

# EcoFlow 110W Lightweight Portable Solar Panel

Thank you for choosing our product.

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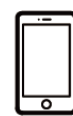
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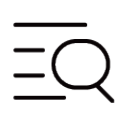
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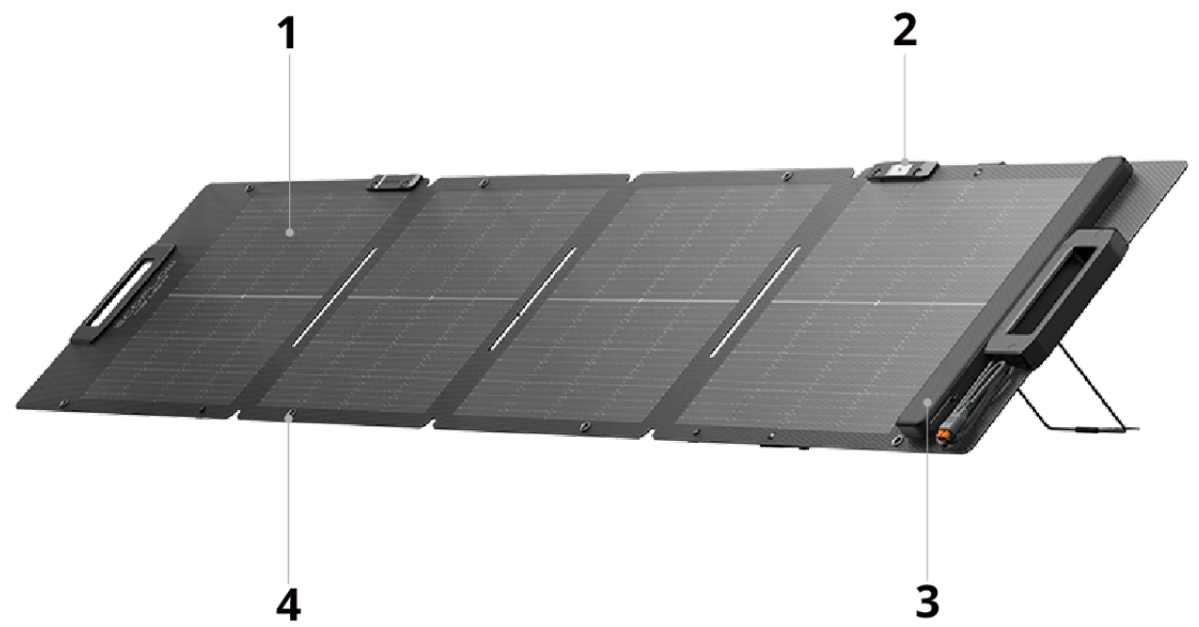


Downloads

## About This Manual

- This manual is applicable to **EcoFlow 110W Lightweight Portable Solar Panel**.
- This manual contains an introduction to this solar panel, and details on its operation, management, and maintenance. Please note that this manual may be updated without prior notice.
- All images displayed in this manual are for demonstrative purposes only. Please 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.

## Overview



**1 Photovoltaic module (Front)**

This is the front of the solar panel. When in use, this side faces the sun. The front has a solar angle guide and a cable pouch. The photovoltaic module is the part that turns sunlight into electricity.

**2 Solar angle guide**

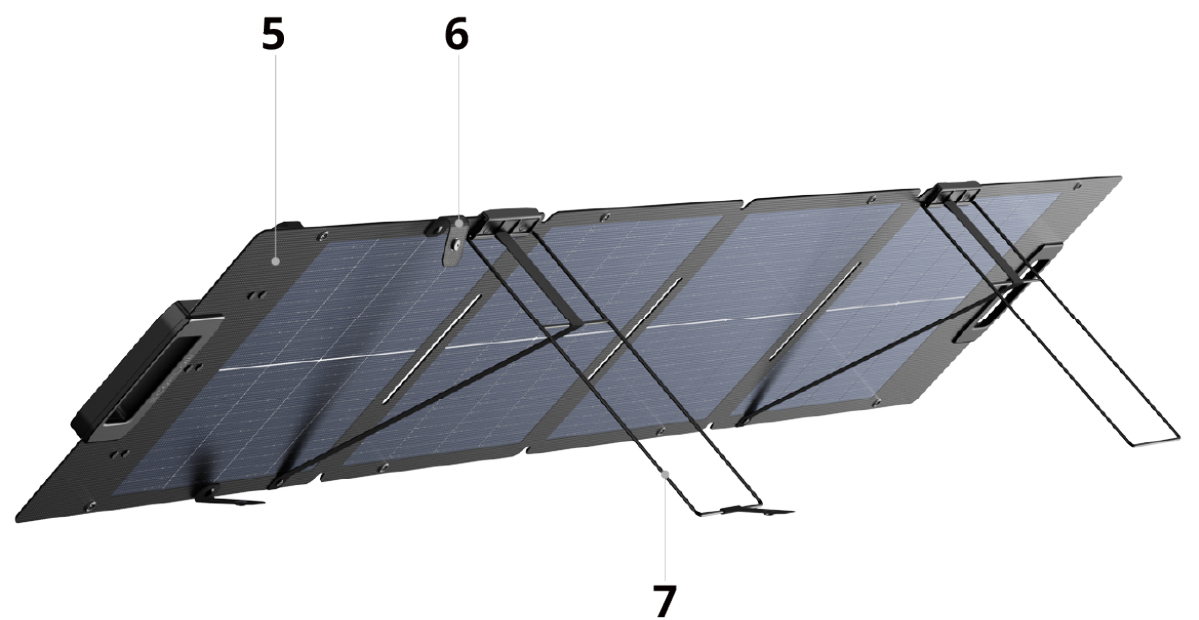
Indicates the angle between the sunlight and the panel. If the shadow of the black dot hits the center of the plate, you get a 90° angle.

