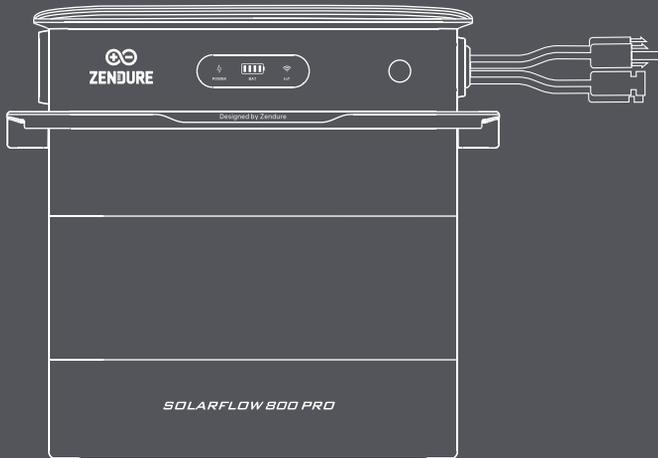# SolarFlow 800 Pro

User Manual/Bedienungsanleitung/Manuel d'utilisation/
Manuale d'uso/Manual de usuario/Gebruikershandleiding

# Disclaimer

Please read all safety guidelines, warnings, and other product information in this manual carefully, and read any labels or stickers attached to the product before using. Users are fully responsible for the safe usage and operation of this product. Make sure you are familiar with the relevant regulations in your area. It is your sole responsibility to ensure compliance with these regulations while using Zendure products.

# Content

# 1. SolarFlow 800 Pro Specification

| SolarFlow 800 Pro Power Station | |
|---|---|
| Parameter | Specification |
| Model | ZDSF800P |
| PV Input | |
| Max. PV Input Voltage | 55V d.c. |
| Max. PV Input Current | 18A d.c. |
| Max. PV Input Isc | 22.5A d.c. |
| Max. PV Input Power | 2640W(4*660W) |
| Operating Voltage Range | 14-55V d.c. |
| AC Parameter | |
| Max. AC Continuous Output Power (on-grid) | 800W |
| Max. AC Continuous Output Current (on-grid) | 3.5A a.c. |
| Max. AC Continuous Output Power (off-grid) | 1000VA |
| Max. AC Continuous Output Current (off-grid) | 4.35A a.c. |
| Max. AC Continuous Input Power | 1000W |
| Max. AC Continuous Input Current | 4.35A a.c. |
| AC Input/Output Voltage/Frequency | 230V a.c. ,50Hz |
| Power Factor | 0.8(lagging)-0.8(leading) |
| SolarFlow 800 Pro Battery (Port) | |
| Battery Type | LiFePO$_4$ |
| Battery Rated Energy | 1920Wh |
| Battery Rated Voltage | 48V d.c. |
| Charge/Discharge Power (Without Extra Battery) | 1440W |
| Charge/Discharge Current (Without Extra Battery) | 30A d.c. |
| Charge Temperature | 0° C to 55° C |
| Discharge Temperature | -20° C to 55° C |
| Charge/Discharge Voltage Range | 37.5V d.c. to 54.75V d.c. |
| Max. Charge/Disharge Power (With Extra Battery) | 2000W |
| Max. Charge/Disharge Current (With Extra Battery) | 40A d.c. |
| General Information | |
| Protection Class | Class I |
| Recommended Temperature Range | -20° C to 55° C |
| Type of Enclosure | IP65 |
| Bluetooth | Bluetooth 5.0 Frequency 2402-2480MHZ |
| | Maximum Transmit Power20.0 dBm |
| Wi-Fi | Wi-Fi 4 (802.11b/n/g) Frequency:2412-2472MHZ |
| | Maximum Transmit Power20.0 dBm |
| Dimensions | 338.6 × 226 × 358 mm |
| Weight | 25.9kg |

# 2. Safety Instruction

## 2.1 Safety Guidelines

1. Please carefully read all current documentation before installing, using, or servicing the product, as documentation may be updated over time.
2. Please check whether the product is damaged, cracked, leaking liquids, becoming hot, or exhibiting other abnormalities, and check any cables for damage before operating. If there are any problems, please stop using the product immediately and contact our customer service.
3. Do not place heavy objects on top of the product.
4. Make sure all cords and plugs are intact and dry before connecting to avoid electric shock.
5. Do not install or operate the system under extreme climatic conditions such as lightning, snow, heavy rain, strong winds, etc.
6. To reduce the risk of injury, close supervision is necessary when the product is used near children.
7. Keep hands and fingers away from the product's internal components.
8. For safety purposes, please use only the original charger and cables designed for the equipment. We are not liable for damage caused by third-party equipment, and this may render your warranty invalid.
9. Maintain a minimum clearance of 50mm between the product and any surrounding objects.
10. During the operation of the solar energy system, avoid direct sunlight to prevent the product from overheating. Do not place the product near any heat source.
11. Please install the product according to our user manual to avoid damage to the product or injury to other people.
12. Do not use this product near strong static electricity or strong magnetic fields.
13. Do not place the equipment in an environment with flammable or explosive compounds, gas, or smoke. Since the product relies on the shell to dissipate heat, exposing the enclosure to excessive heat will lead to damage.
14. To reduce the risk of damage to the electric cords and connectors, pull the connectors rather than the cord when disconnecting the product.
15. Do not use the product in excess of its output rating. Overloads may result in a risk of fire or injury to persons.
16. Do not use any products or accessories that are damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior, resulting in fire, explosion, or risk of injury.
17. Do not operate the product with a damaged cord or plug, or a damaged output cable.
18. Do not disassemble the product. Take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.
19. Do not expose the product to fire or high temperatures.
20. Do not attempt to replace the internal components of the equipment by any unauthorized personnel. Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
21. The product has a protection level of IP67, so the product cannot be immersed in liquids. If the product accidentally falls into the water during use, please place it in a safe and open area and stay away from it until it is completely dry. The dried product should not be used again and should be properly disposed of according to the disposal guidelines in this manual.
22. The product may feel warm when it's working. This is a normal operating condition and should not be a cause for concern.
23. To reduce the risk of electric shock, disconnect the solar photovoltaic panels, batteries, and home grid before attempting any instructed servicing.
24. When charging the battery, work in a well-ventilated area and do not restrict ventilation in any way, as inadequate ventilation may cause permanent damage to the equipment.
25. Do not clean the product with harmful chemicals or detergents. Only clean it with a dry cloth.
26. Do not move or shake the unit while operating, as vibrations and sudden impacts may lead to poor connections to the hardware inside.
27. Ensure that the product and the batteries are installed securely to avoid accidents and product damage caused by falling.
28. In case of a fire, only a dry powder fire extinguisher is suitable for this product.
29. Servicing of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.

## 2.2  Disposal Guide

1. Fully Discharge the Battery (if possible): Before disposal, ensure the battery is fully discharged. This can reduce potential hazards. Always refer to local laws and guidelines for battery recycling and disposal procedures.
2. Handling Failed Batteries: If the battery cannot be fully discharged due to malfunction or product failure, consult a licensed battery recycling facility or professional for proper and safe handling.
3. Segregation of Battery Types: Ensure batteries or cells from different electrochemical systems (e.g., lithium-ion, nickel-metal hydride) are disposed of separately. Mixing different types of batteries can lead to chemical reactions or safety risks.
4. Avoid Physical Damage: Do not expose the battery to physical impacts, punctures, or high temperatures during disposal, as it may lead to leakage, fire, or explosion.
5. Follow Local Regulations: Always adhere to local regulations and guidelines for battery disposal, as improper handling can harm the environment and violate legal requirements.

## 2.3  EC DECLARATION OF CONFORMITY

ZENDURE TECHNOLOGY CO., LIMITED declares that the SolarFlow 800 Pro complies with the directive 2014/53/EU (RED), 2011/65/EU(RoHS), 2015/863/EU(RoHS).
The full text of the Declaration of Conformity is available at the following web address: https: //zendure.de/pages/download-center

| | |
|---|---|
| $C \in$ | **Declaration of conformity**<br>The EU Declaration of Conformity can be requested at this address: https: //zendure.de/pages/download-center |
| ♻ | **Disposal and Recycling**<br>Disposal of packaging: dispose of the packaging separately by type of material. |
| 🗑 | Disposal of old equipment (applies in the European Union and other European countries with separate collection (waste collection) Old equipment must not be disposed of in household waste. Every consumer is legally obligated to dispose of old equipment that can no longer be used separately from household waste, for example at a collection point for recyclables.<br>To ensure proper recycling and avoid negative impact on the environment, electronic devices must be taken to an appropriate collection site. For this reason, electronic devices are marked with the symbol shown to the left. |
| 🗑 | Batteries and accumulators must not be disposed of in household waste. As a consumer, you are legally obligated to dispose of all batteries and accumulators, regardless of whether they contain pollutants or not, at a designated collection point.<br>Marked with: Cd = Cadmium, Hg = Mercury, Pb = Lead. Discharge any built-in or accessory batteries before disposing. |

# 3. Symbols Used in This Guide

| Symbol | Explanation |
|---|---|
| ⚠ | A high-risk hazard that, if not avoided, could result in death or serious injury. |
| 🔔 | Important information that you must pay attention to. |
| 📦✓ | Included with your product |
| 📦✗ | Optional (not included) |
| 💡 | Indicates additional information on correct use or useful tips. |

