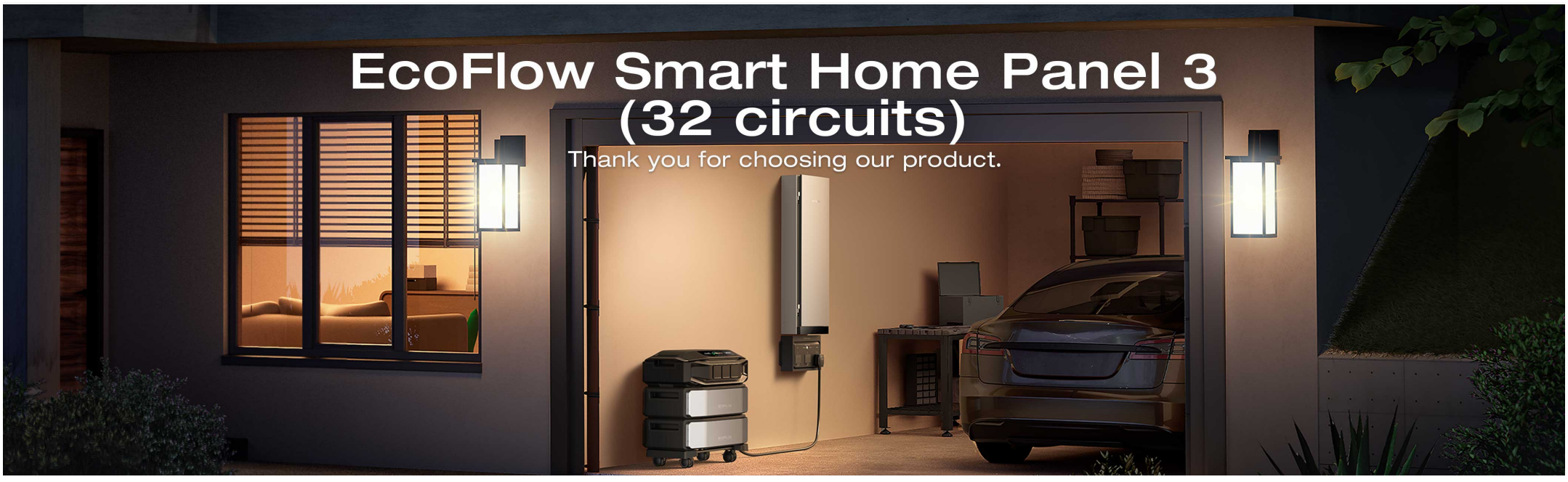


Contents

FAQ | EcoFlow App | After-sales Policy | Community

About This Manual

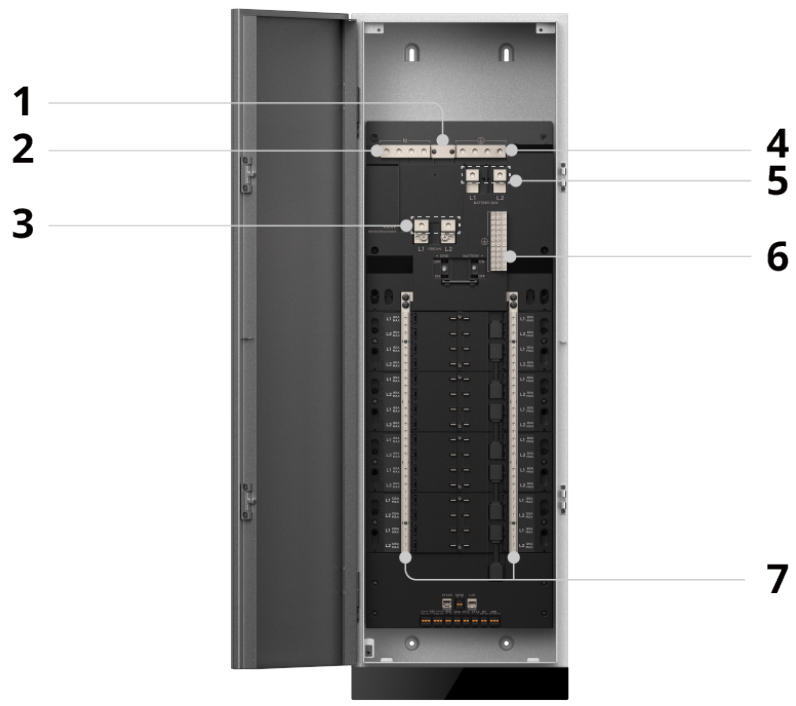
- This manual contains an introduction to this product, and details on its operation, management and maintenance. Please note that product information in this manual may be updated without prior notice. Check the Documentation Center for the latest information.
- The availability of certain accessories and features described in this manual may vary depending on your country or region.
- All images displayed in this manual are for demonstrative purposes only. Refer to the actual product received.
- If you are reading this manual in PDF format, please note that you can access it online at EcoFlow Support for a better experience and the latest updates.

