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Off Grid Mode Solution

User Manual

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CONTENTS

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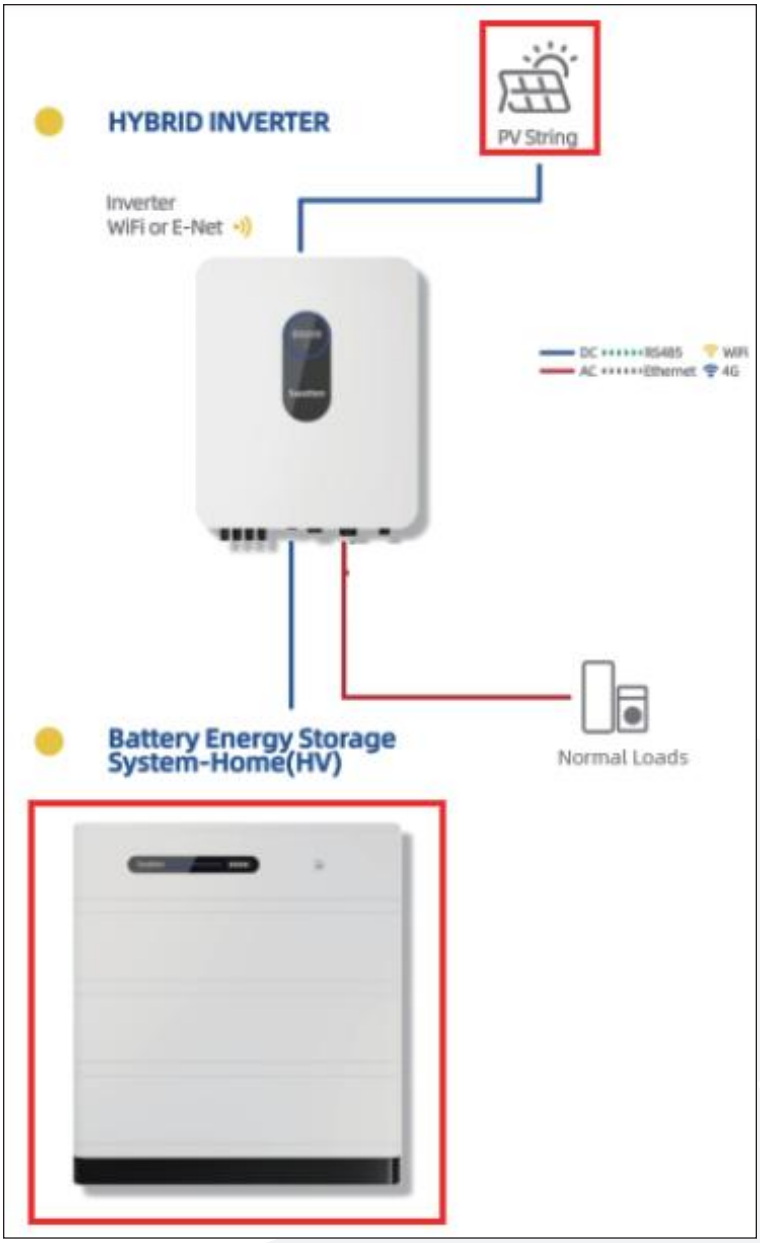
1. Introduction to Off-Grid Mode

In the Off-Grid mode, the inverter is not connected to the utility grid and operates entirely independently. The system primarily relies on the PV panels and battery to supply power to various devices, while the battery is charged through PV or other power generation equipment to meet daily electricity demands. This mode is particularly suitable for remote areas that are not covered by the grid or have unstable power supply, such as islands or mountainous regions. It can provide stable electricity to local users and ensure the normal use of electricity for daily life and production.



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2. Installation Preparation and Precautions

Load and Port Connection

In the Off-Grid mode, all electrical devices must be connected to the BACKUP port of the inverter. Meanwhile, ensure that the GRID port of the inverter remains unoccupied and is not connected to any grid lines to prevent wiring errors.

Battery State of Charge Management

Regularly monitor the battery's State of Charge (SOC). If the SOC remains below 20% for an extended period, promptly use the power generation equipment to charge the battery. Avoid over-discharging the battery, as this can shorten its lifespan and may even cause irreversible damage.

