User Manual

LOW-VOLTAGE SINGLE-PHASE HYBRID INVERTER

HYX-H6K-LS
HYX-H8K-LS
HYX-H10K-LS



Carefully read this user manual before using the product.
Read and save these instructions.

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1 Foreword

This document mainly introduces the product information, installation and wiring, configuration and testing, troubleshooting and maintenance of the inverter. Please read this manual carefully to understand the product safety information and familiarize yourself with the product's functions and features before installing and using the product. This document may be updated irregularly, please download the latest version of the document and find more product information on the official website (https://www.hyxipower.com)

1.1 Applicable Products

Disclaimer clause

Dear users, first of all, thank you for purchasing this product. Before you open the package and officially use this product, in order to do our best responsibility, we kindly ask you to read the following statement first:

Any user should read this statement carefully before using this product, and once used, is deemed to recognize and accept the entire contents of this statement. Please strictly follow the manual to install and use the product. In view of the fact that the company has no control over the user's future specific use, re-installation, re-modification, and other possible misuse, etc., our company will not be liable for corresponding losses or compensation for any damages or damages caused by the above reasons.

Copyright statement

This document cannot be copied fully or partially, transferred, or distributed in any form without the prior written permission of ZHEJIANG HYXI TECHNOLOGY CO., LTD (hereinafter referred to as ("HYXI"). Please visit our website (https://www.hyxipower.com) for the latest version.

This document applies to the following models:

HYX-H6K-LS	6.0kW
HYX-H8K-LS	8.0kW
HYX-H10K-LS	10.0kW

1.2 Applicable Personnel

This manual applies to professional electrical technicians responsible for the installation and commissioning of inverters for mixed photovoltaic and battery systems. Professional electrical technicians should be familiar with local codes, standards and electrical systems, and be trained and knowledgeable about this product before operating the equipment.

1.3 Symbol Definition

For better use of this manual, the following symbols have been used to highlight important information, so please read the symbols and descriptions carefully.

Symbolization	Definition	Description
DANGER	Danger	Indicates a situation with a high potential hazard that could result in death or serious injury if not avoided.
WARNING	Warning	Indicates a situation with a moderate potential hazard that could result in death or serious injury if not avoided.
CAUTION	Caution	Indicates a situation with a low potential hazard that could result in moderate or minor injury to personnel if not avoided
ATTENTION	Attention	Highlighting and supplementing content may also provide tips or tricks to optimize the use of a product, help you solve a problem, or save you time.

2 Safety Precautions

The safety precautionary information contained in this document must always be observed when operating the equipment.

ATTENTION

The inverter has been designed and tested in accordance with strict safety regulations. However, as electrical equipment, it is important to follow the relevant safety instructions before carrying out any operation on the equipment, as improper operation may result in serious injury or property damage.

2.1 Generic Safety

ATTENTION

- The content of this document may be updated from time to time due to product version upgrades or other reasons, and does not replace the safety precautions on the product label or in the user's manual, unless otherwise agreed. All descriptions in this document are intended as a guide to use only.
- Please read this document carefully to understand the product and precautions before installing the equipment.
- All operations of the equipment must be carried out by professional, qualified electrical technicians who are familiar with the relevant standards and safety codes of the project site.
- When operating the inverter, use insulated tools and wear personal protective equipment to ensure personal safety. Wear electrostatic gloves, electrostatic bracelets, and anti-static clothing to protect the inverter from electrostatic damage.
- Damage to equipment or injury to personnel caused by failure to install, use, or configure the inverter in accordance with the document is not the responsibility of the equipment manufacturer. More information on product warranty is available through the official website.

2.2 PV String Safety

⚠ DANGER

- PV wiring must have a disconnect device, which is required to be disconnected before connecting to the inverter.
- Ensure that the module bezel and support system are well grounded.
- After connecting the DC cables, make sure that the cable connections are tight and not loose.
- Use a multimeter to measure the positive and negative terminals of the DC cables to ensure that the positive and negative terminals are correct and not reversed; and that the voltage is within the allowable range.
- Do not connect the same PV string to more than one inverter as this may cause damage to the inverter.
- PV modules used in conjunction with the inverter must comply with IEC61730 Class A.

2.3 Inverter Safety

⚠ WARNING

● It is recommended to add protection devices such as breakers or fuses on the AC side of the inverter, and the specification of the protection devices should be greater than 1.25 times of the rated current of the AC output of the inverter.

● It is recommended to add protection devices such as breakers or fuses on the PV side of the inverter, and the specification of the protection devices should be greater than 1.25 times of the rated current of the PV input of the inverter.

● The protective ground of the inverter must be firmly connected, and in the case of multiple inverters, make sure that the protective ground points of all inverter chassis enclosures are equipotential connected.

● It is recommended to install DC switch for isolation on the PV side of the inverter. The rated insulation voltage of the isolating switch shall not be lower than the maximum open-circuit voltage of the PV string, and the rated operating current shall not be less than 1.25 times of maximum operating current of the PV input of inverter.

● It is not recommended to use a LOAD port to connect the BACK-UP load if PV systems are not configured with batteries. The resulting risk of system power usage will be beyond the equipment manufacturer's warranty.

⚠ DANGER

● After the inverter is installed, the labels and warning signs on the case must be clearly visible, and obscuring, altering, or damaging them is prohibited.

● The markings on the inverter case are as follows:

	High voltage hazard. The inverter operates at a high voltage, so make sure the inverter is disconnected from the power supply when operating the inverter.
	Delayed discharge. Once the equipment is powered down, wait 5 minutes until the equipment is fully discharged.
	Before operating the equipment, read the product manual carefully.
	The equipment is potentially hazardous when operated. Please take protective measures during operation.
	The surface of the inverter is hot and should not be touched during operation as this may cause burns.
	Do not dispose of the equipment as household garbage. Dispose of the equipment according to local laws and regulations, or send it back to the equipment manufacturer.
	Protective ground wire connection point.

2.4 Battery Safety

⚠ WARNING

● Batteries used with the inverter need to be approved by the inverter manufacturer, and a list of approved batteries is available through the official website.

● Before installing the equipment, please read the corresponding user's manual of the battery carefully to understand the product and precautions, and please operate strictly according to the requirements of the user's manual of the battery.

● If the battery has been fully discharged, please charge the battery in strict accordance with the user's manual for the corresponding model.

● Battery current may be affected by a number of factors, such as: temperature, humidity, weather conditions, etc., which may result in current limitation and affect the load carrying capacity.

● If the battery cannot start, contact an after-sales service center as soon as possible. Otherwise, the battery may be permanently damaged.

● Use a multimeter to measure the positive and negative terminals of the DC cable to ensure that the positive and negative terminals are correct; and that the voltage is within the allowable range.

● An externally mounted breaker is required when the battery is connected to the inverter. (Circuit breakers need to meet IEC 60947-1 and IEC 60947-2 certification)

2.5 Personnel Requirements

ATTENTION

● Personnel responsible for installing and maintaining the equipment must first undergo rigorous training to understand the various safety precautions and master the correct operating methods.

● Installation, operation, maintenance, and replacement of equipment or parts are permitted only by qualified professionals or trained personnel.

3 Profile of Product

3.1 Product Introduction

Functional overview:

The low-voltage single-phase hybrid inverters developed by ZHEJIANG HYXI TECHNOLOGY CO., LTD. use advanced control algorithms to implement an integrated energy management system in the photovoltaic and energy storage systems to control and optimize the energy flow. During the day, the power generated in the PV system is used by the loads, with excess energy stored in the batteries. At night, when there is no solar energy, the energy stored in the batteries can be discharged to the loads. The low-voltage single-phase hybrid inverter has LCD local monitoring and EMS system remote scheduling functions, with excellent load adaptability and grid adaptability. Meanwhile, the good hardware design makes it effective to deal with a variety of complex application environments, and the system operation is safer, more reliable, more economical, and more adaptable to the environment.

3.2 Functional Features

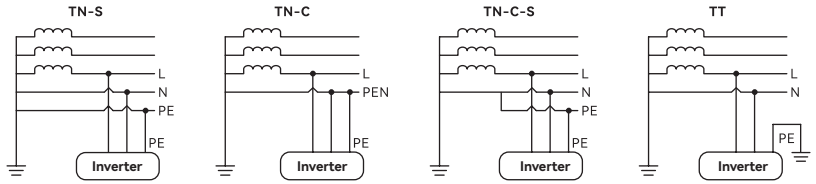
Low-voltage single-phase hybrid inverters are suitable for residential and small commercial and industrial PV energy storage systems, with the following main product features:

- Pure sine wave inverter
- MPPT ranges 60V~450V, 500Voc
- Dual MPPT tracker inside(18A*2)
- High frequency inverter with small size and light weight
- Compatible to utility mains or generator power
- Supports lead acid battery and li-ion battery connections
- Communication:Dry-Contact/CAN/RS485
- Work with or without battery
- Parallel operation up to 6 units
- Dual AC outputs, for intelligent of management load
- AC/PV can activate lithium batteries
- Cold start function
- Auto restart while AC is recovering
- Configurable input voltage ranges for home appliances and personal computers via LCD control panel
- Smart battery charger design for optimized battery performance all-round protection with complete short circuit protection,overload protection,over current protection, over under voltage protection, over temperature protection,etc.
- Supports three different voltage levels of 220/230/240Vac
- Combined with solar energy, AC power and battery power, it provides users with an uninterruptible power supply experience
- Wi-Fi remote monitoring

Support grid forms:

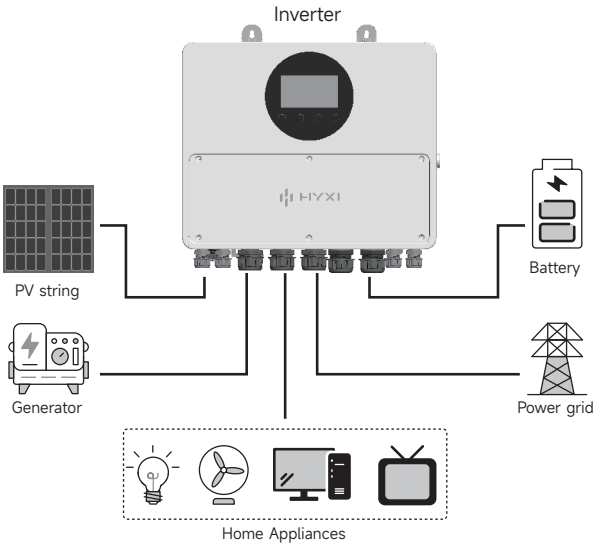
It is categorized by the neutral point grounding mode of power transformers and the grounding mode of the shell or conductive part of the electrical equipment, and this inverter product supports the following grid forms including TN-S, TN-C, TN-C-S, TT, etc.

For grid forms with N wires, the N-to-ground (PE) voltage needs to be less than 10 V.



3.3 Application Scenarios (Basic System Architecture)

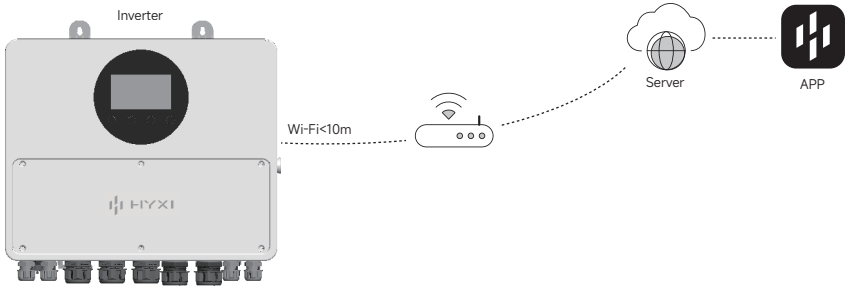
The following illustration shows basic application for this unit. It also required the following devices to have a complete running system:



3.4 Communication

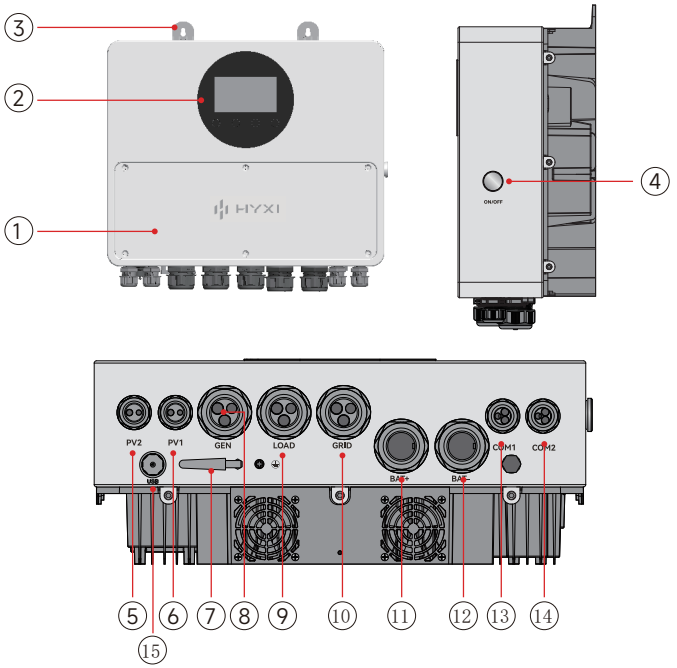
The inverter supports to be set up locally via Wi-Fi; it can be connected to the cloud via Wi-Fi to monitor the operating status of the inverter and the operation of the power plant.

- Wi-Fi: Support 2.4G band, need to set the router to 2.4G.
- Wi-Fi signal strength is supported to be viewed via AlpsCloud App. When the signal strength is less than -60dB, it is recommended to move the router closer to the equipment or move away from the signal blocker to improve the signal strength.
- Support dry contact communication .
- Support RS485 contact communication for host computer.
- BMS communication supports CAN/RS485 communication.