Product Overview

EcoFlow Smart Home Panel 3

EcoFlow Smart Home Panel 3 (hereinafter referred to as "SHP3") is an advanced panel designed to optimize the balance between grid and backup power. Supporting up to 32 smart circuits, it enables real-time energy management across your home. When paired with an EcoFlow Smart Inlet Box, solar, and battery storage systems, SHP3 enhances your home’s energy resilience by providing flexible, intelligent backup power that reduces energy waste, improves reliability, and helps achieve greater energy independence.

1	Door	5	Communication module
2	Deadfront cover	6	Deadfront detection
3	Main circuit breaker module	7	Antenna
4	Branch circuit breaker module		



1	Main bonding jumper	5	Battery box terminal L1/L2 (For Smart Inlet Box)
2	Main neutral terminal	6	Ground busbar
3	Main lugs L1/L2	7	Branch neutral busbar
4	Main ground terminal		

Tip:
You may connect grid L1/L2 directly to the main lugs, or use a compatible main circuit breaker for the grid connection.

EcoFlow Smart Inlet Box

The EcoFlow Smart Inlet Box enables safe and efficient power input to the SHP3, supporting seamless connection to external power sources for reliable backup.

Control buttons & ports

1	Emergency stop button	In an emergency, press the button to stop SHP3. Press it again to resume operation.
4	Power input and output button (AC1/AC2/AC3)	Press briefly to turn the power input/output port ON or OFF, or press and hold (2–3 seconds) to switch to battery charging mode.
5	Power input and output ports	Three 5P8 ports are available for power input and output. If a generator needs to be connected, please use the leftmost port labeled “5P8 PORT/GEN IN.”

LED indicators

2	Grid indicator	- Solid white: Grid voltage is detected. - Blinking red: Grid overvoltage or overfrequency. - Solid red: Grid voltage is not detected.
3	Error indicator	- Solid red: system error - Off: No system error
4	Power input and output indicator	- Solid green: Supplying power to appliances. - Breathing green: Standby. - Solid yellow: Charging. - Blinking red / Solid red: Error

Tip:
If an error indicator appears, refer to the error description and follow the troubleshooting steps in the EcoFlow app.

Installation Overview

This section provides an overview of the SHP3 and Smart Inlet Box installation process. Installation and servicing of this product must be performed by qualified electrical personnel only. For detailed mounting instructions, refer to the Installation Guide provided in the product package or available at http://www.ecoflow.com/support/download/.

1. Site survey

If using professional services, typically one or two installers will assess your home's electrical system and installation environment to determine the best solution. You will receive a quote for installation and any additional materials required.

2. Permit application

The installer will apply for necessary permits in accordance with local codes and regulations.

3. Installation

Installers may drill mounting holes, route conduits, and map out 32 home circuits. The installation process includes mounting the SHP3, installing Smart Inlet Box, completing wiring, and energizing the system upon final checks. For detailed installation instructions, please refer to the installation guide available at: http://www.ecoflow.com/support/download/.