Installation and Wiring Operations

During the installation of the inverter and the wiring connections, please strictly follow the steps and diagrams provided in the Quick Start Guide to ensure standardized operations.

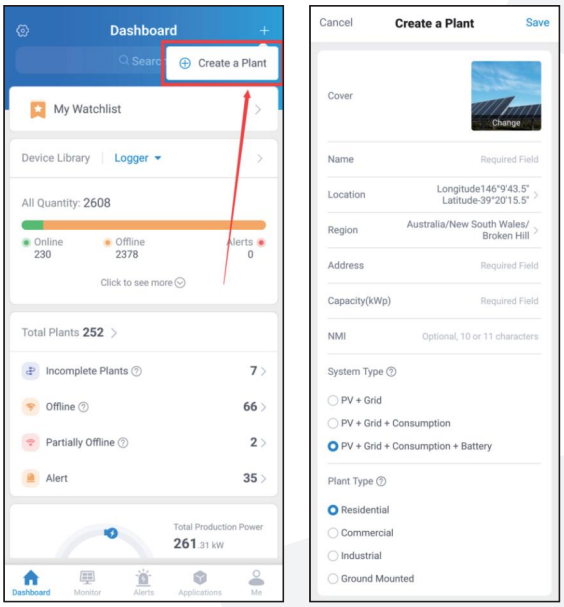
Pre-power-on Inspection and Operations

After completing the above installation steps, it is necessary to conduct a comprehensive inspection once again to ensure that all wiring terminals are secure and that the circuit connections are correct. Once it is confirmed that the wiring is correct and complies with safety regulations, all circuit breakers may be turned on to power up and activate the inverter.

3. Solarman Commissioning Method

3.1. Download and Register

Please download the Solarman Business App from the app store, register an account, and log in with an email address. (Downloading, registration, and login steps are omitted here.)



On the Dashboard interface, click the "+" icon in the upper right corner, select "create a plant", then fill in the relevant information in sequence according to system prompts and click "save" after completion.

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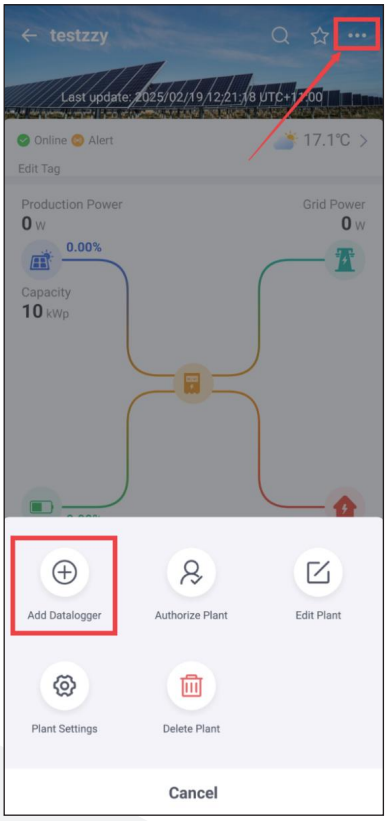
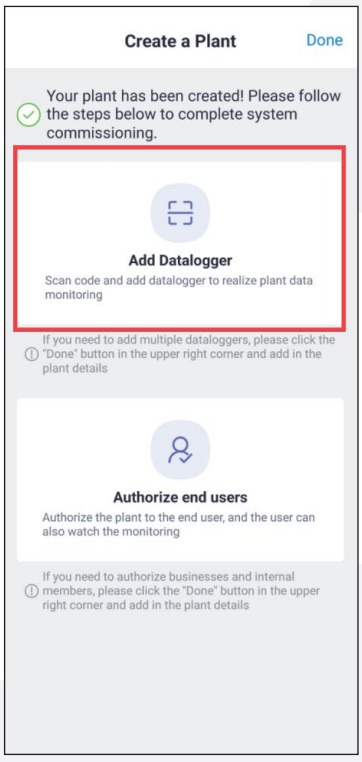
3.2. Add Datalogger

Please scan the QR code on the logger.

Enter the Dashboard interface of the newly created plant, click the "..." icon in the upper right corner, select "add datalogger", then scan the QR code on the WiFi logger to complete the binding operation.





