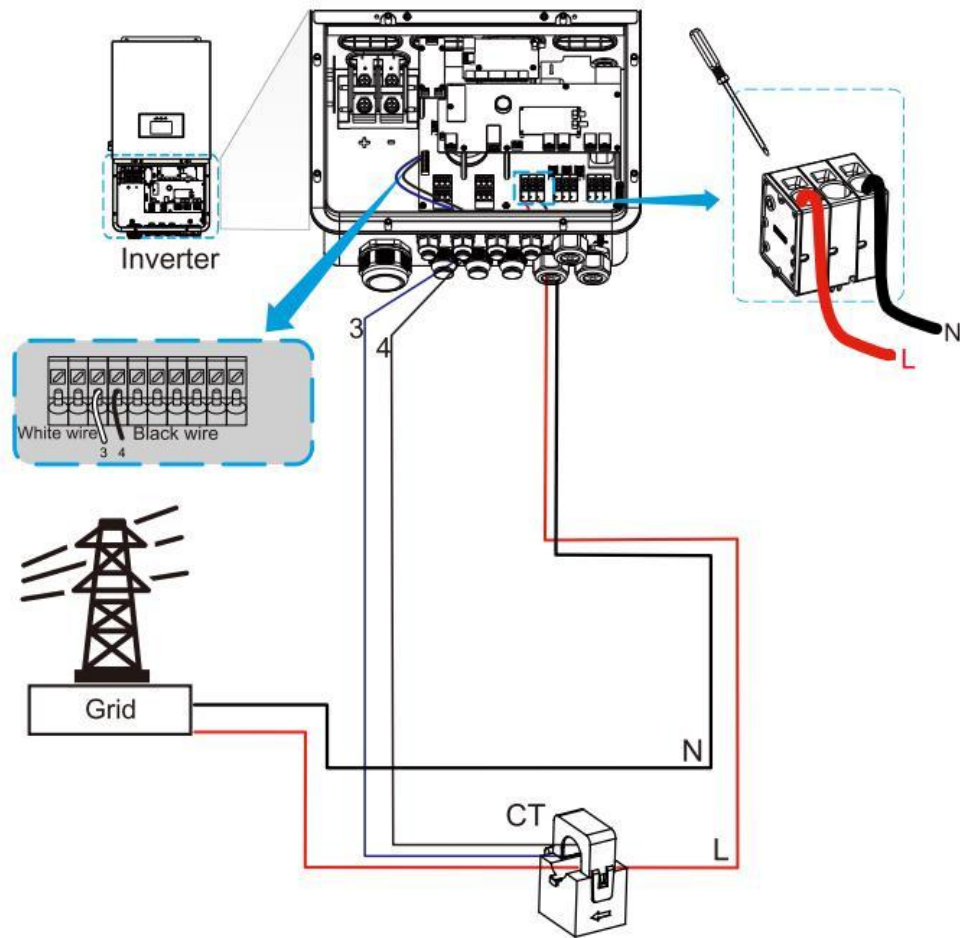
2.7 Earth Connection(mandatory)

Ground cable shall be connected to ground plate on grid side this prevents electric shock. if the original protective conductor fails.
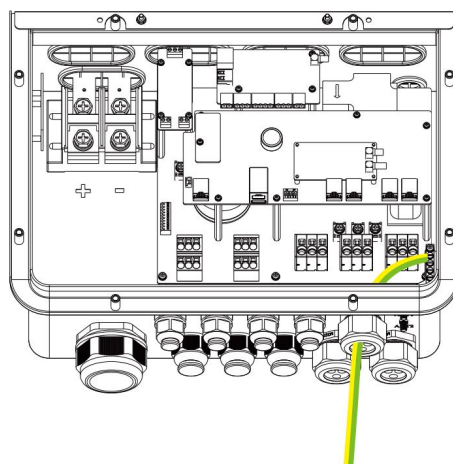
2.8 WIFI Connection

For the configuration of Wi-Fi Plug, please refer to illustrations of the Wi-Fi Plug.
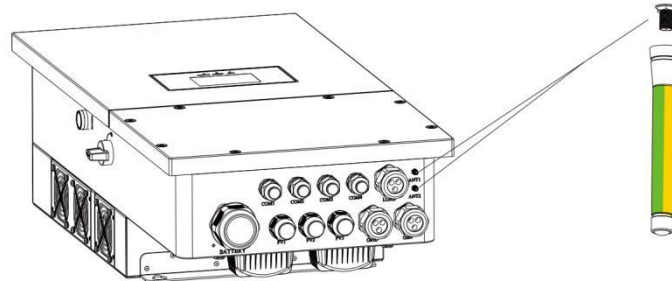
2.9 Wiring System for Inverter

Region: ZA
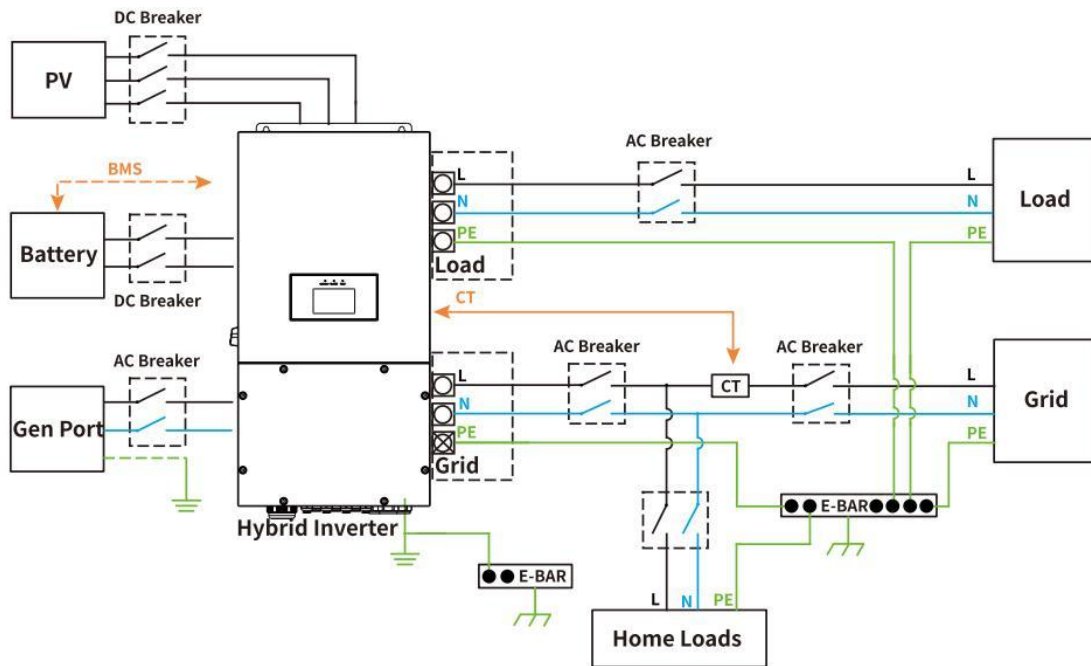
2.10 Single phase(230Vac) parallel connection diagram