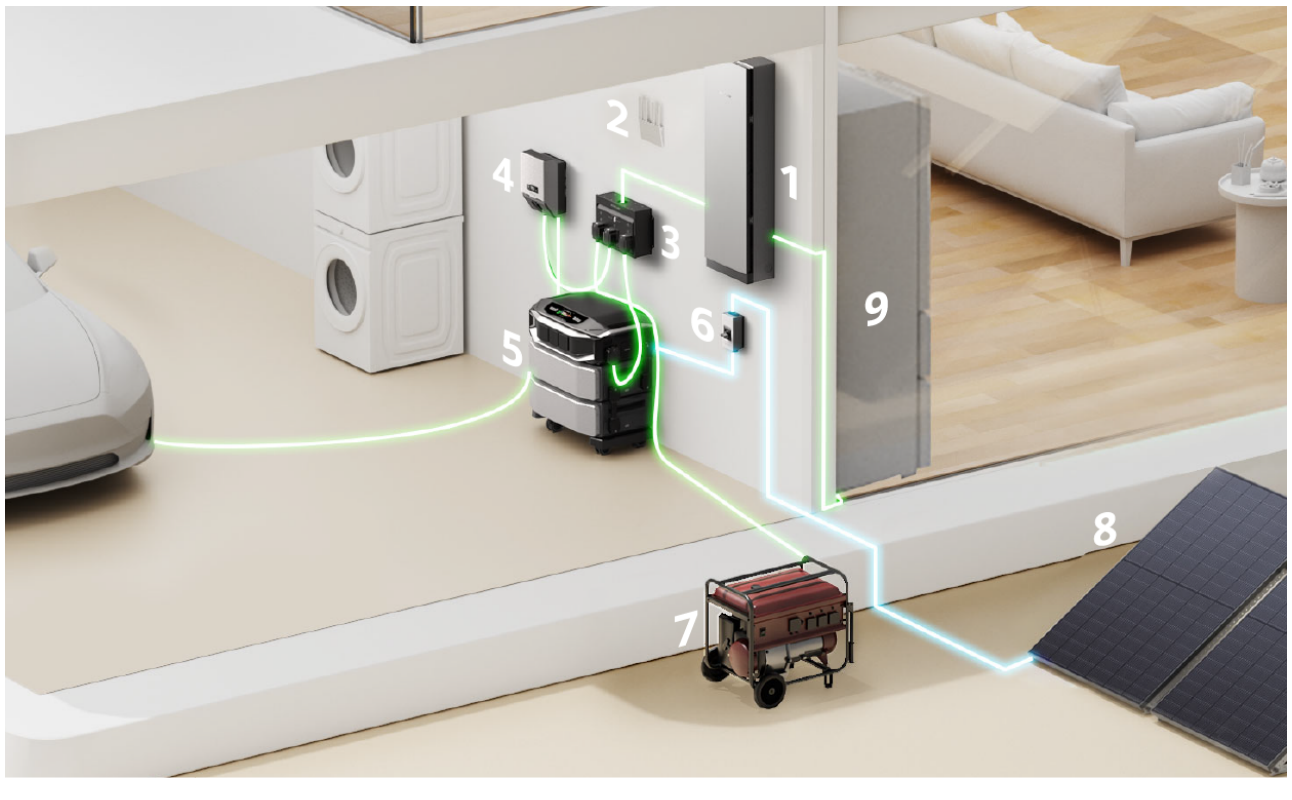
4. Commissioning

Complete system commissioning with the help of installers. During commissioning, you will be required to input system parameters, including but not limited to:

- Grid voltage and frequency
- Main circuit breaker maximum current
- Split-phase circuit configuration (if applicable)

Connect to Backup Power

SHP3 serves as either a main panel for direct utility input or a sub-panel for circuit expansion. You could connect backup power systems such as generators or portable power stations (DELTA Pro Ultra or DELTA Pro Ultra X) to SHP3.



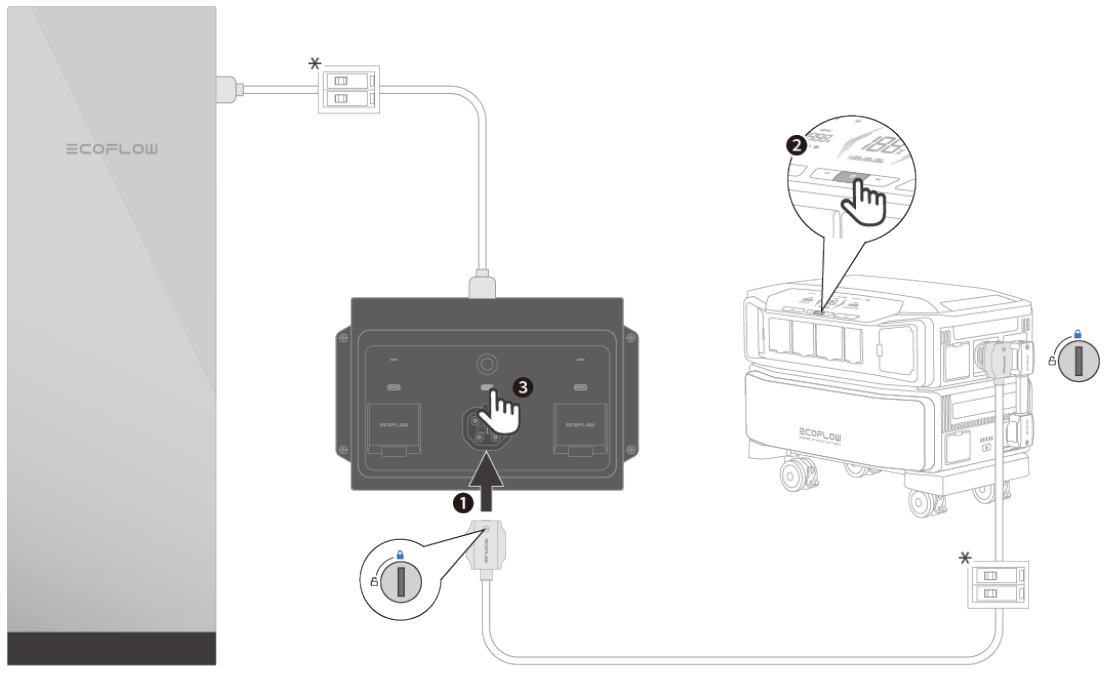
1	SHP3	6	PV switch box
2	Router	7	Generator
3	Smart Inlet Box	8	Solar panels
4	EV charger	9	Load
5	DELTA Pro Ultra X		

Connect with EcoFlow portable power stations

Up to three **DELTA Pro Ultra** or **DELTA Pro Ultra X** units, including mixed models, can be connected to the SHP3. When connected, the AC outlets of the DPU or DPUX are disabled. Refer to the diagram and follow the steps below for proper connection.