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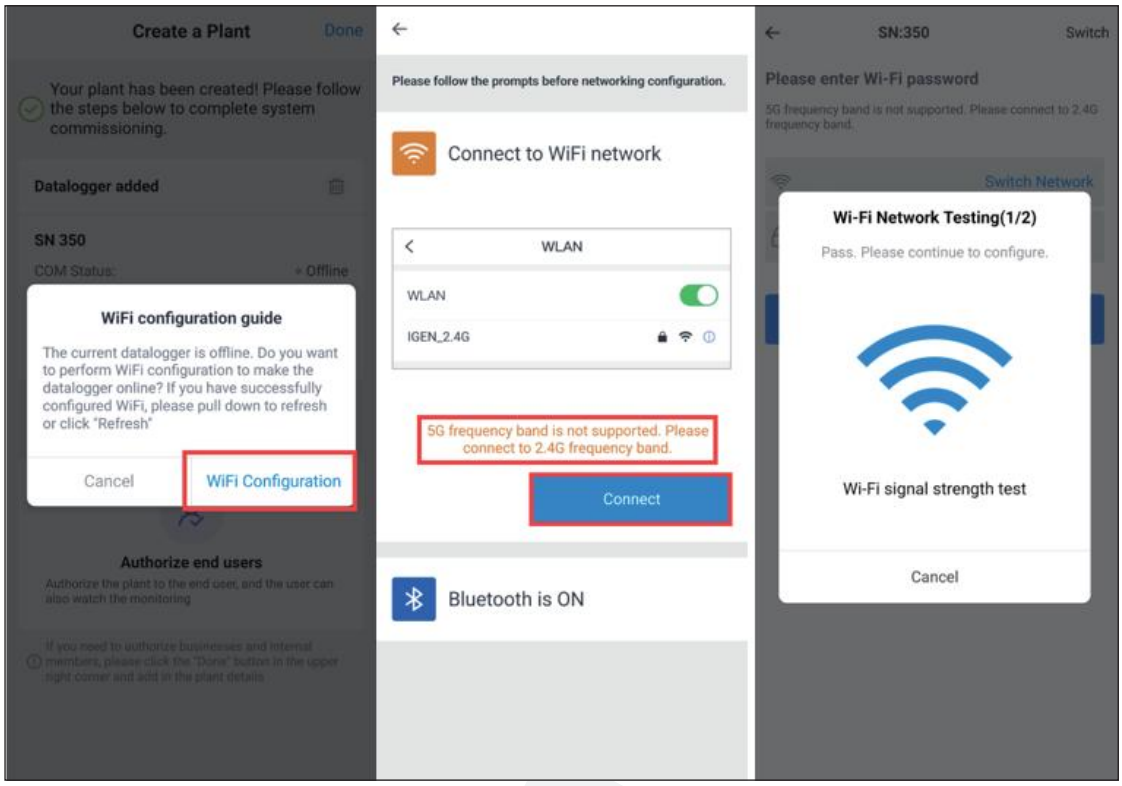
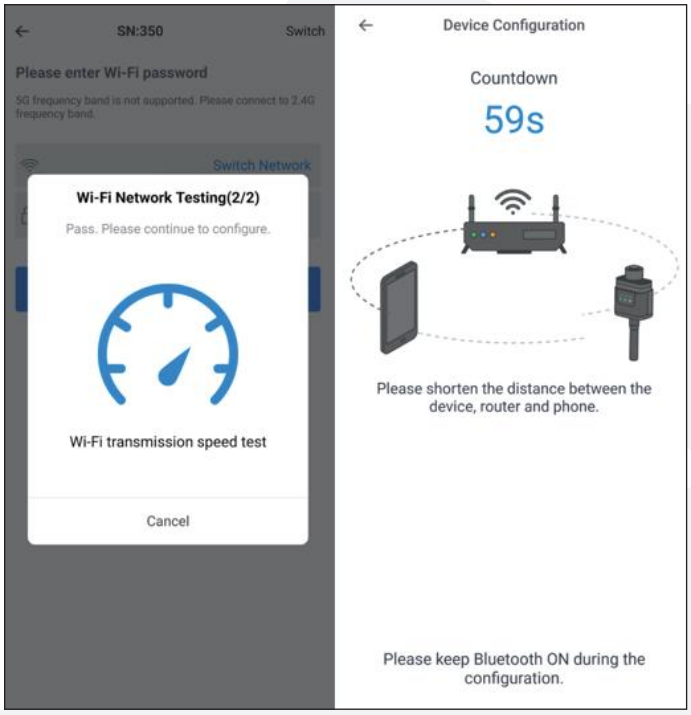
3.3. WiFi Configuration

Complete the WiFi connection according to on-screen prompts.

