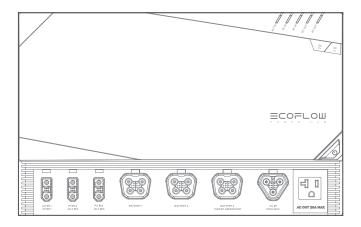
# **ECOFLOW**

## **POWER HUB**

User Manual V1.4



## Disclaimer

Read this user manual carefully before using the product to ensure that you completely understand the product and can correctly use it. After reading this user manual, keep it properly for future reference. Improper use of this product may cause serious injury to yourself or others, or cause product damage and property loss. Once you use this product, it is deemed that you understand, approve and accept all the terms and content in this document. EcoFlow is not liable for any loss caused by the user's failure to use this product in compliance with this user manual.

In compliance with laws and regulations, EcoFlow reserves the right to final interpretation of this document and all documents related to this product. This document is subject to changes (updates, revisions, or termination) without prior notice. Please visit EcoFlow's official website to obtain the latest product information.

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## **Technical Specifications**

**Basic Information** 

Net Weight 14 kg (31 lbs)

Dimensions (L × W × H) 480 mm × 140 mm × 300 mm (18.9" x 5.5" x 11.8")

Wi-Fi Supported (<120 Meters)

Bluetooth (v4.0) Supported (<15 Meters)

**Output Spec** 

AC Main Out

Pure sine wave, 3600 W (surge 7200 W, 100 ms), 120 V, 60 Hz

Linear derating to 1800 W when 40°C (104°F) < Ambient

Temperature < 60°C (140°F)

Derating to 3000 W when battery voltage < 49 V

AC Standard Out 120 V 20 A

Maximum AC Output Supported by X-Boost

5200 W

DC Output 13.6 V 70 A, maximum power: 1000 W or 26.4 V 60 A, maximum power: 1600 W

**Input Spec** 

AC Input Power 3000 W maximum power, 30 A maximum current, supported

by EcoFlow X-Stream Technology

AC Input Voltage 100-120 V, 50 Hz/60 Hz

Alternator Input 2/3

PV Input 2/3

13–60 V 30 A, maximum power: 1600 W 15–60 V 30 A, maximum power: 1600 W

Alternator Input 1 PV Input 1 13–60 V 60 A, maximum power: 1600 W 15–60 V 30 A, maximum power: 1600 W

**Battery Port Spec** 

Battery Port (x3)

40-60 V 100 A, supports up to three 2kWh or 5kWh LFP batteries, which are sold separately.(Not recommended to use one Power Hub with both EFM100-BPB and EFM100-BP

at the same time.)

**Operating Environment** 

Operating Temperature -25°C to 60°C (-13°F to 140°F)

Storage Temperature -25°C to 60°C (-13°F to 140°F)

Other

EcoFlow Smart Generator 1800 W maximum charging power, sold separately.