⚠ **Caution**

- Do not unplug the portable power stations while powered on. Short press to turn off the "power input/output port" before unplugging the cable.
- Install an overcurrent protection device (OCPD) between the box and the battery storage, and separately between the box and the SHP3, in accordance with local regulations. The OCPD must comply with local electrical codes. Use a 70A 2P breaker for DPU/DPUX and a 200A 2P breaker for SHP3.

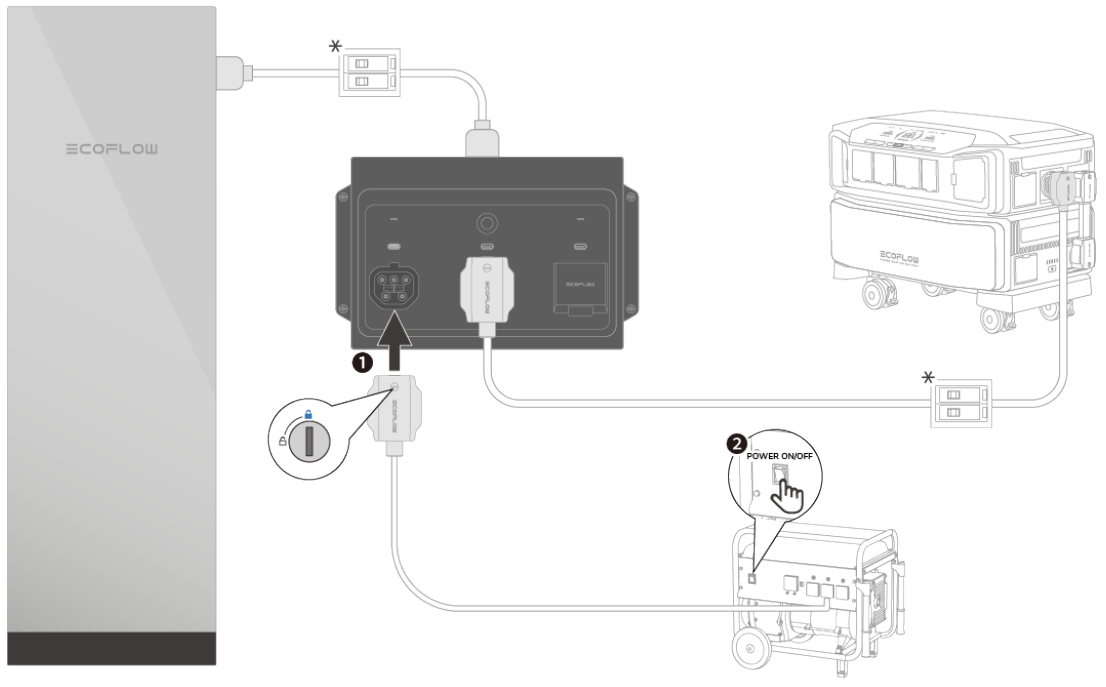


Connect with a generator

The SHP3 supports a 240 V split-phase generator input, enabling it to charge the storage system while supplying power to connected loads. After the generator is connected and powered on, the system will perform a self-check (about 25 seconds) before supplying electricity to the house.

⚠ **Caution**

- Use the AC1 port for generator input.
- Generator connection must be performed by qualified electrical personnel.
- Ensure the storage system is properly connected and running before connecting a generator.
- For generators with a bonded neutral, remove the ground-neutral bond to prevent GFCI/AFCI malfunction. Consult an electrician if needed.



Explore EcoFlow App

App Overview

App introduction

EcoFlow offers a companion app for device management. With this mobile application, you can:

- Enjoy all-in-one control of your EcoFlow devices from anywhere.
- Monitor power consumption details seamlessly with real-time updates.
- Personalize your energy scheme with an array of customizable options.
- Promptly receive in-app troubleshooting and firmware updates.

App download

You can download the EcoFlow app in any of the following ways:

- Visit https://download.ecoflow.com/app to download.
- Scan the QR code, or search for "EcoFlow" in the App Store (iOS) or Google Play (Android).

Set backup strategy

To prepare for a power outage, configure the following settings in the EcoFlow App: system **Settings > Backup power settings**.