3.5 Product Overview

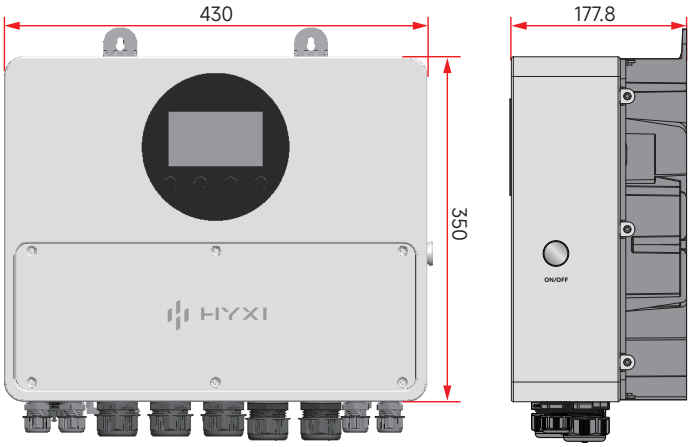
3.5.1 Appearance Description



①	Terminal Cover	⑨	LOAD Terminals
②	LCD Display	⑩	GRID Terminals
③	Wall Bracket	⑪	Battery (+) Terminal
④	Power ON/OFF Switch	⑫	Battery (-) Terminal
⑤	PV2 Terminals	⑬	COM1 Port (Parallel Port)
⑥	PV1 Terminals	⑭	COM2 Port (Dry Contact, CT, BMS Port)
⑦	Antenna	⑮	USB Port
⑧	Generator Terminals		

3.5.2 Dimension

Product size (W × H × D): 430 × 350 × 177.8 (mm)



4 Inspection and Storage

4.1 Check Before Signing

Before signing for the product, please check the following in detail:

1. Check the outer packaging for damage, such as deformation, openings, cracks or other signs that may cause damage to the equipment inside the box, and if there is any damage, do not open the packaging and contact your dealer.

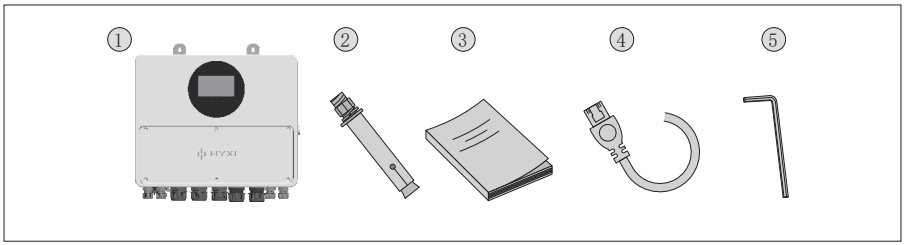
2. Check that the inverter model number is correct. If there is any discrepancy, do not open the packaging and contact your dealer.

3. Check whether the delivery type and quantity are correct, and whether there is any damage to the appearance. If there is any damage, please contact your dealer.

4.2 Deliverables

WARNING

When making electrical connections, use the wiring terminals shipped with the box. Damage to the equipment caused by the use of incompatible connectors is not covered by the warranty.



①	Inverter ×1	④	Parallel network cable ×1
②	Expansion Anchor M6×60 ×2	⑤	L-type Hexagon wrench ×1
③	Quick start ×1		

4.3 Equipment Storage

If the inverter is not to be put into service immediately, store it according to the following requirements:

1. Ensure that the outer carton has not been removed and that the desiccant in the carton has not been lost.

2. Ensure that the storage environment is clean, has an appropriate temperature and humidity range, and is free of condensation.

3. Ensure that the inverters are stacked at a height and in an orientation that is in accordance with the labeling instructions on the cases.

4. Ensure that there is no risk of dumping of inverters after stacking.

5. After long-term storage, the inverter should be inspected and confirmed by professional personnel before further use.

5 Installation

5.1 Installation Requirements

- Installation Environmental Requirements

1. The equipment must not be installed in flammable, explosive or corrosive environments.

2. Installation position should be out of the reach of children and avoid installing in a location that is easy to touch. High temperatures may exist on the surface of the equipment during operation to prevent burns.

3. Please avoid water pipes and cables in the wall at the installation location to avoid danger when drilling.

4. The installation space should meet the requirements of equipment ventilation and heat dissipation and operation space.

5. The protection level of the equipment meets the indoor installation, and the temperature and humidity of the installation environment should be within the suitable range.

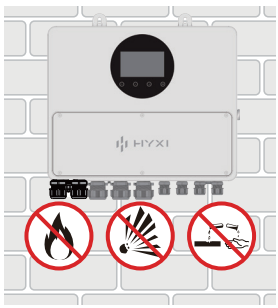
6. The equipment should be installed at a height that facilitates operation and maintenance, ensuring that the equipment indicator lights and all labels are easy to see and the terminals are easy to operate.

7. The inverter should be installed at an altitude lower than the maximum working altitude of 3000m.

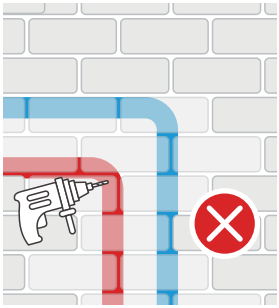
8. Keep away from strong magnetic field environment to avoid electromagnetic interference. If there is a radio station or wireless communication equipment below 30MHz near the installation location, install the equipment according to the following requirements:

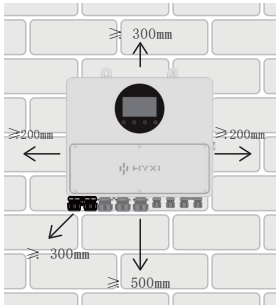
• Add ferrite cores with multi-turn windings at the DC/AC input/ output lines of the inverter, or add low-pass EMI filters.

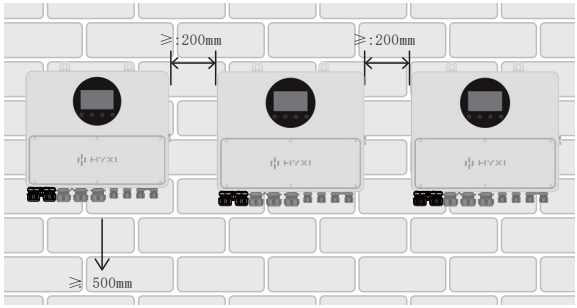
• The distance between the inverter and the wireless electromagnetic interference equipment should be more than 30m.

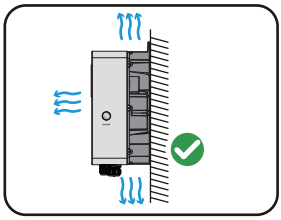


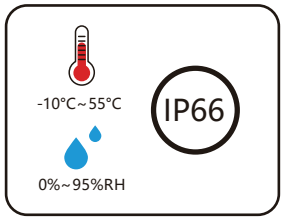


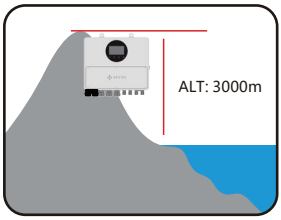












● Installation carrier requirements

• The installation carrier must not be flammable and must be fire resistant.

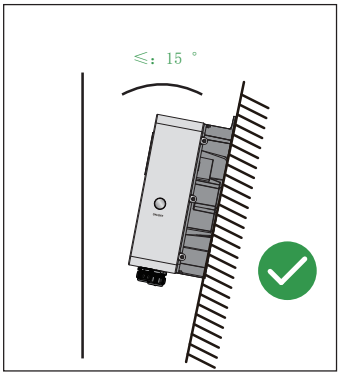
• Make sure that the installation carrier is sturdy and reliable to carry the weight of the inverter.

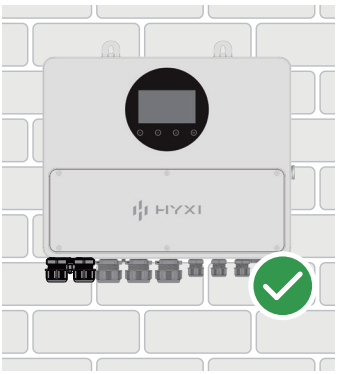
• The equipment will vibrate during operation, so do not install it on a poorly insulated carrier to prevent the noise from the equipment from disturbing residents in the living area.

● Installation angle requirements

• Recommended inverter installation angle: vertical or tilted back ≤ 15° .

• Do not install the inverter upside down, tilted forward, tilted backward beyond the angle, or horizontally.


≤：15 °







● Installation tool requirements

• For installation, the following installation tools are recommended. Other aids may be used on site if necessary.



5.2 Inverter Installation

5.2.1 Handling of Inverter

CAUTION

● During transportation, turnover, installation and other operations, it shall meet the requirements of laws and regulations and relevant standards of the country or region where it is located.

● Before installation, it is necessary to handle the inverter to the installation location. To avoid personnel injury or equipment damage during the handling process, please pay attention to the following matters:

1. Please assign personnel according to the weight of the equipment so that the equipment does not exceed the weight range that can be handled by personnels and injure them.

2. Wear safety gloves to avoid injury.

3. Make sure that the equipment is balanced during handling to avoid dropping.

5.2.2 Inverter Installation

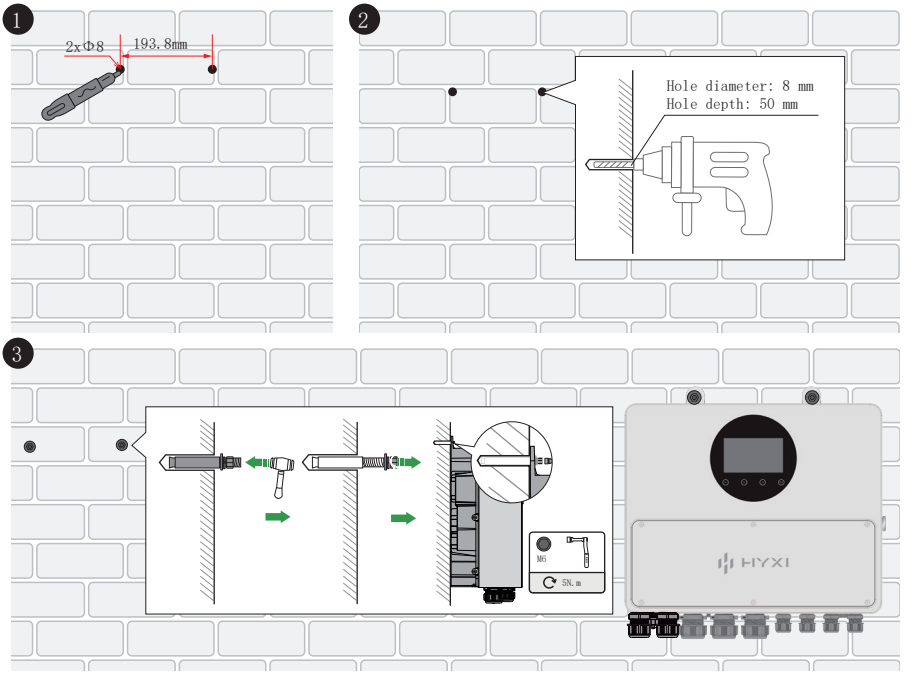
ATTENTION

When drilling, make sure that its location avoids water pipes, cables, etc. When drilling, please wear goggles and dust masks to avoid dust inhalation into the respiratory tract or falling into the eyes. Make sure the inverter is firmly installed to prevent it from falling and injuring people.

1. Refer to the following drawing to mark the location of the wall mounting holes.

2. Use an impact drill with a drill bit of 8mm (0.315 inches) in diameter to drill 2 holes, ensuring that the hole depth is about 50mm.

3. Use two M6×60 expansion screws to hang the inverter on the wall with the recommended torque (30kgf.cm); at the same time, plug the expansion screw into the two holes below.


1
2xΦ8
193.8mm
2
Hole diameter: 8 mm
Hole depth: 50 mm
3
M6
5N.m
HYXI

6 Electrical Connection

6.1 System Wiring Block Diagram

ATTENTION

1. The N and PE wiring of the inverter GRID and LOAD ports are different according to the regulatory requirements of different regions, depending on the local regulatory requirements.

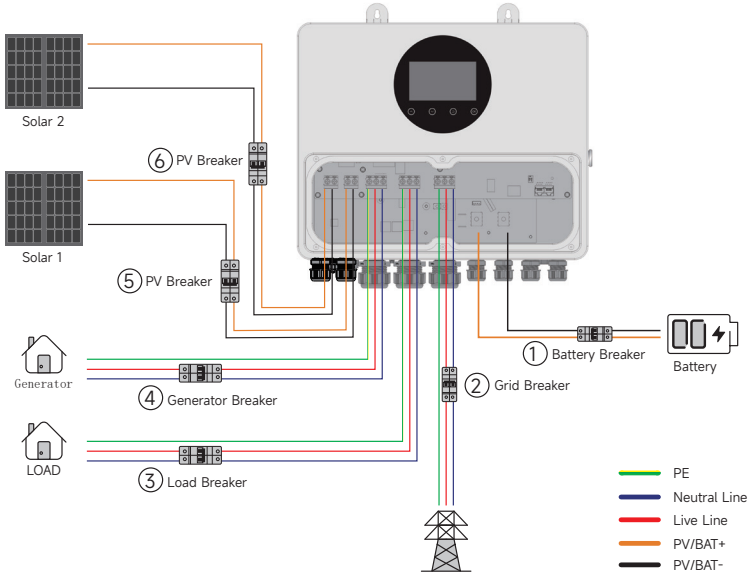
2. The inverter GRID and LOAD ports have built-in relays. When the inverter is in off-grid mode, the built-in Grid-Tied relay is open; when the inverter is in grid-connected mode, the built-in Grid-Tied relay is closed.