**3 Cable pouch**

Includes an XT60i solar output cable (2.5 m).

**4 Eyelet hole**

The panel is designed with eight preset mounting holes (inner diameter: 8 mm), which can be used with ropes, hooks, or other fixtures to securely hang or install the panel.



**5 Solar Panel – Back Side**

Equipped with 2 brackets. This side should face away from the sun during use.

**6 Buckle**

Comes with 3 pieces, used to fasten and secure the solar panel for storage.

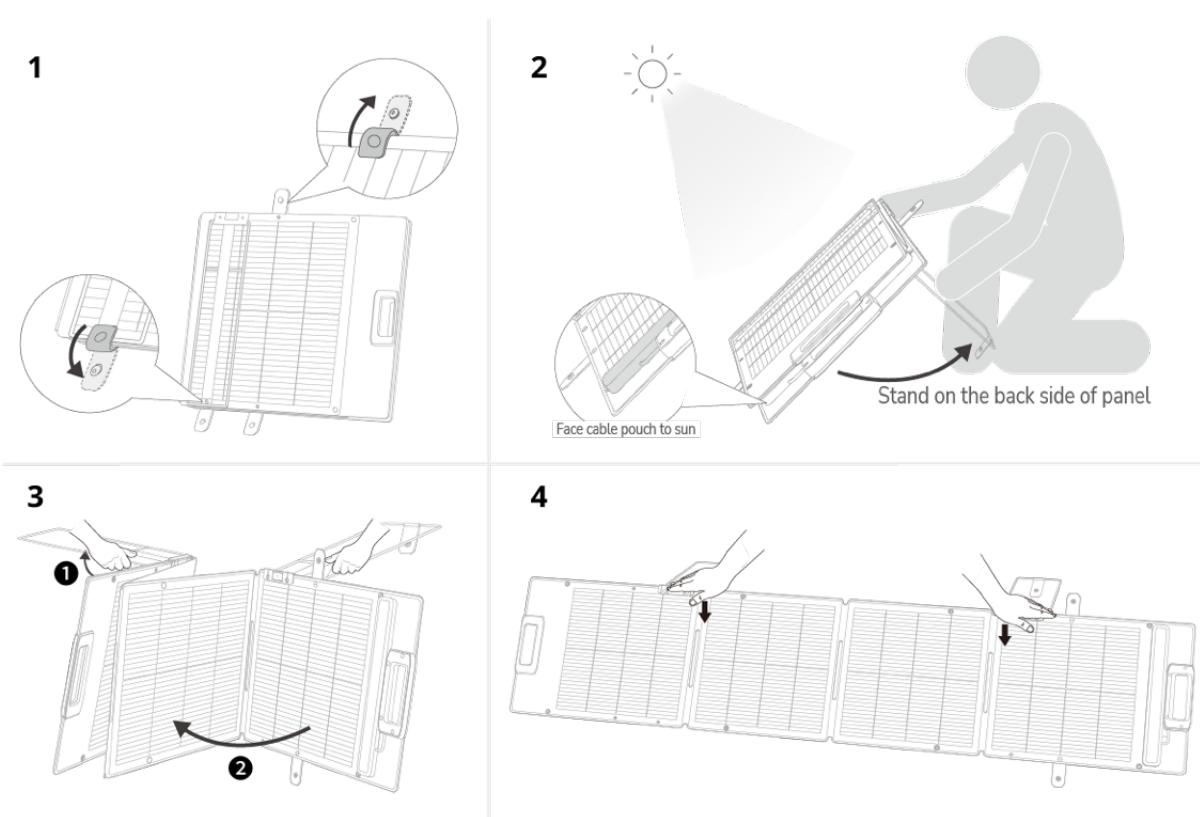
**7 Bracket**

Used to support the solar panel and adjust its angle. It includes elastic straps, allowing the solar panel to be positioned between 30° and 60°.