- Circuit Priorities
- Storm Guard
- EPS Mode (Emergency Power Supply)

Circuit priorities

During an outage, the system uses battery power to supply home circuits based on priority. Circuits can be grouped into three categories:

- **Must Have:** Always powered during an outage as long as battery capacity is available. At least one circuit must be assigned to this category.
- **Nice to Have:** Powered only when the battery level is equal to or above a user-defined threshold (default is 50%).
- **Non-Priority:** Not powered during an outage when running on battery.
  To configure circuit priorities, go to: **Settings >Backup power settings > Circuit Priorities**

Storm guard

When Storm Guard is enabled and a severe weather event is forecasted to affect your area within 24 hours, the system will automatically charge the

connected batteries to 100%.
If an outage occurs and the generator is unable to supply power, the system will use battery power to support home loads.
To opt out of Storm Guard for an individual storm, open **Settings > Backup power settings > Storm Guard**, then disable the selected event.

EPS Mode

The EPS Mode enables the system to switch to battery power within 20 milliseconds during an outage, minimizing power interruption. If EPS Mode is disabled, the switch time is approximately 5 seconds.

Set operating modes

To help reduce electricity costs, the system offers three operating modes: Self-Powered, Scheduled Tasks, and AI Mode. These can be configured in **Settings > Operating Mode**.

Backup reserve level

Before choosing a mode, it is important to understand the concept of backup reserve level:

- The Backup Reserve Level defines the minimum battery capacity reserved for backup during power outages.
- While the system is connected to the grid, the battery will only discharge down to this reserve level.
- During an outage, the system can discharge below the reserve, down to its discharge limit (typically 0%).
- The default value is 50%. If the battery falls below this level, it will recharge from PV first; if no PV is available, it will recharge from the utility grid.
  You can adjust this value in **Settings > Operating Mode**.

AI mode

AI mode automatically creates a daily cost-saving strategy based on solar generation, household consumption, and electricity prices. It manages battery charging and discharging to optimize energy use. The system stores excess energy when costs are low and supplies power to the home when costs are high. This helps users reduce electricity expenses without manual input.

Scheduled tasks mode

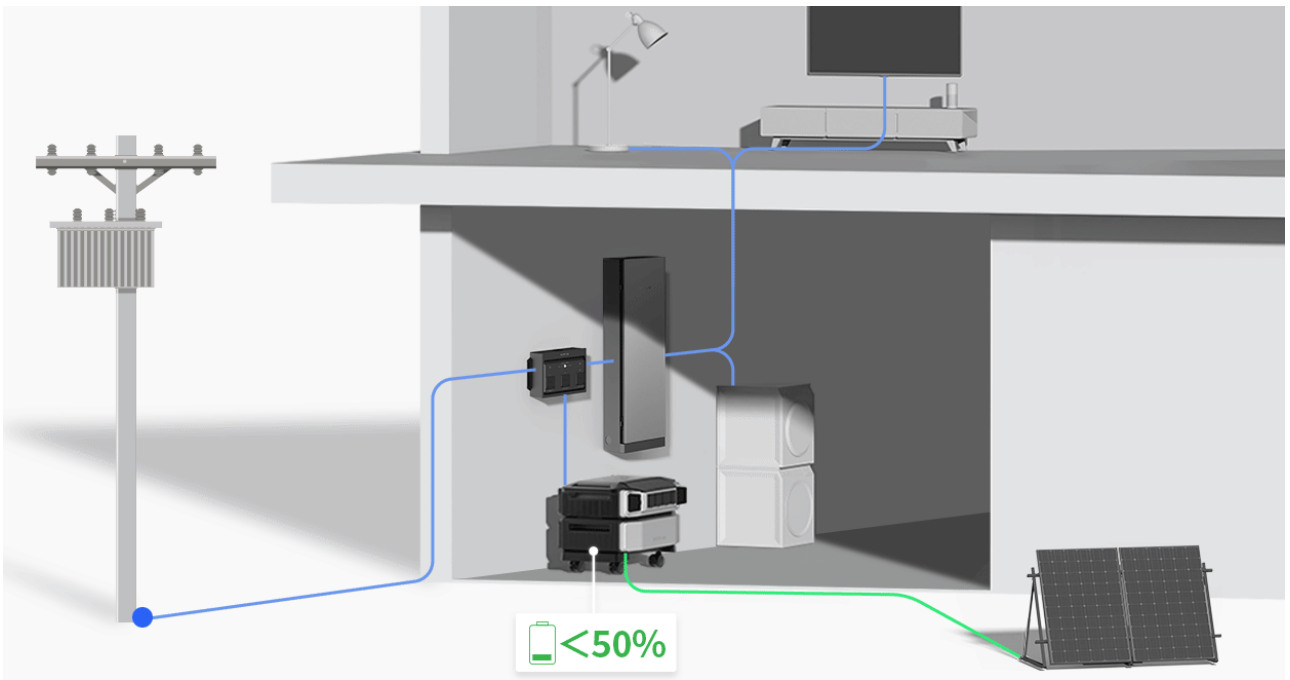
Schedule battery charging and discharging according to your needs.