Ensure the Logger receives a good WiFi signal (only 2.4GHz is supported).





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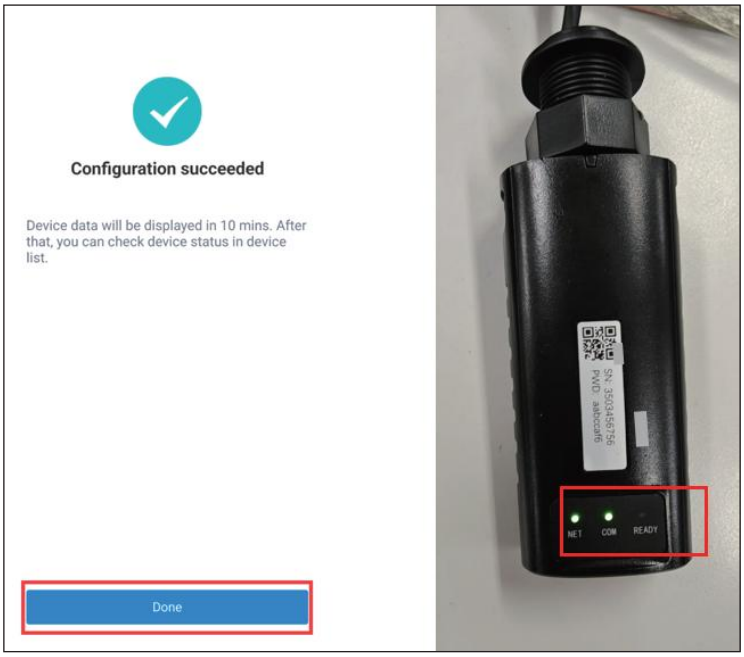
3.4. After WiFi Connection

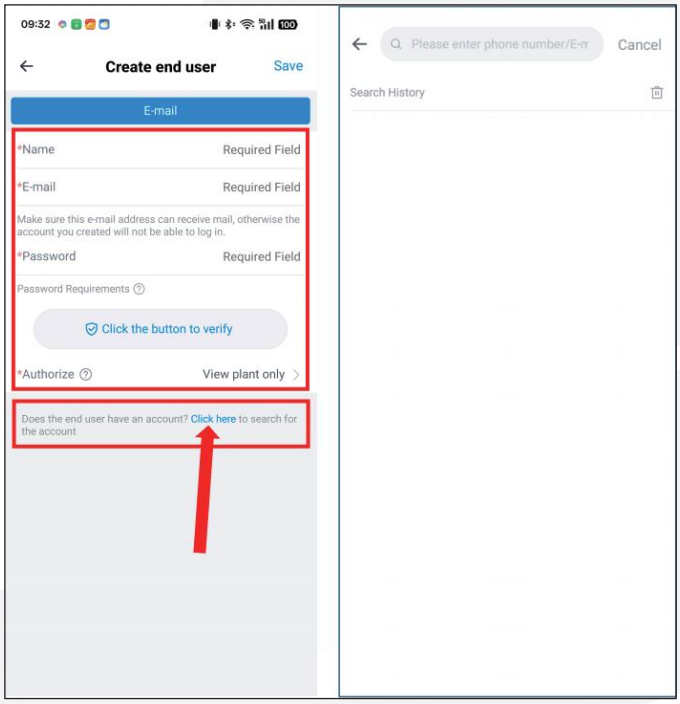
The NET and COM indicators will stay on.
The READY indicator will flash.



3.5. Share the plant to end-users

Fill in the information for the end user, and invite the end user to download the Solarman Smart App from the app store.

They can log in using the email address and password you've filled in as their account credentials. If the end user has already registered for Solarman Smart, please search for the end user's mobile phone number or email address through the "Click here" option below to complete the authorization process.

