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› Y&H 2000W Solar Hybrid Inverter User Manual

Y&H 2000W-12V-M80A

Y&H 2000W Solar Hybrid Inverter User Manual

Model: 2000W-12V-M80A

INTRODUCTION

This user manual provides detailed instructions for the installation, operation, and maintenance of the Y&H 2000W Solar Hybrid Inverter. This pure sine wave inverter is designed for off-grid solar systems, integrating an 80A MPPT solar charger and an AC charger. It is suitable for 12V lead-acid and lithium batteries, offering a maximum PV input power of 2000W and a DC input voltage range of 30-400V.

PRODUCT FEATURES

- **Pure Sine Wave Output:** Provides stable and clean power suitable for sensitive electronics.
- **Integrated MPPT Solar Charger:** Built-in 80A MPPT charge controller for efficient solar power utilization.
- **Versatile Battery Compatibility:** Compatible with 12V Lead-Acid (Seal, AGM, Gel, Flooded) and Lithium batteries.
- **Multiple Charging Modes:** Offers Only Solar, Mains First, Solar First, and Mains & Solar hybrid charging options.
- **Flexible Output Modes:** Includes Solar First, Mains First, and SBU Priority for uninterrupted power supply.
- **Comprehensive Protection:** Features short circuit, over voltage, over-load, over current, under voltage, backfill, over charge, and over-temperature protection.
- **LCD & LED Display:** Dynamic display of system data and operating status, with configurable settings.
- **Remote Monitoring Support:** Cloud monitor remote monitoring capability (module not included).

UNPACKING AND COMPONENTS

Upon receiving your Y&H Solar Hybrid Inverter, carefully unpack the contents and verify all components are present and undamaged. Refer to the video below for an unpacking guide.

Your browser does not support the video tag.

Video Description: This video demonstrates the unpacking process of the Y&H Solar Hybrid Inverter, showing how the unit is securely packaged and the initial components visible upon opening the box.



Image Description: Front view of the Y&H 2000W Solar Hybrid Inverter, showcasing its white casing and the integrated LCD display panel.

PORT INTRODUCTION

Understanding the various ports and indicators on the inverter is crucial for proper setup and operation. The following image and video provide a detailed overview.

Comprehensive 360° protection



Short Circuit
Protection



Over Voltage
Protection



Over-Load
Protection



Over Current
Protection



Under Voltage
Protection



Backfill
Protection



Over Charge
Protection



Over-Temperature
Protection



Image Description: Diagram illustrating the various ports and indicators on the Y&H Solar Hybrid Inverter, including LCD display, status indicators, AC input/output, battery input, and PV input.

Your browser does not support the video tag.

Video Description: This video provides a visual introduction to the different ports and features of the Y&H Solar Hybrid Inverter, highlighting the dustproof box, Wi-Fi interface, AC input/output, double cooling fans, PV input, and power switch.

INSTALLATION

Proper installation is critical for the safe and efficient operation of your inverter. Follow these steps carefully. For a visual guide, refer to the installation video.

Wiring and Technical Specifications

Before installation, ensure you understand the wiring requirements and technical specifications.