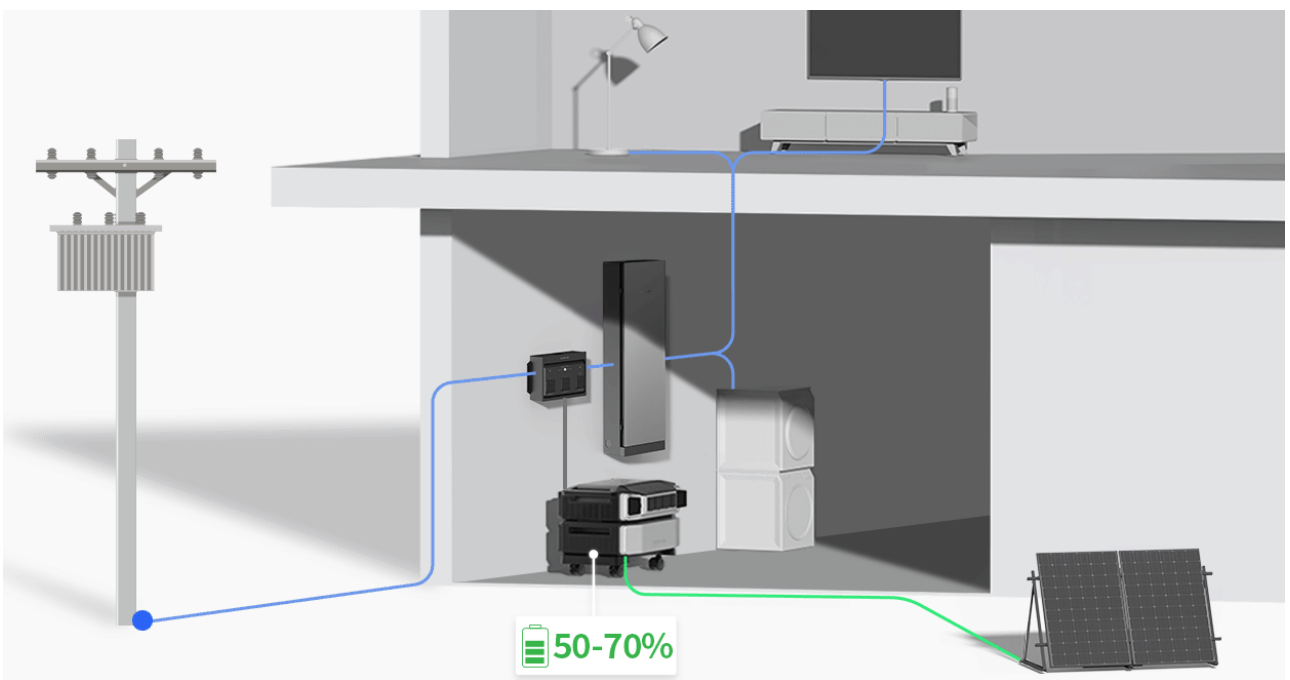
- Charging task: Define time periods during which the battery charges if its level falls below the charge limit.
- Discharging task: Define time periods during which the battery discharges if it exceeds the backup reserve level.