Region: ZA
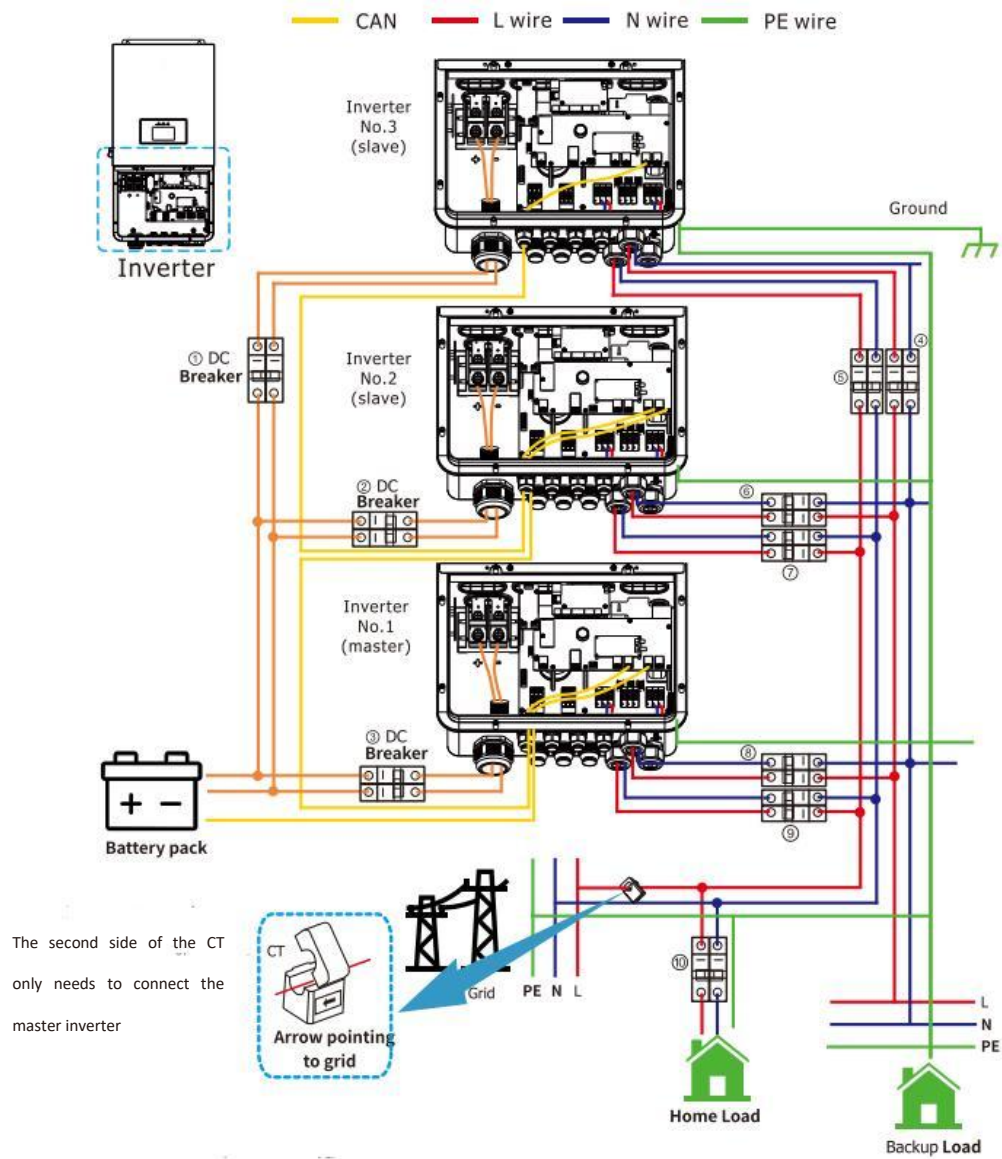
①②③ DC Breaker for battery

4810KP1:250A DC breaker

⑤⑦⑨ AC Breaker for grid por

4810KP1:80A AC breaker

④⑥⑧ AC Breaker for backup load port

4810KP1:80A AC breaker

⑩ AC Breaker

Depends on household loads

3 Operation

3.1 Power ON/OFF

Once the unit has been properly installed and the batteries are connected well, simply press

On/Off button(located on the left side of the case) to turn on the unit. When system without

battery connected, but connect with either PV or grid, and ON/OFF button is switched off, the touch screen

will still light up, In this condition, when switch on ON/OFF button and select NO battery, system can still

working.

3.2 Operation and Display Panel

The operation and display panel, shown in below chart, is on the front panel of the inverter.

It includes three indicators and a touch screen display, indicating the operating status

and input/output power information.

LED Indicator			Messages
AC/INV	GREEN	Light	Powered by AC
		Twinkle	Powered by DC
CHARGE	GREEN	Light	Full battery
		Twinkle	Charging
FAULT	RED	Light	Error
		Twinkle	Warning

LED indicators

4 Main Screen

4.1 Touch screen operation flow chart

```
Main Screen ─┬─ PV Page
             │
             ├─ Grid Page
             │
             ├─ Battery Page
             │
             ├─ Inverter Page
             │
             ├─ Generator Page
             │
             ├─ Load Page
             │
             ├─ Device Info
             │
             └─ Setting Menu ─┬─ Basic Settings
                              │
                              ├─ Operating Modes
                              │
                              ├─ Grid Settings
                              │
                              ├─ Generator Settings
                              │
                              ├─ Battery Settings
                              │
                              └─ Advanced Functions
```
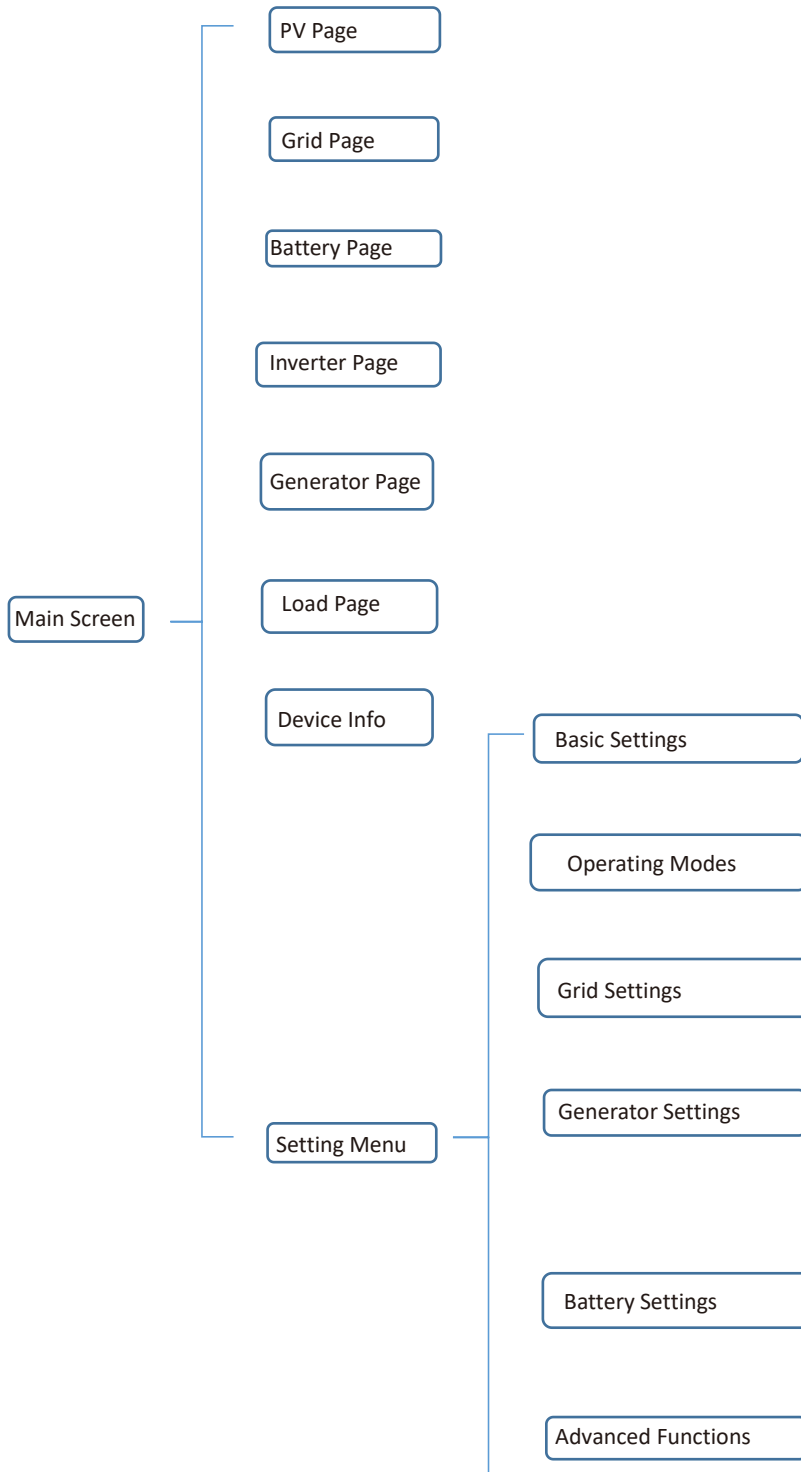
4.2 Main User Interface
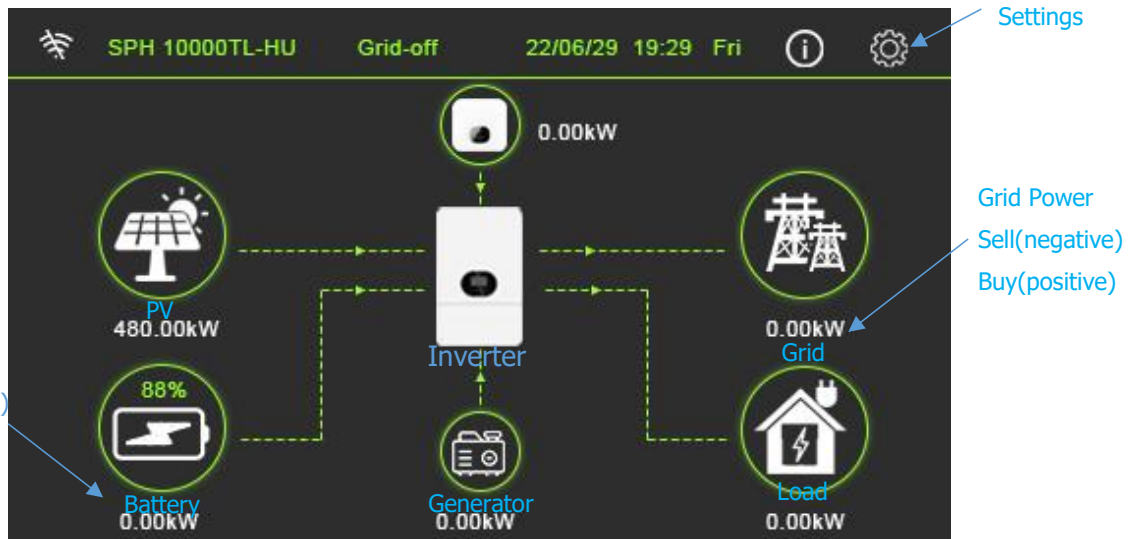
1.The icon in the center of the home screen indicates that the system is Normal operation. If it turns into "comm./F01~F64" , it means the inverter has communication errors or other errors, the error message will display under this icon(F01-F64 errors, detail error info can be viewed in the System Alarms menu).