# 4. Important Tips

| | |
|---|---|
| | Grid-tied Regulation:The solar PV system is grid-tied. Please check if it is allowed in your area. |
| | Protect from Direct Sunlight: Ensure that the SolarFlow 800 Pro is placed in a shaded area to avoid rapid temperature increases that could affect performance. |
| | Accessory Check: Verify the necessary accessories prior to installation, as some may need to be purchased separately. |
| | Download the Zendure App: After installation, download the Zendure app to unlock additional smart features and remote control options. |
| | Grid Connection Time: Once installation and the initial startup are complete, allow approximately 1 minute for the SolarFlow 800 Pro to connect to the grid. |
| | Set Safe AC Output: Use the Zendure app to configure the AC output for home use. Ensure the output complies with your country or region's safety power limits to prevent overloads. |
| | Shutdown Procedure: Before removing the SolarFlow 800 Pro, press and hold the button for 6 seconds to turn off the device, and disconnect all power cables for safety. |
| | Optimal Operating Conditions: It is recommended to use this product in environments ranging from 15℃ to 30℃ , away from water, heat sources, or sharp objects that could cause damage. |
| | Long-Term Storage: For long-term storage, discharge the battery to 30% and recharge it to 60% every 3 months. If it drops below 1% after use, recharge it to 60% before storing. Prolonged low power can cause irreversible damage and shorten the battery's lifespan. |
| | No Disassembly: Do not attempt to disassemble the product. For repairs or servicing, consult official Zendure channels. Improper handling could pose risks of fire or personal injury. |
| | Low SOC Protection: The battery features a 5% discharge limit to prevent excessive discharging of the AB3000S, thus extending its lifespan. |

# 5. What's in the Box
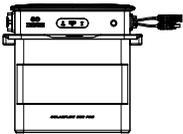


SolarFlow 800 Pro *1



User Manual
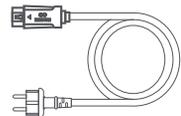


3m 10A AC Power Cable



Bracket Kite



Wrench for Removing Solar
Connector and AC Connector*1

Before unpacking, check the packaging for any damage (e.g., holes or cracks) . If damaged , do not unpack and contact Zendure service team immediately.
After unpacking, verify that all items are intact, complete. If anything is missing or damaged, contact customer service.

# 6. Overview

## 6.1 System Overview
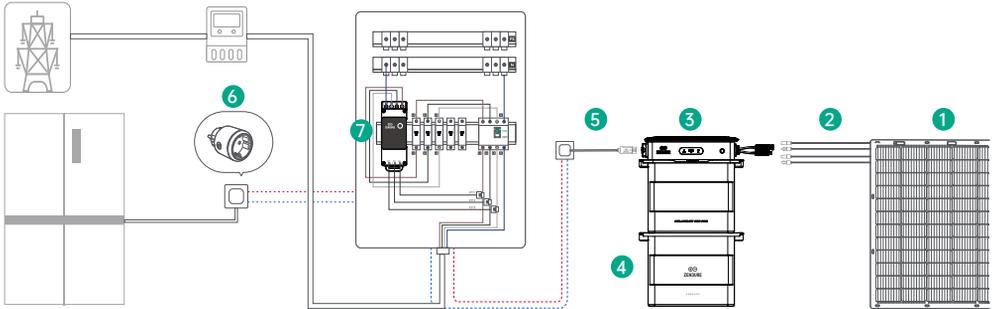


| | Name | Description | Included / Not Included |
|---|---|---|---|
| 1 | Solar Panel | The SolarFlow 800 Pro supports up to four sets of solar panels for efficient power generation. | ✗ |
| 2 | Solar Cables | Used to connect the SolarFlow 800 Pro to the solar panels. | ✗ |
| 3 | SolarFlow 800 Pro | Interconnects solar panels, add-on batteries, and the household grid, ensuring efficient energy storage and seamless power conversion. | ✓ |
| 4 | Add-on Battery | Expandable batteries that store electricity for household use. The SolarFlow 800 Pro can connect to up to 5 add-on batteries. | ✗ |
| 5 | AC Power Cable | Connects the Hyper 2000 inverter to the household power socket. | ✓ |
| 6 | Zendure Satellite Plug | Monitors device performance and wirelessly communicates with the SolarFlow 800 Pro to optimize energy usage. | ✗ |
| 7 | Zendure Smart Monitor CT | Monitors household electricity consumption and wirelessly communicates with the SolarFlow 800 Pro for energy optimization. | ✗ |

💡 Optional accessories are available for purchase on the official Zendure website.

## 6.2 Product Overview
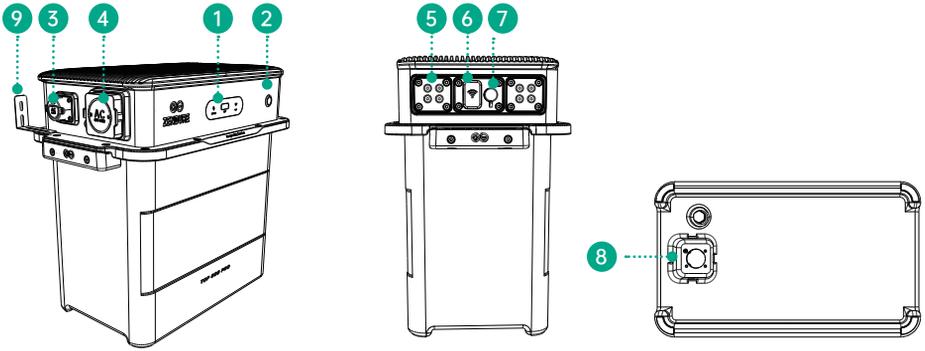


| | | |
|---|---|---|
| 1 | LED Light Strip | LED indicators for battery status, power, and IoT connectivity. |
| 2 | Button | Front control button for system controls. |
| 3 | AC Port | AC input port for connecting to the AC power cable. |
| 4 | Off-grid AC Socket | AC socket for off-grid loads. |
| 5 | PV Port 1-4 | Ports for connecting up to four sets of solar panels. |
| 6 | Antenna | Wireless communication antenna for system connectivity. |
| 7 | DC Port | DC input port for connecting cooling fans. |
| 8 | Battery Terminal | Port for connecting add-on batteries to the system. |
| 9 | Brackets | Mounting brackets for securing the system to a wall. |

## 6.3 Button Controls

| Button | Action | Function |
|---|---|---|
|  | Press once (powered on) | LED indicator lights up to show remaining battery level or other operational statuses. |
| | Press for 2 seconds | Turns on the SolarFlow 800 Pro. |
| | Press for 3 seconds | Resets the Wi-Fi connection. |
| | Press for 6 seconds | Turns off the SolarFlow 800 Pro. |

## 6.4 LED Display

| LED Indicator | LED Description | Detailed Explaination |
|---|---|---|
| | Green solid light | Device is powered on. |
| | Off | Device is powered off. |
| | Red fast flashing | Device has detected a fault. |
| | Green flashing rapidly | Off-grid mode is activated. |
| | Green slow flashing | Device is in automatic network configuration mode. |
| | Red fast flashing | Network connection failure. |
| | Green fast flashing | Press and hold the button for 3 seconds to enter manual network setup. |
| | Green solid light | Network configuration successful. |
| | Yellow slow flashing | OTA (Over-the-Air) update in progress. |
| | Green slow flashing | Battery is charging. |
| | Green solid light | Battery is connected and operating normally. |
| | Yellow fast flashing | Battery is low on charge. |
| | Yellow solid light | Battery BMS (Battery Management System) has triggered protection. |
| | Yellow slow flashing | Battery is heating up due to low temperature. |
| | Red fast flashing | Battery BMS has detected an error. |

# 7. Installing the SolarFlow 800 Pro

## 7.1 Before Assemble

- This user guide only describes the cable connection method and assembly of the SolarFlow 800 Pro system. To install solar modules, please read the instructions for the solar module and accessories.
- We recommend carrying out any solar-related setup on a sunny day, as it will be easier to assess the performance of your system and check for any issues.

## 7.2 Selecting a Location for the SolarFlow 800 Pro

Make sure the Device is within the Wi-Fi coverage area.
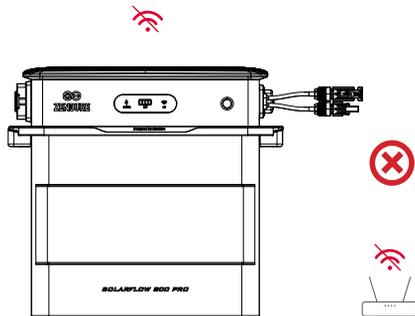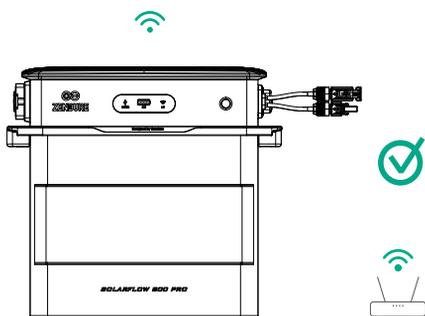
The antenna casing on the device needs to be at least 15cm away from the wall.
Maintain at least 5 cm of clearance around the top surface of the product, where the heat dissipation fins are located, to ensure proper ventilation, efficient heat dissipation, and reliable wireless communication.