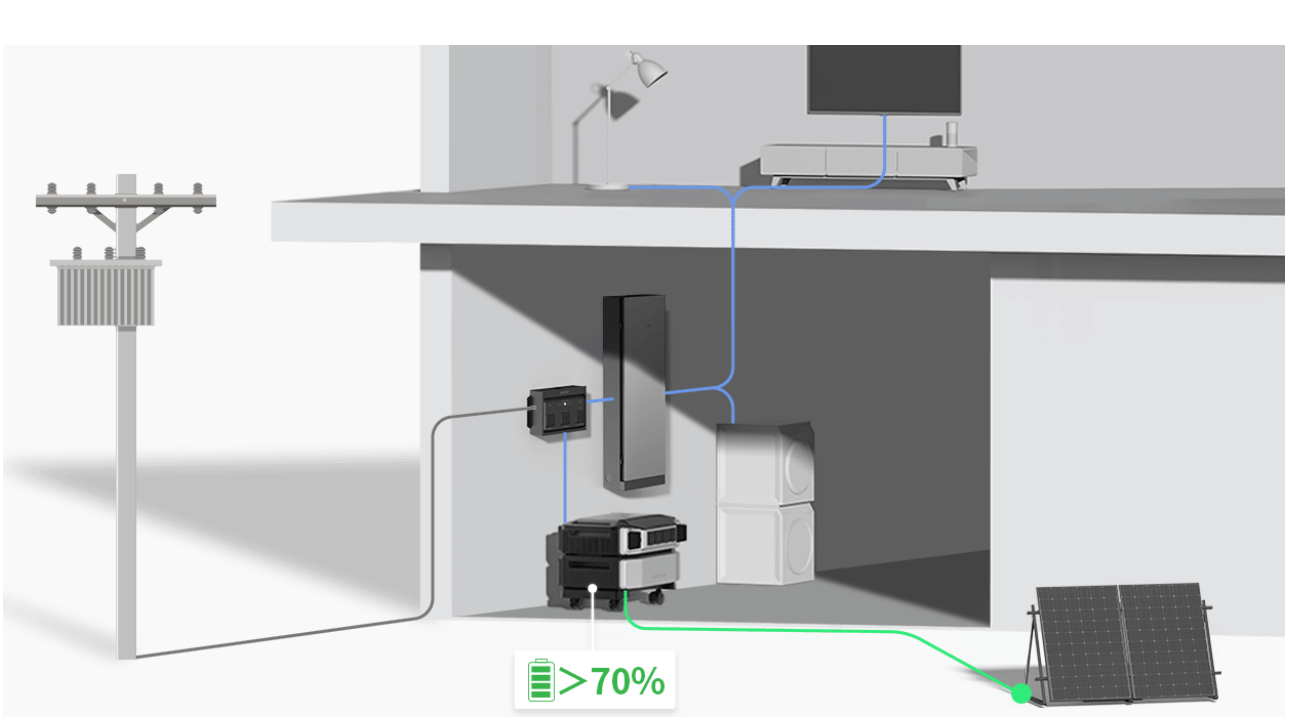
Self-powered mode

This mode prioritizes solar and battery power to minimize grid use.

- Battery charges from solar when above the backup reserve level, until reaching the set charge limit.
- Battery discharges once it hits the charge limit, or if its level rises about 20% above the backup reserve, with priority given to the latter.
- Battery stops discharging once it falls below the backup reserve level.







Gas generator settings

When connecting to a gas generator, configure the maximum power in system **Settings > Generator Settings**. Set the value according to the generator's rated output, within the range of 3–12 kW.

Firmware update

You can update the firmware when the SHP3 is connected either to the grid or to battery power.
Go to **Settings > Firmware** in the EcoFlow app for updates.

Safety Instructions and Regulatory Compliance

Disclaimer

This product includes essential printed documentation required for setup and basic usage. For detailed manuals, resources, and the most up-to-date information about the product, visit http://www.ecoflow.com/support/download/. Fully read and understand the product documentation prior to use. Improper use may result in serious injury, damage, or property loss. By using this product, you agree to and accept all terms outlined in the product documentation. EcoFlow is not liable for losses, damages, or injuries caused by misuse or non-compliance.

Important safety instructions

1. the manual, pamphlet, or instruction sheet should be consulted before installation of the panelboard.
2. Risk of electric shock – more than one disconnect switch may be required to de-energize the equipment before servicing.
3. Turning off parallel energy source disconnect does not deenergize this panel. turn off power from all sources supplying this equipment before working inside.
4. Both the line and load terminals may be energized when the breaker is in the open (off) position.
5. Intended use: suitable for use as service equipment.
6. These servicing instructions are for use by qualified personnel only.
7. To reduce the risk of electric shock, do not perform any servicing other than that specified in the operating instructions unless you are qualified to do so.
8. Please read the product document carefully before installing, operating, or servicing this equipment.
9. Installation of this equipment must conform to local standards, national electrical safety standards, and the manufacturer's instructions.
10. More than one live circuit. disconnect all sources of supply before servicing.
11. There is a high possibility of electric shock or serious burns due to the high voltages in the equipment.