2.At the top of the screen is the time.

3.System Setup Icon, Press this set button,you can enter into the system setup screen which including Basic Settings, Opearating Modes, Grid Settings, Generator Settings, Battery Settings, and Advanced functions.

4.The main screen showing the info including Solar, Grid, Load and Battery. Its also displaying the energy flow direction by arrow.

· PV power and Load power always keep positive.

· Grid power negative means sell to grid, positive means get from grid.

· Battery power negative means charge, positive means discharge.

PV Detail Page

PV					↰
Power	98W				
PV1-P	0W	PV2-P	0W	PV3-P	90W
PV1-V	1.5Vdc	PV2-V	0Vdc	PV3-V	194Vdc
PV1-I	0Adc	PV2-I	1Adc	PV3-I	0.5Adc
Today	15.8kWh	Total	15.8kWh		

1: Solar Panel Generation.

2: Power, Voltage, Current for each MPPT.

3: Solar panel energy for Day and Total.

Grid Detail Page

Grid				↰
Import From Grid	20W		49.98Hz	
L-V	117.2Vac			
CT	1W			
Grid Power L	20W			
Import From Grid	Today	14.4kWh	Total	14.4kWh
Export To Grid	Today	4.3kWh	Total	4.3kWh

1: Status, Power, Frequency.

2: L-V: Voltage

   CT: External Current Sensor Power,

   Grid Power L: Internal Current Sensor Power.

3: Solar panel import from grid for Day and Total,

   Solar panel export to grid for Day and Total.

Battery Detail Page

Li-BMS			
Mean Voltage	0Vdc	Charging Voltage	0Vdc
Total Current	0Adc	Discharging Voltage	42.5Vdc
Mean Temp	0℃	Charging Current	50Adc
Total SOC	0%	Discharging Current	50Adc
Dump Energy	100.9Ah		

We use Lithium Battery by default, if the battery you use is others or nobat, you can change the battery type in Battery Setting.

Inverter Detail Page

Inverter			
1 Power	11W	50Hz	
L-V	120.6Vac		
L-I	0.6Aac		
2 L-P	2W		
AC-Temp	25℃		
3 DC-Temp	25℃		

1: Inverter Generation Power and Frequency.

2: Voltage, Current, Power.

3: AC-Temp: Heat-sink temperature,

DC-Temp: DC-DC temperature.

Generator Detail Page

Generator		
L-P	0W	
L-V	6Vac	
Frequency	50Hz	
Total	0kWh	

1: Generator Power, Voltage and Frequency.

2: Generator exportation for Total.

Load Detail Page

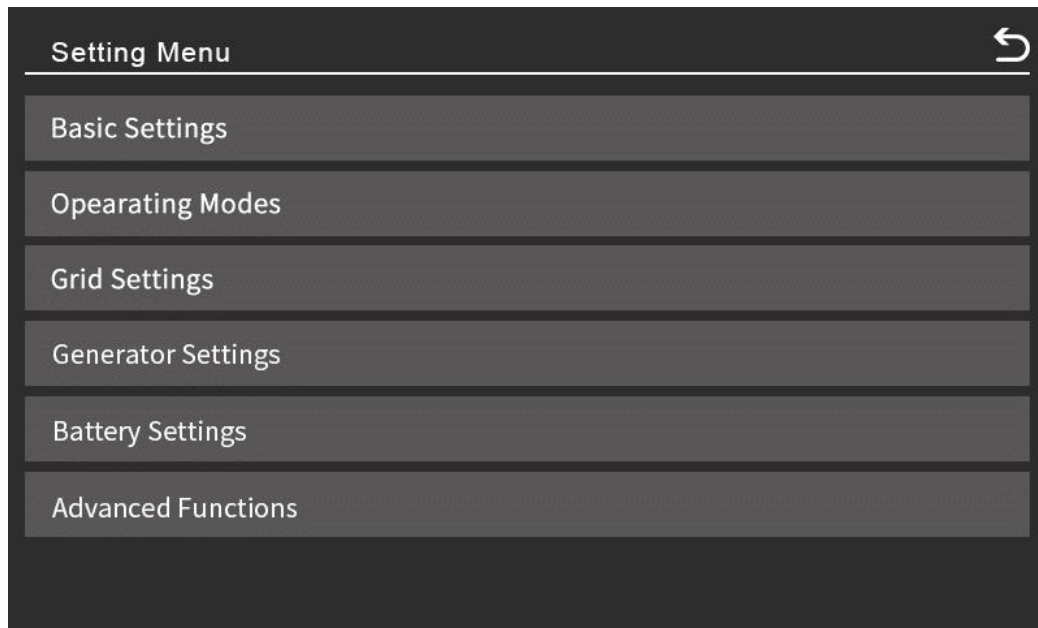| Load		
Power	16 W	
L-V	230 Vac	
L-P	5 W	
Total	10.0 kWh	

1: Load Power.

2: Voltage, Power.

3: Load consumption for Day and Total.