3. When the inverter is powered up, the LOAD port is energized. If you need to perform maintenance on the BACK-UP loads, power down the inverter or electric shock may occur.

4. Connect N and PE wires together in the distribution box for wiring.

ATTENTION

- Electrical wiring diagram for stand-alone applications:

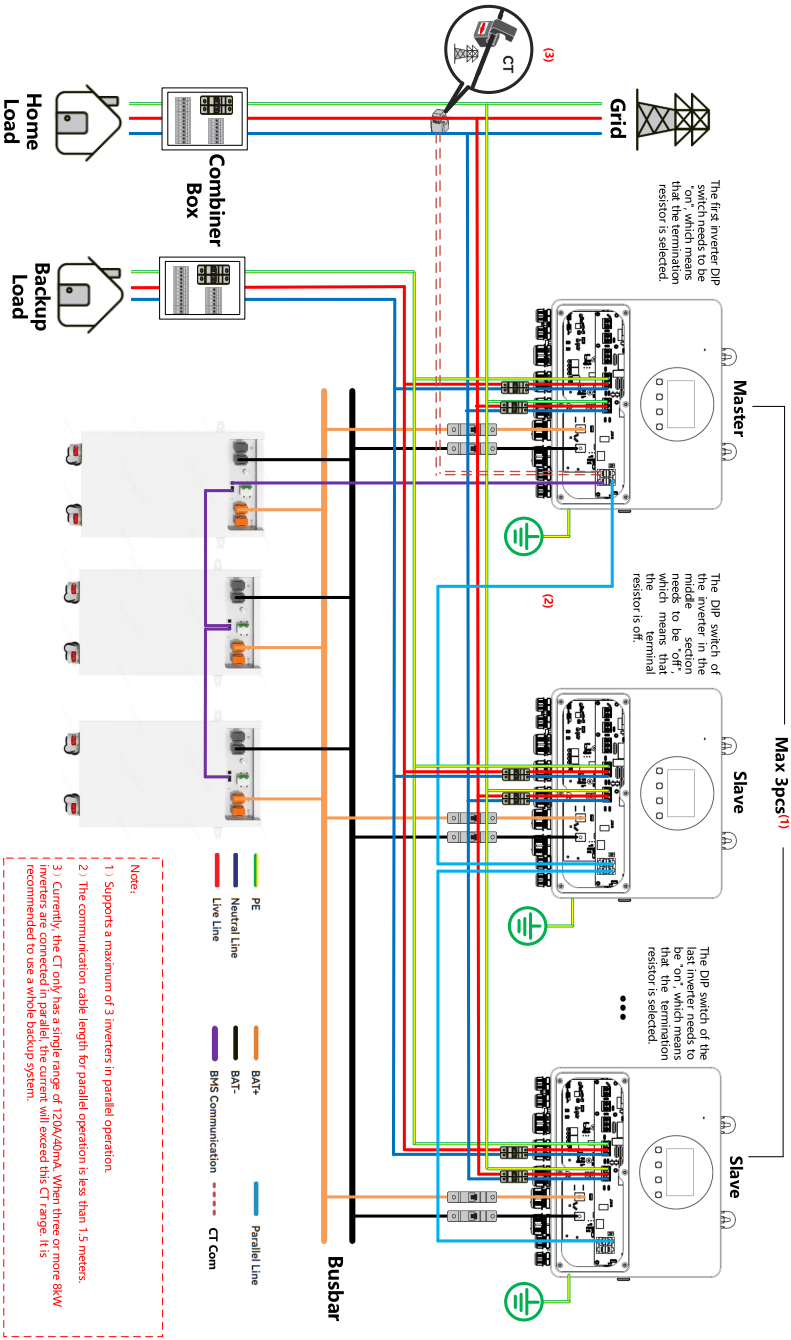


Recommended breaker specifications:

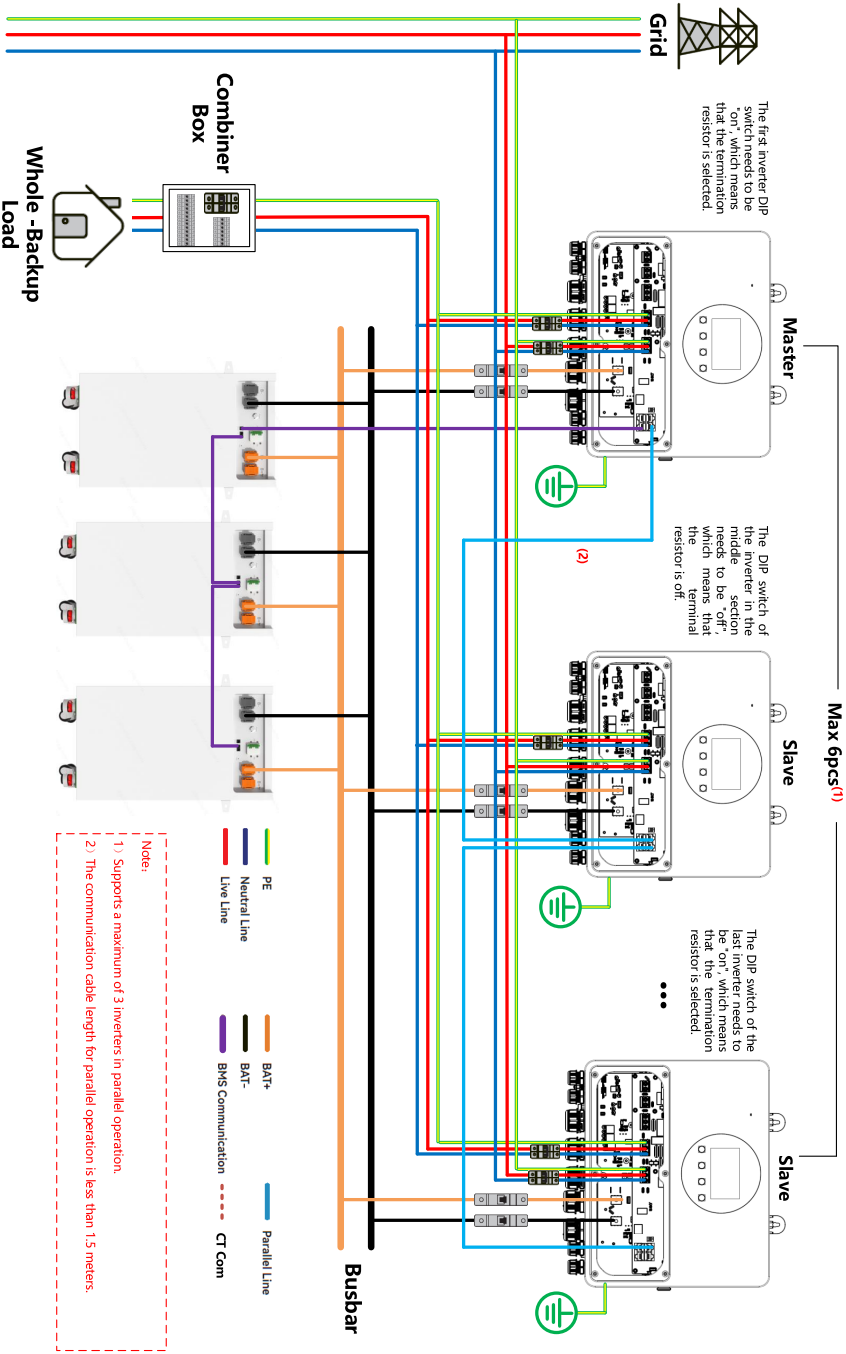
Serial No.	Inverter Model	Battery Breaker	Grid Breaker	Load Breaker	Generator Breaker	PV Breaker
1	6K	63Vdc/160A	250V/50A	250V/50A	250V/50A	500Vdc/25A
2	8K	63Vdc/220A	250V/63A	250V/63A	250V/63A	500Vdc/25A
3	10K	63Vdc/220A	250V/63A	250V/63A	250V/63A	500Vdc/25A

6.2 Electrical wiring diagram in parallel (Single phase)

With CT（Non Whole-Backup System)

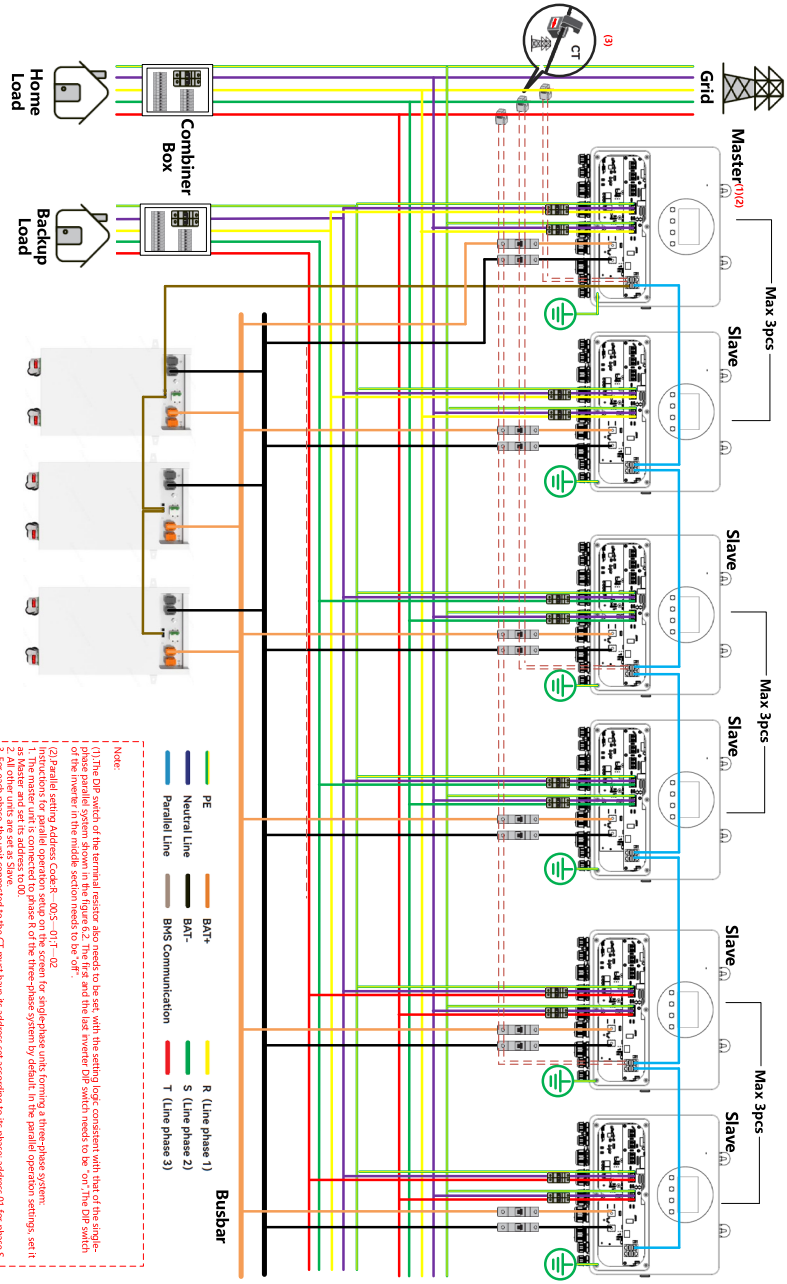


Without CT (Whole-Backup System)



6.3 Electrical wiring diagram in parallel (Three phase)

Three-phase grid system formed by multiple single-phase inverters.



Note:

(1).The DIP switch of the terminal resistor also needs to be set, with the setting logic consistent with that of the single-phase parallel system shown in the figure 6.2. The first and the last inverter DIP switch needs to be "on",The DIP switch of the inverter in the middle section needs to be "off".

(2).Parallel setting Address Code:R—00;S—01;T—02

Instructions for parallel operation setup on the screen for single-phase units forming a three-phase system:

1. The master unit is connected to phase R of the three-phase system by default. In the parallel operation settings, set it as Master and set its address to 00.
2. All other units are set as Slave.
3. For each phase, the unit connected to the CT must have its address set according to its phase: address 01 for phase S, address 02 for phase T.
4. Addresses for the remaining units can be assigned arbitrarily. For example, as shown in the diagram, the addresses can be set as 00, 03, 04, 01, 05, 06, 02, 07, 08.

3) CT has a single range of 120A/40mA.

6.4 Safety Precautions

DANGER

1. All operations, cables and components used in the electrical connection process must comply with local laws and regulations.

2. Before making electrical connections, disconnect the inverter's Battery Breaker,Grid Breaker and make sure the equipment is powered off. Strictly prohibit operation with electricity, otherwise electric shock and other dangers may occur.

3. Similar types of cables should be tied together and arranged separately from different types of cables, and mutual entanglement or cross-layout is prohibited.

4. If the cable is subjected to too much tension, it may lead to poor wiring. When wiring, please reserve a certain length of the cable before connecting it to the inverter's wiring port.

5. When crimping the terminals, make sure that the conductor part of the cable is in full contact with the terminals, and do not crimp the insulating skin of the cable together with the terminals. Otherwise, the equipment may not be able to operate, or the inverter terminal block may be damaged due to the heat generated after operation because of unreliable connection.

ATTENTION

1. When making electrical connections, wear personal protective equipment such as safety shoes, protective gloves, and insulated gloves as required.

2. Allow only specialized personnel to perform operations related to electrical connections.

3. The wire colors shown in this graphic are for reference only, and specific wire specifications are subject to local code requirements.