# Get Started

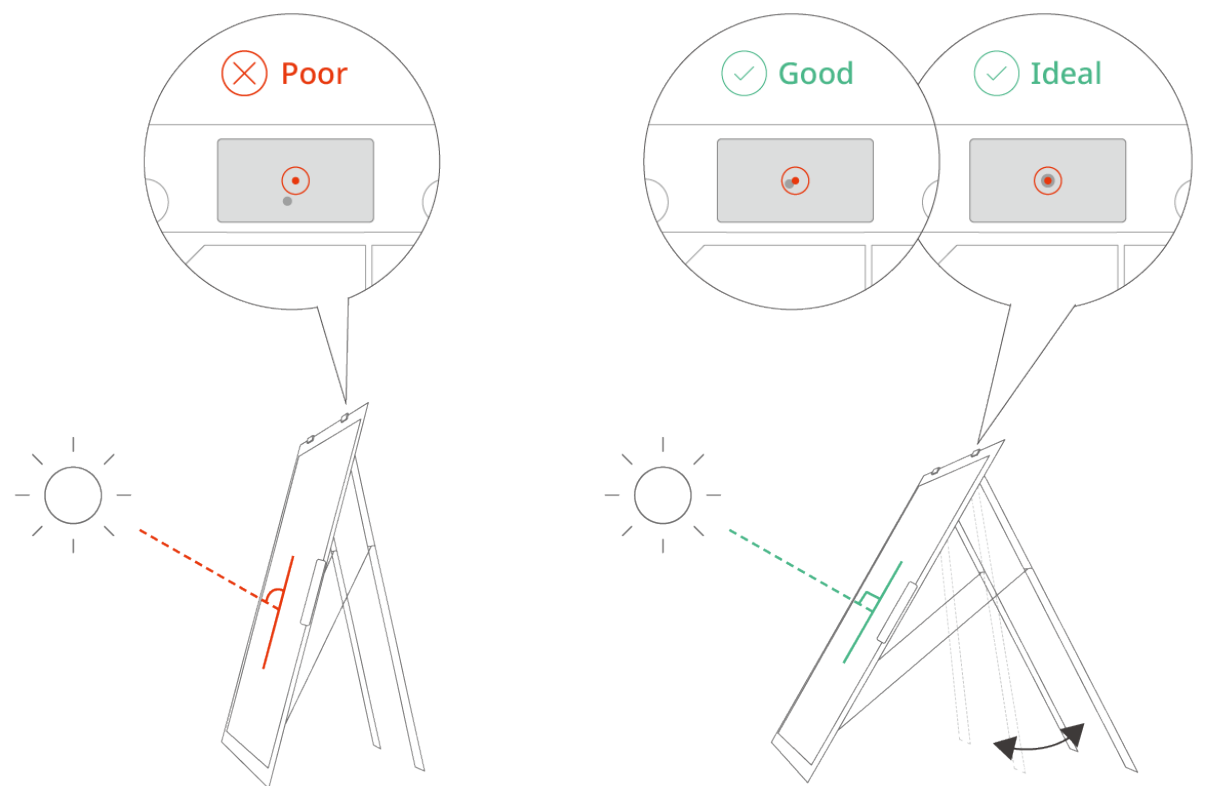
Follow the steps below to unfold the solar panel:

- **Step 1:** Unfasten the 3 buckles. One is at the bottom of the bracket, and the other two are on the body of the solar panel.
- **Step 2:** Face the **side with the cable pouch** toward the sun and **stand on the back side of the panel**. Unfold one bracket to support the panel. **Please note that during the initial period of using this product, try to set the bracket at a larger angle—it will make the solar panel stand stably more easily.**
- **Step 3:** Squat down. Press one bracket with one hand and hold the other bracket with your other hand, then unfold the solar panel.
- **Step 4:** After the brackets are unfolded, press the brackets lightly with both hands to make the solar panel stand more stably.



Find the optimal angle for positioning the solar panel:

- Check the dot shadow on the solar angle guide to adjust the brackets, and let the shadow hit as close to the center as possible. When the dot shadow hits the center, you get a 90° angle and the highest power output.
- Do not let the shadow leave the red circle on the angle guide. Otherwise, the power output will decrease.



## Power Your Devices

### Prerequisites

You can connect the solar panel directly to the EcoFlow portable power station to store energy. Alternatively, you can connect the EcoFlow portable power station to EcoFlow smart devices to supply power directly.

When using the panel with your devices, please make sure the **maximum output parameters**<sup>1</sup> of the panel are within the input range of the devices. Otherwise, your devices may be damaged. To connect the panel with a third-party device, please make sure that the device allows solar input, and that its output ports and electrical parameters meet the panel's requirements.