4.3 System Setup Menu

4.4 Basic Setup Menu
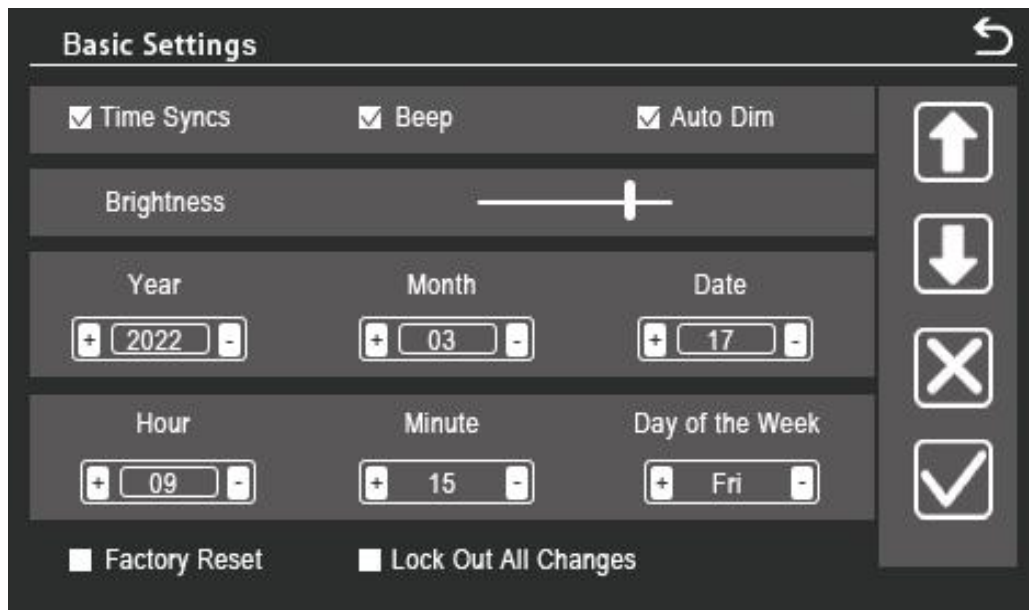
Factory Reset: Reset all parameters of the inverter.

Lock out all changes: Enable this menu for setting parameters that require locking and cannot be set up.

Before performing a successful factory reset and locking the systems, to keep all changes you need to type in a password to enable the setting.

The password for factory settings is **9999** and for lock out is **7777**.

4.5 Battery Setup Menu
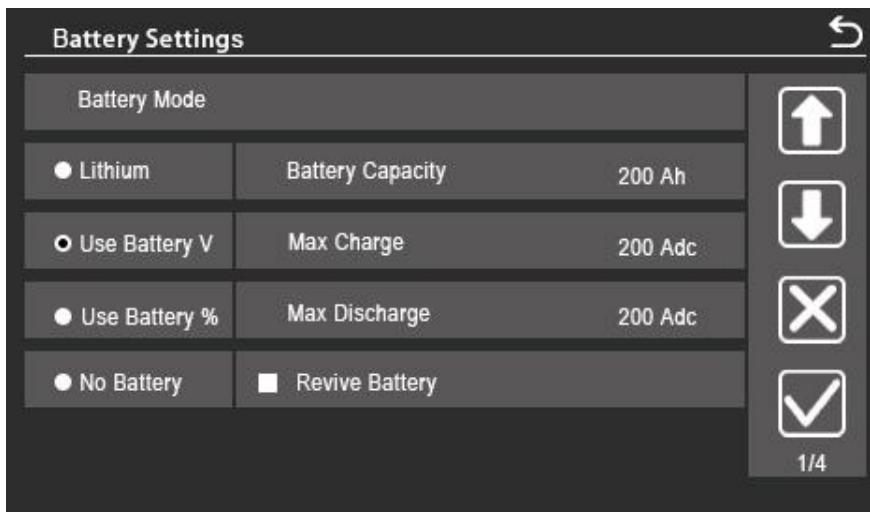
Battery capacity: Enter the size of the battery bank connected to the system.

Use Battery V: Displays battery charge in terms of voltage.

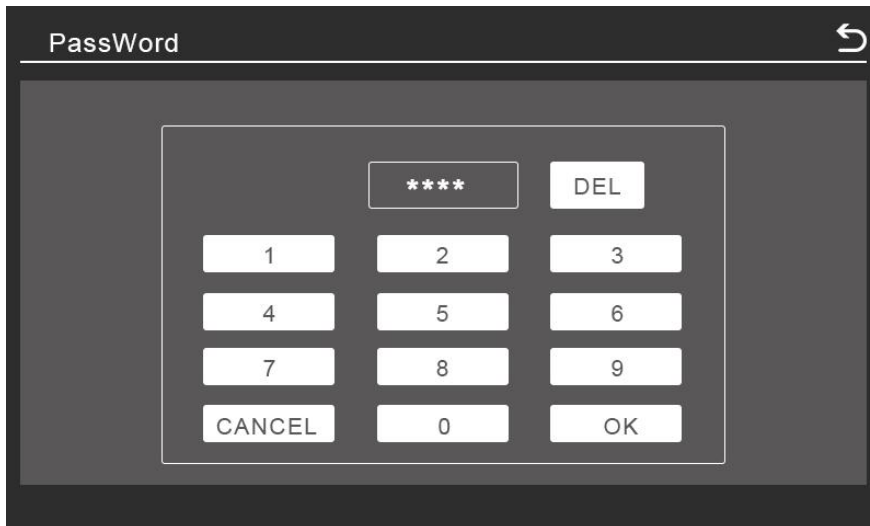**Use Battery %:** Use Battery SOC for all the settings (%).

Max A charge/discharge: Set the max charge/discharge rate for the batteries.

No Battery: Tick this item if no battery is connected to the system.

Active battery: This feature will help recover a battery that is over discharged by slowly charging from the solar array or grid.

Battery Settings (2/4)

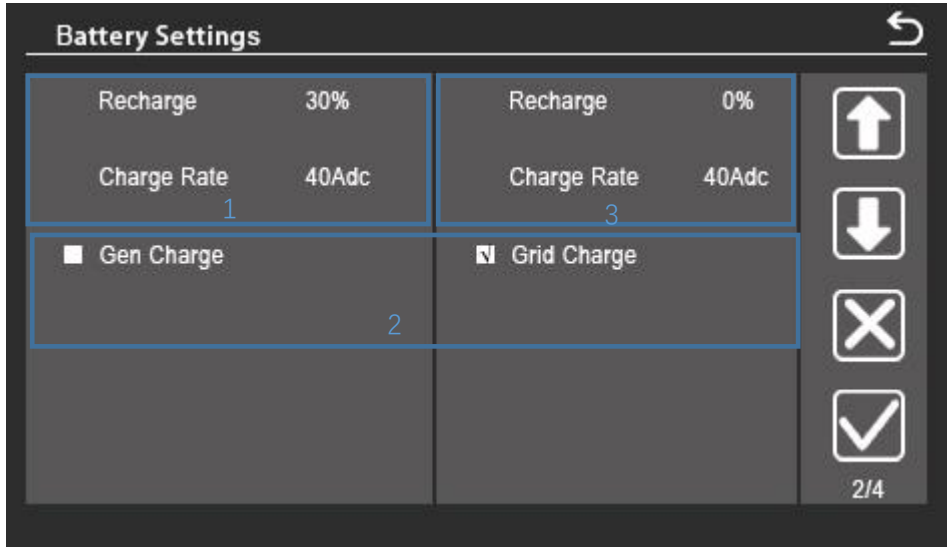1: **Recharge =30%:** System will automatically start a connected generator to charge the battery bank when SOC at 30%.

Charge Rate = 40A: The maximum generator charging current.

2:**Gen Charge:** Uses the generator input of the system to charge battery bank from an attached generator.

Grid Charge: Uses the grid input of the system to charge battery bank from an grid.

3:**Recharge =0%:** No use, just for customization.

Charge Rate = 40A: The maximum grid charging current.

Grid Charge: It indicates that the grid charges the battery.

Battery Settings (3/4)
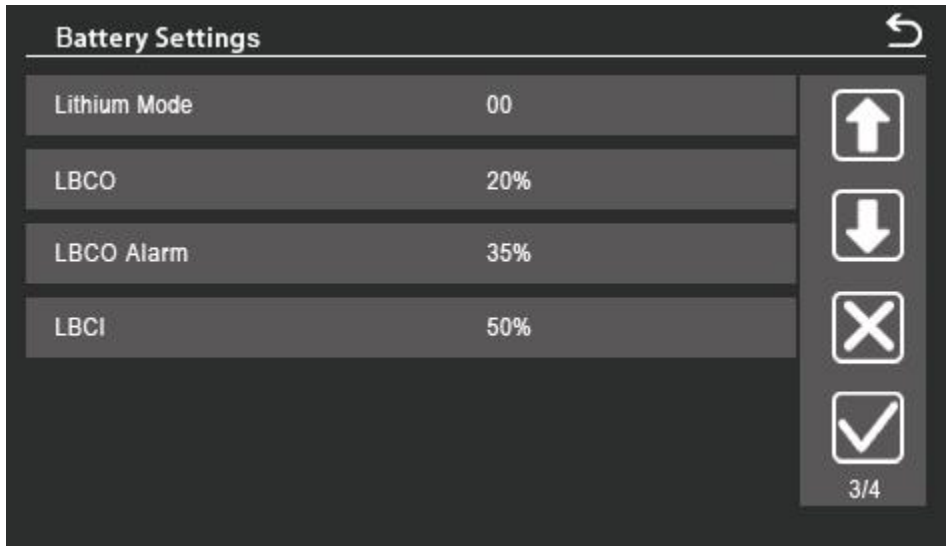
Lithium Mode: This is BMS protocol.