6.5 Connecting Protective Ground Wires

WARNING

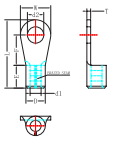
● The protective ground of the chassis enclosure cannot replace the protective ground of the LOAD port, and when wiring, ensure that the two protective grounds are reliably connected.

● In the case of multiple inverters, ensure that the protective ground points of all inverters' chassis enclosures are equipotentially bonded.

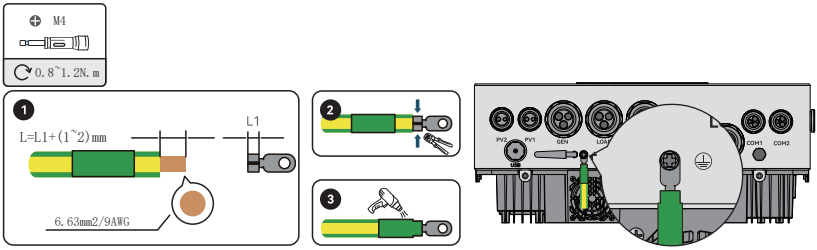
● To improve the corrosion resistance of the terminals, it is recommended to protect the outside of the ground terminal by applying silicone or paint after the protective ground connection has been installed.

● Please provide your own protective grounds with recommended specifications: s

- Type: outdoor multi-core copper cable.
- Cross-sectional area of conductor: 13.3mm2/6AWG



Recommended terminal size							
Dimension(mm)							
d2	W±0.2	L±1.0	F±1.0	E±0.6	D±0.5	d1±0.3	T±0.05
4.3	8.0	21.5	9.3	8.5	7.2	4.5	1.2



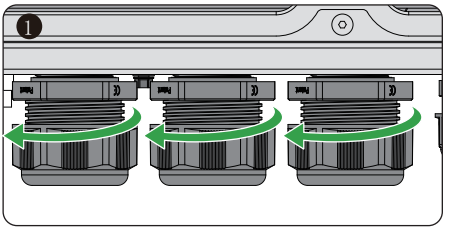
6.6 Connecting AC Cables

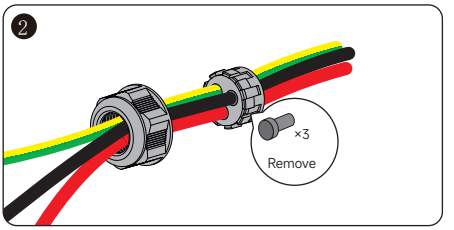
WARNING

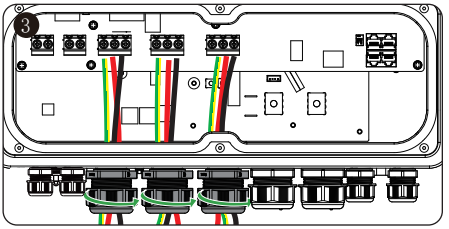
1. It is prohibited to connect a load between the inverter and the AC breaker, directly connected to the inverter.

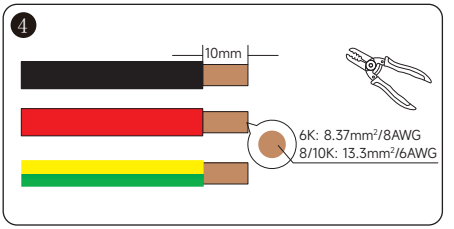
2. The inverter AC input and AC output ports have built-in relays. When the inverter is in off-grid mode, the built-in Grid-Tied relay is open; when the inverter is in charger mode, the built-in Grid-Tied relay is closed.

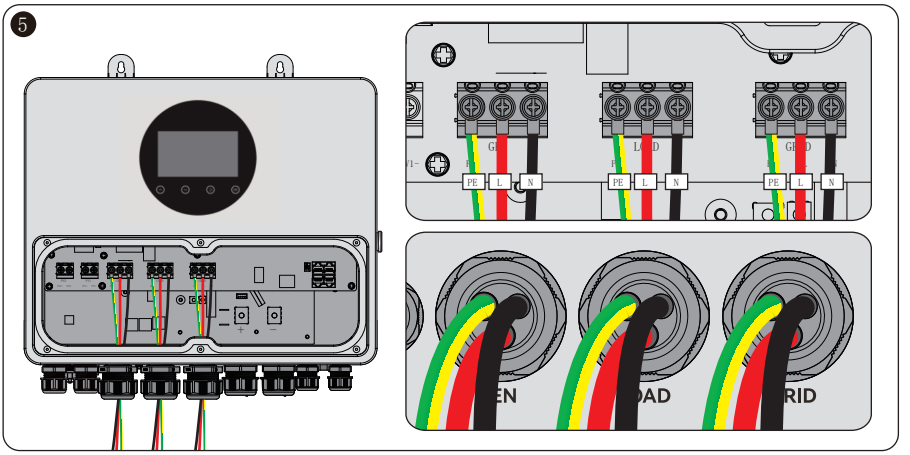
Serial No.	Inverter Model	Gauge (Grid-Tied)	Gauge (LOAD)	Gauge (Generator)	Torque value
1	6K	8.37mm²/8AWG	8.37mm²/8AWG	8.37mm²/8AWG	1~1.2N·m
2	8K	13.3mm²/6AWG	13.3mm²/6AWG	13.3mm²/6AWG	1~1.2N·m
3	10K	13.3mm²/6AWG	13.3mm²/6AWG	13.3mm²/6AWG	1~1.2N·m


1


2
×3
Remove


3


4
10mm
6K: 8.37mm²/8AWG
8/10K: 13.3mm²/6AWG


5
PE
L
N
PE
L
N
PE
L
N

6.7 Connect The DC Input Cable (PV)

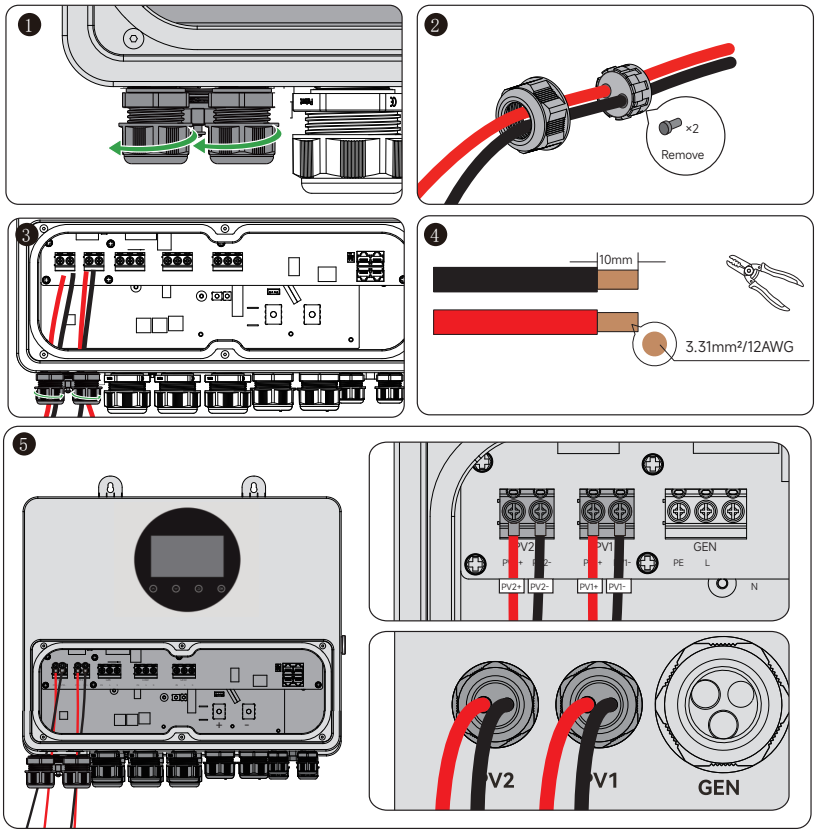
1. Do not connect the same PV string to more than one inverter as this may cause damage to the inverter.

2. Before connecting the PV string to the inverter, please confirm the following information, otherwise it may cause permanent damage to the inverter, and in serious cases, it may cause a fire resulting in loss of life and property:

● Make sure that the maximum short-circuit current and maximum input voltage of each MPPT are within the allowable range of the inverter.

● Make sure that the positive terminal of the PV string is connected to PV+ of the inverter and the negative terminal of the PV string is connected to PV- of the inverter.

Serial No.	Inverter Model	Wire Size	Torque value
1	6K	3.31mm²/10AWG	1~1.2N·m
2	8K	3.31mm²/10AWG	1~1.2N·m
3	10K	3.31mm²/10AWG	1~1.2N·m



6.8 Connecting Battery Cables

DANGER

1. Batteries used with the inverter need to be approved by the inverter manufacturer, and a list of approved batteries is available through the official website.

2. A short-circuited batter may cause personal injury, and the instantaneous high current caused by a short-circuit can release a large amount of energy that may cause a fire.

3. Before connecting battery cables, make sure that the inverter and batteries are disconnected from the power supply and that both the front and rear switches of the equipment are disconnected.

4. Connecting and disconnecting the battery cables is prohibited when the inverter is running, and violations may result in a risk of electric shock.

5. Do not connect the same battery pack to more than one inverter as this may cause damage to the inverter.

6. It is prohibited to connect a load between the inverter and the batteries.

7. Use insulated tools when connecting batter cables to prevent accidental electric shock or short-circuiting of the battery.

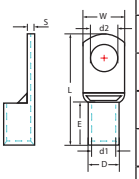
8. Make sure that the battery open circuit voltage is within the permissible range of the inverter.

9. A DC switch is required between the inverter and the battery.

10. When the battery port has short circuits or other abnormal conditions, the batter side BMS and the inverter will provide protection and alarm for the user at the same time.

11. After connecting the batter cables, ensure that the battery terminal covers are installed. DO NOT operate the battery terminals and covers when power is live.

Serial No.	Inverter Model	Wire Size	Torque value
1	6K	33.62mm²/2AWG	3~4N·m
2	8K	42.41mm²/1AWG	3~4N·m
3	10K	42.41mm²/1AWG	3~4N·m



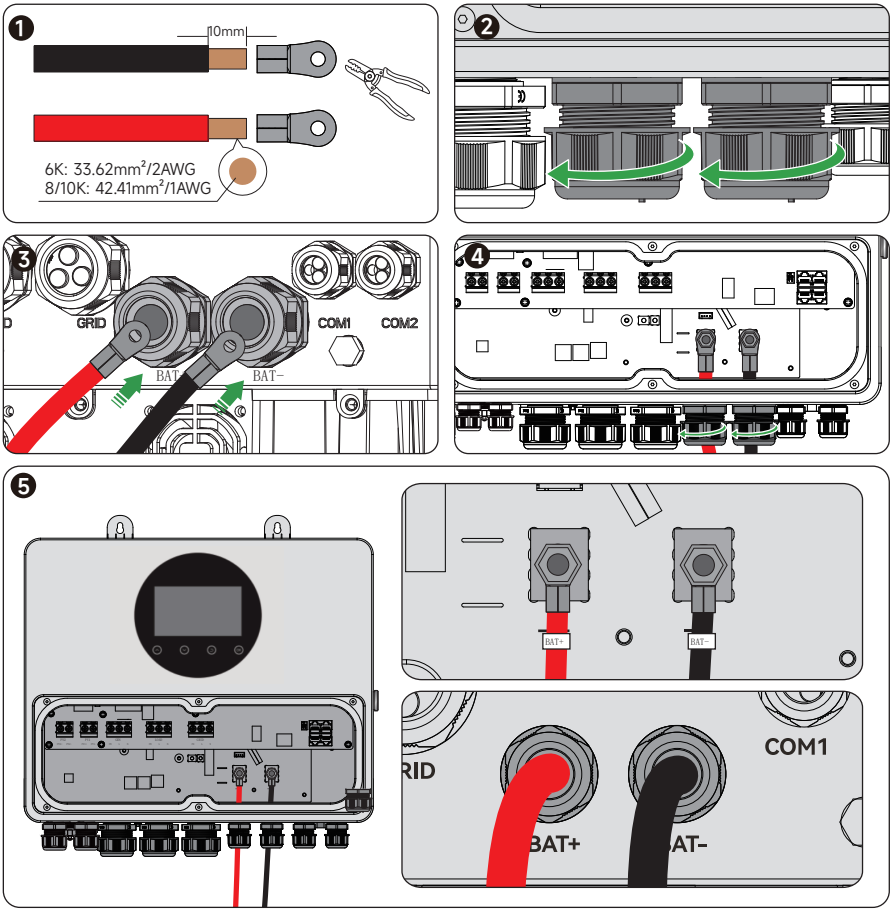
Recommended terminal size							
Dimension(mm)							
Model	d2	E	L	S	D	d1	W
6K	6.5	14.2	38.0	2.5	10.6	8.2	15.2
8K	6.4	18.0	44.5	2.9	13.0	10.0	18.5
10K	6.4	18.0	44.5	2.9	13.0	10.0	18.5

WARNING

1. When wiring, the batter cables should match the “POS+”, “NEG-”, and ground ports of the battery terminals exactly, if the cables are connected incorrectly, the equipment will be damaged.

2. Make sure that the cable core is fully inserted into the terminal lugs and is not exposed.

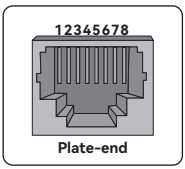
3. Ensure that the cables are connected tightly, otherwise the equipment may be damaged by overheating of the terminals during operation.