≥5cm

≥15cm
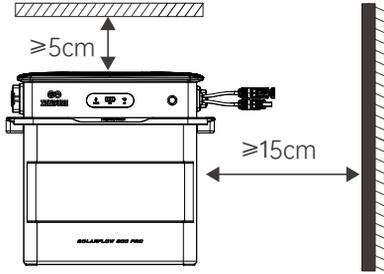
Ensure that the SolarFlow 800 Pro is installed within the length range of the solar panel cables and the 3m AC connection cable. Before making any connections, measure the distance and position the solar panels in the desired location.



≤3m
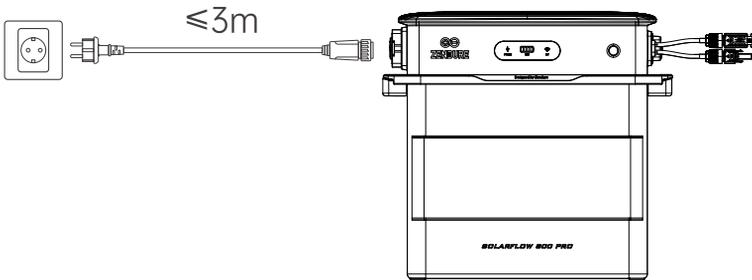
Do not place the device in an area where flammable or explosive materials are stored.
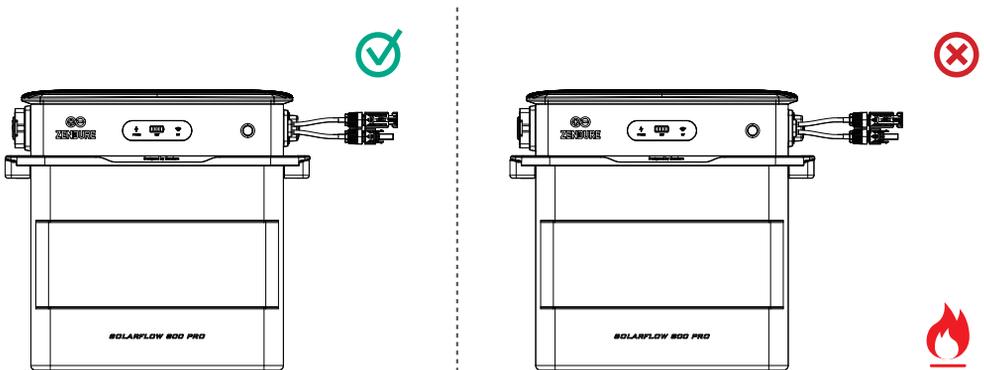
The AIO Pro 1200 can be installed indoors or outdoors. Be sure the device is placed in area where it will not be subjected to direct sunlight or rain.



Place AIO Pro 1200 on a solid, level surface.
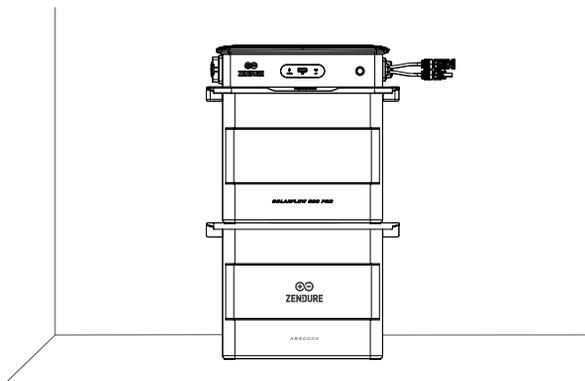


## 7.3 Cable Connection

| Image | Name | Description | Included/Not Included |
|---|---|---|---|
| | SolarFlow 800 Pro | The SolarFlow 800 Pro supports up to 4 sets of solar modules and up to 5 additional add-on batteries. | |
| | 3m 16A AC Cable | Used to connect the SolarFlow 800 Pro to the grid. | |
| | AB1000/2000 Series Batteries | Add-on batteries stacked beneath the SolarFlow 800 Pro, storing solar energy for household use. | |
| | Solar Panels | The SolarFlow 800 Pro connects to solar panels to generate power. It is recommended to connect between 400W and 900W of solar panels per pair of PV ports. | |
| | Solar Cables | Standard photovoltaic module cables used to connect solar panels to the SolarFlow 800 Pro. | |
| | Solar Parallel Cable | Standard photovoltaic cables designed to connect two solar panels to a single pair of PV input. | |

### 7.3.1 Cable Managemet

The SolarFlow 800 should be positioned such that the solar and AC cables can run straight down without significant bending.
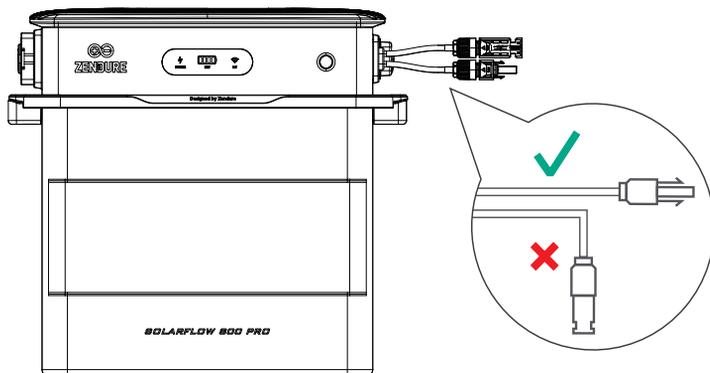


### 7.3.2 Connect to the Add-on Batteries

Remove the silicone protective cover from the battery terminals on the SolarFlow 800 Pro and Add-on Batteries (sold separately).
Connect the Add-on Batteries to the SolarFlow 800 Pro by stacking them underneath, ensuring the battery cable terminals lock into place.
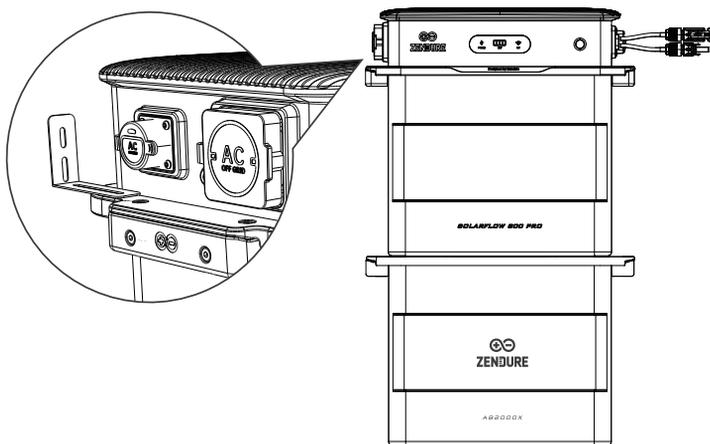


A single SolarFlow 800 Pro can be connected up to 5 AB1000/AB2000 series batteries, which can maximumly reach to 11.52kWh capacity.

• Do not disconnect them during the charging/discharging process.

• Do not touch the metal pins of the ports with your hands or other objects. Gently clean them with a dry cloth when necessary.

• It is recommended to use the brackets and screws provided with the battery packs to securely fix the SolarFlow 800 Pro on the top and ensure stability.

### 7.3.3 Connect to the Solar Panels

1. The SolarFlow 800 features four independent MPPTs, with each PV input operating as an isolated MPPT
   • Open Circuit Voltage (Voc): Must be below 55V per PV input.
   • Short Circuit Current (Isc): Must be below 22.5A per PV input.
   • Recommended Power Range: Each PV input supports solar panels rated between 400W and 900W.
2. For optimal inverter efficiency, it is recommended to use a solar cable that is 3 meters or shorter. This ensures reduced energy loss during transmission.