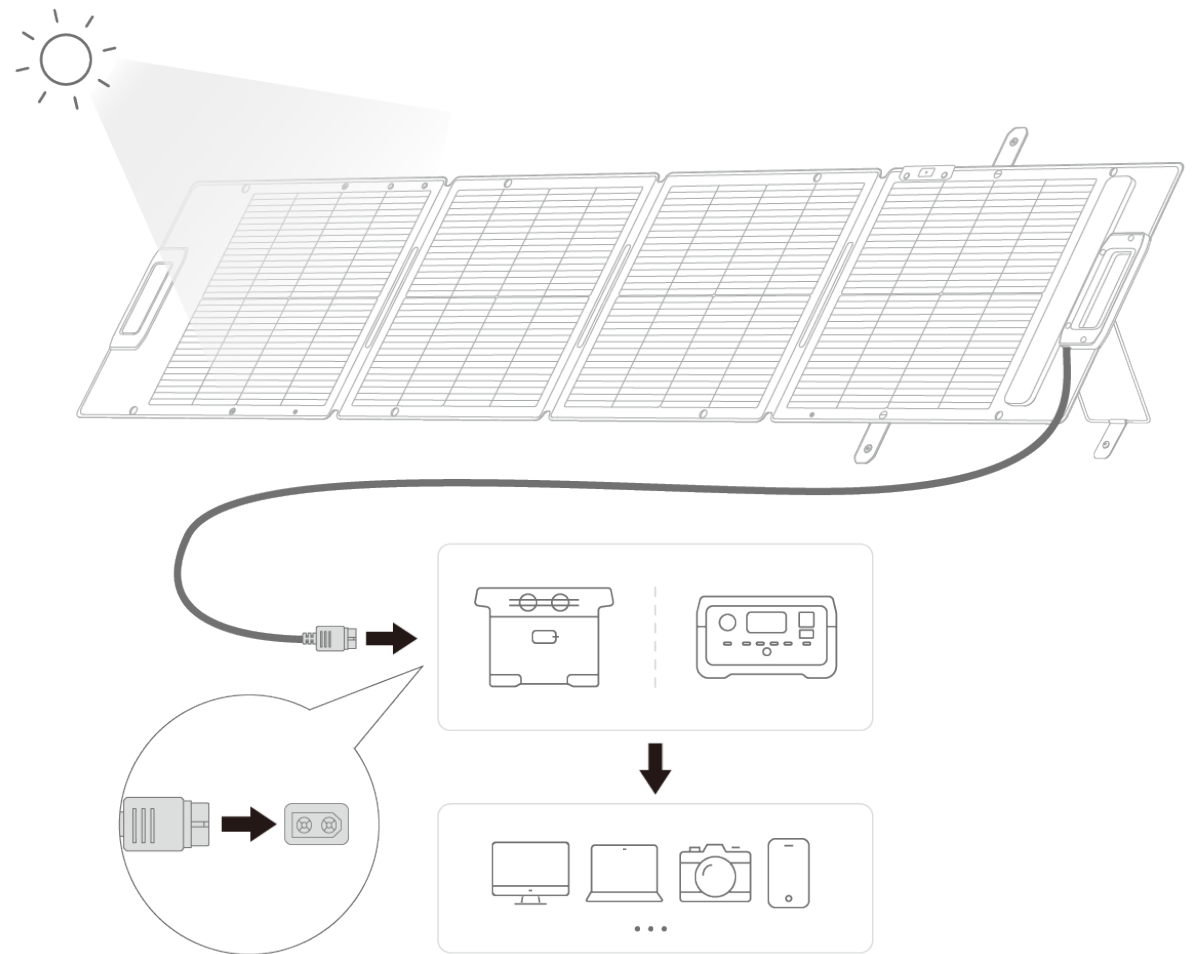
#### Maximum output parameters<sup>1</sup>

For this product, the open-circuit voltage of a single **110W** solar panel is **23.5V**, and the short-circuit current is **6.1A**.

### How to Connect

# 1

When the panel is in place, connect the solar panel's XT60i output cable to the EcoFlow portable power station's **solar input port (XT60)**<sup>1</sup> to complete the electrical connection.



### ⚠ Solar input port (XT60)<sup>1</sup>

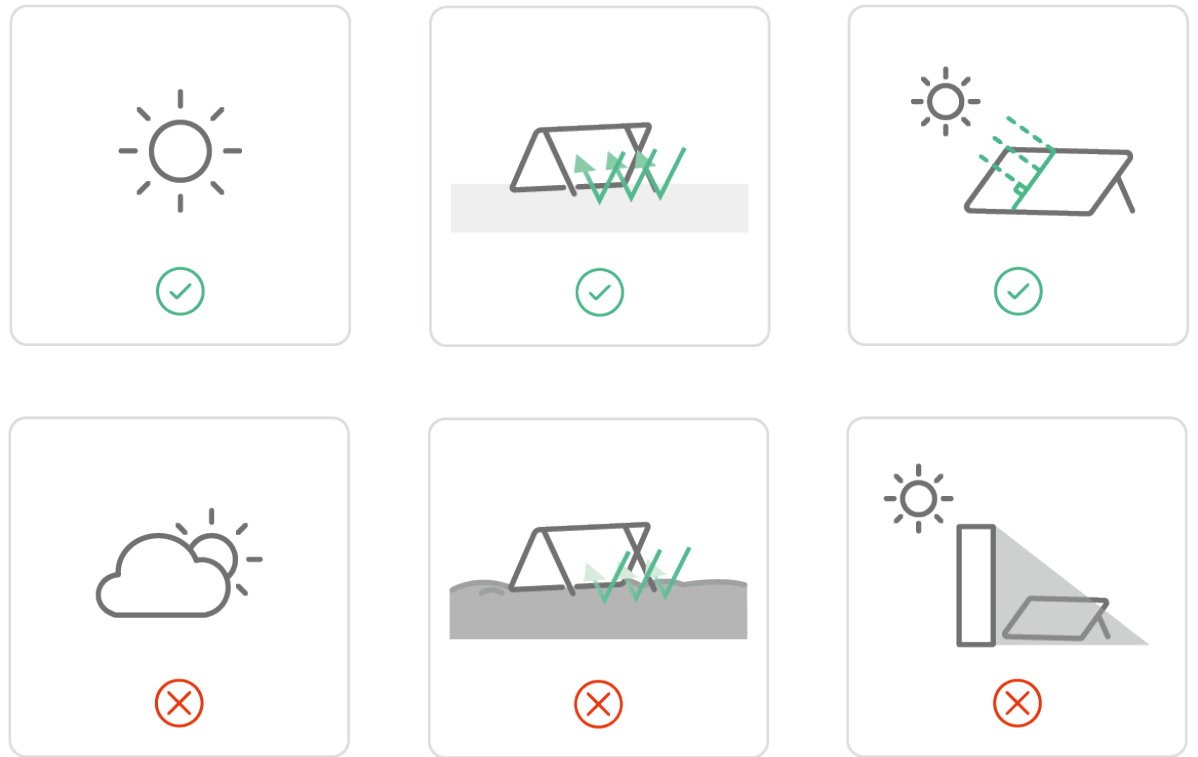
Make sure the cables are connected firmly before use to avoid port melting caused by a bad connection.