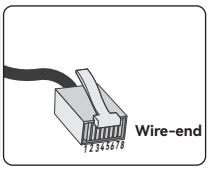


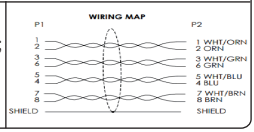
6.9 Communication

ATTENTION

When connecting communication cables, please make sure that the definition of the terminal port matches the device exactly, and the cable routing path should avoid interference sources, power lines, etc., so as not to affect the signal reception.



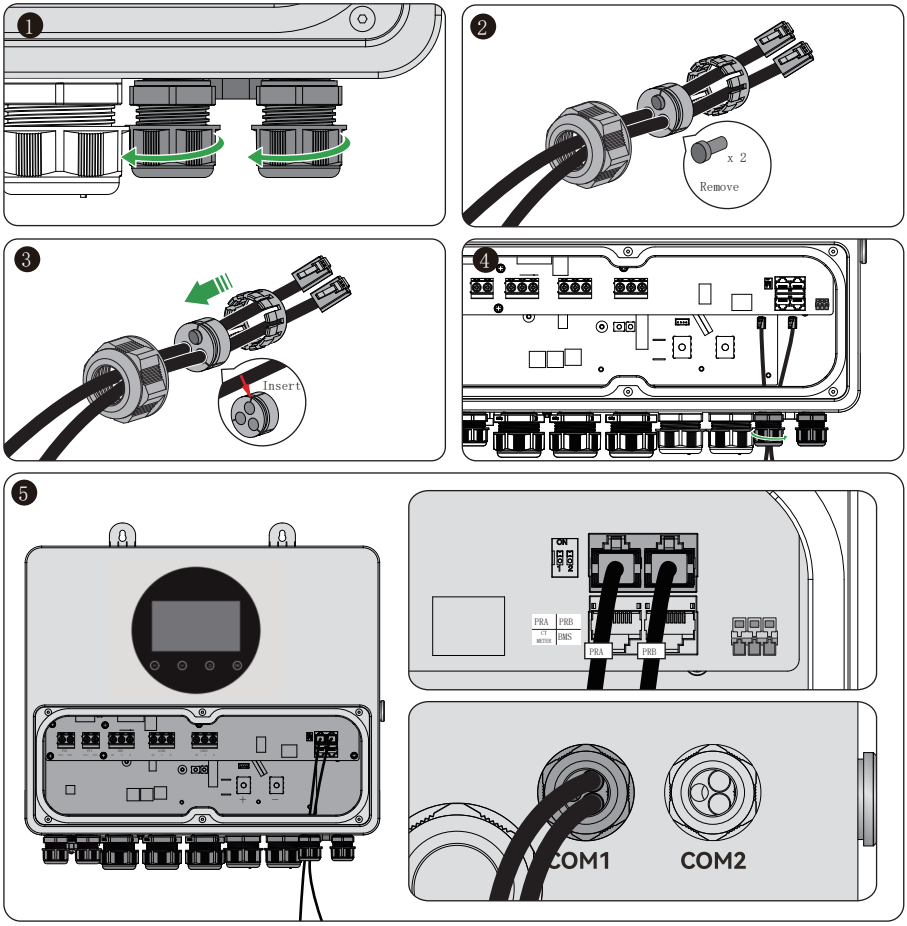


Recommended Ethernet Cable Specifications	
CAT 6a SHIELDED CABLE; 4 TWISTED PAIR, 26AWG CONDUCTORS; ALUMINIZED POLYESTER SHIELD WITH; TINNED COPPER DRAIN WIRE; PVC JACKET;	

6.9.1 Dry Contact Signal

There is one dry contact (3A/250VAC) available on the rear panel. It can be used to send a signal to an external device when the battery voltage reaches a warning level.

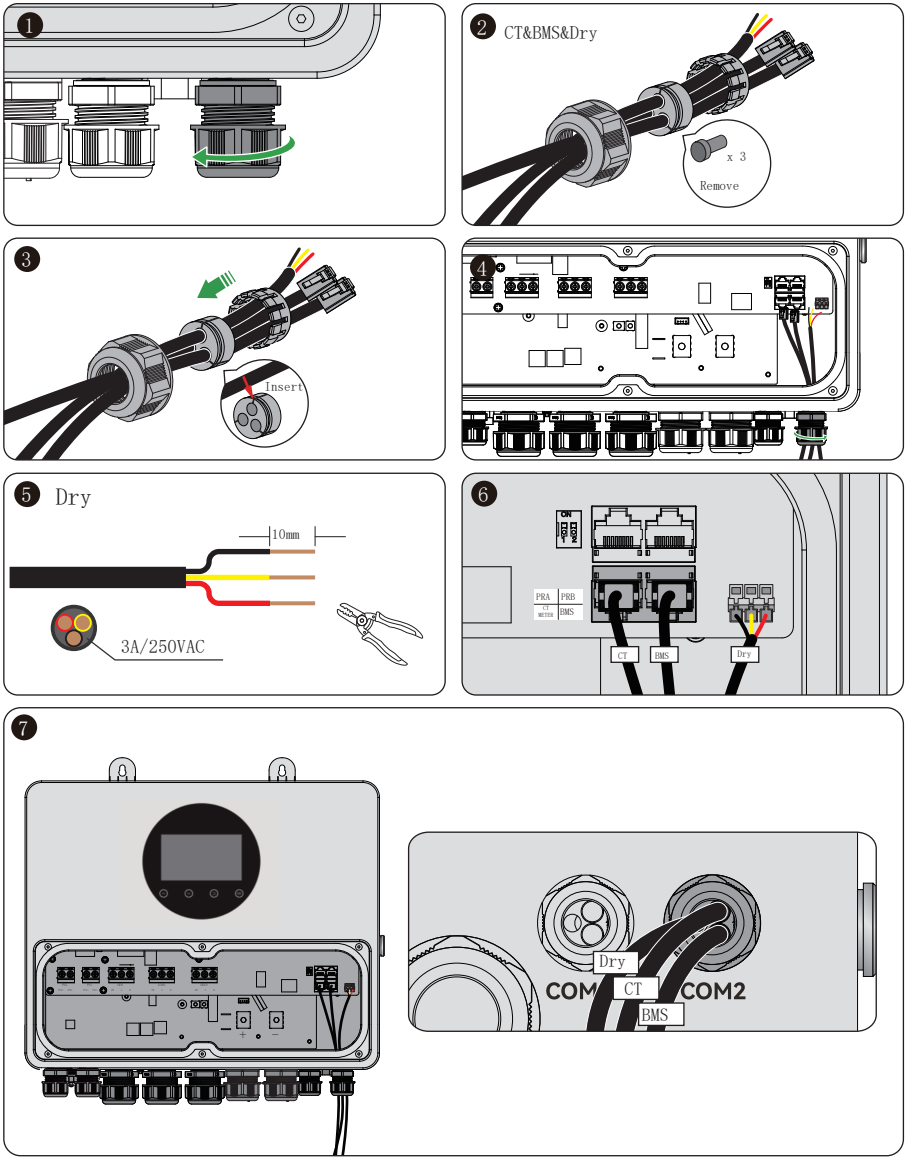
6.9.2 Communication Port 1 (Parallel Terminal)



Wire number	Definition	Functions	Description
1	SYN_GND3	Synchronization signal	Synchronization signals between parallel machines, and transmission of synchronization signals.
2	SYN3		
3	SYN_GND2		
4	SYN2		
5	SYN_GND1		
6	SYN1		

7	PR_CAN_L	CAN Communication	For CAN communication between parallel inverters, set the DIP switches of the first and last inverters to ON and the DIP switches of other inverters to OFF.
8	PR_CAN_H		

6.9.3 Communication Port 2 (CT/BMS/Dry)



- CT

Wire number	Definition	Functions	Description
1	ICR+	External CT input	The External CT usage prevents backflow. The white wire of CT is connected to "ICR+", and the black wire of CT is connected to "ICR-".
2	ICR-	External CT input	
3	EX_NTC+	External NTC input	Allows external NTC input when detecting leadacid
4	EX_NTC-	External NTC input	
5	PC_485_A	PC_485_A	The RS485 communication interface of the PC supports communication rate of 115200bps
6	PC_485_B	PC_485_B	
7	Meter_485_A	Meter_485_A	The RS485 communication interface of the electric meter supports a maximum communication rate of 38400bps,default 9600bps
8	Meter_485_B	Meter_485_B	

- BMS

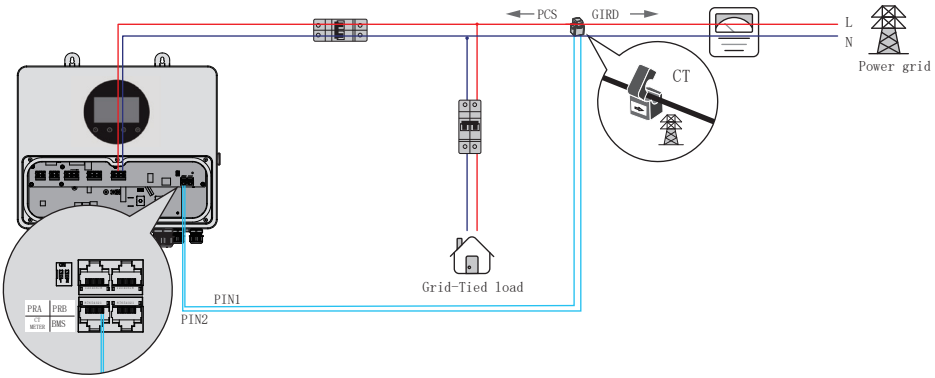
Wire number	Definition	Functions	Description
1	RS485_B	RS485_B	Reserved
2	RS485_A	RS485_A	
3	--	--	--
4	BMS_CAN_H	BMS_CAN_H	Supports CAN communication with BMS
5	BMS_CAN_L	BMS_CAN_L	
6	--	--	--
7	--	--	--
8	--	--	--

- Dry

Unit Status	Condition		Dry contact	
			NC & C	NO & C
Power Off	Unit is off and no output is powered.		Close	Open
Power On	Output is powered from Utility		Close	Open
	Output is powered from Battery power or Solar energy.	Battery voltage(SOC) < Low DC warning voltage(SOC)	Open	Close
		Battery voltage(SOC) > Setting value or battery charging reaches floating stage	Close	Open

6.9.4 CT Circuit Connection

When the CT is selected, the power direction of the CT is shown in the figure below:



CT Technical Parameter	
Ipn (N1 primary side rated effective current)	120A
Iout (N2 output current)	40.0mA
φ (Phase Error)	1.50° Max
F(I) (Amplitude Error)	0.50% Max
D.C.R. (direct current resistance)	255Ω +15%
Hi-Pot (insulation and voltage resistance)	2.00mA Max

7 Equipment Test Run

7.1 Check Before Power-up

1	The inverter is firmly installed, the installation position is convenient for operation and maintenance, the installation space is convenient for ventilation and heat dissipation, and the installation environment is clean and tidy.
2	Protective ground, DC input, AC output, and communication lines are connected correctly and securely.
3	Cable ties meet alignment requirements, are well distributed, and are not damaged.
4	Ensure that a waterproof cover is installed for unused wire holes.
5	Ensure that used crossing holes are sealed.
6	The voltage and frequency of the inverter's on-grid access point meets the on-grid requirements.
7	PV+/PV- wires are securely connected, correctly polarized, and the voltage is in line with the accessible range.
8	BAT+/BAT wires are securely connected, correctly polarized, and the voltage is within the accessible range.

7.2 Equipment Power-up

1	Close the inverter LOAD Breaker
2	Close the inverter Battery Breaker between batteries
3	Close the PV Breaker of the inverter
4	Close the inverter GRID Breaker
NOTE: If the inverter needs to be turned on without utility power, the inverter GRID breaker needs to be disconnected before turning on the inverter.	

8 LCD Interface Description

8.1 User Interface

The LCD interface is divided into two main parts: the display page and the setting interface. The display page provides the following functions to use by users:

1. Basic data display: Display relevant basic data, such as power, voltage, current and other information.

2. Alarm record: Display the fault record of the inverter, and allow users to conveniently understand the running state of the system.

3. Version information: Display the software version information of the inverter.

4. In addition, users can perform the following operations:

5. Operating mode setting: Allow users to modify the operating mode of the inverter to meet diferent needs.

6. Peak shaving time settings: Users can set the peak shaving time of the inverter for better utilization of power resources

7. Basic LCD setting: Provide basic LCD setting options, such as brightness, buzzer enable, etc.

8.1.1 Basic Data Display

In the main interface, click on each device icon to enter the corresponding data detail interface, including frequency, voltage, current, power, power generation capacity, running state and other basic information . On the left side of the information interface is the secondary menu navigation, click on it to enter the corresponding device power statistics interface and other interfaces, and click on the icon in the upper left corner to jump back to the main interface.

The basic data display interface provides a display of data for PV, grids, inverters, batteries, loads and generator equipment, and also contains a separate power summary interface. In addition, for parallel operation, users can check the total power display after the parallel operation.

8.2 LCD Upgrade Instructions

- Please visit our website (https://www.hyxipower.com) for the latest version, after the upgrade package is download, copy it to the directory of the USB drive.
- Insert the USB drive into the designated upgrade interface (no need to restart the inverter).
- The LCD will automatically black out for 3-4 seconds after detecting the upgrade files.
- When the LCD lights up again, the burning process is complete.
- Finally, remove the USB drive.

Note: The USB flash drive needs to be formatted in the FAT32 format and supports the USB 2.0 or USB 3.0 protocols.

1. PV Information Interface

In the PV information interface, you can clearly view the voltage, current and power of each PV equipment on the PV side, as well as the daily cumulative amount and the total cumulative amount of PV power generation.