Wiring and technical specifications

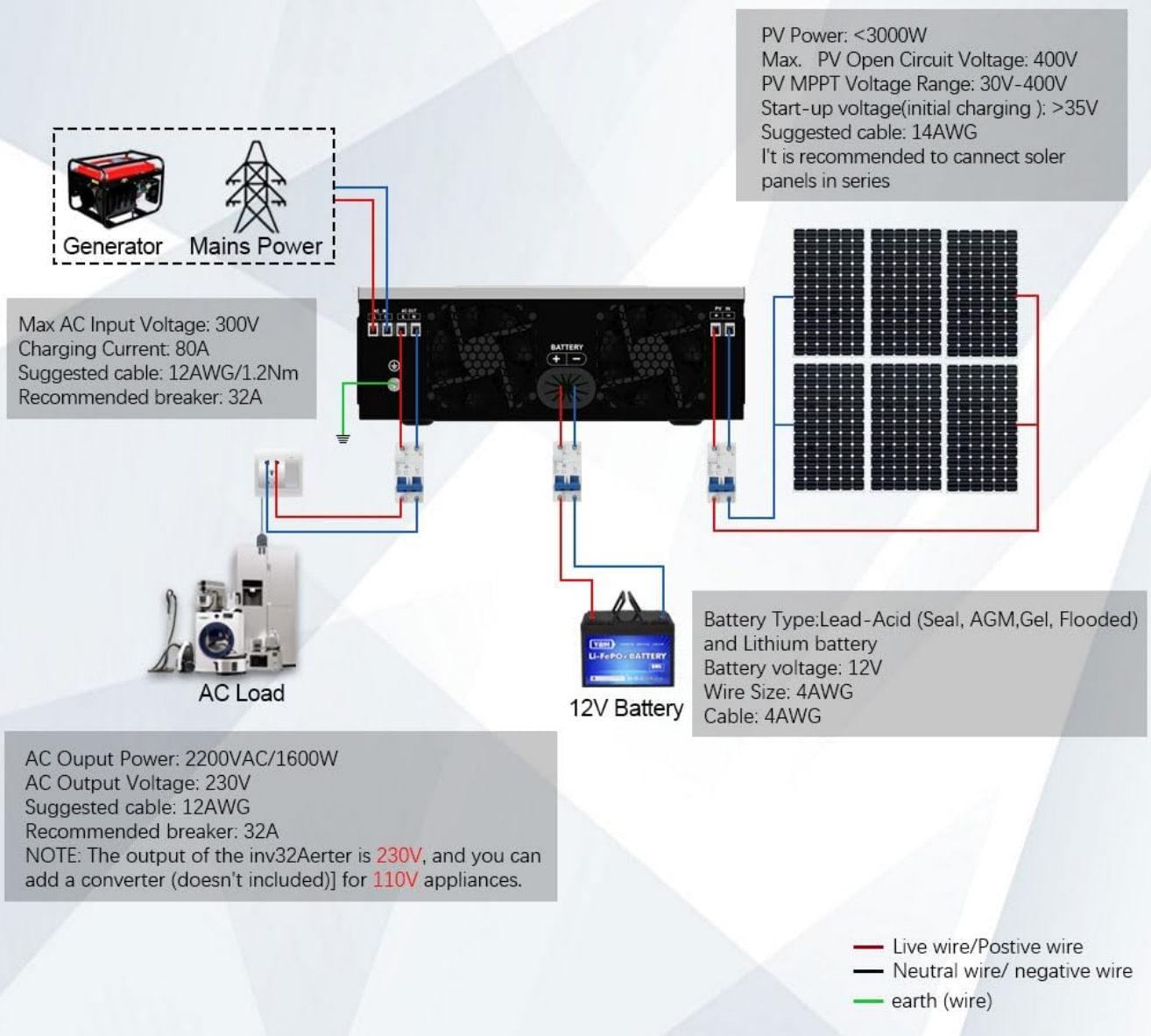


Image Description: A detailed diagram showing the wiring connections for the Y&H Solar Hybrid Inverter, including connections to mains power, generator, battery, solar panels, and AC load. Key technical specifications for each connection type are also provided.

Installation Method

Follow the sequence below for connecting the inverter components.

1. **Connect the Battery:** Ensure the positive and negative terminals are connected correctly and not in reverse.
2. **Connect AC Input:** Connect the AC power source to the inverter's AC input terminals.
3. **Connect AC Output:** Connect your AC loads to the inverter's AC output terminals.
4. **Connect PV Input:** Connect the solar panel array to the PV input terminals.

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Video Description: This video demonstrates the step-by-step installation process of the Y&H Solar Hybrid Inverter, showing the connection of battery, AC input, AC output, and PV input cables.