## Safety Instructions

- 1. SAVE THESE INSTRUCTIONS This manual contains important safety and operating instructions
- 2. This is a Safety Class I product (supplied with a protective grounding terminal). Uninterruptible protective grounding must be provided at the AC input and/or output terminals. Alternatively, the grounding point located externally on the product may be used. Whenever it is likely that the grounding protection has been damaged, the product must be turned off and secured against unintended operation; please contact qualified service staff.
- 3. To prevent fire, short circuits, and electric shocks, do not install this product in environments with high humidity, high temperature, or conductive contaminants.
- 4. Before installing this product, disconnect the main power supply. Do not work with live power.
- 5. Keep this product away from heat sources, such as fires or heating furnaces.
- 6. Keep this product away from any liquid. Do not immerse this product in water or get it wet. Do not use this product in rain or humid environments.
- 7. Do not use this product in environments with strong static electricity or magnetic fields.
- 8. Do not disassemble this product in any way or pierce it with sharp objects.
- 9. Do not use wires or other metal objects that may result in a short circuit.
- 10. Do not use unofficial components or accessories. If components or accessories need to be replaced, purchase them from the EcoFlow official sales channels.
- 11. Strictly comply with the ambient temperature for use in this user manual when using this product.
- 12. Do not stack other heavy objects on this product.
- 13. Do not forcibly block the fan during product use or place the product in an unventilated or dusty area.
- 14. Please avoid impact, falls, or severe vibrations when using the product. In case of a severe external impact, turn off the power supply immediately and stop using the product. Ensure the product is well fastened during transportation to avoid vibrations and impacts.
- 15. If the product falls into water accidentally during use, place it in a safe open area and stay away from it until it is completely dry. The dried product cannot be reused, and should be properly disposed according to the method described in the EcoFlow Battery User Manual. If the product catches fire, we recommend that you use the fire extinguishers in the following order: water or water mist, sand, fire blanket, dry powder, and carbon dioxide fire extinguisher.
- 16. If there is dirt on the ports of the product, clean it with a dry cloth.
- 17. Place this product carefully to prevent damage caused by the product falling over. If the product falls over and is seriously damaged, power it off immediately.
- 18. Proper disposal of batteries is required. Refer to your local local codes for disposal requirements.
- 19. DANGER:To reduce the risk of fire or electric shock, carefully follow these instructions.
- 20. WARNING: A battery can present a risk of electrical shock, burn from high short-circuit current, fire or explosion from vented gases. Observe proper precautions.
- 21. CAUTION: To ensure the safety, AC plug that will be connected Mains or Generator shall comply UL498 certificated and no less than 38A.
- 22. Keep this product out of reach of children and pets.

## **EcoFlow App**



Control, monitor and customize your Power Kits from afar with the EcoFlow App. Download at: https://download.ecoflow.com/app

#### **Privacy Policy**

By using EcoFlow Products, Applications and Services, you consent to the EcoFlow Term of Use and Privacy Policy, which you can access via the "About" section of the "User" page on the EcoFlow App or on the official EcoFlow website at <a href="https://www.ecoflow.com/policy/terms-of-use">https://www.ecoflow.com/policy/terms-of-use</a> and <a href="https://www.ecoflow.com/policy/privacy-policy">https://www.ecoflow.com/policy/privacy-policy</a>



- The product Bluetooth can only be connected with one account, if you want to use another account, please reset Bluetooth via the EcoFlow App or long pressing the DC button on the product for 3 seconds.
- 2. This product ONLY SUPPORTS 2.4GHz WiFi.

## **Getting Started**

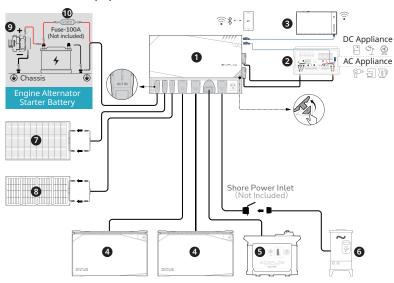
#### **System Overview**

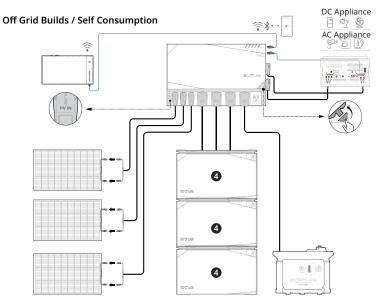


- If the product is installed in an enclosed space, proper ventilation is a MUST to prevent this product from overheating.
- For safety reasons, it is recommended to install a Ground Fault Circuit Interrupter (GFCI), also known as Residual Current Device (RCD) in the AC input and AC output of the Power Hub. Please refer to local regulations regarding grounding of autonomous power systems.
- Before connecting this product to EcoFlow LFP Battery, ensure that there is no charging input connected to Power Hub and LFP Battery is powered off.
- It is not recommended to use one Power Hub with both EFM100-BPB and EFM100-BP at the same time.
- It is not recommended to connect or disconnect LFP battery when the system is on.

