

Αναδιπλούμενο φωτοβολταϊκό πάνελ EcoFlow 110W.

ECOFLOW · EAN 4895251667388

Machine translation from Polski. In case of doubt the manufacturer's original document prevails.

Lightweight Portable Solar Panel 110 W EcoFlow_User Manual 2025/11/17 19:56

Graphic: a man and a woman reading a book sitting next to solar panels and a power station

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Find the perfect environment This user manual pertains to the Lightweight Portable Solar Panel

Connect your panels 110 W EcoFlow. It provides an introduction to this photovoltaic panel Storage and maintenance and detailed information regarding its operation, management, and

Maintenance maintenance. Please note that this user manual may be

Cleaning updated without prior notice. Frequently asked questions All illustrations included in this user manual are

What's in the box for reference only. Please refer to the actual

Technical specifications product received. Safety instructions If you are reading this manual in PDF format, please remember that you can access

Disclaimer it online at [EcoFlow Support]

(<https://www.ecoflow.com/us/support>) for improved user comfort

Safety tips and to obtain the latest updates. Overview

https://manuals.ecoflow.com/cn/product/110w-lightweight-portable-solar-panel?lang=pl_PL

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This is the front side of the photovoltaic panel. During

Module use, this side faces the sun. The

1 photovoltaic front features a solar angle indicator and a pocket (front) for the cable. The photovoltaic module is the part that converts sunlight into electrical energy. The angle indicator

2 of incidence indicates the angle between the sunlight and the panel. If solar the shadow of the black dot falls on the center of the tile, you will achieve a 90° angle.

3 Cable pocket Contains the XT60i output cable for solar charging (2.5 m). The panel is designed with eight factory-prepared Mounting hole mounting holes (inner diameter: 8 mm),

4 eyelet which can be used with ropes, hooks, or other mounting elements to securely hang or mount the panel. The panel Includes 2 brackets. This side should be facing

5 photovoltaic away from the sun during use. – the back side

The set includes 3 pieces, which are used to fasten and

6 Clamp secure the photovoltaic panel during storage. https://manuals.ecoflow.com/cn/product/110w-lightweight-portable-solar-panel?lang=pl_PL Page 2/13

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It is used to support the photovoltaic panel and adjust

7 Bracket its tilt angle. It includes flexible straps that allow the photovoltaic panel to be set at an angle from 30° to 60°. Start

Follow the steps below to unfold the photovoltaic panel:

Step 1: Unclip the 3 clamps. One is located at the bottom of the bracket, and the other two are on the body of the photovoltaic panel. Step 2: Position the side with the cable pocket towards the sun and stand at the back of the photovoltaic panel. Unfold one bracket to support the panel. Please note that during the initial period of use of this product, the bracket should be set at a larger angle – this will help the photovoltaic panel maintain a stable position more easily. Step 3: Crouch down. With one hand, press one bracket, while with the other hand hold the second bracket, and then unfold the photovoltaic panel. Step 4: After unfolding the brackets, gently press them with both hands to increase the stability of the photovoltaic panel.

Find the optimal angle for setting the photovoltaic panel:

Check the shadow of the dot on the solar angle guide to adjust the brackets and ensure that the shadow falls as close to the center as possible. When the shadow of the dot falls on the center, a 90° angle is achieved, resulting in the highest output power. Do not allow the shadow to leave the red circle on the angle indicator. Otherwise, the output power will decrease.

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Power your devices

Prerequisites

The photovoltaic panel can be connected directly to the EcoFlow portable power station for energy storage. The EcoFlow portable power station can also be connected to EcoFlow smart devices for direct power supply. When using the panel with your devices, ensure that the maximum output parameters¹ of the panel are within the input range of the devices.

Otherwise, the devices may be damaged. To connect the panel to a third-party device, ensure that the device supports photovoltaic input and that its output ports and electrical parameters meet the panel's requirements. Maximum output parameters¹ For this product, the open-circuit voltage of a single 110 W photovoltaic panel is 23.5 V, and the short-circuit current is 6.1 A.

How to connect

Once the panel is in place, connect the XT60i output cable of the photovoltaic panel to the photovoltaic input port (XT60)¹ of the EcoFlow portable power station to complete the electrical connection.

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Solar input port (XT60)¹

Before use, ensure that the cables are properly connected to avoid melting the port due to a poor connection. If the panel is connected to an EcoFlow device, you can check the output data in real-time on the device screen or on the home page of the EcoFlow app.

Maximizing output power

Find the ideal environment

The panel should be used on sunny or mostly sunny days. At sunny noon, sunlight is strong, and the panel generates more power. On cloudy or rainy days, sunlight is weak, and the panel's output consequently decreases. Choose a light-colored substrate. For dual-panel photovoltaic systems, the back side can also utilize light energy. A light-colored substrate helps the back of the panel absorb light for electricity generation. Ensure a tilt angle of 90° and minimize shading. The direction of sunlight changes throughout the day. It is recommended to periodically check the shadow of the dot on the solar angle indicator and ensure it remains centered. Protect the panel from shading, dust, leaves, droppings, or other contaminants. Otherwise, the panel's output power will significantly decrease.