**(1) Connect one solar panel to the SolarFlow 800 Pro**
**Ensure you measure the distance and install the solar panels in the desired location before connecting them to the SolarFlow 800.**
• **The positive and negative terminals of a single solar panel must be connected to the same PV port.**



400W~900W

400W~900W
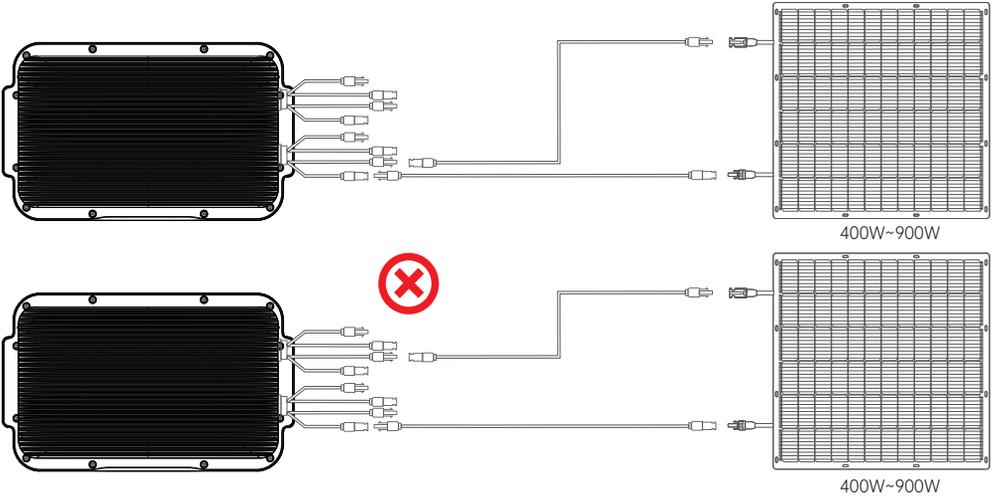
**(2) Connecting Solar Panels in Parallel**
• **Ensure the combined Voc (open circuit voltage) of the panels connected to a single PV input is below 55V.**
• **The total current for a single PV input must not exceed Isc (short circuit current) 22.5A.**
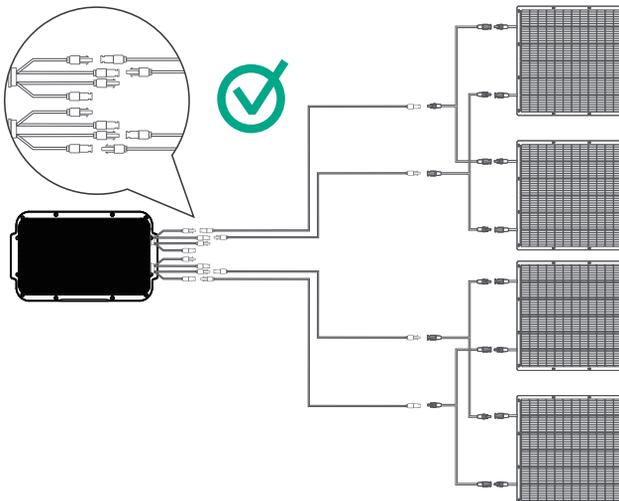
The positive and negative terminals of the same solar panel must be connected to the corresponding positive and negative terminals of the same PV input to ensure proper electrical flow and system functionality. Do not connect panels across different PV Inputs.
We are not liable for any damages resulting from improper connections.
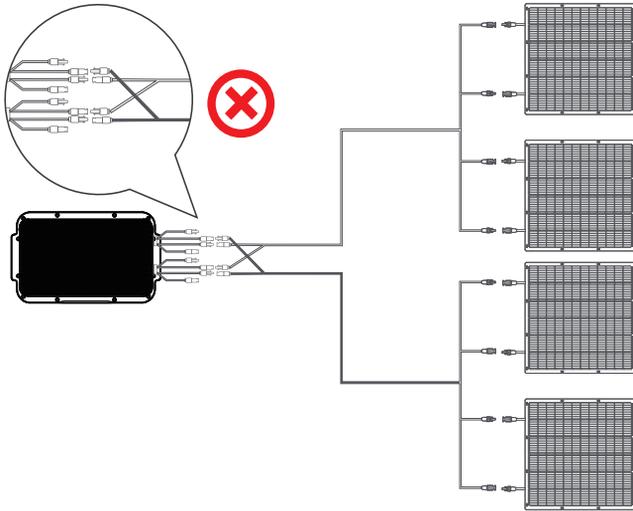


(3) PV Cross-Source Error: The SolarFlow 800 Pro has four independent PV ports, each linked to its own MPPT. The connection method illustrated in the diagram incorrectly parallels two originally independent PV ports. This wiring approach can create a PV cross-source issue, resulting in uneven power distribution between the ports and potentially damaging the product.
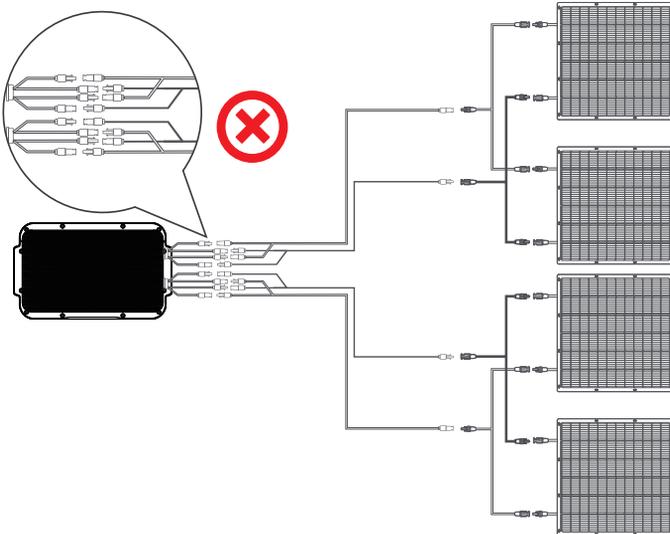
## 7.3.4 Connect to the Grid
### (1) Select the appropriate Circuit
**When connecting the SolarFlow 800 Pro to a branch circuit, it's important to choose the right configuration to ensure safe and efficient operation.**
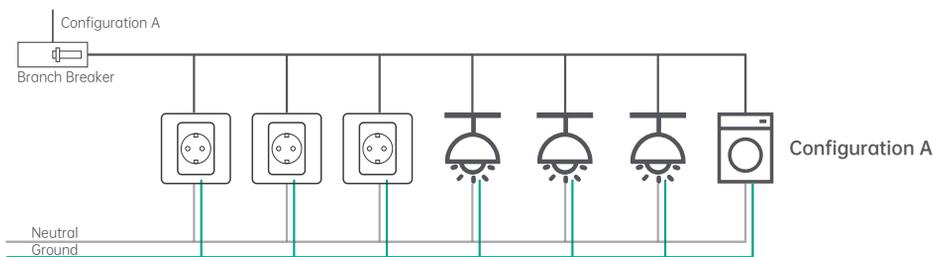


This configuration is unsuitable for SolarFlow 800 as it includes multiple loads, such as receptacles, lights, and high power appliances (e.g., dishwashers, laundry machines). These unpredictable and high-current loads increase the risk of exceeding branch circuit limits during solar production.
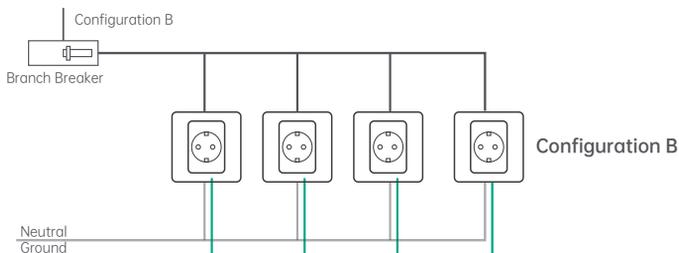


This setup is ideal for connecting the SolarFlow 800 Pro as it contains only receptacles. Each receptacle can be individually protected using the methods outlined. If there are unused slots in your distribution panel, an electrician can implement this configuration at a relatively low cost.

### (2) Plug to the Socket
Using the provided AC power cord, first connect the cable to the SolarFlow 800, then plug it into a household power outlet on the appropriate circuit.
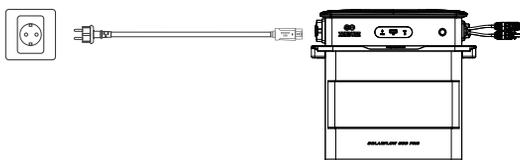


1. Please confirm that the AC socket is switched on, and the power grid is being powered.
2.To maximize power generation efficiency and enhance safety, it is recommended to connect the device to a circuit branch with minimal or no other loads.

## 7.3.5  Connect Microinverter/off-grid load
Connect the SolarFlow 800 Pro to an 800W microinverter (sold separately).
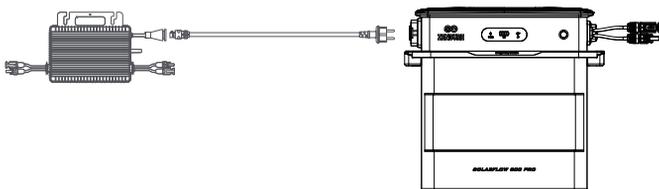
Alternatively, connect the SolarFlow 800 Pro to a home load using an AC cable with a Schuko plug. For critical loads, the off-grid socket supports Emergency Power Supply (EPS), which automatically switches the power supply from the grid to the SolarFlow 800 Pro within 20ms.
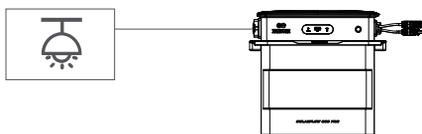
Please confirm that the microinverter specifications, such as maximum output voltage and short circuit current, fall within the operational range of the off-grid AC socket's input wattage.
The off-grid socket can output a continuous power of 1000W and a peak power of 1400W for 200ms. Ensure that the off-grid home load does not exceed 1000W for proper operation.

## 7.3.6 Product Placement and Cable Management

The SolarFlow 800 Pro should be positioned such that the solar and AC cables can run straight down without significant bending.
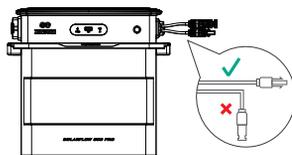
## 7.4 Installing Multiple SolarFlow 800 Pro Sets

1. Multiple SolarFlow 800 Pro sets can be installed on a single phase/installed separately across the three individual phases of a three-phase system.