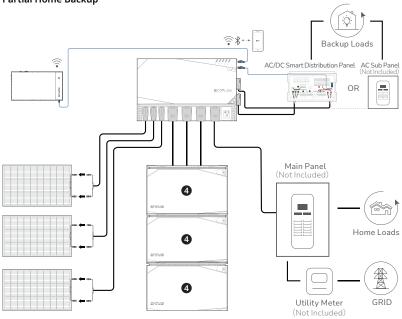


#### Recreational Vehicle (RV)





#### **Partial Home Backup**



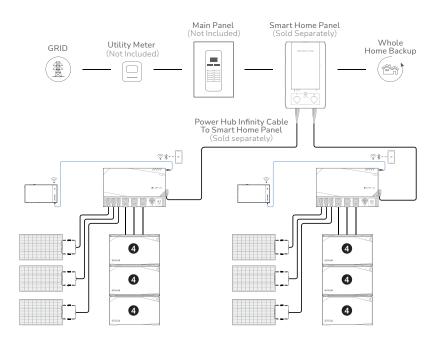
- 1. EcoFlow Power Hub
- 2. AC/DC Smart Distribution Panel
- 3. Power Kit Console
- 4. EcoFlow 2kWh/5kWh LFP Battery
- 5. EcoFlow Smart Generator

- 6. Shore Power/Grid Power
- 7. Rigid/Flexible Solar Panel
- 8. Foldable / Portable Solar Panel
- 9. Vehicle Alternator
- 10. Fuse-100A (Not included)

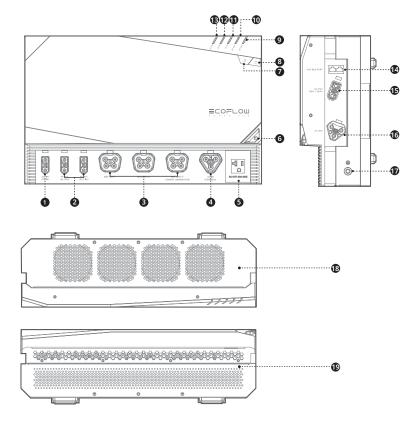


#### Whole Home Backup

This product can be connected to EcoFlow Smart Home Panel via "Power Hub Infinity Cable to Smart Home Panel". Once connected, the AC input of the Power Hub is disabled and the AC charging and discharging is controlled by the Smart Home Panel. The output of the Power Hub can be turned on/off by pressing the AC switch button (marked as "AC 1" or "AC 2") on the Smart Home Panel. This scenario is used for home power backup or emergency power for critical equipment, and supports AC parallel or split phase output.



#### **Product Overview**



- 1. ALT IN / PV IN1 Port
- 2. PV IN / ALT IN 2/3 Port
- **3.** Battery 1/2/3 Port / Smart Generator Port
- 4. AC IN Port
- **5.** AC OUT Port (20A) (For EFM100-HUB only)
- 6. Main Power Button

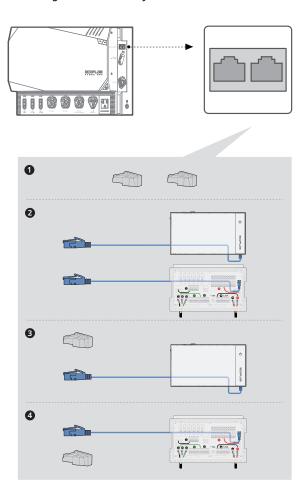
- 7. DC OUT Button
- 8. AC OUT Button
- 9. AC Out Indicator
- 10. DC Out Indicator
- 11. AC In Indicator
- 12. PV IN Indicator
- 13. ALT IN Indicator

- 14. RJ45 CAN Bus Ports
- 15. DC Main OUT Port
- 16. AC Main OUT Port
- 17. Earth Stud
- 18. Air Outlet
- 19. Air Inlet



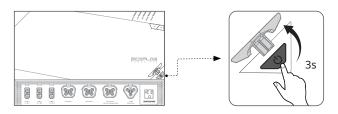
## **CAN Bus Connection**

To ensure communication quality, this product comes with two RJ45 CAN Bus ports, each port can be connected to AC/DC Smart Distribution Panel, Power Kit Console, or RJ45 CAN bus terminator. Both ports MUST be connected to stabilize communication throughout the system. Not doing so will cause the system to malfunction.



## **Product Usage**

#### Power On / Off



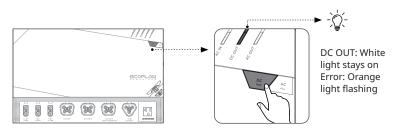
	Status Indicators (Top right corner)	Main Power Indicator
Power-on	Five indicators illuminated in a sequence from left to right	Breathing
Power-off	Five indicators flash 3 times and stay off.	Off



- 1. Please wait 5 seconds to let the system completely shut down before further operation after pressing the main power button.
- 2. Ensure that there is no charging input connected to the Power Hub before shutting down the Power Kits.