Connect your panels

Panels can be connected in series or parallel to achieve higher output. When wiring, pay attention to the electrical parameters of the photovoltaic installation and ensure that these parameters meet the requirements of the device to which the panels will be connected. For this product, it is recommended to connect the photovoltaic panels in parallel to connect to the EcoFlow portable power station.

How to connect

To connect in parallel, connect the two output wires of the panel to the two input sockets of the EcoFlow XT60i In-Parallel adapter (marked "In-Parallel"). Then connect a single XT60i plug of the adapter to the input of the portable power station (XT60/XT60i). The adapter internally connects the two panels in parallel.

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The EcoFlow XT60i In-Parallel adapter (marked "In-Parallel") is not included in the package contents. It must be purchased separately from the EcoFlow online store. To connect in series, connect the two output wires of the panel to the two input sockets of the EcoFlow XT60i In-Series adapter (marked "In-Series").

Next, connect a single XT60i plug of the adapter to the input of the portable power station (XT60/XT60i). The adapter internally connects two panels in series.

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The EcoFlow XT60i In-Series adapter (marked "In-Series") is not part of the package

contents. It must be purchased separately from the EcoFlow online store. Choose the EcoFlow portable power station. A single 110 W lightweight photovoltaic panel can be used independently to meet basic daily charging needs. Compared to EcoFlow 160 W and 220 W photovoltaic panels and other similar products, this product has a lower current, so parallel connection is recommended. Below are the recommended configurations by model. No.

Power Station Model	Battery Capacity	Max PV Input Power	Recommended Number of 110 W Solar Panels
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1 RIVER 2	256 Wh	110 W/30 V/8 A	1 panel
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2 RIVER 2	512 Wh	220 W/50 V/13 A	2 panels
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Max (series/parallel)

3 RIVER 2 Pro	768 Wh	220 W/50 V/13 A	2 panels
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(series/parallel)

4 RIVER 3	230 Wh	110 W/30 V/8 A	1 panel
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5 RIVER 3	576 Wh	220 W/55 V/13 A	2 panels
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Max (series/parallel)

6 RIVER 3	286 Wh	220 W/55 V/13 A	2 panels
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Plus (series/parallel)

7 DELTA 2	1024 Wh	500 W/60 V/15 A	2 panels
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(series/parallel)

8 DELTA 3	1024 Wh	500 W/60 V/15 A	2 panels
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(series/parallel)

9 DELTA 3	1024 Wh	500x2 W/60 V/15 A	2 panels
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Plus A (series/parallel)

Storage and Maintenance

Storage

When the photovoltaic 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 the panel.

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For long-term storage, carefully bundle the output cables and secure them in the cable pocket to avoid contact or pressure on the solar cells. Then fold the photovoltaic panel and place it back in the case. Store the panel in a cool, dry place, away from direct sunlight, high temperatures, or humid environments. Cleaning

Ensure that the panel is not connected to portable power stations or other devices and that

the surfaces of the panel have cooled to room temperature. Then dampen a soft cloth with clean water, wring it out dry, and clean the surfaces of the panel. When cleaning, avoid wiping or washing the photovoltaic connectors. Frequently Asked Questions

1. Is the panel waterproof? The panel has an IP68 protection rating. If the panel gets wet in the rain or accidentally falls into water, immediately check if water has entered the connectors. If so, dry the connectors with cloths, and the panel will function properly. However, be careful not to submerge the panel in water. 2. Why is my panel not generating power? Ensure that the connection is correct, the terminals are tightly secured, and the environmental conditions, including sunlight, are ideal for solar energy production. If the panel still does not generate power after excluding the above factors, contact the official EcoFlow customer service for assistance. 3. Can portable photovoltaic panels generate energy in low light, such as on rainy days or with indoor lighting? Portable photovoltaic panels barely generate energy in such conditions, as they are made of monocrystalline cells, whose efficiency is limited by low light. 4. Is the panel compatible with all EcoFlow portable power stations? Not necessarily. It depends on whether the electrical parameters of the panel match the specifications of the power station's photovoltaic input. For this product, the open-circuit voltage of a single 110 W photovoltaic panel is 23.5 V, and the short-circuit current is 6.1 A. Check if these values are within the range supported by the EcoFlow portable power station (e.g., maximum voltage/current at the maximum power point).