- 2 If the panel is connected to an EcoFlow device, you can check real-time output data on the screen of the device or on the device's homepage of EcoFlow app.

## Maximize Power Output

### Find an Ideal Environment

- **Use the panel on sunny or mostly sunny days**  
On a sunny noon, sunlight is strong and the panel yields more power. On cloudy or rainy days, sunlight is weak and the panel's output decreases as a result.
- **Choose light-colored ground.**  
For dual-panel solar panels, their back side can also utilize light energy. Light-colored ground helps the back of the panel absorb light to generate electricity.
- **Ensure a 90° tilt angle and minimize shading**
  - The direction of sun rays changes throughout the day. It's recommended to check the dot shadow on the solar angle guide from time to time and make sure it remains in the middle.
  - Keep the panel free from shading, dust, leaves, droppings, or other debris. Otherwise, the panel's power output will decrease dramatically.

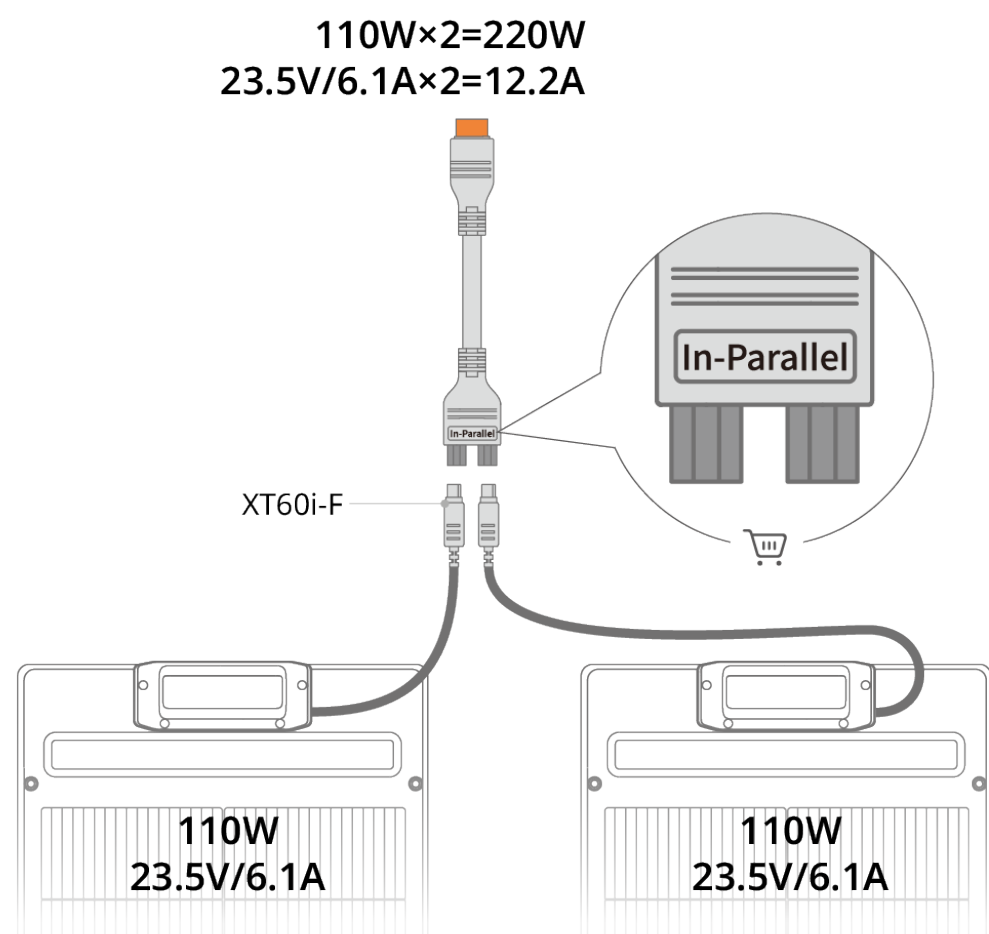


## Wire Your Panels

You can wire panels in series or in parallel to get higher output. When wiring, pay attention to the electrical parameters of your solar array and make sure that the parameters meet the requirements of the device that the panels will be connected to. **For this product, it's recommended to wire solar panels in parallel for connecting to an EcoFlow portable power station.**