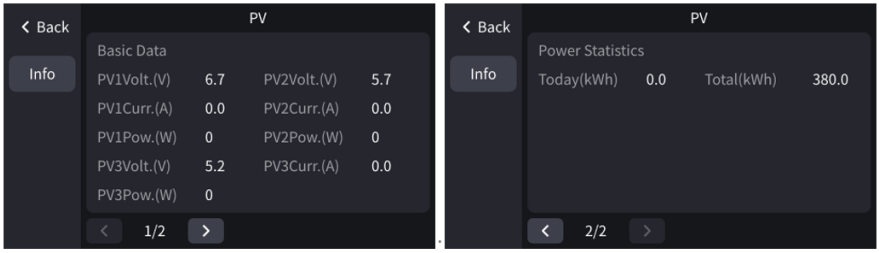


Figure 8.1 PV information interface

2. Grid Information Interface

In the grid information interface, you can clearly view the voltage, current, frequency and power on the grid side, as well as the daily cumulative amount and the total cumulative amount of power sold by the inverter to the grid.

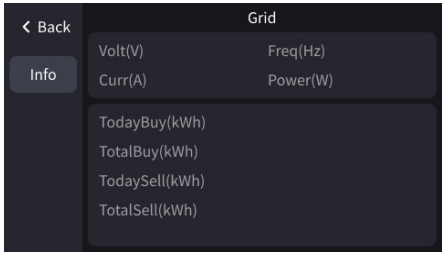


Figure 8.2 Grid information interface

3. Battery Information Interface

In the battery information interface, you can clearly view the voltage, current, power and charging and discharging status on the battery side, as well as the daily cumulative amount and total cumulative amount of battery charging and discharging.

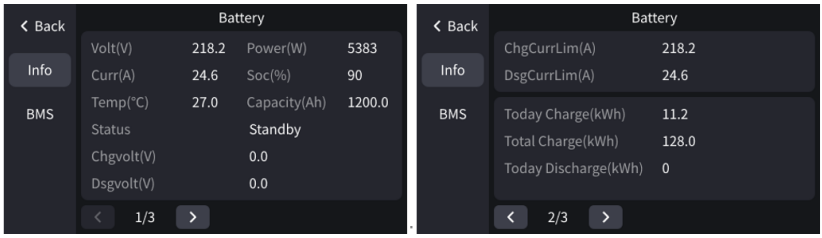


Figure 8.3 Battery information interface

4. Load Information Interface

In the load information interface, you can clearly view the voltage, current and power of the load side, as well as the day's usage cumulative amount and the total usage cumulative amount of the load side.

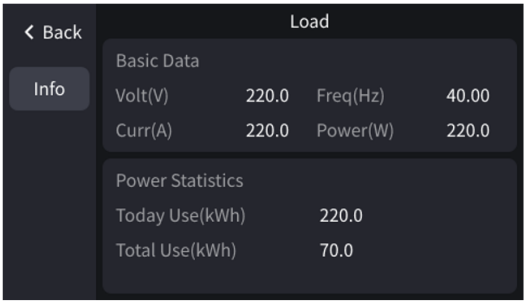


Figure 8.4 Load information interface

5. Generator Information Interface

In the generator information interface, you can clearly view the operation mode, generator status, voltage, current, frequency and power on the generator side, as well as the cumulative amount of power generated on the generator side for the day and the total cumulative amount of power generated.

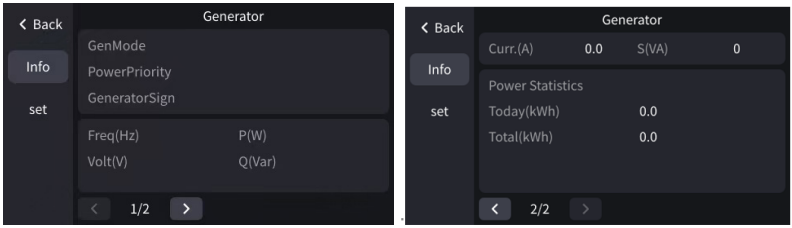


Figure 8.5 Generator information interface

6. Inverter Information Interface

In the inverter information interface, you can clearly view the inverter's operating status, operating mode and battery type, as well as the voltage, current, frequency and power data on the output side of the inverter.

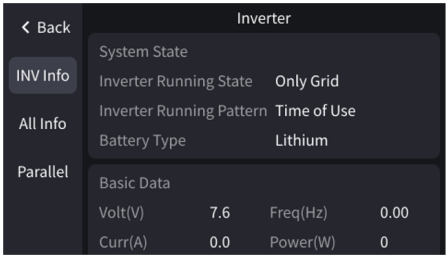


Figure 8.6 Inverter information interface

In the inverter information interface, by clicking the “All Info” button in the secondary menu on the left side, you can enter the sampling data summary information interface, including the PV side, the grid side, the battery side, the load side and the generator side. If a lithium battery is connected, the battery SOC is displayed.

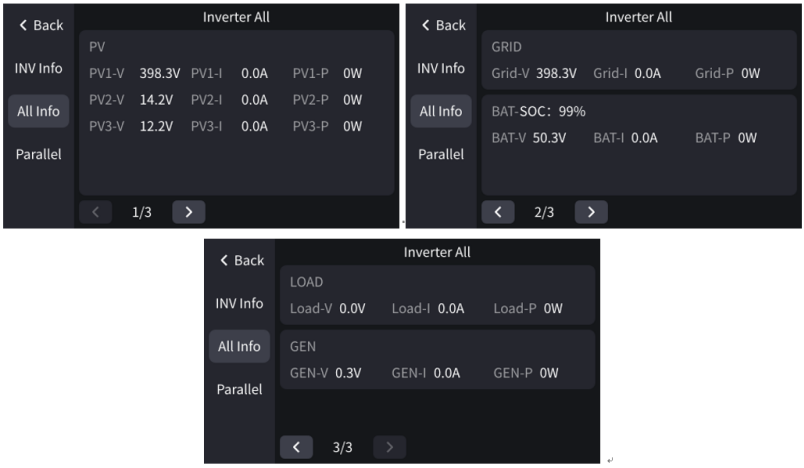


Figure 8.7 Sampling data summary information interface

7. Parallel Information Interface

In the inverter information interface, by clicking the “Parallel” button in the secondary menu on the left side, you can enter the parallel information page. In this interface, you can clearly view the current parallel status of the inverter (no parallel, master, slave), the number of parallels, the address number of the parallels, and the total power of each equipment terminal of the inverter system after the parallel.

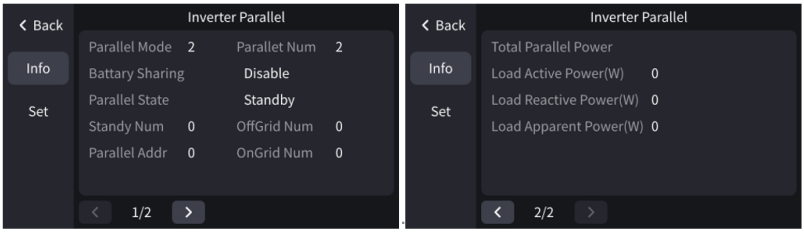


Figure 8.8 Parallel information interface

8.2.1 Active Alarm

The active alarm interface displays the abnormal running state of the current storage system in real time. It is defaulted to display 30 entries.

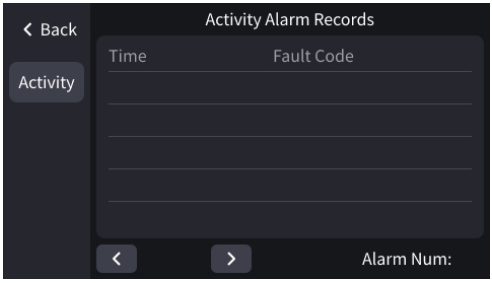


Figure 8.8 Active alert interface

8.2.2 Version Information Interface

Users can check the version number of each firmware in the inverter, as well as the version number of the BMS device in the version information interface. Installers can see more version information, including Bootloader and LCD versions of each firmware.

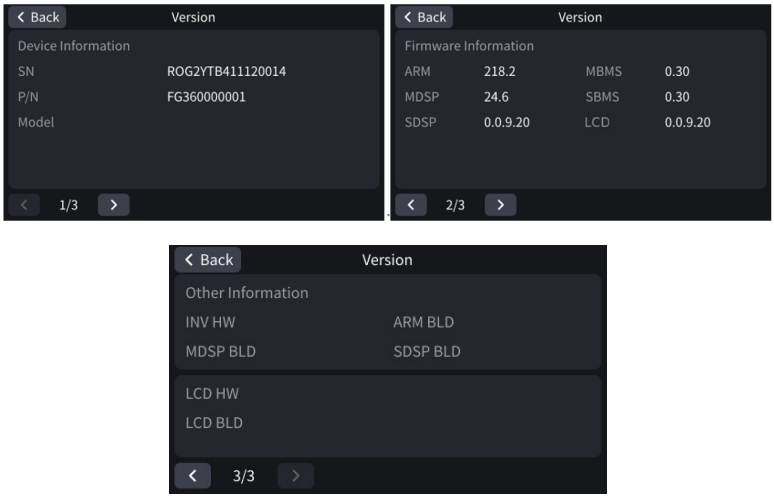


Figure 8.9 Version information interface

8.2.3 BMS Information Interface

When users configure HYXI's lithium batteries, they can click on "BMS" from the secondary menu of the battery interface to check the detailed data information of the batteries.

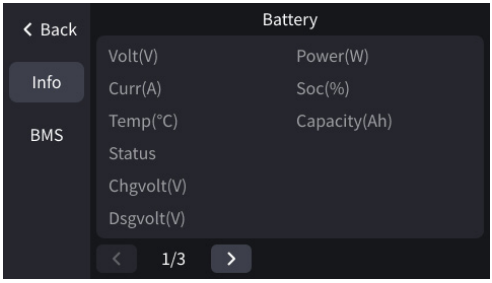


Figure 8.10 BMS master control information interface

8.3 Password Login Interface

Click on the icon in the upper left corner of the main interface to access the password login page. On the left side of this page are the user's secondary menus, including the LCD setting interface, the version information interface, and the fault logging interface. On the right side is the installer login area, after entering the correct password, you can jump to the general setting interface, and the login efective time is 10 minutes by default.

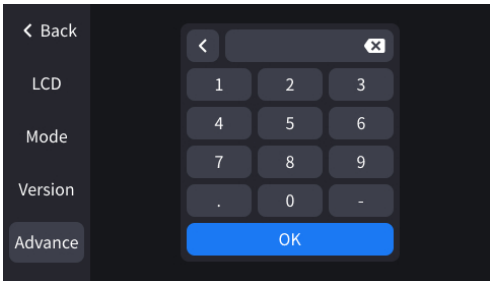


Figure 8.11 User menu & installer login interface

8.4 Installer Settings Interface

For installers, in addition to the user rights mentioned above, they have the following additional settings rights:

- Inverter settings: Include operations such as operation mode switching, clearing statistics and restoring factory settings.
- Grid connection settings: Allow the installer to make grid connection setting to ensure proper connection between the inverter and the grid.
- Generator setting: Provide options for generator-related setting to accommodate specific generator settings.
- Parallel setting: Allow the installer to make parallel operation setting to realize the linkage work of multiple inverters.
- Clock calibration: Provide the clock calibration function to ensure the time accuracy of the inverter.

The general setting interface contains inverter setting, battery setting, grid connection

setting, generator setting, and parallel operation setting. It is also possible to access the alarm details screen , the power statistics interface, the version information interface, and the LCD setting interface.

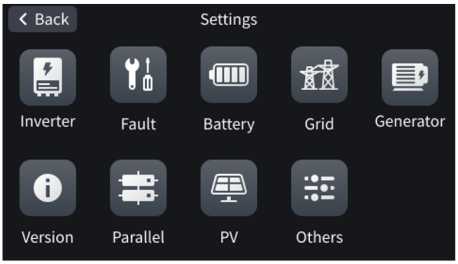


Figure 8.12 Installer setting interface

8.4.1 Grid-connected settings

The parameters can also be customized in the grid-connected setting interface. The safety standard setting in total include on/off parameters, grid voltage protection parameters, grid frequency protection parameters, over-frequency load shedding, under-frequency load adding, active power control, reactive control, high and low voltage ride-through control, DCI protection, etc. The specific page is shown below:

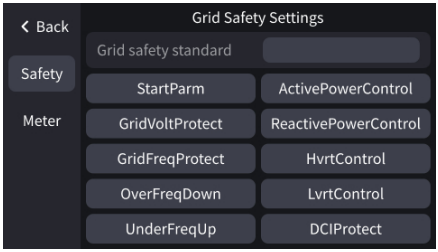


Figure 8.13 Grid-connected settings menu interface

In the grid-connection setting interface, support to select safety standards of multiple countries, and click the text box to pop up a pop-up window for safety standard selection. Click “OK” to initialize all safety parameters to the default values for the corresponding country.