LBCO 20%: The inverter will shut down if the SOC below this value.

LBCO Alarm 35%: The inverter will alarm if the SOC below this value.

LBCI 50%: AC output will resume if Battery voltage at 50%.
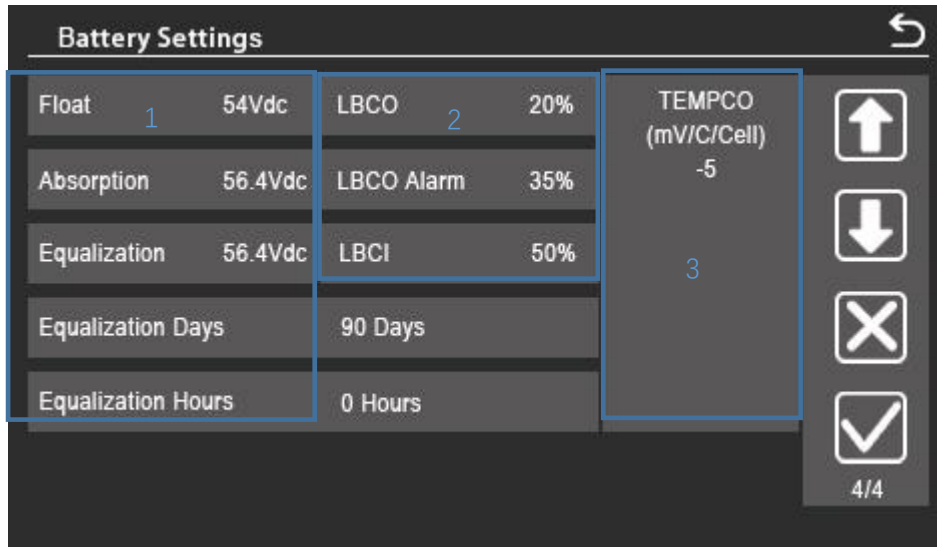
1: Float, Absorption, Equalization are three stages of charging the battery.

2:LBCO 20%: The inverter will shutdown if the SOC below this value.

LBCO Alarm 35%: The inverter will alarm if the SOC below this value.

LBCI 50%: Battery SOC at 50% AC output will resume.

3: This is for professional installers, you can keep it if you do not know.

Recommended battery settings:

Battery Type	Absorption	Float	Equalization
AGM(or PCC)	57.6V	53.6V	57.6V
Gel	56.4V	54.0V	
Wet	59.0V	55.0V	59.0V
Lithium	Follow its BMS voltage parameters		

4.6 System Work Mode Setup Menu
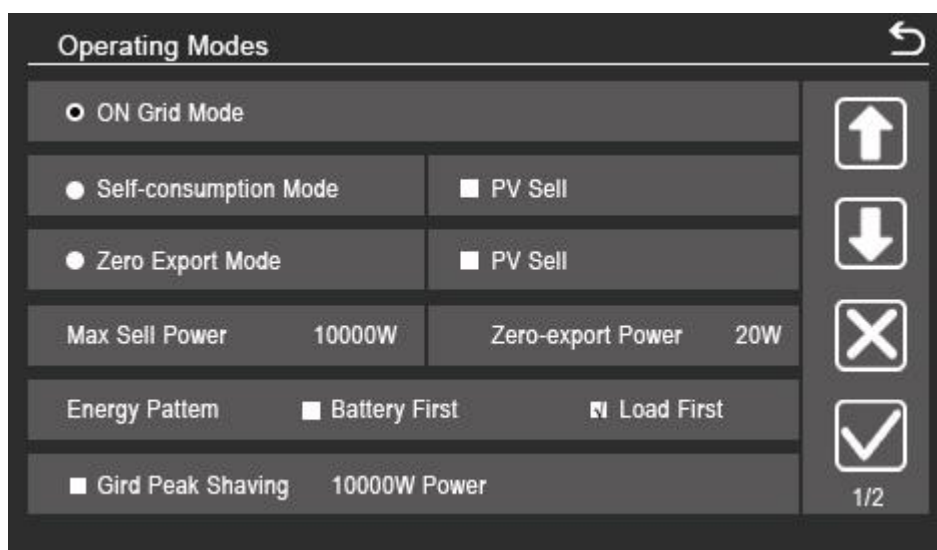
On Grid Mode: The inverter will sell any excess power produced by the solar panels back to the grid. If time of use is active, the battery energy can also be sold into grid.

The PV energy will be used to power the load and charge the battery and then excess energy will flow to grid.

Power source priority for the load is as follows:
1. Solar Panels.
2. Battery (The current battery voltage/SOC exceeds the set voltage/SOC).
3. Grid.

Self-consumption Mode: Hybrid inverter will only provide power to the backup load connected. The hybrid inverter will neither provide power to the home load nor sell power to grid.The built-in CT will detect power flowing back to the grid and will reduce the power of the inverter only to supply the locad and charge the battery.

Zero Export Mode: Hybrid inverter will not only provide power to the backup load connected but also give power to the home load connected. If PV power and battery power is insufficient, it will take grid energy as supplement. The hybrid inverter will not sell power to grid. In this mode, a CT is needed. The installation method of the CT please refer to chapter 2.6 CT Connection. The external CT will detect power flowing back to the grid and will reduce the power of the inverter only to supply the local load, charge battery and home load.

PV Sell: "PV sell" is for Self-Consumption Mode or Zero export Limit Mode: When this item is active, the surplus energy can be sold back to grid. When it is active, PV Power source priority usage is as follows: load consumption and charge battery and feed into grid.

Max sell power: Allowed the maximum output power to flow to grid.

Zero-export Power: for Self-Consumption Mode or Zero export Limit Mode, it tells the grid output power. Recommend to set it as 20-100W to ensure the hybrid inverter won' t feed power to grid.

Energy Pattem: PV Power source priority.

Battery First: PV power is firstly used to charge the battery and then used to power the load. If PV power is insufficient, grid will make supplement for battery and load simultaneously.

Load First: PV power is firstly used to power the load and then used to charge the battery. If PV power is insufficient, grid will make supplement for battery and load simultaneously.

Grid Peak Shaving: when it is active, grid output power will be limited within the set value. If the load power exceeds the allowed value, it will take PV energy and battery as supplement. If still can't meet the load requirement, grid power will increase to meet the load needs.
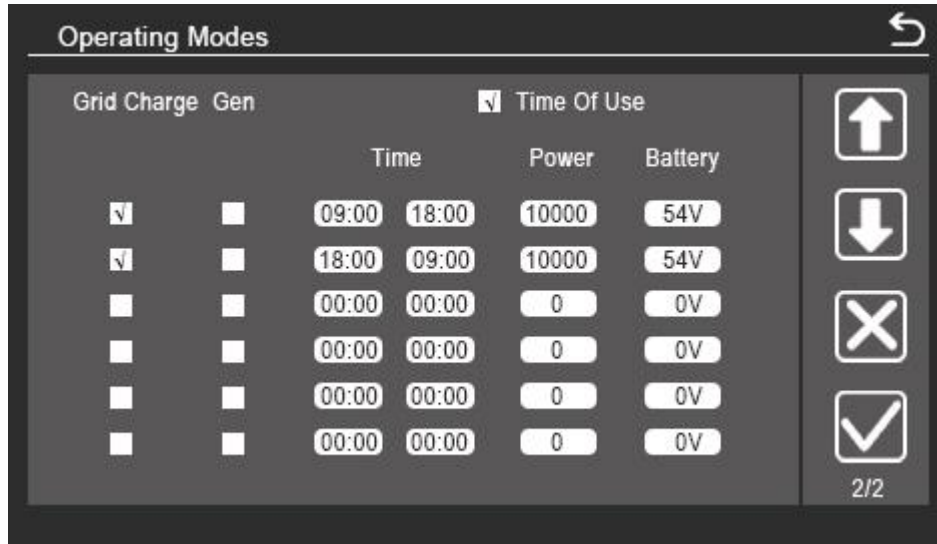
Time of use: it is used to program when to use grid or generator to charge the battery, and when to discharge the battery to power the load. Only tick "Time Of Use" then the follow items (Grid, charge, time, power etc.) will take effect.