Battery Compatibility

The inverter supports seamless connection with multiple battery types. For Lithium batteries, the Battery BMS must be PylonTech.

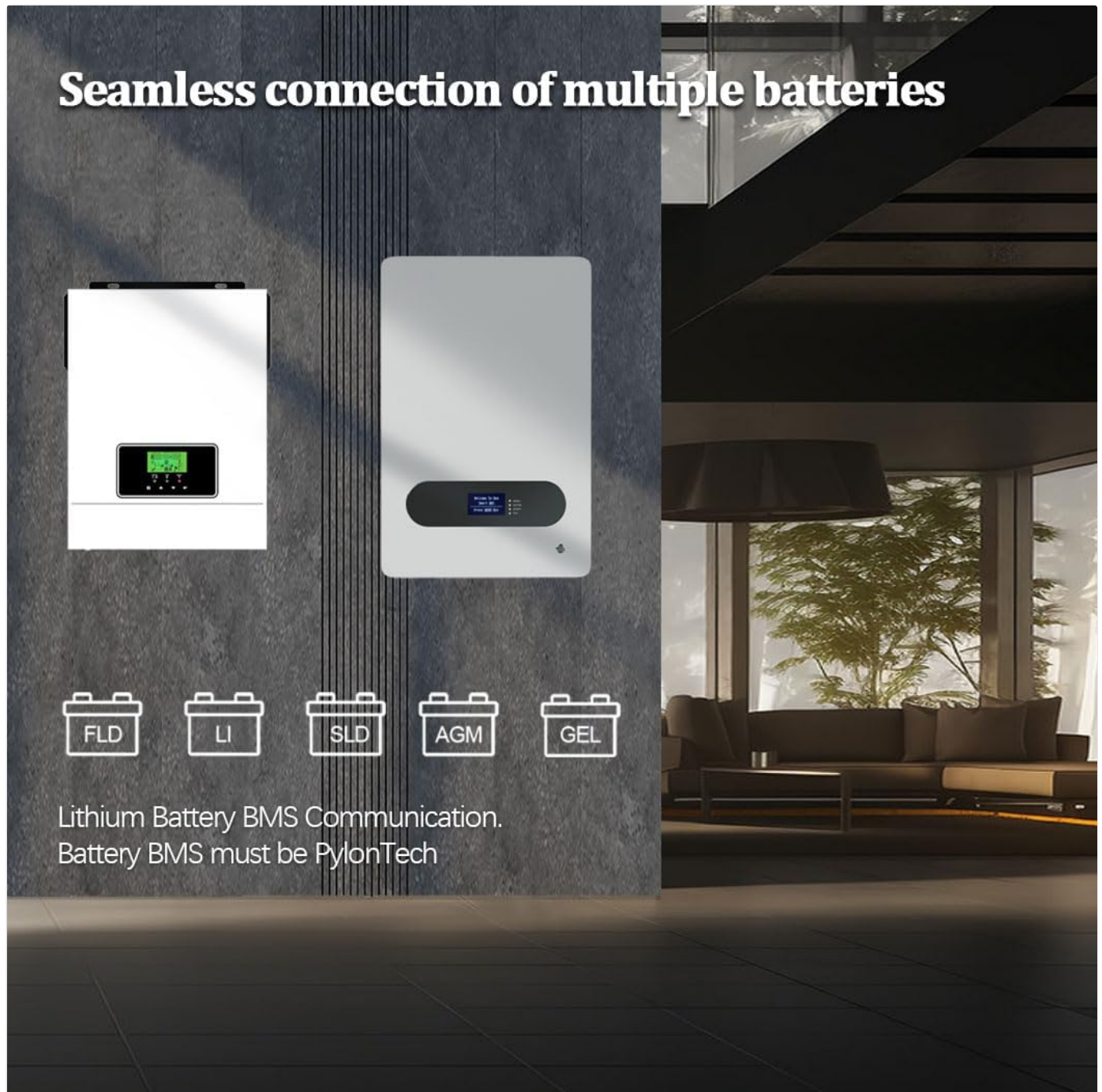


Image Description: An image showing the Y&H inverter and another inverter unit, with icons representing compatible battery types: FLD (Flooded), LI (Lithium), SLD (Sealed Lead-Acid), AGM, and GEL. A note indicates that Lithium Battery BMS Communication requires PylonTech.