2. Use the Zendure app to configure the AC power output to the grid, ensuring it does not exceed the safety limits required by your country or region.

### Installation in single-phase electricity system

Circuit Breaker
Balcony
Electric Meter    Distribution Box
Grid
Circuit Breaker
Kitchen
Circuit Breaker
Living room
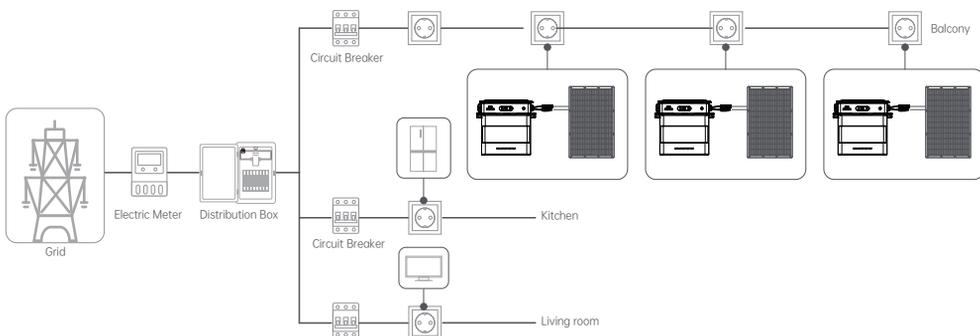
### Installation in three-phase electricity system

Circuit Breaker
Phase A
Electric Meter    Distribution Box
Circuit Breaker
Phase B
Grid
Circuit Breaker
Phase B

15
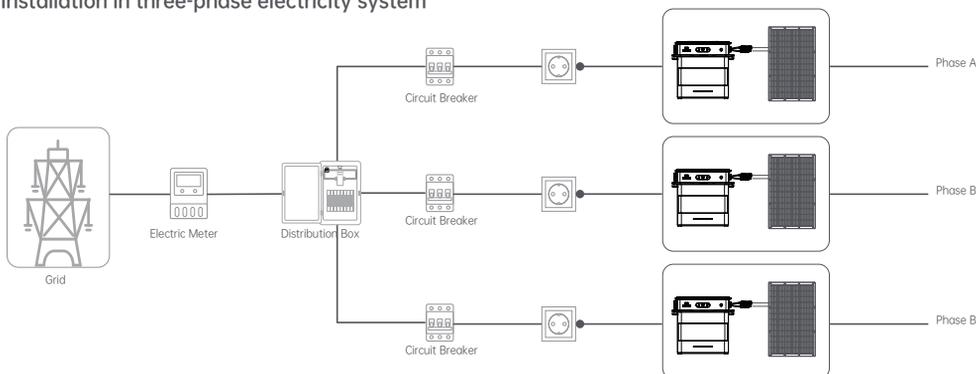
# 8. Download & Register

## 8.1 Download

1. Scan the QR code
2. Go to Google Play and App Store to search for "Zendure" and download the Zendure App.

Android App          IOS App

## 8.11 Download&Login

1. Open the Zendure App；
2. Follow the instructions to complete account registration and login；
3. If you wish to see the App forum section, please select "Germany" during registration.

## 8.2 Add SolarFlow 800 Pro

1. After entering the App, click the "Add Device" button in the upper right corner;
2. After entering the Add Device section, the App will automatically search for nearby Zendure devices; if SolarFlow 800 Pro is found, you can directly click to add it.
3. If it is not found automatically, you can swipe down to select SolarFlow 800 Pro and follow the prompts to manually add it.
4. After the SolarFlow 800 Pro is successfully added, the App will automatically guide you to create a Home Energy Management System (hereinafter referred to as HEMS). Follow the page prompts to complete its initialization settings, and it can be created successfully.
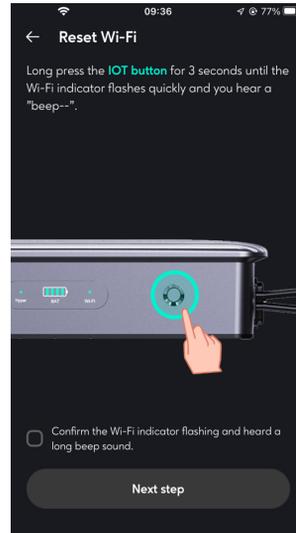
## 8.3 How to use SolarFlow 800 Pro
### 8.3.1 Charge/Discharge Status
•Charging: The battery is in charging status.
•Discharging: The battery is in discharging status.
•Standby: No input/output, device standby.
Bypass: The battery is fully charged or charged to SOC limit or abnormal, and the solar energy directly supplies power to the home
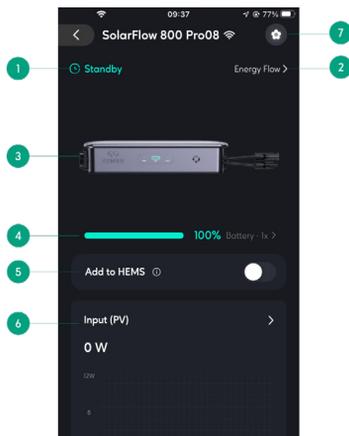
### 8.3.2 Energy Flow
Click to view the energy flow diagram.
### 8.3.3 Product Preview Image
### 8.3.4 Total Remaining Battery Capacity
Displays the total remaining battery capacity; click to view the remaining capacity of different batteries



### 8.3.5 Add to HEMS Swicth
1.Turn on
When turned on, the device will be controlled by the HEMS. Manual control is not available, you can't use On-grid Settings、Battery Setting、Grid-connected Standards、Power Distribution Dtrategy
2.Turn off
When turned off, the device will be removed from system control. You can use all the manual settings.
3.Design Goals:
•Avoid conflicts between the HEMS and manual control at the same time.
•Let you keep the ability to adjust device settings themselves.
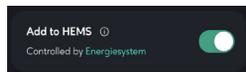


### 8.3.6 Device Real-time Monitoring

| 1. Input(PV) | 2. Battery | 3. Output(To Home) | 4. Input(From Grid\ Roof Solar System) | 5.Input(From Grid\ Roof Solar System) |
|---|---|---|---|---|
| Real-time total solar input power, click to view the real-time power of each individual solar panel. | The battery pack as a whole, real-time data on discharge or charge power. | The real-time AC output power of SolarFlow 800. | The real-time AC input power of SolarFlow 800. | The real-time AC input power of SolarFlow 800 Pro. |
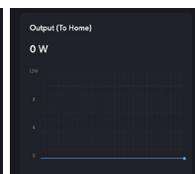
## 8.3.7 Device Setting

1.Enter the Setting page

2. Device Information

• Device Name

• Device SN

3. General Setting

• Device Information: More information.

• Network Setup: Reconfigure the network.

• Instruction Manual: Electronic version of the product manual.

4. Commom Setting

• On-grid Settings

-On-grid input mode： Specify the AC charging power (constant power charging)

-On-grid output mode： Specify the AC discharging power (constant power discharging)

-Set the regulatory output limit power: The system will not exceed this safety output valuein any working state, ensuring the safety of your home wiring.

• Battery Setting

Adjust the battery discharge limit and charging limit.

• Grid-connected Standards

Select according to the national standards used at the equipment installation site, and switch

the voltage and frequency of the equipment charging and discharging.

• Power Distribution Strategy

Understand the priority of solar energy flow distribution within the system.

Set whether to allow excess energy export.

-Allow: After the battery is full, permit the solar power exceeding household demands to

backfeed into the grid.

-Forbidden: After the battery is full, it doesn't permit solar power exceeding household

demands to backfeed into the grid.

• Firmware update

Make sure your device has configured Wi-Fi and has a stable network connection.

If there is an important update for the firmware of SolarFlow 800 Pro, the app will guide you to through the process. Make sure your devices are on and connected to Wi-Fi before updating.

5.Remove Device

Remove the connection between the device and the App.

If you need to control the device using the App again, you need to add the device again.

18
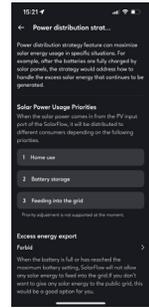
## 8.4 How to use Home Energy Management System

### 8.4.1 How to Create HEMS

• Create on the Home interface.

1. Create System: Click on "Create System".

2. Create Energy System: Read the system introduction, and click "Start" to enter the next interface.

3. Select a region/country: Follow the instructions to select the national standard for deviceinstallation in your country, and click "Next step" to enter the next interface.
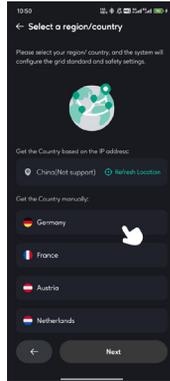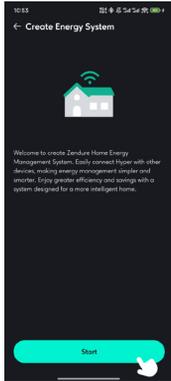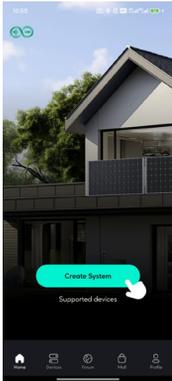


4. Select Device: Select the device. To create a system, there must be an energy storage device that supports the system. Currently, SolarFlow 800 Pro\SolarFlow 2400 AC is supported. Previous device models are not supported temporarily, but you can click "Support Device" to view. If there are Meters or Plugs in your home, you can add them to the system synchronously. Click "Next step" to enter the next interface.