### **DC Output**

When the power is on, short press the DC button to enable DC Output. To disable DC Output, short press the DC button.

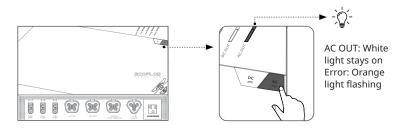




## **AC Output**

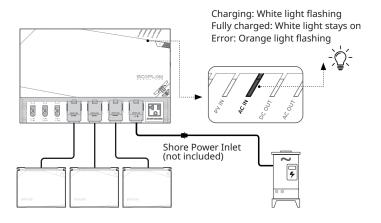
When the power is on, short press the AC button to enable AC Output. To disable AC Output, short press the AC button again.

When Power Hub is in idle mode, please turn off AC Output to avoid power loss.



### **AC Charging**

The EcoFlow Power Hub features EcoFlow fast charging technology X-Stream . The maximum AC charging power is 3000 W and the maximum AC charging current is 30 A. User can adjust the charging current via EcoFlow App or Power Kit Console. The default charging current is 15 A.





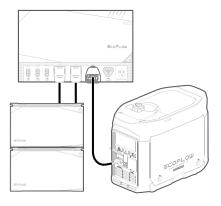
EcoFlow is not liable for damages caused by the use of charging cables not provided by EcoFlow.

### **Smart Generator Charging**

The Power Kits can be recharged by using different cables connected to the AC or DC output of the EcoFlow Smart Generator.

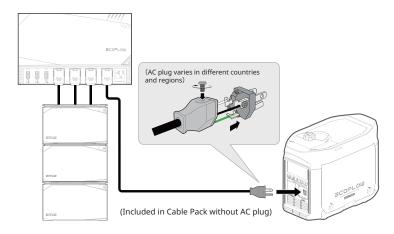
#### DC Charging

Connect EcoFlow Smart Generator to the Power Hub with the Smart Generator Charging Cable (Smart Generator, DC charging cable and adapter are sold separately).



#### **AC Charging**

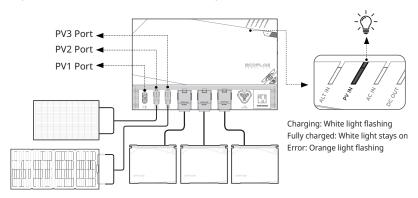
Connect EcoFlow Smart Generator to the Power Hub with the AC Charging Cable.





### **Solar Charging**

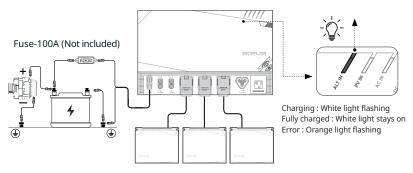
The Power Hub has three PV (Photovoltaic) input ports, with a total power of 4800 W for the three ports and 1600 W for each port. Any brand of solar panel can be used as long as it meets the specifications of the solar charging input. For EcoFlow 100w rigid or flexible solar panel, up to 6S3P can be connected to each port, for EcoFlow 400w rigid solar panel, up to 4S1P or 2S2P can be connected to each port, for EcoFlow 400w foldable solar panel, up to 3S1P or 2S2P can be connected to each port. (S: series, P: parallel)



### **Vehicle Alternator Charging**

The Power Hub has three alternator charging input which supports 12V, 24V or 48V alternator. Each port will draw 1600W Max, The max charging current of ALT IN1 Port is 60 A, while the other two is 30 A. Only ALT IN1 charging current can be adjusted via EcoFlow App or Power Kit Console.

It is strongly recommended to UNPLUG the alternator charging cable from the Power Hub when vehicle is not in use for a long time.





Vehicle Alternator System	Vehicle Alternator Voltage	
12V	<13V	Alternator charging will stop to protect vehicle
24V	<26V	starter battery from
48V	<52V	over-discharging



- Vehicle Alternator Charging will only operate when vehicle is on move. If idle charging is needed, user can toggle the idle charging button via EcoFlow APP.
- 2. Connect ALT IN1 port as a priority for vehicle alternator charging.