1. Booting parameter settings



Figure 8.14 Booting parameters

2. Grid voltage protection settings

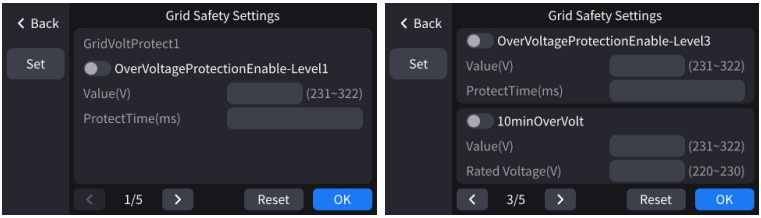


Figure 8.15 Grid voltage protection settings interface

3. Grid frequency protection settings

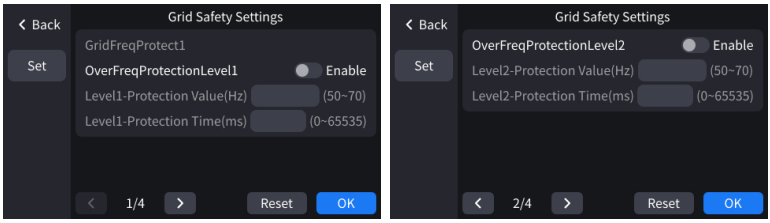


Figure 8.16 Grid frequency protection settings interface

4. Over-frequency load shedding settings

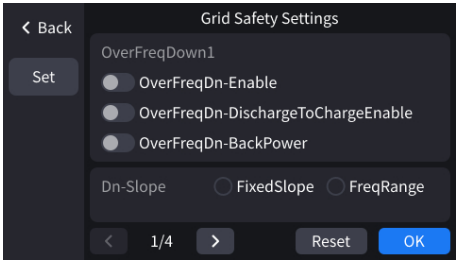


Figure 8.17 Over-frequency load shedding settings interface 5.

5. Under-frequency load adding settings

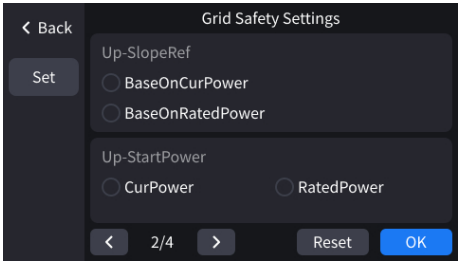


Figure 8.18 Under-frequency load adding settings interface

6. Active power control parameter settings

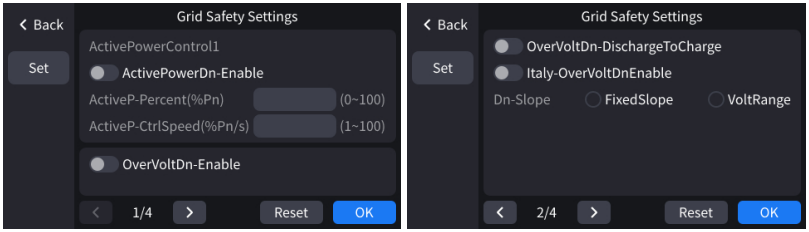


Figure 8.19 Active power control parameter settings interface

7. Reactive control parameter settings

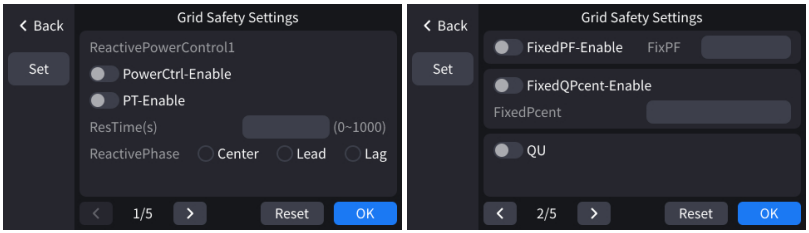


Figure 8.20 Reactive control parameter settings interface

8. High and low voltage ride-through control parameter settings

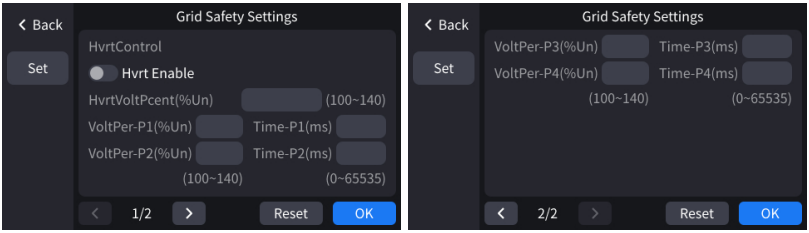


Figure 8.21 High and low voltage ride-through control parameter settings interface

9. DCI protection parameter settings

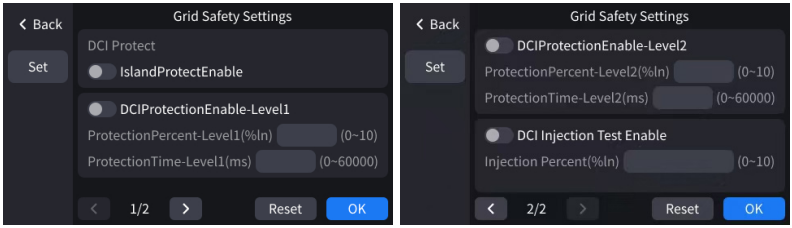


Figure 8.22 DCI protection parameter interface

8.4.2 Generator Settings

There are 3 operating modes for the generator, including manual turn-on, automatic turn-on based on battery SOC, and timed turn-on.

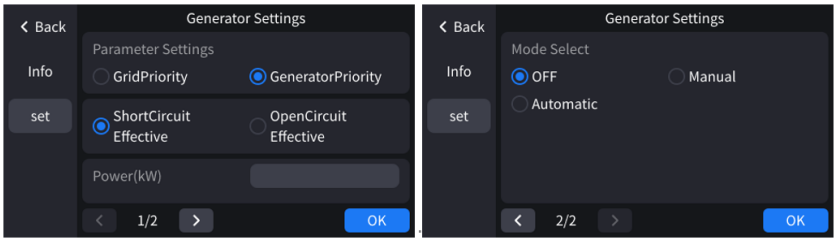


Figure 8.23 Generator settings interface

8.4.3 Parallel Operation Settings

Parallel settings interface parameters mainly include master and slave selection, number of parallel machines and parallel address settings.

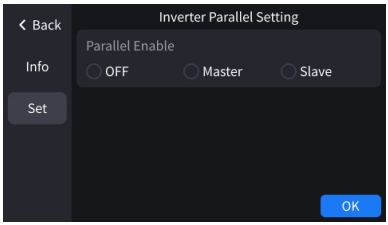


Figure 8.24 Parallel operation settings interface

8.4.4 Inverter Settings

1. Inverter operating mode selection

In the "Mode " interface, you can configure the operating mode of the inverter, including self-generation and self-consumption, battery priority and peak shaving and valley filling. The self-generation and self-consumption mode is the default mode of the inverter. In the peak shaving and valley filling mode, it supports users to set up to 6 charging and discharging times. If the user is using a generator to generate power, it needs to be enabled in the preceding self-select box and the SOC or voltage at which the battery stops charging needs to be configured. The installer will also need to configure it for the user's needs on a time-specific basis.

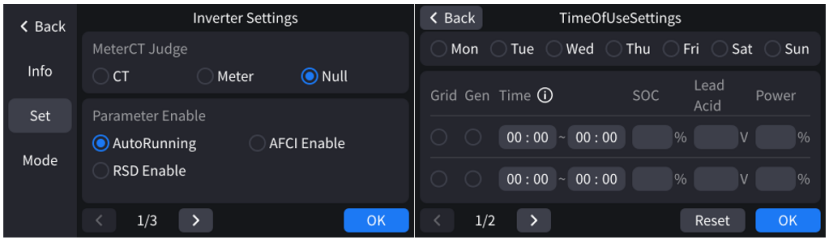


Figure 8.25 Inverter operating mode settings interface

2. Inverter advanced settings

In the inverter advanced settings, the installer can perform corresponding settings according to the actual situation, and supports to restore the parameter factory value and clear the historical statistics by one key.

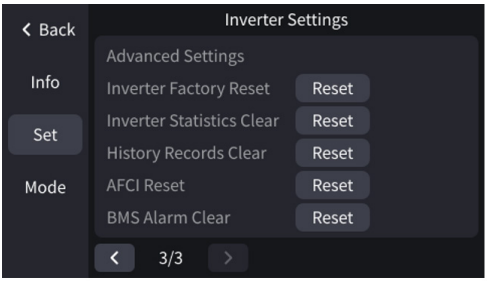


Figure 8.26 Inverter advanced settings interface

8.4.5 Battery Settings

1. Battery Type Select

In the Battery settings, there Lithium, Lead-Acid(%) and Lead-Acid(V).

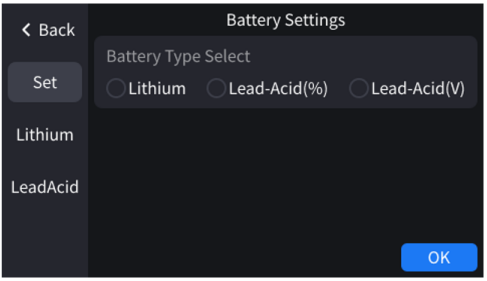


Figure 8.27 Battery Type Select interface

2. Lithium Battery Settings

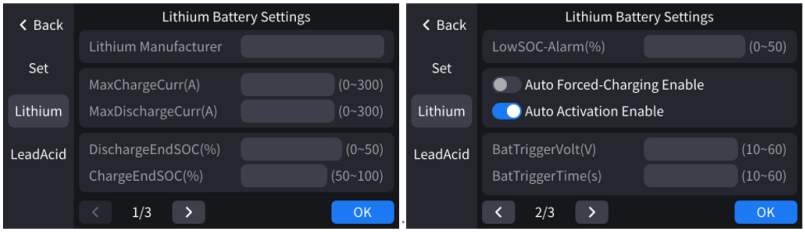


Figure 8.28 Lithium Battery Settings interface

3. Lead-Acid Battery Settings

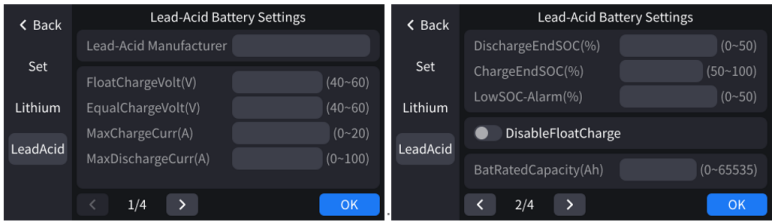


Figure 8.29 Lithium Battery Settings interface

8.4.6 LCD Settings

In addition to the basic settings of the LCD for backlights, the installer can use the LCD for RTC calibration of the inverter when it is not clocked correctly.

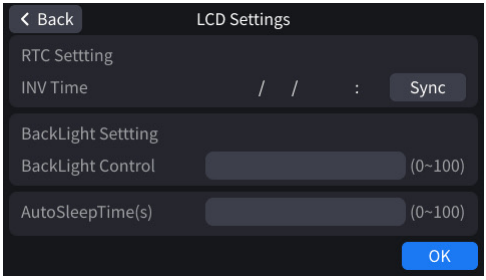


Figure 8.30 LCD Settings interface

8.4.7 Upgrade Situation Display

Installers can click “UpInfo” in the version interface to enter the upgrade progress interface, which displays the current inverter equipment, the firmware type (ARM, MDSP, SDSP, MBMS, SBMS) currently being upgraded, the firmware version, the upgrade status, the error code and the upgrade progress.



Figure 8.31 Upgrade interface

8.5 Smart Load Operation

Connect the smart load to the dedicated **GEN Port(SMART LOAD)** on the inverter, system wiring block diagram see **Section 6.1**. Verify the load specifications are compatible with the LOAD2 terminal parameters before connection.After completing the wiring, change the LOAD2 mode to "S-L" via LCD Settings (refer to section 8.3.6) or set the smart load mode via the APP.

1.Recovery /Shutdown Logic Description

- When the **grid is normal**: Users can set the on/off schedule of smart loads through the **timer.**

- When the **grid is abnormal/absent**: In addition to timer control, the smart load's operation depends on **battery voltage** (for lead-acid battery), **battery SOC** (for lithium battery), **and off-grid discharge time.**

- Shutdown condition: The smart load will immediately turn off if any shutdown condition is triggered.

- Recovery condition: The smart load will only turn back on when all shutdown conditions are resolved.

2. Recovery /Shutdown Conditions

1) Battery Voltage (Lead-Acid Battery)

- Recovery condition: Battery voltage ≥ Set Smart Load Start voltage (default: 46.0V).

- Shutdown condition condition: Battery voltage ≤ Set Smart Load Stop voltage (default: 42.0V).

2) Battery SOC (Lithium Battery)

- Recovery condition: SOC ≥ Set Smart Load Start SOC (default: 40%).

- Shutdown condition condition: SOC ≤ Set Smart Load Stop SOC (default: 20%).

3) Discharge Duration

- Shutdown condition: If the actual discharge time exceeds the allowed limit after voltage/ SOC reaches the shutdown threshold, the load will turn off.

- Recovery condition: Any of the following must be met: Set to 0 (disabled), grid power returns to normal, or battery is in charging state.

- Adjustable range: 0~990 minutes (default: 0, meaning this feature is disabled).

4) Timer Control

- Shutdown condition: The system time is outside the set "Start Time" and "Stop Time" range.

- Recovery condition: The system time is within the set time range (supports overnight settings).

- Examples:

Start Time: 00, Stop Time: 08 → Smart Load stays on from 00:00-08:00, off otherwise.

Start Time: 22, Stop Time: 06 → Smart Load stays on from 22:00-06:00 (next day), off otherwise.

- Special rule: If Start Time = Stop Time, the load remains on as long as conditions (1)(2)(3) are met.

9 App Download

Please scan the QR code to enter the App download interface.



10 System Maintenance

When operating or maintaining the inverter, operating the equipment with electricity may result in damage to the inverter or a risk of electric shock, please disconnect the inverter from the power supply as the following steps.

After the inverter is disconnected, it takes some time for the internal components to discharge, please wait until the equipment is fully discharged according to the required labeling time.