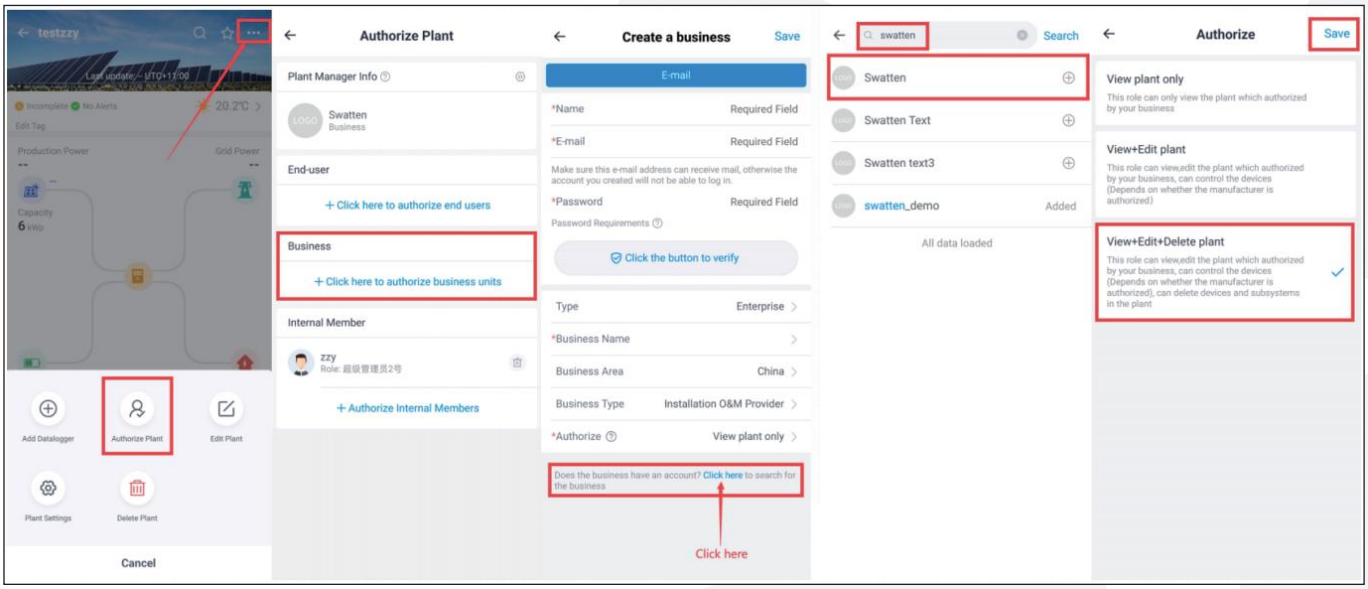


3.6. System Update

After completing the above operations, the system status will be updated in approximately 10 minutes.

3.7. Share the plant to end-users

To facilitate technical support and issue resolution after installation, it is highly advisable to authorize the power station to Swatten.



3.8. Commissioning finished

The App commissioning and authorization are now completed.

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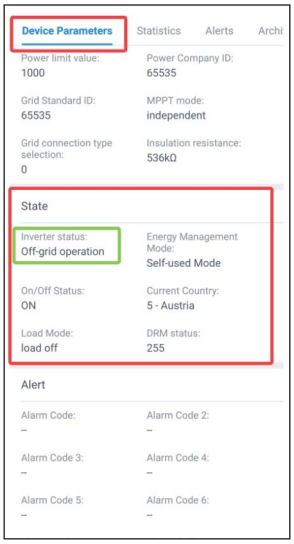
4. App Working Mode Selection and Settings