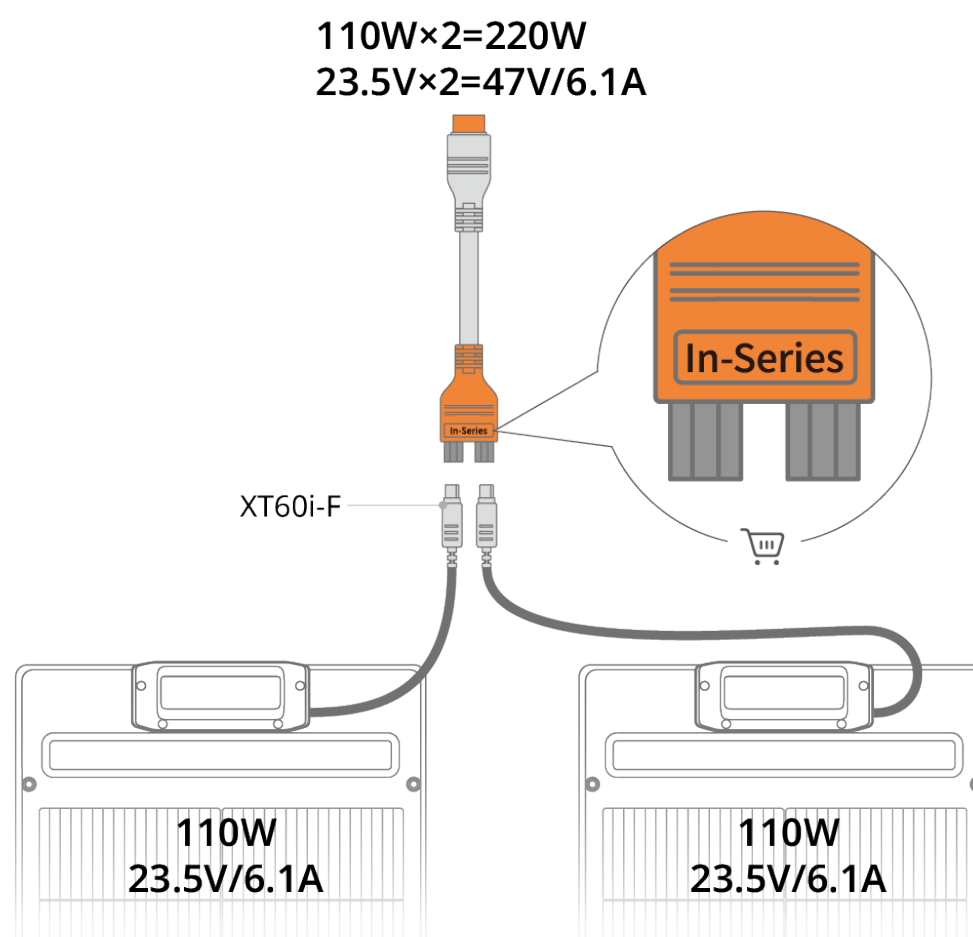
### How to Connect

- To wire **in parallel**, plug the two panel output leads into the two input sockets of the **EcoFlow XT60i In-Parallel adapter (marked "In-Parallel")**. Then connect the adapter's single XT60i plug to the portable power station's solar input (XT60/XT60i). The adapter internally puts the two panels in parallel.



**i** The EcoFlow XT60i In-Parallel Adapter (marked "In-Parallel") is not part of the box contents. Please purchase it separately from the EcoFlow online store.

- To wire **in series**, plug the two panel output leads into the two input sockets of the EcoFlow XT60i In-Series adapter (marked "In-Series"). Then connect the adapter's single XT60i plug to the portable power station's solar input (XT60/XT60i). The adapter internally puts the two panels in series.



**i** The EcoFlow XT60i In-Series Adapter (marked "In-Series") is not part of the box contents. Please purchase it separately from the EcoFlow online store.

### Select Your EcoFlow Portable Power Station

- A single 110W lightweight solar panel can be used independently to meet basic daily charging needs.
- Compared to EcoFlow's 160W, 220W solar panels and other similar products, this product has a lower current, so parallel connection is recommended.

Recommended configurations by model are shown below.