OPERATION

Screen Parameter Setting

The LCD display allows for configuration of various parameters to optimize performance. Refer to the video for a guide on navigating the settings.

Your browser does not support the video tag.

Video Description: This video demonstrates how to navigate and adjust parameters on the Y&H Solar Hybrid Inverter's LCD screen, showing various settings like output voltage, frequency, and charging modes.

Charging and Discharge Modes

The inverter offers multiple charging and discharge modes to maximize energy use and reduce electricity bills.



Image Description: A diagram illustrating the four charging modes (CSO Solar First, Utility First, SNU Solar and Utility, OSO Only Solar) and three discharge modes (SUB Solar First, USB Utility First, SBU Priority) available on the Y&H Solar Hybrid Inverter.

Remote Monitoring (Wi-Fi Communication)

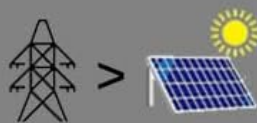
The inverter supports remote monitoring via Wi-Fi, allowing users to check the system status from a mobile device or website anytime, anywhere. Note that the Wi-Fi communication module is not included and must be purchased separately.

Maximize energy use and reduce electricity bills

16 sets C50



CSO Solar First



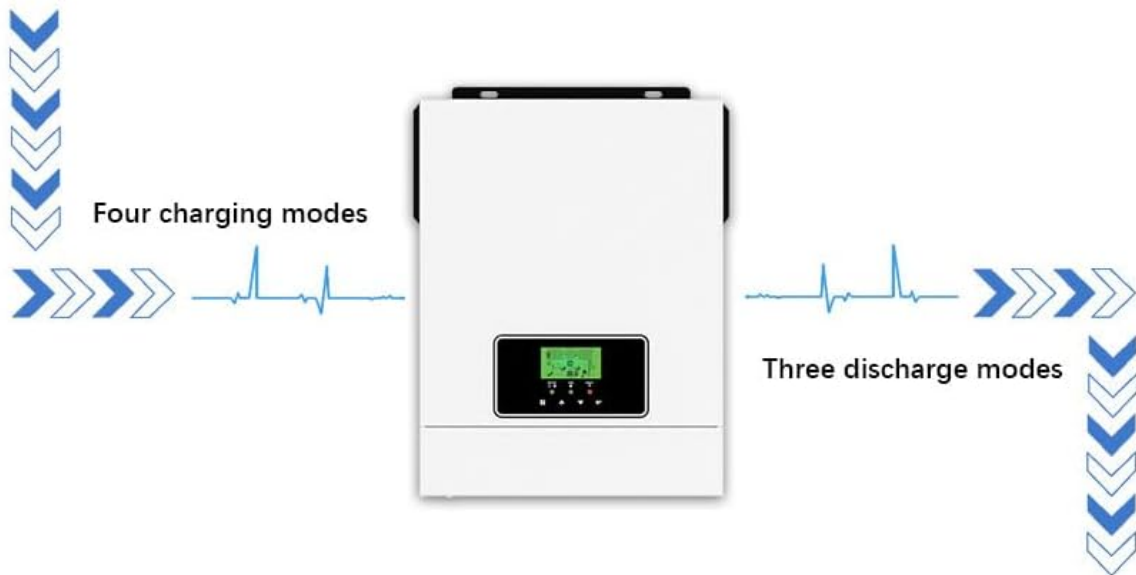
Utility first



SNU Solar and
Utility (default)



OSO Only Solar



01 sets SBU



SUB Solar First (Default)



USB Utility First



SBU Priority

Image Description: An image depicting a person using a mobile phone to monitor the inverter's status via Wi-Fi communication, with a graphical interface showing solar panel output and battery charge levels.