12. Use appropriate personal protective equipment (PPE) and follow safe electrical work practices.
13. Wiring methods in accordance with the National Electrical Code, ANSI/NFPA 70 are to be used.
14. Risk of Electric Shock: Do not touch exposed electrical cables or parts with bare hands.
15. Be cautious to prevent injury when moving heavy objects.
16. Do not install or operate the equipment in an area where flammable or explosive materials are stored.
17. Inspect the equipment and cables for damage before installing. Do not install the equipment or cables if damaged in any way.
18. Turn off all power supplying this equipment before installation. Disconnect each circuit individually before servicing. AC voltage sources are terminated inside this equipment.
19. Always use a properly rated voltage sensing device to confirm power is off.
20. During the drilling process, cover the interior equipment to prevent debris from falling into the equipment, and clear the debris after drilling to prevent interference with the equipment.
21. Do not damage, smear or cover any warning labels on the device. All labels must be visible after installation.
22. Before operating the equipment, check the electrical connections to ensure that the equipment is reliably and permanently grounded.
23. Do not place any kind of objects on top of the product during operation.
24. To completely de-energize the product, you MUST open the upstream breakers as well as physically unplug all batteries or power. Failure to do so may present a shock hazard.
25. Do not place or install flammable or potentially explosive objects near the product or in explosive atmospheres.
26. Do not insert foreign objects into any part of the equipment.
27. Do not connect life-support systems, medical equipment, or other critical devices to circuits that can be remotely switched. Failure of the product in such cases may result in personal injury or death.
28. Replace all devices, doors, and covers before turning on power to this equipment.
29. In the case of cables damaged, it must be replaced by the manufacturer, customer service or qualified personnel to prevent a safety hazard.
30. Do not use solvents to clean the equipment.
31. Do not use parts or accessories other than those specified for use with the equipment.
32. When installing the equipment, the screws need to be tightened according to the specification torque using a special tool.
33. Do not install or operate the equipment in extreme weather events such as lightning, snow, heavy rain, strong wind and so on.
34. Install the equipment in a location that prevents damage from flooding. Ensure that no water sources are above or near the equipment, including down spouts, sprinklers, or faucets.
35. The equipment must be disposed of according to local codes and regulations.
36. Keep out of reach of children or pets.
37. This product is designed for residential use only.

Regulatory compliance

FCC Compliance Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

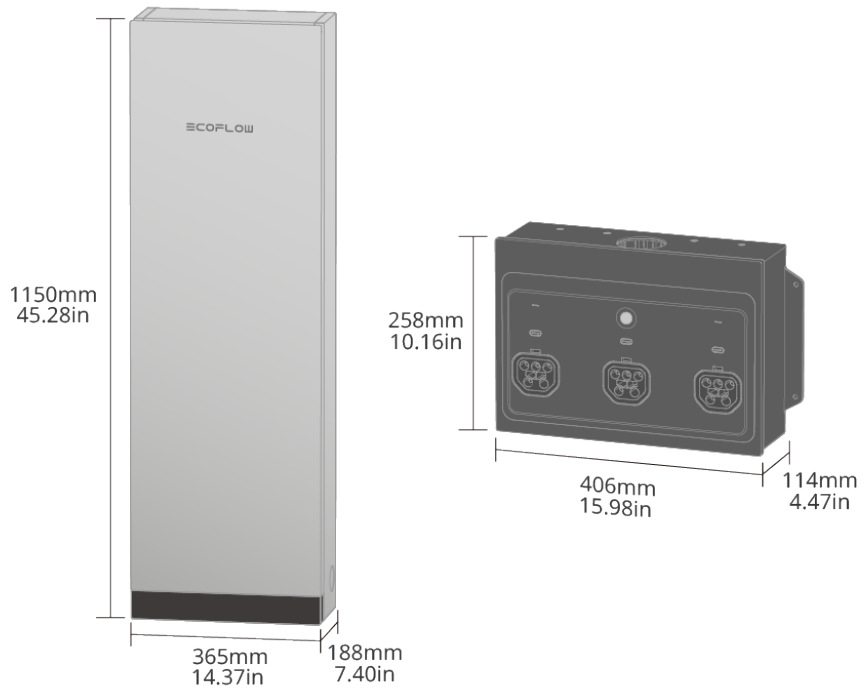
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF exposure statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Industry Canada Statement

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.
This Class B digital apparatus complies with Canadian ICES-003.

Appendix A. Technical Specification



Model	EF-SHP-32
Dimensions	1150 × 365 × 188 mm (45.28 × 14.37 × 7.40 in)
Net Weight	88.8 ± 0.4 lb (40.3 ± 0.2 kg)
Enclosure Protection	NEMA 3R, Rainproof
Installation Method	Surface or semi-flush mounting
Number of Load Branch Circuit	90 A × 8, 60 A × 24
Grid Connection	L1/L2/N/GND
Rated Input Voltage	120/240 V~ (split phase) 208Y/120V~, 3W (from 3Ø 4W)
Rated Frequency	60 Hz
Max. Continuous Current	160 A
Max. OCPD	200 A
Branch Circuit Rating	Max. Continuous Current 90 A (OCPD 125A) Max. Continuous Current 60 A (OCPD 80A)
Maximum Input Short-circuit Current	22 kA rms
Communication Method	Bluetooth, WLAN, Ethernet, CAN, RS485
Certificates	UL 67, UL 869A, UL 916, UL 1741
Operating Temperature	–22°F to 122°F (–30°C to 50°C)
Storage Temperature	–22°F to 122°F (–30°C to 50°C)
Operating Humidity	Up to 100% RH, condensing
Maximum Operating Altitude	≤ 9,842 ft (3,000 m)

Appendix B. Accessory List