1. Disconnect the inverter GRID Breaker.
2. Disconnect the inverter LOAD Breaker.
3. Disconnect the Battery Breaker between the inverter and the battery.
4. Disconnect the PV Breaker of the inverter.

10.1 Removal of Inverter

⚠ DANGER

- Ensure that the AC and DC sides of the inverter are not charged before removal. Since the capacitor is still charged for a period of time after the DC side of the inverter is disconnected, wait for 5 minutes to ensure that the capacitor is discharged.
- Wear personal protective equipment when operating the inverter.

1. Disconnect all electrical connections to the inverter, including: DC wires, AC wires, communication wires, communication module, and protective ground.
2. Remove the inverter from the expansion screws.
3. Store the inverter properly and ensure that storage conditions are met if subsequent inverters are to be put into service.

10.2 Scrapping of Inverter

If the inverter can no longer be used and needs to be scrapped, dispose of the inverter in accordance with the electrical waste disposal requirements of the regulations of the country where the inverter is located, and do not dispose of the inverter as household waste.

11 Alarm Description

Alarm			
ID	Description	Cause	Measures
00	Grid abnormal	1. Grid not detected. 2. Grid voltage/frequency out of tolerance.	Verify inverter grid settings (voltage / frequency) match local grid specifications.
02	Battery abnormal	1. Battery under-voltage protection activated 2. Battery over-voltage protection activated 3. Discharge current zero in off-grid mode with load	1. Validate battery charge/discharge voltage thresholds in inverter settings 2. Measure actual battery bank voltage 3. Condition will auto-clear within 10 seconds when: - PV generation resumes - Grid connection is restored - Discharge current becomes non-zero 4. For persistent faults, contact certified service technician
04	PV abnormal	Excessive voltage deviation between parallel PV strings	Inspect PV arrays for shading or mismatched configurations.
06	Generator abnormal	1. Generator voltage / frequency instability. 2. Incompatible generator type.	Ensure generator operates within inverter's input specifications.
08	Inverter abnormal	Inverter output current exceeds rated limit.	Reduce connected load to match inverter capacity.
10	Disruptive risk	DC bus voltage exceeds safety threshold.	1. Verify that the battery voltage is within specification. 2. If the problem persists, it may be a hardware issue, contact a technician.
12	Device abnormal	1. Overheating 2. Fan malfunction.	Ensure ventilation is unobstructed. If fan fails, service is required.
14	Relay abnormal	Grid/Load relay fault.	Restart the device. If unresolved, contact installer.
16	Main control abnormal	1. Master-slave chip communication loss. 2. Firmware upgrade interruption.	Restart the device. If unresolved, contact installer.
18	Storage abnormal	Internal memory error.	Restart the device. If unresolved, contact installer.
20	Logic abnormal	1. Grid voltage <180V or >280V. 2. Phase synchronization failure. 3. Overheat-induced load reduction.	Restart the device. If unresolved, contact installer.
22	Parallel abnormal	Poor parallel communication signal quality.	There is signal interference in the on-site environment, but it can be used normally.
24	Safety abnormal	Non-compliant local safety standards.	Adhere to regional electrical regulations.
32	PV1 abnormal	1. PV1 input exceeds limits. 2. PV1 string reverse polarity.	Verify PV1 wiring and ensure power is within inverter's PV input range.

34	PV2 abnormal	1. PV2 input exceeds limits. 2. PV2 string reverse polarity.	Verify PV2 wiring and ensure power is within inverter's PV input range.
40	Slave control abnormal	Battery voltage spike/drop.	Allow 30s for auto-recovery. If persistent, contact installer.
64	COM chip abnormal	1. Internal chip communication error. 2. Peripheral (battery / meter) communication failure.	Check peripheral wiring. For internal faults, contact installer.
66	Battery low voltage/low battery	1. Battery voltage / SOC below alarm threshold. 2. Lead-acid battery overheating.	Adjust the low battery/low SOC alarm settings in the inverter parameters, If applicable.
68	BMS abnormal	Lithium battery abnormality.	Please check the lithium battery.

Alarm			
ID	Description	Cause	Measures
01	Grid abnormal	Grid voltage/frequency out of range.	Verify grid settings (voltage/ frequency) match local standards.
03	Battery abnormal	1. Battery under-voltage protection activated 2. Battery over-voltage protection activated 3. Discharge current zero in off-grid mode with load	1. Validate battery charge/discharge voltage thresholds in inverter settings 2. Measure actual battery bank voltage 3. Condition will auto-clear within 10 seconds when: - PV generation resumes - Grid connection is restored - Discharge current becomes non-zero 4. For persistent faults, contact certified service technician
05	PV abnormal	Excessive voltage deviation in parallel PV strings.	Inspect PV strings for shading or mismatched configurations.
07	Generator abnormal	1. Generator voltage/frequency unstable. 2. Incompatible generator.	Ensure generator operates within inverter specifications.
09	Inverter abnormal	Inverter output current exceeds rated limit.	Reduce connected load to match inverter capacity.
11	Disruptive risk	1.Critical hardware damage detected.	Restart the device. If unresolved, contact installer.
13	Device abnormal	1. High internal temperature. 2. Fan failure.	Ensure proper ventilation. Replace fan if faulty.
15	Relay abnormal	Grid / load relay fault.	Restart the device. If unresolved, contact installer.
17	Main control abnormal	1. Master-slave communication loss. 2. Firmware upgrade interrupted.	Restart the device. If unresolved, contact installer.
19	Storage abnormal	Internal memory error.	Restart the device. If unresolved, contact installer.

21	Logic abnormal	1. Grid voltage <180V or >280V. 2. Phase synchronization failed. 3. Overheating-induced load reduction. 4. AC phase lock failure.	1.Check grid stability and cooling. 2. Restart the device. If unresolved, contact installer.
23	Parallel abnormal	1. Master-slave communication error. 2. Firmware version mismatch. 3. Incorrect slave phase sequence (3-phase).	Verify parallel wiring and firmware versions.
25	Safety abnormal	Local certification conflict.	Ensure compliance with regional safety standards.
33	PV1 abnormal	1. PV1 overvoltage / overcurrent. 2. PV1 reverse polarity.	Check PV1 wiring and input specifications.
35	PV2 abnormal	1. PV2 overvoltage / overcurrent. 2. PV2 reverse polarity.	Check PV2 wiring and input specifications.
41	Slave control abnormal	1. Battery voltage spike/drop. 2. Rapid voltage decline.	Allow 30s for auto-recovery. If persistent, contact installer.
65	COM chip abnormal	Communication failure between COM chip and control chip	Restart the device. If unresolved, contact installer.
67	Battery low voltage/low battery	1. Discharge endpoint reached. 2. Lead-acid battery overheated.	Recharge battery or halt operation for cooling.
69	BMS abnormal	Lithium battery abnormality.	Please check the lithium battery

Regular Maintenance

Ensure that the AC and DC sides are not charged before maintenance. Since the capacitor remains charged for a period of time after the DC side of the machine is disconnected from the DC side, wait 5 minutes to ensure that the capacitor is discharged.

Wear personal protective equipment when operating the inverter

Maintenance Content	Maintenance Method	Maintenance Cycle
System cleaning	Clean the Dust filter and the air outlet at the bottom of the inverter	1 time/one months ~ 1 time/ three months
Electrical connections	Check for loose electrical connections and for cable damage and copper leakage.	1 time/half a year~ 1 time/year

Note: When using the device in areas with poor air quality, the dust screen is easily blocked by airborne particles. Please dismantle and clean the dust screen regularly to avoid affecting the internal air flow rate of the inverter, which may trigger an over-temperature protection fault affecting the use of the power supply and the service life of the inverter.

12 Technical Data

Table 11.1 Line Mode Specifications

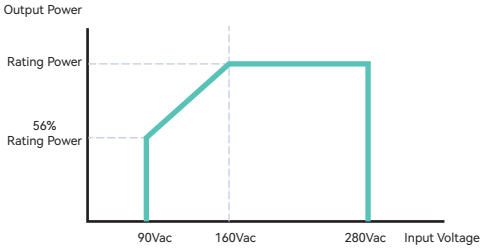
MODEL	HYX-H6K-LS	HYX-H8K-LS	HYX-H10K-LS
Input Voltage Waveform	Sinusoidal (utility or generator)		
Nominal Input Voltage	220/230/240Vac		
Low Loss Voltage	170Vac±7V (UPS) 90Vac±7V (Appliances)		
Low Loss Return Voltage	180Vac±7V (UPS); 100Vac±7V (Appliances)		
High Loss Voltage	280Vac±7V		
High Loss Return Voltage	270Vac±7V		
Max AC Input Voltage	300Vac		
Max AC Input Current	40A	50A	50A
Max Output Current	40A	50A	50A
Nominal Input Frequency	50/60Hz (Auto detection)		
Low Loss Frequency	40±1Hz		
Low Loss Return Frequency	42±1Hz		
High Loss Frequency	65±1Hz		
High Loss Return Frequency	63±1Hz		
Output Short Circuit Protection	Line mode: Breaker (User configuration) Battery mode: Electronic Circuits		
Efficiency (Line Mode)	>95% (Rated R load, battery full charged)		
Transfer Time	10ms typical (UPS) 20ms typical (Appliances)		
Output power de-rating: When AC input voltage under 160V the output power will be de-rated.			

Table 11.2 Inverter Mode Specifications

MODEL	HYX-H6K-LS	HYX-H8K-LS	HYX-H10K-LS
Rated Output Power	6000W/6000VA	8000W/8000VA	10000W/10000VA
Output Voltage Waveform	Pure Sine Wave		
Output Voltage Regulation	220/230/240Vac±5% @ Nominal battery voltage		
Output Frequency	60Hz or 50Hz (±0.1Hz)		
Peak Efficiency	93%		
Overload Protection(BAT)	100ms@ ≥ 200% load; 5s@ ≥ 150%; 10s@ ≥ 110%; 60s@ ≥ 101%		
Surge Capacity(PV+BAT)	2* rated power for 5 seconds		
High DC Cut-off Voltage	60Vdc±1Vdc		
Low DC Cut-off Voltage	44Vdc±1Vdc		
Nominal DC Input Voltage	48Vdc±1Vdc		
Cold Start Voltage	46.0Vdc±1Vdc		
Low DC Warning Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	46.0Vdc±1Vdc 42.8Vdc±1Vdc 40.4Vdc±1Vdc		
Low DC Warning Return Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	48.0Vdc±1Vdc 44.8Vdc±1Vdc 42.4Vdc±1Vdc		
Low DC Cut-off Voltage @ load < 20% @ 20% ≤ load < 50% @ load ≥ 50%	44.0Vdc±1Vdc 40.8Vdc±1Vdc 38.4Vdc±1Vdc		
DC Voltage Accuracy	+/-0.3V@ no load		
THDV	<3% for linear load,<10% for non-linear load @ nominal voltage		
Load detection error	±3% (Full load, rated output voltage)		
Power Limitation When battery voltage is lower than 55Vdc, output power will be derated. If connected load is higher than this derated power, the AC output voltage will decrease until the output power reduces to this derated power. The minimum AC output voltage is output voltage setting – 20V.	/		

Table 11.3 Charge Mode Specifications

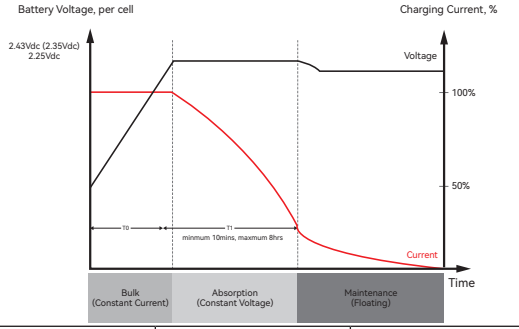
Model		HYX-H6K-LS	HYX-H8K-LS	HYX-H10K-LS
Internal battery configuration				
Charging Current (UPS) @ Nominal Input Voltage		125A	165A	165A
Bulk Charging Voltage	Flooded Battery	58.4Vdc		
	AGM / Gel Battery	56.4Vdc		
Floating Charging Voltage		54Vdc		
Overcharge Protection		60Vdc		
Charging Algorithm		3-Step		
Charging Curve				
Max. MPPT Input Power		12000W	12000W	15000W
Max. PV Array Open Circuit Voltage		500Vdc		
PV Array MPPT Voltage Range		60Vdc~450Vdc		
Max. Input Current		20A x 2 (Max. 25A)		
Max. Charging Current		125A	165A	165A
Start-up Voltage		70Vdc ± 5Vdc		
Electrical data				
Battery fuse protection		Yes		
Battery circuit breaker		No		

Table 11.4 General Specifications

MODEL	HYX-H6K-LS	HYX-H8K-LS	HYX-H10K-LS
Operating Temperature Range	-40°C ~+60°C (de-rating above 45°C)		
Storage temperature	-40°C ~70°C		
Humidity	0%~100% Relative Humidity (Non-condensing)		
Dimension (W × H × D)	430 × 350 × 177.8 mm		
Net Weight	15.5kg		

Table 11.5 Parallel Specifications

Max parallel numbers	6
Circulation Current under No Load Condition	Max. 2A
Power Unbalance Ratio	<5% @ 100% Load
Parallel communication	CAN
Transfer time in parallel mode	Max. 20ms
Parallel Kit	YES

13 Contact Information

If you have any questions about this product, please contact us.

In order to provide you with faster and better after-sales service, we need your assistance in providing the following information.

- Equipment model : _____
- Serial number of the device: _____
- Fault code / name: _____
- A brief description of the fault phenomenon: _____

_____

_____

_____

Version: UM_HYX-H6K/8K/10K-LS_202610-EN
The manual is subject to change without notice while the product is being improved.



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