Application Scenarios

The Y&H Solar Hybrid Inverter is suitable for a wide range of applications, powering various household and office loads.

Wi-Fi Communication

No matter how far away you are, you can check the work of the inverter anytime, anywhere.

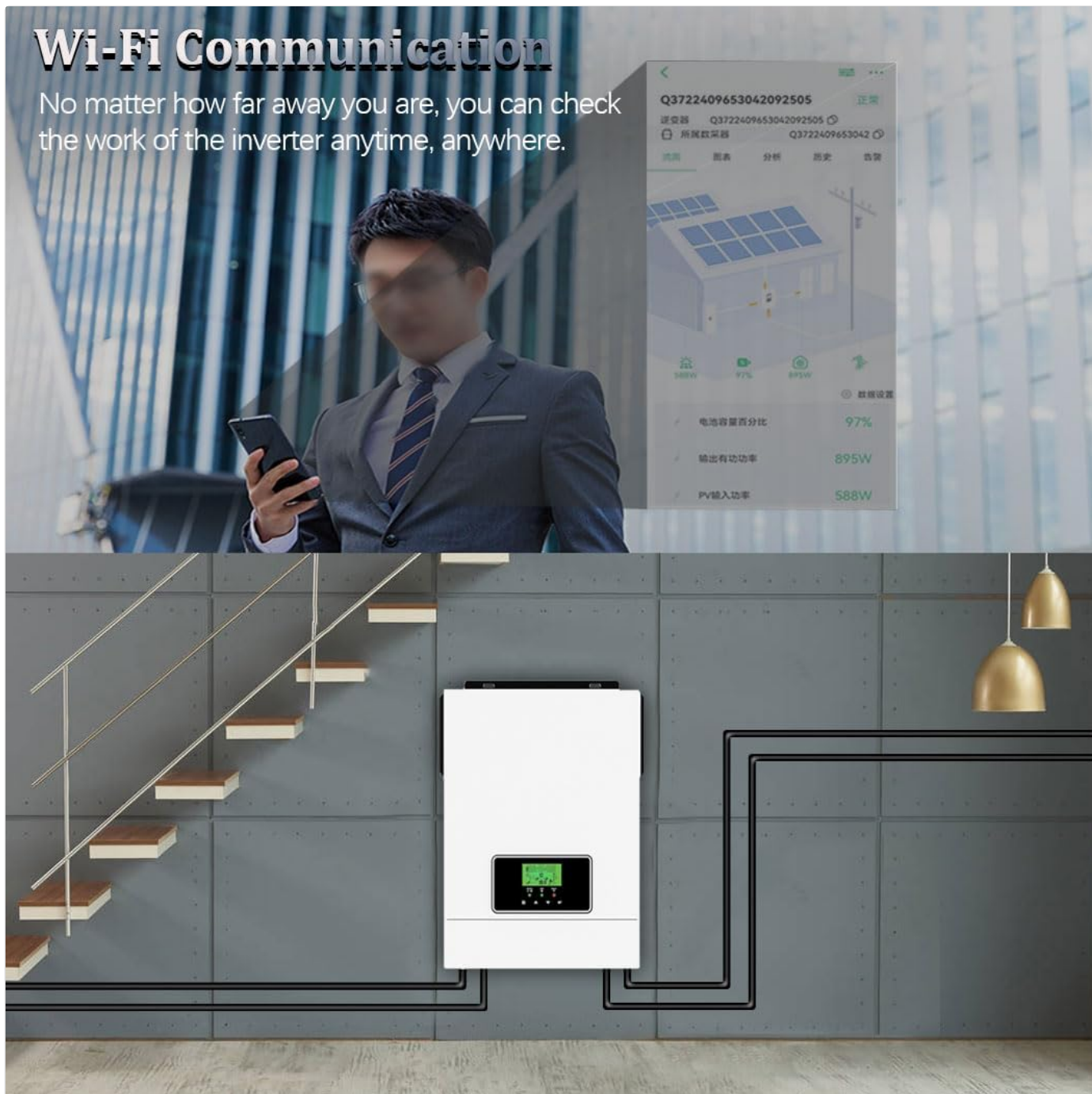


Image Description: An illustration showing the Y&H inverter connected to various household appliances such as a refrigerator, microwave, washing machine, and dryer, demonstrating its capability to power daily needs.