5. Safety Settings: Set the maximum output power and maximum input power allowed by the system to ensure that the system operates at a safe value. After completion, click "Next Step" to enter the next interface.

6. Base Load Settings: The charging and discharging power plan from 0:00 to 24:00. If the user does not set it, it will be a constant power output of 200W. When the system does not have a Smart Meter or Smart Appliances, it will input and output according to the power set by the basic load.
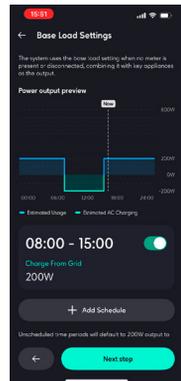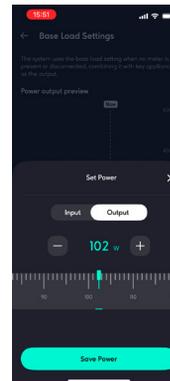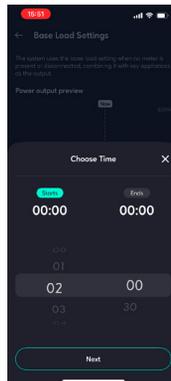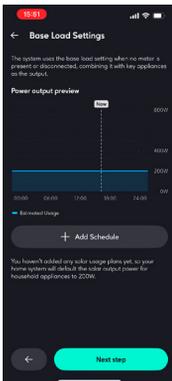


As shown in the figure, it is set to charge 200W from the grid from 08:00 to 15:00.

If the system is not bound to a Smart Meter or Smart Appliances, the system will maintain a discharge action of 200W during the time period from 00:00 to 08:00, maintain a charge action of 200W during the time period from 08:00 to 15:00, and maintain a discharge action of 200W during the time period from 15:00 to 24:00.

7. Create System Successfully: System creation successful. You can rename your system and then use it.
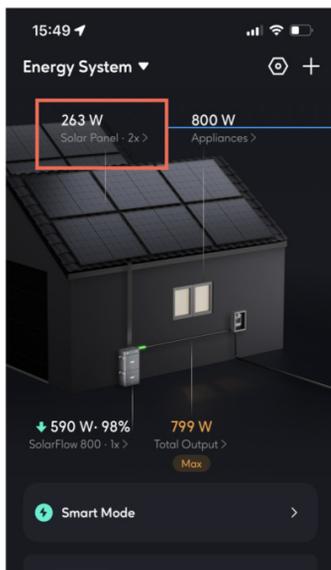
•Create with SolarFlow 800 Pro's initialization.

After successfully adding the SolarFlow 800 Pro, you can complete the system creation through the device initialization guide.
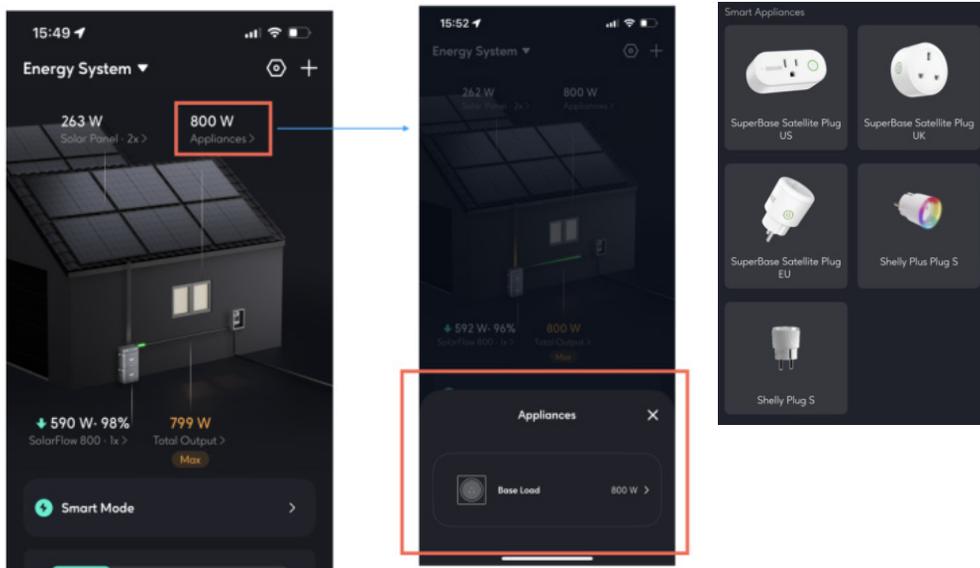


## 8.4.2 Home Status

1.Solar Panel

Display the power input from the solar panels within the system, and view the branch data.

## 2.Consumption

Display the type of electricity consumption data currently being used to control the output of the energy storage system.



As shown in the figure, the current system has not configured any sensors (Smart Appliances), the energy system automatically outputs according to the basic load plan. If the system is connected to a Smart Appliance, this will display the monitored values of the devices.

## 3.Device status

Display the energy storage devices within the current energy system, as well as their charging and discharging status. Click to view the detailed status of the energy storage devices.



Charging\Discharging                                    Bypass mode
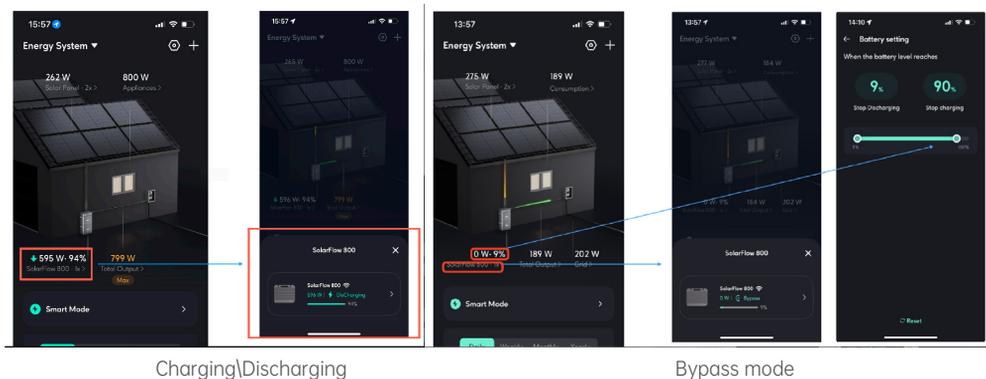
As shown in the figure, when the battery is fully discharged or fully charged, the energy storage battery will enter bypass mode, and the input energy from the solar panels will be directly output to the home.
If you want to allow the system to continue charging or discharging, you only need to go to the system settings and adjust the limit of battery charging and discharging according to your own usage needs.
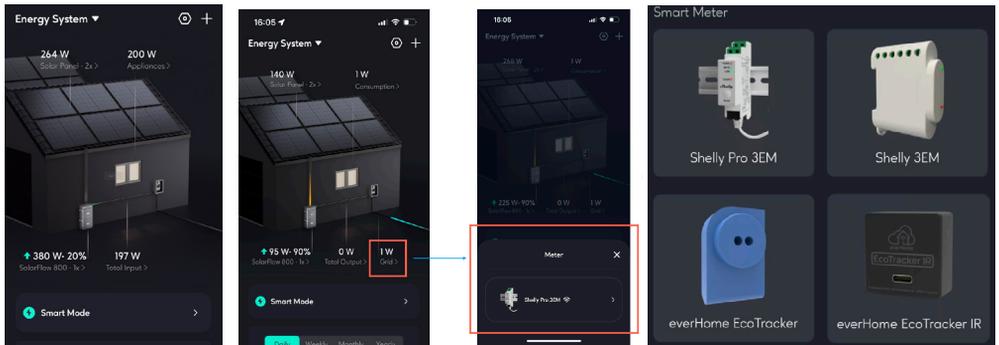
4.Total Output\Input

The total discharge or charging power of all energy storage devices to the home.

If the maximum safe value is reached, a "Max" mark will be displayed (as shown in the figure below). Clicking the "Max" mark can adjust the safe value.







Max
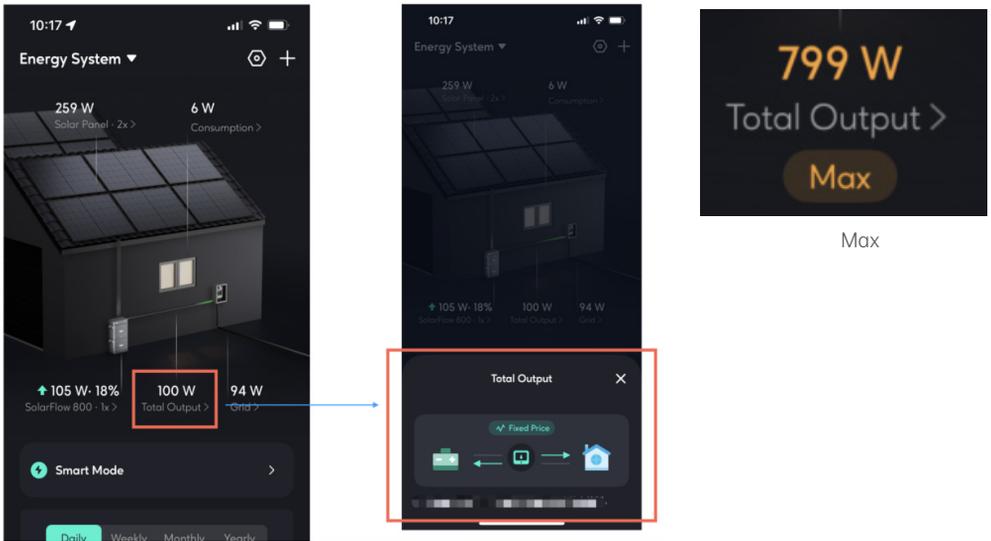
5. Grid

If a Smart Meter is installed in the system, the energy flow between the home and the grid can be detected here.