#### Priority of multiple charging

Power Hub supports multiple charging input simultaneously, and the charging priorities are: solar charging, AC charging, vehicle alternator charging and EcoFlow smart generator charging.

The total charging current at the battery port of the Power Hub is limited to 100A. When the charging input power is greater than the power required by the battery, the charging input with lower priority will reduce charging current smoothly or even stop charging.

#### X-Boost Feature

With EcoFlow X-Boost technology, this product can power a 5200W Max device (for heating appliances only) while the rated output power remains 3600W, avoiding operation failure due to overload protection.



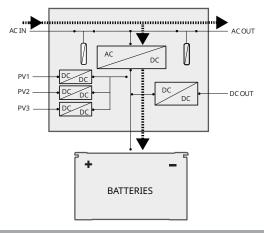
- 1. The X-Boost feature is unavailable when AC Output is in bypass mode.
- The X-Boost feature is not suitable for all appliances. The X-Boost feature is only suitable for heating appliances. It is not suitable for some appliances with voltage protection, such as precision instruments.



### **Bypass Mode**

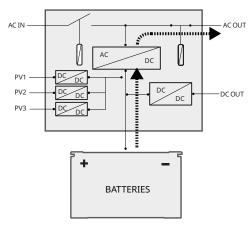
When the product is connected to external AC and the AC output is enabled, the system enters bypass mode. The AC output is provided by the external AC power supply and the LFP battery is charged by the external AC power supply.

When external AC is not available, the Power Hub will automatically transfer to inverter mode, AC output will restore power within 30ms.



#### **Inverter Mode**

When external AC power source is not available, the system will enter Inverter Mode. AC Output is now supplied by the LFP battery.



### **Standby Mode**

When the AC output and DC output of the product are continuously off and there is no charging input for 20 seconds, it enters standby mode to reduce power consumption. Pressing the DC OUT or AC OUT button can wake up the system.



The Power Hub will not enter Standby Mode during firmware update.

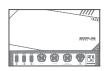
## **FAQs**

- 1. Can I connect non-ECOFLOW photovoltaic panels?
  - Yes, the Power hub has three independent PV charging inputs, and users are free to choose any brand and model of PV panel.
- 2. Which scenarios does this product apply to?
  - Application scenarios include but are not limited to Homes, RVs, and Off-grid Builds.
- 3. Do the input and output parameters of this product apply to electricity use standards of all countries?
  - Yes. Both low-voltage and high-voltage versions of this product are available, which cover electricity use standards of all countries.
- 4. What are the charging and discharging methods of this product? Charging methods include: AC Charging, Vehicle Alternator Charging, Smart Generator Charging and Solar Charging. The discharging method is AC/DC output.
- 5. Which devices can connect to the AC output port of this product?
  - The rated power of the AC output port of this product is 3600W, and surge power is 7200W. It can supply power to most home appliances. However, it is recommended to confirm the power of the appliances before use, and ensure that the total power of all AC loads is less than the rated power.
- 6. How can I clean this product?
  - Use a dry, soft, and clean cloth or paper towel to wipe off dust, dirt, or water on this product.
- 7. How do I store this product?
  - Before storage, power off the product, then store it in a dry and well-ventilated indoor environment. Do not place this product near water sources.



## What's in the Box

Power Hub ×1



Solar Charge Cable (6m/20ft) ×1



Mounting Kit (Back) ×1



Mounting Kit (Top / Bottom) ×2



RJ-45 CAN Bus Terminator ×2



M4.8\*25 (13 pcs)



M5\*10 (8 pcs)



User Manual ×1 Warranty Card ×1 Quick Start Guide ×1



### **Care and Maintenance**

- Use this product in an environment with a temperature ranging from -25°C (-13°F) to 60°C (140°F) and keep this product away from water sources, heat sources, and metal objects.
- 2. For safety reasons, do not store this product in an environment where the temperature is higher than 45°C (113°F) or lower than 0°C (32°F) for a long time.

### **FCC Statement**

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This equipment may not cause harmful interference, and
- (2) This equipment must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 200 mm between the radiator & your body.