PROTECTION AND MAINTENANCE

Comprehensive Protection Features

The inverter is equipped with multiple protection mechanisms to ensure safe and reliable operation of both the unit and connected appliances.

Comprehensive 360° protection



Short Circuit
Protection



Over Voltage
Protection



Over-Load
Protection



Over Current
Protection



Under Voltage
Protection



Backfill
Protection



Over Charge
Protection



Over-Temperature
Protection



Image Description: A graphic detailing the comprehensive 360° protection features of the Y&H inverter, including short circuit, over voltage, over-load, over current, under voltage, backfill, over charge, and over-temperature protection.

Key Protective Technologies

- **Advanced Pure Sine Wave Technology:** Protects and extends the life of your electronics and appliances.
- **Intelligent Temperature Control:** Maintains a cool working temperature for the device, ensuring longevity.
- **Multiple Protection Circuits:** Integrated circuits for robust system safety.
- **LCD Screen + LED Indicators:** Provides real-time system data and operating status for easy monitoring.



Image Description: A collage of four images highlighting key features: advanced pure sine wave technology, intelligent temperature control, multiple protection circuits, and the LCD screen with LED indicators.

General Maintenance

- Regularly inspect all connections for tightness and corrosion.
- Keep the inverter's ventilation openings clear of dust and debris to ensure proper cooling.
- Avoid installing the inverter near bedrooms, as the cooling fan may produce noise (50-70 dB) during operation.
- For 110/120V US home appliances, a separate step-down transformer (not included) is required as the inverter outputs 220/230/240V AC.

SPECIFICATIONS

Feature	Specification
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Model Name	Y&H Hybrid Inverter (2000W-12V-M80A)
Wattage	2000 watts (1600W continuous, 3200W surge)
Power Source	Solar Powered
DC Input Voltage	12V
AC Output Voltage	220/230/240V (Single phase/A Hot Leg 230V Output)
Max. PV Input Power	2000W
PV Voltage Range	30-400Vdc
Max. PV Input VOC	400V DC
Starting Voltage	>35V
Max. Charge Current	80A (MPPT)
Nominal Input Frequency	50/60Hz
Product Dimensions	14.05 x 10.74 x 3.74 inches
Item Weight	12.71 pounds
Country of Origin	China

Power All Your Daily Needs



Image Description: A graphic summarizing key specifications of the Y&H Off Grid 12V to 230V 2000W Hybrid Inverter, including AC Output Power, Nominal DC Input Voltage, Max Charging Current, Maximum AC charging current, Minimum starting voltage, and maximum voltage.

TROUBLESHOOTING

This section provides common issues and their potential solutions. For more complex problems, please contact customer support.

Problem	Possible Cause	Solution
Inverter not turning on	No battery connection or low battery voltage.	Check battery connections and ensure battery voltage is within operating range.
No AC output	Overload, short circuit, or high temperature.	Reduce load, check for short circuits, ensure proper ventilation.

Solar charging not working	PV input voltage too low or high, or incorrect PV connection.	Verify PV voltage is within range (30-400Vdc), check PV wiring.
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WARRANTY AND SUPPORT

Y&H products are designed for reliability and performance. For warranty information and technical support, please refer to the official Y&H website or contact their customer service directly.

Manufacturer: Y&H

Official Website: [Visit the Y&H Store on Amazon](#)

For additional support, you may also refer to the [Installation Manual \(PDF\)](#).