There is no Smart Meter



Smart Meter is available



Supported Smart Meter

### 8.4.3 Smart Mode

Currently, only Smart Mode is provided. Smart Mode can automatically select the best operating strategy based on the device configuration within the system and electricity prices.

• Smart Mode Operation Strategy:

-If a Smart Meter is configured, the output of the energy storage device is dynamically controlled according to the real-time monitoring data of the Smart Meter.

-If there is no Smart Meter but a smart appliance is configured, the output of the energy storage device is dynamically controlled according to the real-time monitoring data of the smart plug.

-If there is neither a Smart Meter nor a smart plug, the output of the energy storage device is controlled according to the basic load plan.

-Smart Meter > Smart Plug > Basic Load Plan

-Under dynamic electricity prices, discharge according to the strategy during high and normal electricity price periods, and charge during low electricity price periods.
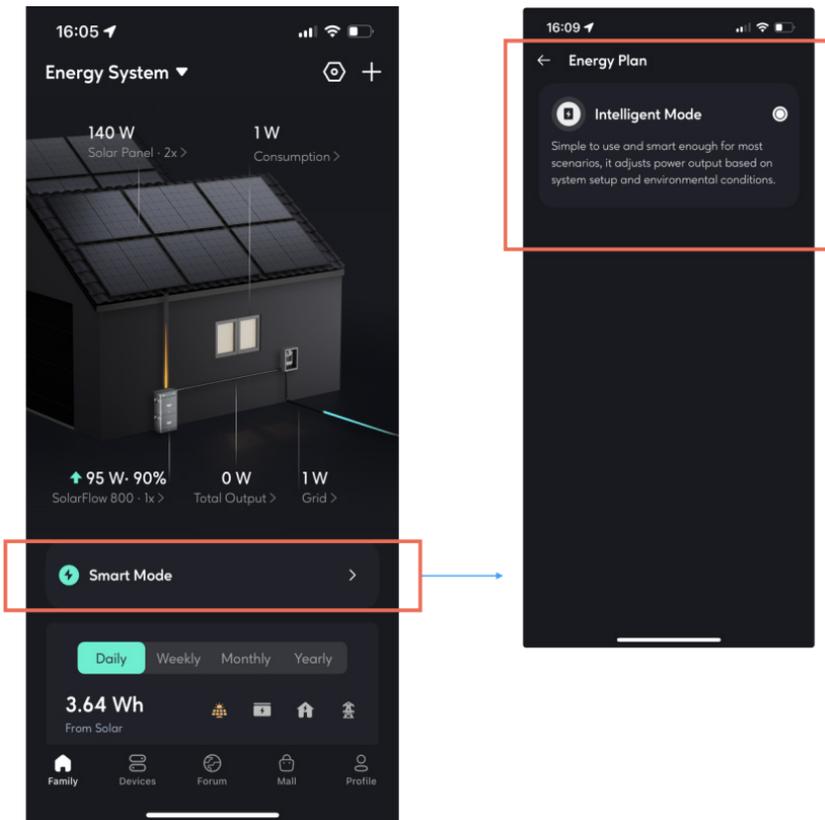


If you need to quickly switch the system to a certain strategy, you just need to directly add or remove devices in the system settings, adjust the electricity price settings, and adjust the basic load curve.

### 8.4.4 Historical data

The newly upgraded historical data section allows you to view the historical data of all devices within the entire system.

Available data to view:

•Solar energy: Data from your energy storage device( such as SolarFlow 800 Pro).
•Battery charging and discharging: Data from your energy storage device( such as SolarFlow 800 Pro).
•Household electricity usage: Data from your energy storage device( such as SolarFlow 800 Pro).
•Grid: Data from your Smart Meter.



## 8.4.5 System Settings
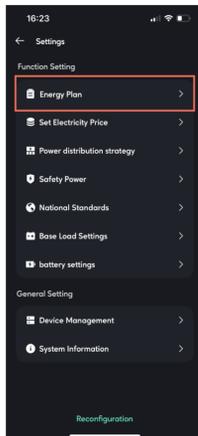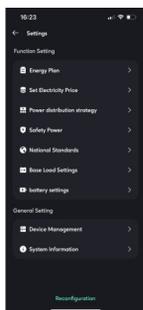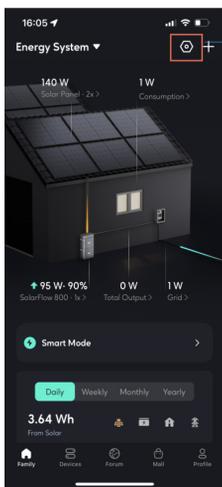


• Function Setting
-Energy Plan: Display the energy plan currently running in the energy system.

• Set Electricity Price

-If you choose a fixed electricity price, you need to manually enter the price.

-If you choose a dynamic electricity price, select the electricity price source according to your actual needs, set your expected high and low electricity price ranges, and the system will automatically discharge according to the strategy during high electricity price periods and charge during low electricity price periods (charging is limited by the maximum safe charging power).
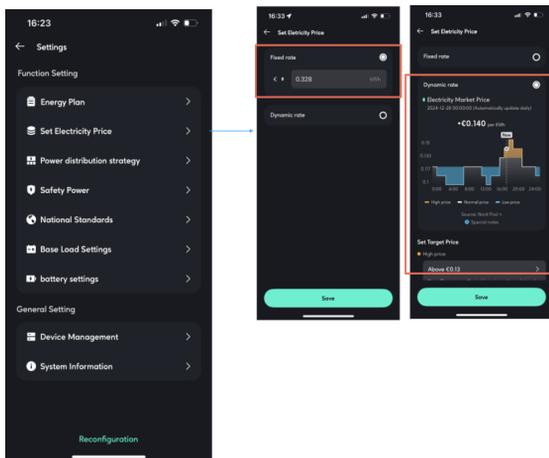


• Power Distribution Strategy

Understand the priority of solar energy flow distribution within the system. Set whether to allow excess energy export.

-Allow: After the battery is full, permit the solar power exceeding household demands to backfeed into the grid.

-Forbidden: After the battery is full, it doesn't permit solar power exceeding household demands to backfeed into the grid.
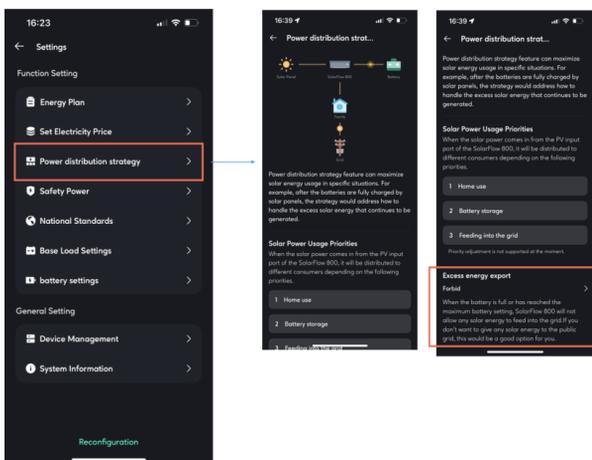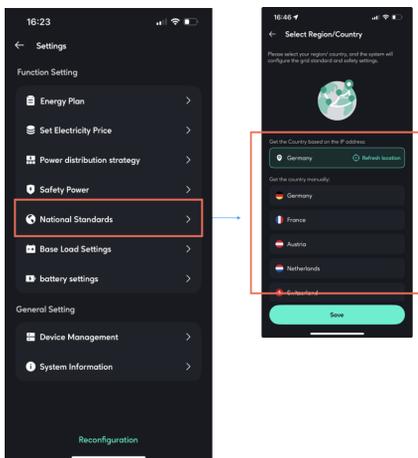
• Safety Power

The total discharge and charging power of the system will not exceed this safe discharge power limit and safe charging power limit.
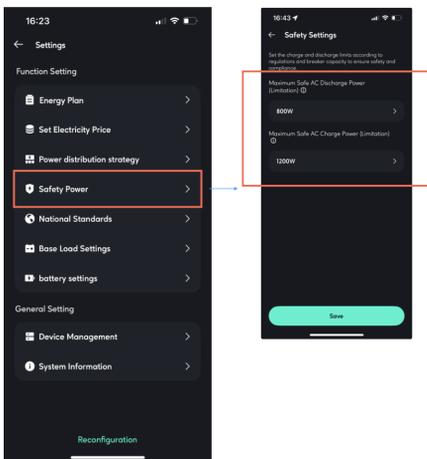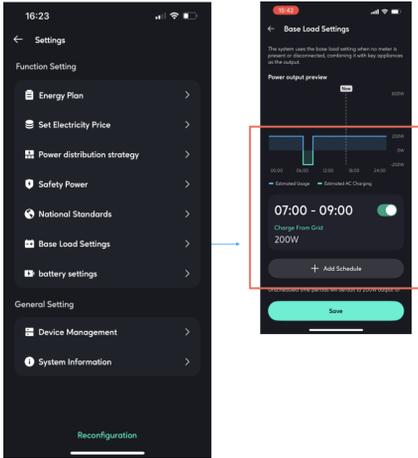