Note: when in selling first mode and click time of use, the battery power can be sold into grid.

Grid charge: utilize grid to charge the battery in a time period.

Gen charge: utilize diesel generator to charge the battery in a time period.

Time: The time displayed on the inverter, range of 00:00-23:59.

Power: Max. discharge power of battery allowed.

Battery(V or SOC %): battery SOC % or voltage at when the action is to happen.
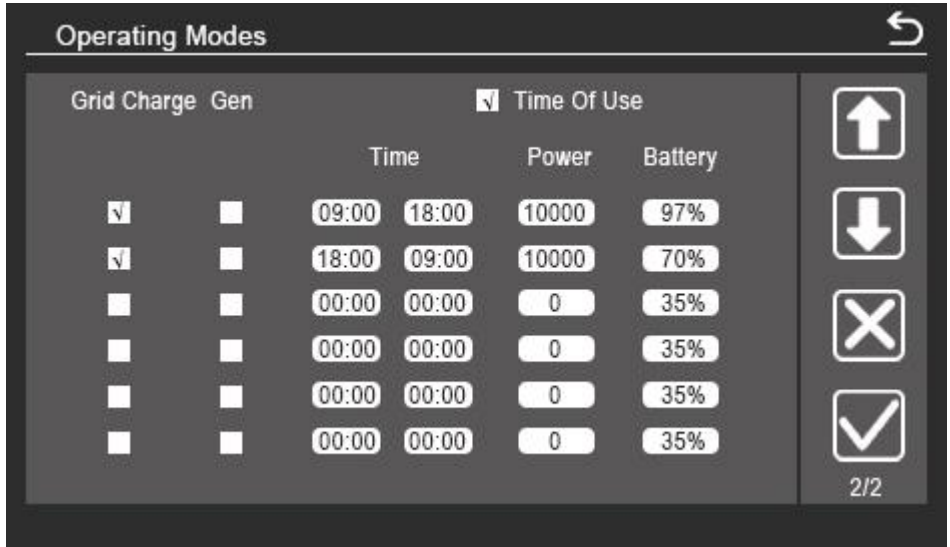
For example:

During 09:00-18:00,when battery SOC is lower than 97%,it will use grid to charge the battery until battery SOC reaches 97%.

During 18:00-09:00,when battery SOC is higher than 70%,hybrid inverter will discharge the battery until the SOC reaches 70%.

4.7 Grid Setup Menu
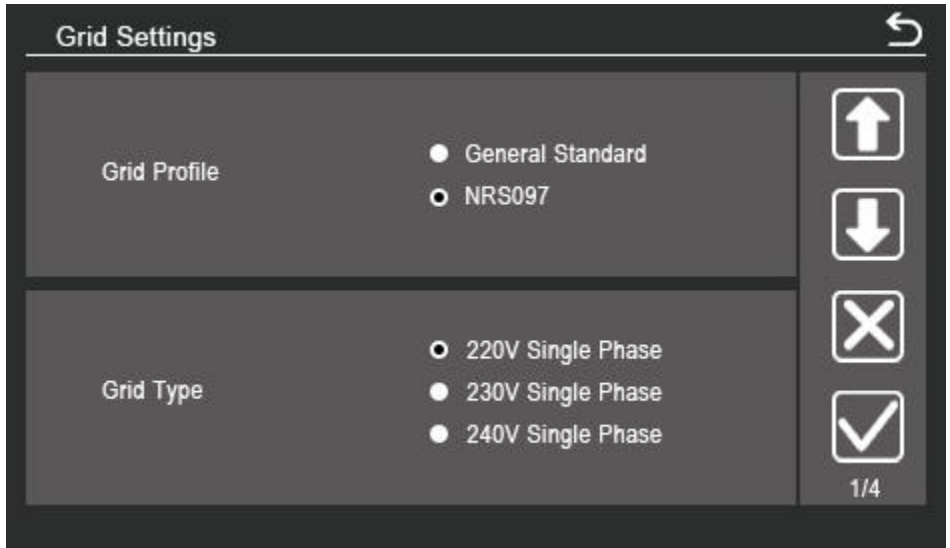
Please select the correct Grid Mode in your local area. If you are not sure, please choose General Standard.

Please select the correct Grid Type in your local area, otherwise the machine will not work or be damaged.

23

Grid Settings

Grid Frequency	○ 50Hz	● 60Hz	
Reconnection Time	60s	PF 1.000	
Enter Service Frequency	High 50.50 Hz	Low 47.00 Hz	
Enter Service Voltage	High 253.0 Vac	Low 195.5 Vac	
Grid Frequency Range	High 51.00 Hz	Low 48.00 Hz	
Grid Voltage Range	High 253 Vac	Low 195.5 Vac	2/4
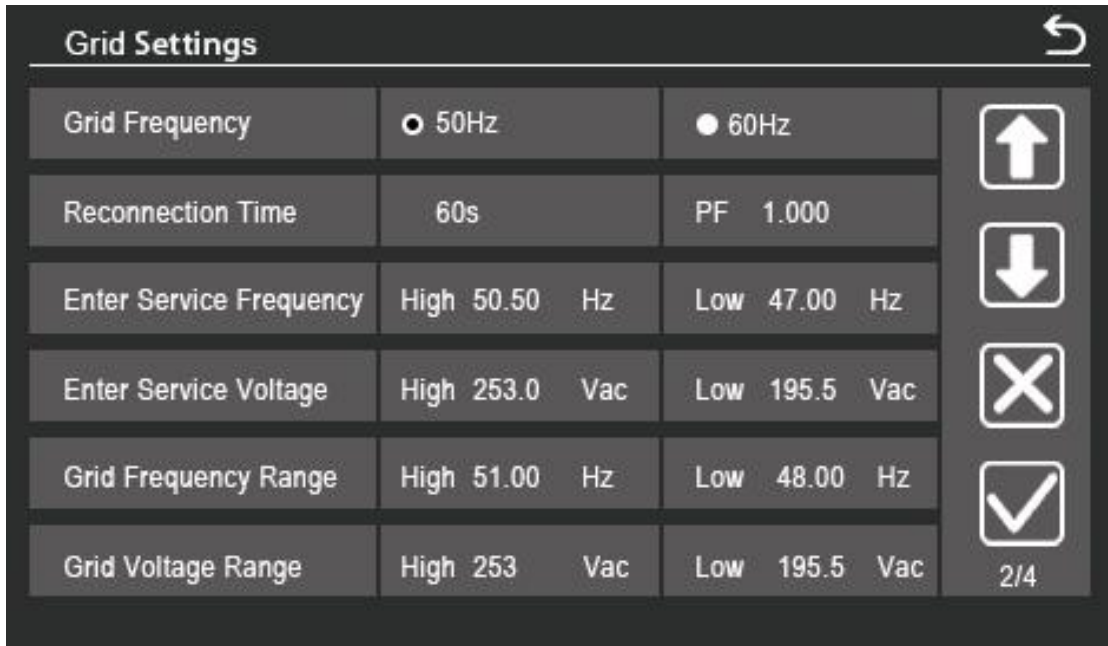
NRS097:

No need to set the function of this interface.

General Standard:

Please select the correct Grid Frequency in your local area.

You can hole this in default value.