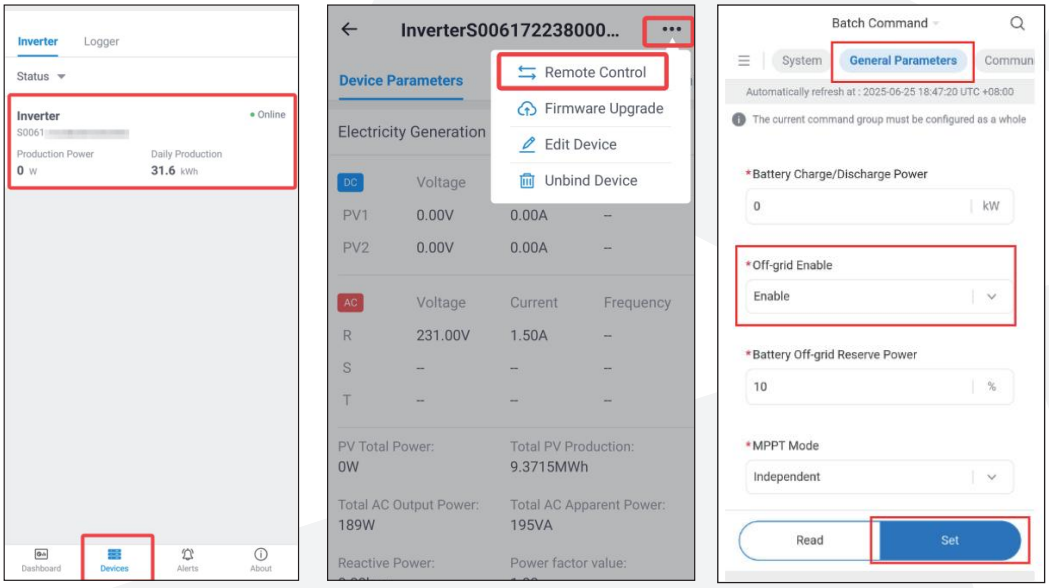
4.1. Operation Mode Confirmation

After installation and power-on, no additional manual settings are required. The inverter will automatically detect the operating conditions and directly enter the off-grid mode. If you need to check the real-time operating status of the inverter, you can enter the “Devices parameters - status” interface to verify each parameter and confirm that the device is operating normally.



4.2. Off-Grid Mode Configuration

If the inverter has not entered off-grid mode,you can click the inverter on the Device interface, , then select the “...” icon in the upper right corner-Remote Control,find “General Parameters,” and locate “Off-grid Enable”at the bottom. Click to open the drop-down menu and select “Enable.”



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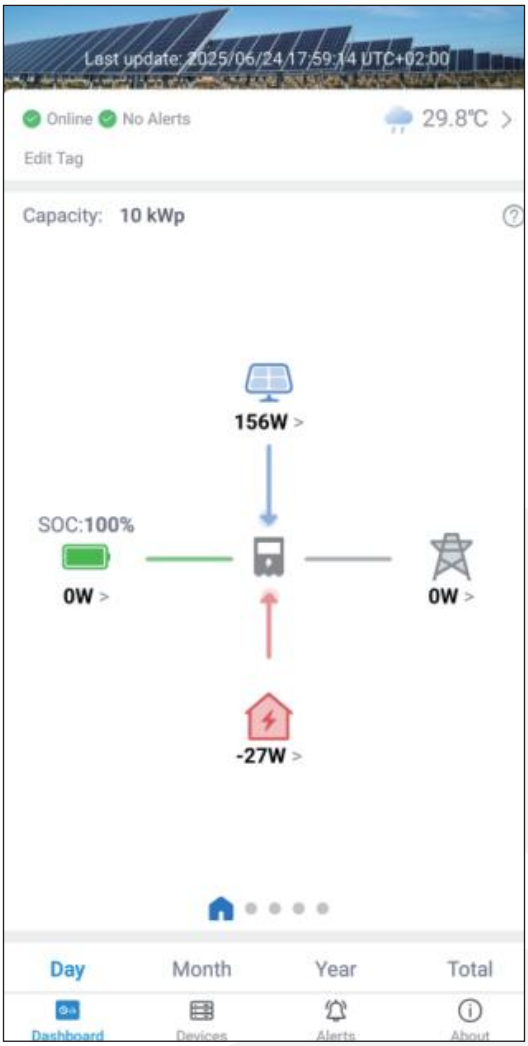
5. On-site Inspection after Completing Installation and App Setting

5.1. On-site Verification

Please turn off the DC switch on the left side of the inverter to simulate the situation of no PV power generation at night, and confirm whether the battery can supply power to the critical load normally. If the battery fails to supply power after the above operations, please check the wiring again, or contact us for assistance through the contact information at the end of this document.

5.2. App Verification

In the energy flow diagram, PV provide power for both load consumption and battery charging.



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