No.	Power Station Model	Battery Capacity	Max. PV Input Power	Recommended 110W Solar Panel Quantity
1	RIVER 2	256Wh	110W/30V/8A	1 panel
2	RIVER 2 Max	512Wh	220W/50V/13A	2 panels (series/parallel)

3	RIVER 2 Pro	768Wh	220W/50V/13A	2 panels (series/parallel)
4	RIVER 3	230Wh	110W/30V/8A	1 panel
5	RIVER 3 Max	576Wh	220W/55V/13A	2 panels (series/parallel)
6	RIVER 3 Plus	286Wh	220W/55V/13A	2 panels (series/parallel)
7	DELTA 2	1024Wh	500W/60V/15A	2 panels (series/parallel)
8	DELTA 3	1024Wh	500W/60V/15A	2 panels (series/parallel)
9	DELTA 3 Plus	1024Wh	500*2W/60V/15A	2 panels (series/parallel)

## Storage and Maintenance

### Storage

- When the solar panel is not in use, disconnect it from all devices, fold it properly, and store it in an upright position. Avoid placing heavy objects on top of the panel.
- For long-term storage, neatly bundle the output cables and secure them inside the cable pouch to prevent contact or pressure against the solar cells. Then fold the solar panel and place it back into a storage case. Store the panel in a cool, dry location, away from direct sunlight, high temperatures, or humid environments.

### Cleaning

- Make sure the panel is not connected to portable power stations or other loads, and that the panel's surfaces have cooled to room temperature. Then, wet a soft rag with clean water, twist dry the rag, and clean the panel's surfaces with it. Avoid wiping or washing the photovoltaic connectors when cleaning.

## FAQ

### 1. Is the panel waterproof?

The panel has an IP68 rating. If the panel gets wet in the rain or falls into water by accident, check if water has got into the connectors immediately. If yes, dry the connectors with rags and the panel will function properly. However, pay attention not to soak the panel in water.

### 2. Why isn't my panel generating power?

Make sure the connection is correct, the terminals are tight, and the environmental conditions, including sunlight, are ideal for solar power generation. If the panel still generates no power after you exclude the factors

above, contact EcoFlow's official customer service for help.

### 3. Can portable solar panels generate power with weak light, like on rainy days or under indoor lighting?

Portable solar panels barely generate power under such circumstances as they are made of monocrystalline cells, whose performance is restricted by weak light.

### 4. Is the panel compatible with all EcoFlow portable power stations?

Not necessarily. It depends on whether the panel's electrical parameters match the solar input specifications of the power station.

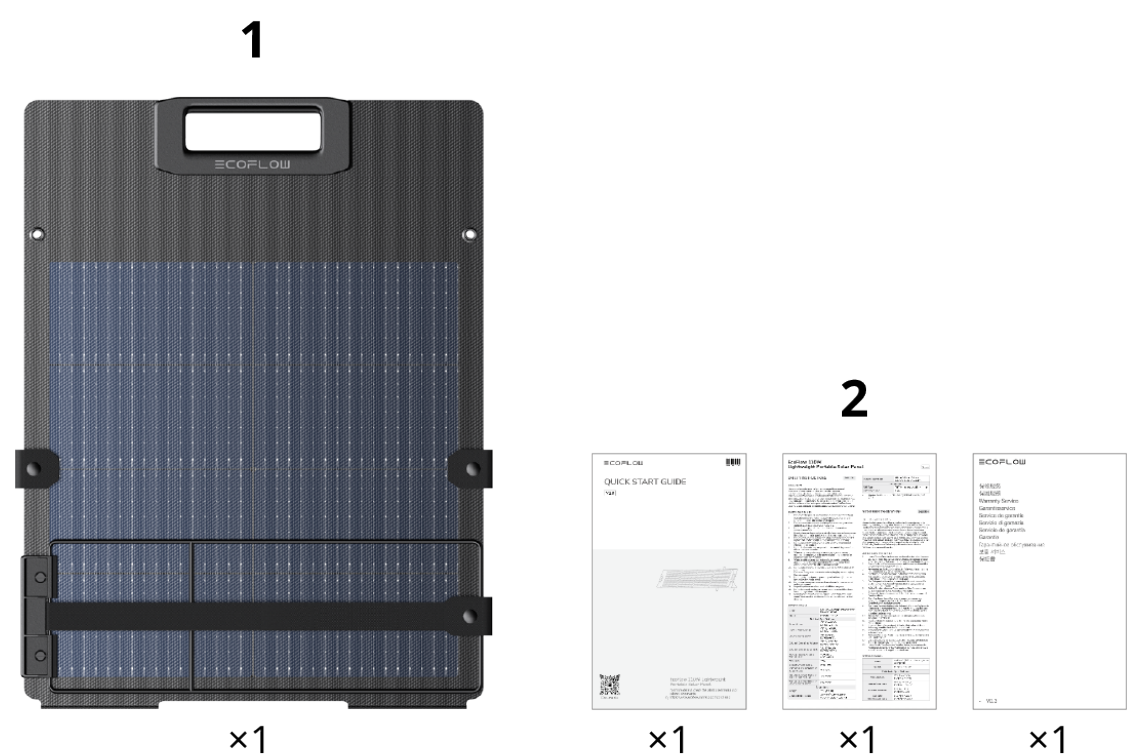
For this product, the open-circuit voltage of a single **110W** solar panel is **23.5V**, and the short-circuit current is **6.1A**. Please check that these values are within the supported range of your EcoFlow portable power station (e.g., maximum power point voltage/current).