Enter Service Frequency/Voltage: Grid-connected frequency/voltage range

Grid Frequency/Voltage Range: Grid-connected protection frequency/voltage range

For NRS097.
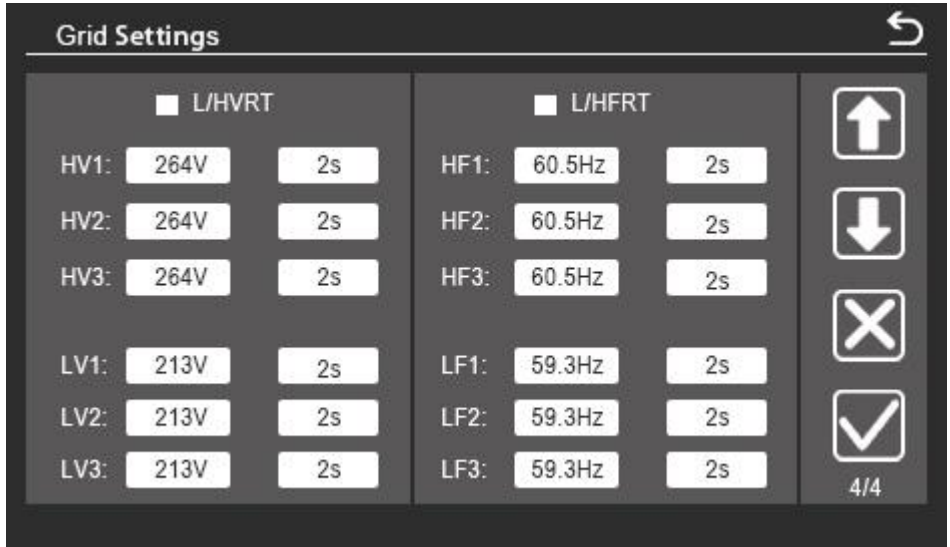
For NRS097.

4.8 Generator Port Use Setup Menu
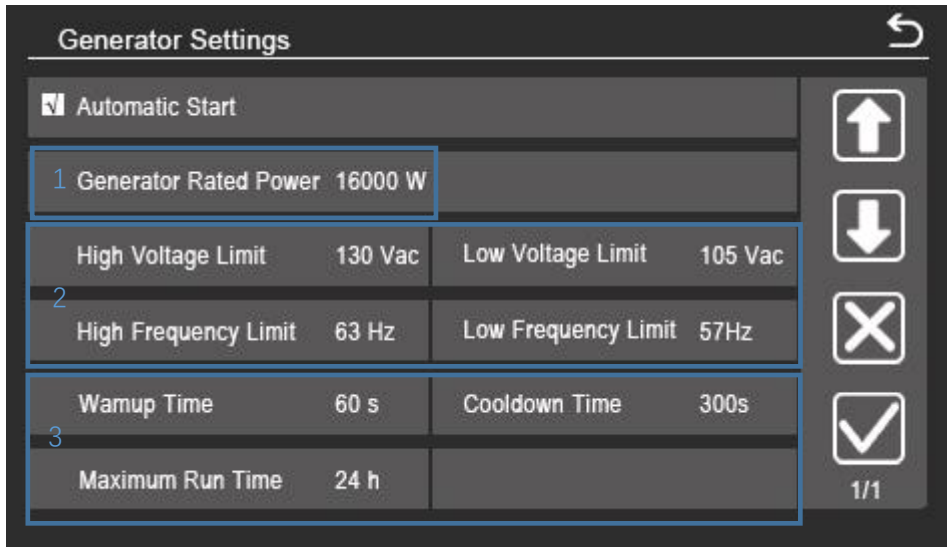
1.Generator Rated Power: allowed maximum power from diesel generator.

2.Voltage,Frequency range

3.Generator warm-up, cooling and maximum working time

4.9 Advanced Functions
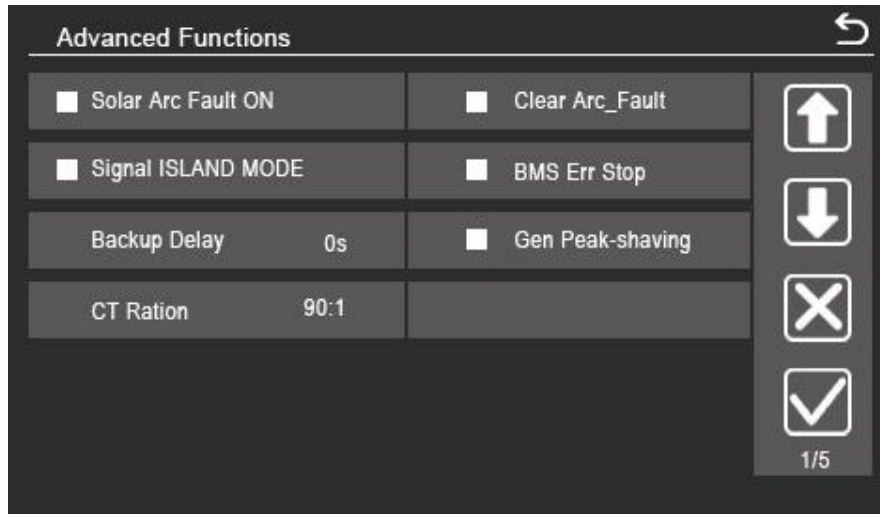
Solar Arc Fault ON: This is only for US.

Gen Peak-shaving: Enable When the power of the generator exceeds the rated value of it, the inverter will provide the redundant part to ensure that the generatorwill not overload.

Backup Delay: Reserved

BMS Err Stop: When it is active, if the battery BMS failed to communicate with inverter, the inverter will stop working and report fault.

Signal ISLAND MODE: when the inverter connects grid,the ATS port will output 230Vac and it is used to cuts off Earth-Neutral(load port N line) bond via connect external relay. When the inverter disconnects from the grid, ATS port voltage will be 0 and the Earth-Neutral bond keeps on. More details, please refer to above picture.
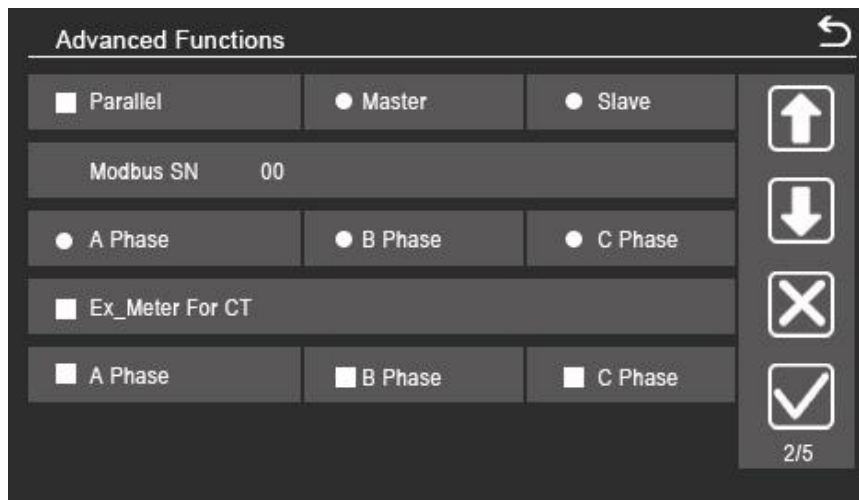
Ex_Meter For CT:when in Three phase system with CHNT Three phase energy meter (DTSU666), click corresponding phase where hybrid inverter is connected. e.g. when the hybrid inverter output connects to A phase, please click A Phase

4.10 Device Info Setup Menu
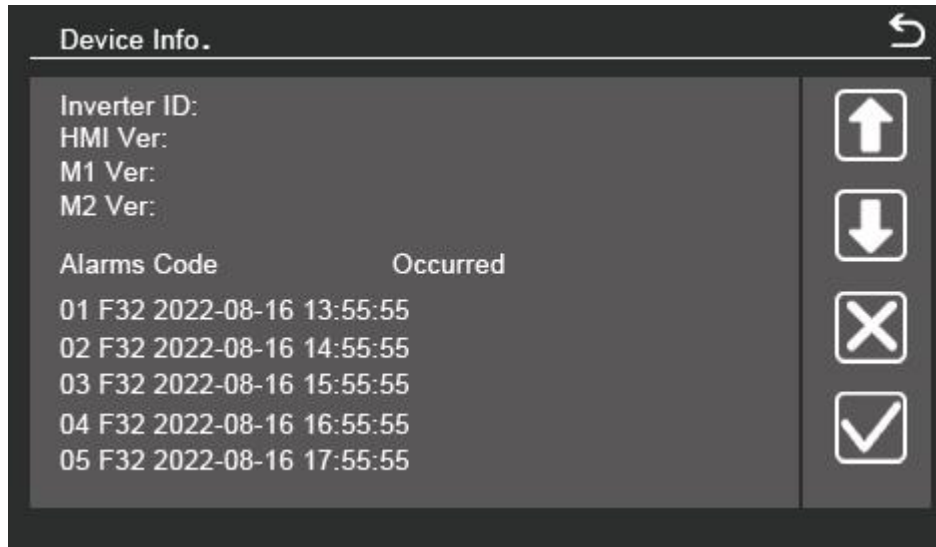
This page show Inverter ID, Inverter version and alarm codes.