•  National Standards

Select according to the national standards used at the equipment installation site, and switch the voltage and frequency of the equipment charging and discharging.
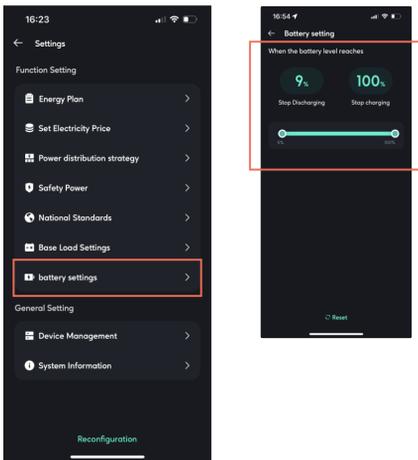


•  Base Load Settings

The charging and discharging power plan from 0: 00 to 24: 00. A maximum of 10 tasks can be set simultaneously.

• Battery Settings
Adjust all energy storage devices' battery discharge limit and charging limit.



• General Setting
-Device Management
You can add or remove all devices within the system here.
When multiple energy storage devices are in operation, the exception handling logic is as follows:
offline devices will actively shut down their output to 0W, and the remaining online devices will actively take over their target power.
Multiple energy storage devices can be added, a maximum of one Smart Meter can be added, and multiple smart appliances can be added.
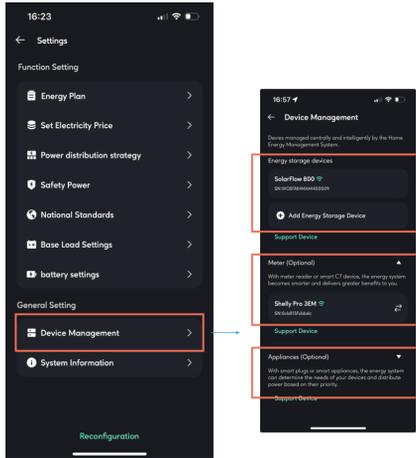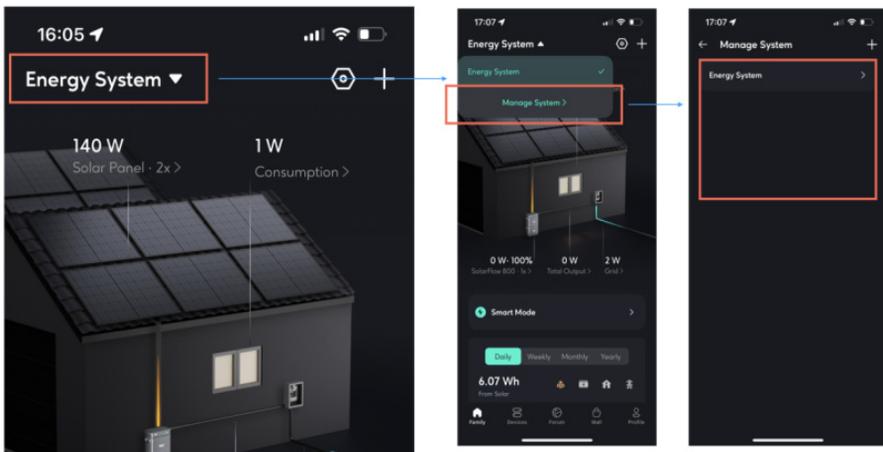
• System Information
You can modify the name of the energy storage system here.
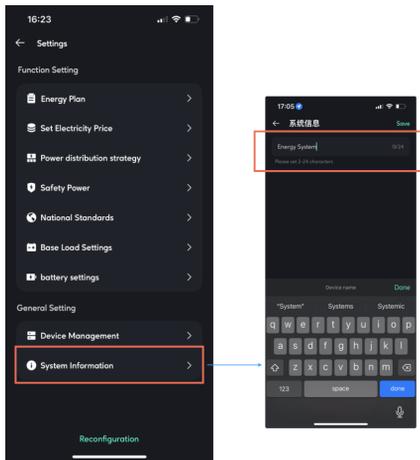
### 8.4.6 System Management

This is where you can access all the home energy systems you can access, including those you created and those you joined as a member of someone else's creation.



### 8.4.7 Exception handling logic

1. When an energy storage device is actively removed/deleted from the system by the user:
the system operates with an output of 0W.
2. When there is an energy storage device offline, disconnected from the network, or disconnected from sensor communication within the energy system:
a. Online energy storage devices within the system: continue to operate according to the corresponding strategy (treating the offline device as a failed unit).
b. Offline energy storage devices within the system: shut down the output power and set it to output 0W.

### 8.5 More

#### Interface style switching

Click on Profile, select Display, and you can choose your preferred style to view the HEMS interface.
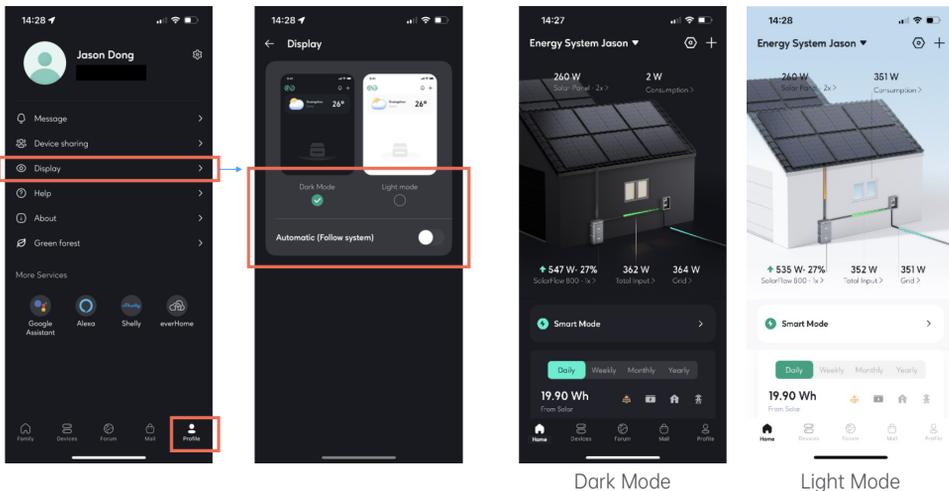


Dark Mode                     Light Mode

# 9. Maintenance

## 9.1 Disassembly of the SolarFlow 800 Set

1. AC Power Cable Disconnection:
   • First, unplug the AC cable from the AC outlet.
   • Press the AC connector release button on the SolarFlow 800 Pro and pull out the cable.
2. Solar Cable Removal:
   Use the disconnection wrench included in the package to safely unplug the solar cable connectors.
3. Power Off:
   Press and hold the power button on the SolarFlow 800 Pro for 6 seconds to turn off the device.
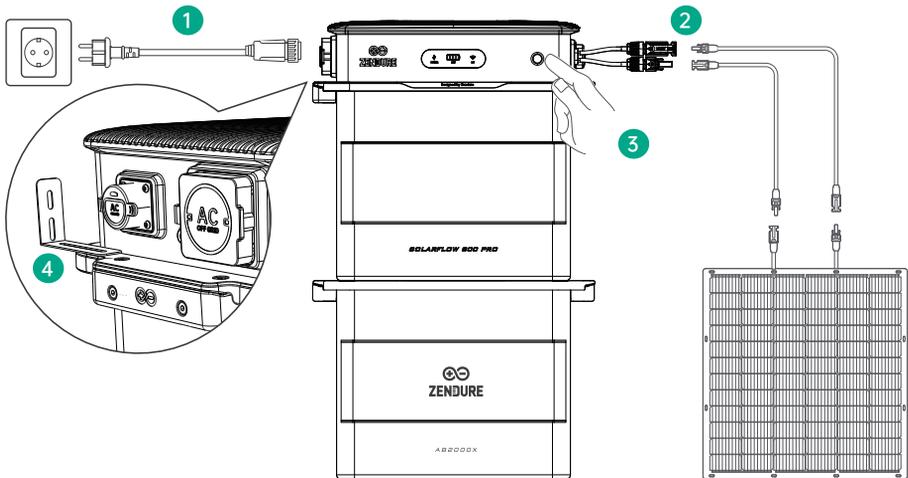4. Bracket Removal:
   Unscrew and detach the brackets securing the SolarFlow 800 Pro unit to the wall.
5. Battery Disconnection:
   Disconnect the main unit from the add-on battery by lifting and removing the SolarFlow 800 unit.
6. Store the Product:
   Store the product indoors, away from direct sunlight and flammable materials, with a temperature range of -20° C to 65° C.



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