### 5. How can this solar panel be connected in series or parallel? Where can I obtain the required accessories?

This product is recommended to be connected in series with the same model 110W lightweight portable solar panel for use with EcoFlow portable power stations. Parallel connection is recommended.

For parallel connection, please purchase the appropriate parallel adapter cable according to your specific usage needs.

## What's in the Box



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1. EcoFlow 110W Lightweight Portable Solar Panel
  2. Quick Start Guide, Safety Instructions, Warranty Card
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# Specifications

Electrical Specifications	
Model	EF-FOLD-110-LW
Rated Power	STC: P <sub>m</sub> =110W BNPI: P <sub>m</sub> =122W
Open Circuit Voltage	STC: V <sub>oc</sub> =23.5V BNPI: V <sub>oc</sub> =23.5V
Short Circuit Current	STC: I <sub>sc</sub> =6.1A BNPI: I <sub>sc</sub> =6.8A
Optimal Operating Voltage	STC: V <sub>pm</sub> =19.5V BNPI: V <sub>pm</sub> =19.5V
Optimal Operating Current	STC: I <sub>pm</sub> =5.9A BNPI: I <sub>pm</sub> =6.5A
Recommended Ambient Temperature	-40°C-85°C (-40°F-185°F)
Efficiency	25%
Bifaciality Coefficients	80%±5%
Temperature Coefficient of Rated Power	-0.3%/°C
Temperature Coefficient of Open Circuit Voltage	-0.25%/°C
Temperature Coefficient of Short Circuit Current	0.045%/°C
Parameters	
Weight	3.3kg±0.3kg
Unfolded Dimensions	1944mm_413mm_26mm (76.54 × 16.26 × 1.02 in.)
Folded Dimensions	544mm_413mm_36mm (21.42 × 16.26 × 1.42 in.)
Components	
Cell Type	TOPCon monocrystalline silicon
Connector Type	XT60i

- Standard Test Conditions: 1000W/m<sup>2</sup> (92.9W/ft<sup>2</sup>), AM1.5, 25°C (77°F)
- Bifacial Standard Test Conditions (BSTC/BNPI): Front side 1000W/m<sup>2</sup> (92.9W/ft<sup>2</sup>), rear side 135W/m<sup>2</sup> (12.5W/ft<sup>2</sup>), AM1.5, 25°C (77°F).
- When the temperature is too high or too low, the panel's open circuit voltage and short circuit current will vary.



The parameters and specifications of this product are measured under **Standard Test Conditions (STC)** or **Bifacial Standard Test Conditions (BSTC/BNPI)**.

The actual power generation may vary due to factors such as geographical location, solar irradiance intensity and duration, climate conditions, temperature, shading, installation angle, system configuration (e.g., cable loss), and natural degradation over time. As a result, the actual output may differ from the rated values.

## Safety Instructions

### Disclaimer

Please read the product documentation thoroughly and ensure you understand it before using the product. Improper use may cause serious injury, product damage, or property loss. Always refer to the most up-to-date documentation available at <https://www.ecoflow.com/support/download/>. This documentation takes precedence over all other versions.

By using this product, you acknowledge and agree to all terms and conditions stated in the documentation. EcoFlow is not liable for losses caused by improper use or failure to adhere to the provided instructions. Subject to applicable laws and regulations, EcoFlow reserves the right to the final interpretation of this document and all documents related to the product.

**This product is not suitable for use in the following scenarios:**

- Long-term hanging outdoors
- Long-term hanging on vehicles

### Safety Guides

- Do not wet the product, or leave it in a humid environment for an extended period of time. Do not allow the cable pouch or wire connectors to come into contact with liquids.
- Do not expose any component of the product to highly corrosive materials such as corrosive organic solvents.
- Do not use this product near open flames or flammable or explosive materials.
- Do not poke or puncture the solar panel with sharp or pointed tools, or wipe the surface of the solar panel with hard materials such as sandpaper.
- Do not knock, squeeze or bend the solar panel. It is recommended to place this product upright during transportation or storage.
- Do not place heavy objects on the solar panel to avoid damage when using the product.
- Do not disassemble any component of the product by yourself, as this will void the warranty.
- When using this product to charge a power station, please make sure it

complies with the power station's requirements for parameters and specifications.

- When parallel or series connection of solar panels is needed, please purchase the wires provided by EcoFlow. To buy these wires, please contact the official customer service.
- Do not plug or unplug any connecting wires while the solar panel is operating.
- Do not wear any metal accessories when plugging or unplugging the solar panel.
- Do not apply any chemicals (such as paint, adhesives) to the sun-facing side of the solar panel.
- Do not use devices such as magnifying glasses to focus sunlight on the solar panel.
- Keep this product out of the reach of children and pets.
- Do not dispose of waste solar panels at will, please follow local laws and regulations for their disposal.
- Keep the product surface clean, especially the front of the solar panel. Make sure it is not blocked by foreign objects such as bird droppings.

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