HMI/M1/M2 Ver: Control board FW version

5 Fault information and processing

The energy storage inverter is designed according to the grid-connected operation standard and meets the safety requirements and electromagnetic compatibility requirements. Before leaving the factory, the inverter undergoes several rigorous tests to ensure that the inverter can operate reliably.

If any of the fault messages listed in table below appear on your inverter and the fault has not been removed after restarting, please contact your local dealer or service center. You need to have the following information ready.

1. Inverter serial number;

2. Distributor or service center of the inverter ;

3. On-grid power generation date;

4. The problem description (including the fault code and indicator status displayed on the LCD) is as detailed as possible.

5. Your contact information. In order to give you a clearer understanding of the inverter's fault information, we will list all possible fault codes and their descriptions when the inverter is not working properly.

Error Code	Description	Solutions
F18	Inverter over current fault	AC side over current fault 1. Please check whether the backup load power and common load power are within the range; 2. Restart and check whether it is in normal; 3. Seek help from us, if can not go back to normal state
F22	Output overload fault	1. Check the backup load connected, make sure it is in allowed power range; 2. If the fault still exists, please contact us for help
F23	Output over current fault	1. Check the backup load connected, make sure it is in allowed power range; 2. If the fault still exists, please contact us for help
F26	AC leakage current is transient over current	Leakage current fault 1. Check PV side cable ground connection. 2. Restart the system 2~3 times. 3. If the fault still exists, please contact us for help.
F27	GFCI fault	1. When inverter is in Split phase(120Vac) the backup load port N line needs to connect ground; 2. If the fault still exists, please contact us for help.
F33	PV over current fault	
F35	BUS voltage unbalance fault	1. Please wait for a while and check whether it is normal; 2. When the hybrid in split phase mode, and the load of L1 and load of L2 is big different, it will report the F26. 3. Restart the system 2~3 times. 4. Seek help from us, if can not go back to normal state
F37	Battery charging current over fault	1. Check PV module connect and battery connect; 2. When in the off-grid mode, the inverter startup with big power load, it may report F37. Please reduce the load power connected; 3. Turn off the DC switch and AC switch and then wait 1 minute,then turn on the DC/AC switch again; 4. Seek help from us, if can not go back to normal state.
F38	Battery discharging current over fault	1. Check the backup load connected, make sure it is in allowed power range; 2. If the fault still exists, please contact us for help.
F40	PV over voltage fault	1. Check whether the PV voltage is too high 2. If the fault still exists, please contact us for help.

F41	Heat sink high temperature failure	Heat sink temperature is too high 1. Check whether the work environment temperature is too high; 2. Turn off the inverter for 10mins and restart; 3. Seek help from us, if can not go back to normal state.
F42	Transformer high temperature failure	1. Check whether the work environment temperature is too high; 2. Turn off the inverter for 10mins and restart; 3. Seek help from us, if can not go back to normal state.
F44	AFCI self-check fault	1.Check whether wires is broken 2.If the fault still exists, please contact us for help.
F51	M3_BMS connect fault	1. It tells the communication between hybrid inverter and battery 2. If the fault still exists, please contact us for help.
F54	CAN fault	1. When in parallel mode, check the parallel communication cable connection and hybrid inverter communication address setting; 2. During the parallel system startup period, inverters will report F54.when all inverters are in ON status, it will disappear automatically; 3. If the fault still exists, please contact us for help.
Warning Code	Description	Solutions
W01	Fan lock warning	1. Check for objects stuck on the fan blades 2. If the warn still exists, please contact us for help.
W02	Meter connect warning	1.Check whether the instrument connection is correct 2. If the warn still exists, please contact us for help.
W05	Different input grid	1.Check whether the grid connection is correct 2.If the warn still exists, please contact us for help.
W69	Battery energy is too low	1. Please charge for 10 minutes before inverter 2. If the warn still exists, please contact us for help
W81	PV energy is too low	1. Check whether the PV voltage is too low 2. If the warn still exists, please contact us for help
W82	Battery voltage is too low	1. Check if the battery voltage is too low 2. If the warn still exists, please contact us for help

Under the guidance of our company, customers return our products so that our company can provide service of maintenance or replacement of products of the same value. Customers need to pay the necessary freight and other related costs. Any replacement or repair of the product will cover the remaining warranty period of the product. If any part of the product or product is replaced by the company itself during the warranty period, all rights and interests of the replacement product or component belong to the company.

Factory warranty does not include damage due to the following reasons:

· Damage during transportation of equipment;

· Damage caused by incorrect installation or commissioning;

· Damage caused by failure to comply with operation instructions, installation instructions or maintenance instructions;

· Damage caused by attempts to modify, alter or repair products;

· Damage caused by incorrect use or operation;

· Damage caused by insufficient ventilation of equipment;

· Damage caused by failure to comply with applicable safety standards or regulations;

· Damage caused by natural disasters or force majeure (e.g. floods, lightning, overvoltage, storms,fires, etc.)

In addition, normal wear or any other failure will not affect the basic operation of the product.

Any external scratches, stains or natural mechanical wear does not represent a defect in the product.

In addition to the product warranty described above, the state and local laws and regulations provide financial compensation for the product's power connection (including violation of implied terms and warranties). The company hereby declares that the terms and conditions of the product and the policy cannot and can only legally exclude all liability within a limited scope.

6 Datasheet

Model	SUNXT-4810KP1-EU
Battery Input Data	
Battery Type	Lead-acid or Li-lon
Battery Voltage Range(V)	40-60V
Max. Charging Current(A)	200A
Max. Discharging Current(A)	200A
Charging cure	3 Stages / Equalizaton
External Temperature Sensor	Optonal
Charging Strategy for Lithium Battery	Self-adapton to BMS
PV String Input Data	
Max. DC Input Power(W)	15000W
PV Input Voltage(V)	370V(130V-525V)
MPPT Range(V)	150V-450V
Start-up Voltage(V)	130V
PV Input Current(A)	22A+22A+22A
No. of MPPT Trackers	3
AC Output Data	
Rated AC Output and UPS Power(W)	10000W
Max. AC Output Power(W)	11000W
Peak Power(grid off)	1.5 tmes of rated power, 10 S
AC Output Rated Current(A)	43.5A
Max. AC Current(A)	50A
Max. Continuous AC Passthrough(A)	50A
Power Factor	0.8 leading to 0.8 lagging
Output Frequency and Voltage	50 / 60Hz; 230Vac (single phase)
Grid Type	Single Phase
Current Harmonic Distortion	THD<3% (Linear load<1.5%)
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	99.90%
Protection	
PV Arc Fault Detection	Integrated
PV Input Lightning Protection	Integrated
Anti-islanding Protection	Integrated
PV String Input Reverse Polarity Protection	Integrated
Insulation Resistor Detection	Integrated
Residual Current Monitoring Unit	Integrated
Output Over Current Protection	Integrated
Surge Protection	Integrated
Model	

Certifications and Standards	
Grid Regulation	NRS097
Safety Regulation	IEC62109-1, IEC62109-2
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B
General Data	
Operating Temperature Range(°C)	-25~60°C , >45°C Derating
Cooling	Smart cooling
Noise(dB)	<30 dB
Communication with BMS	RS485; CAN
Weight(kg)	44
Size(mm)	902H*440W*254D
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years