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5. How can this photovoltaic panel be connected in series or in parallel? Where can the required accessories be obtained? This product is recommended to be connected in series with the same model of lightweight, portable solar panel rated at 110 W, for use with EcoFlow portable power stations. Parallel connection is recommended. For parallel connection, the appropriate parallel adapter cable should be purchased according to specific usage needs. What's in the box

1. Lightweight Portable Solar Panel 110 W EcoFlow
2. Quick start guide, safety instructions, warranty card

Technical Specifications

Electrical Specifications

Model EF-FOLD-110-LW

Rated Power STC: $P_m=110\text{ W}$ BNPI: $P_m=122\text{ W}$

Open Circuit Voltage STC: $V_{oc}=23.5\text{ V}$ BNPI: $V_{oc}=23.5\text{ V}$

Short Circuit Current STC: $I_{sc}=6.1\text{ A}$ BNPI: $I_{sc}=6.8\text{ A}$

Optimal Operating Voltage STC: $V_{pm}=19.5\text{ V}$ BNPI: $V_{pm}=19.5\text{ V}$

Optimal Operating Current STC: $I_{pm}=5.9\text{ A}$ BNPI: $I_{pm}=6.5\text{ A}$

Recommended Ambient Temperature -40°C - 85°C (-40°F - 185°F)

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Efficiency 25%

Bifaciality Coefficient $80\%\pm 5\%$

Temperature Coefficient of Power $-0.3\%/^{\circ}\text{C}$

Rated

Temperature Coefficient of Voltage $-0.25\%/^{\circ}\text{C}$

Open Circuit

Temperature Coefficient of Current $0.045\%/^{\circ}\text{C}$

Short Circuit

Parameters

Weight $3.3\text{ kg} \pm 0.3\text{ kg}$

Dimensions when unfolded $1944\text{ mm} \times 413\text{ mm} \times 26\text{ mm}$ ($76.54 \times 16.26 \times 1.02$ inches)

Dimensions when folded $544\text{ mm} \times 413\text{ mm} \times 36\text{ mm}$ ($21.42 \times 16.26 \times 1.42$ inches)

Components

Cell Type TOPCon Monocrystalline Silicon

Connector Type XT60i

Standard Test Conditions: 1000 W/m^2 (92.9 W/ft^2), AM1.5, 25°C (77°F)

Bifacial Standard Test Conditions (BSTC/BNPI): front 1000 W/m^2 , back 135 W/m^2 , AM1.5, 25°C . When the temperature is too high or too low, the open circuit voltage and short circuit current of the panel will change. The parameters and specifications of this product are measured under standard test conditions (STC) or bifacial standard test conditions (BSTC/BNPI). Actual energy production may vary depending on factors such as geographical location, intensity and duration of sunlight, climatic conditions, temperature, shading, mounting angle, system configuration (e.g., cable losses), and natural degradation over time. As a result, actual output power may differ from rated values. Safety Instructions

Disclaimer

Before using the product, carefully read the product documentation and ensure that everything is understood. Improper use may cause serious injury, product damage, or material loss. Always use the latest documentation available at <https://www.ecoflow.com/support/download/>. This documentation takes precedence over all other versions. Using this product signifies confirmation and acceptance of all terms specified in the documentation. EcoFlow is not responsible for losses caused by improper use

or failure to follow the provided instructions. In accordance with applicable laws, EcoFlow reserves the right to final interpretation of this document and all documents related to the product. This product is not suitable for use in the following situations:

Long-term suspension outdoors

Long-term suspension on vehicles

Safety Guidelines

Do not submerge the product or leave it in a humid environment for an extended period. Do not allow the cable pocket or wire connectors to come into contact with liquids. Do not expose any part of the product to strong corrosive materials, such as corrosive organic solvents.

Do not use this product near open flames or flammable or explosive materials. Do not puncture or pierce the photovoltaic panel with sharp or pointed tools, nor wipe its surface with hard materials such as sandpaper. Do not hit, squeeze, or bend the photovoltaic panel. During transport or storage, it is recommended to position the product vertically. Do not place heavy objects on the photovoltaic panel to avoid damage while using the product. Do not disassemble any parts of the product yourself, as this will void the warranty. When using this product to charge a power station, ensure that it meets the power station's requirements regarding parameters and specifications. If it is necessary to connect photovoltaic panels in parallel or series, purchase cables supplied by EcoFlow. To purchase these cables, contact the official customer service department. Do not connect or disconnect any connection cables while the photovoltaic panel is in operation. Do not wear any metal accessories while connecting or disconnecting the photovoltaic panel. Do not apply any chemicals (such as paints, adhesives) on the side of the photovoltaic panel facing the sun. Do not use devices such as magnifying glasses to focus photovoltaic light on the photovoltaic panel. Keep the product away from children and pets. Do not dispose of used photovoltaic panels in any manner. Follow local regulations regarding disposal. Keep the surface of the product clean, especially the front part of the photovoltaic panel. Ensure that it is not blocked by foreign objects, such as bird droppings. Copyright © 2025 EcoFlow. All Rights Reserved.

Warnings and safety information

All information regarding the use of the product can be found in the user manual. Before you start using it, familiarize yourself with its content and follow the instructions contained within. Also, review the following information before use:

Usage warnings

Child hazard:

- Photovoltaic panels are not intended for use by children.
- Store the product in a place inaccessible to children to prevent accidental damage or injury from contact with wires. Risk of damage to the panels:

- Do not bend, hit, or overload the panels – they may become permanently damaged.
- Do not place heavy objects on the panels or walk on their surface.
- Ensure that the panels are properly secured during use in windy conditions to prevent them from tipping over or being damaged.

Risk of electric shock:

- Connect photovoltaic panels only to compatible devices or power systems, as recommended by the manufacturer.
- Avoid touching wires, connectors, or charge controllers with wet hands.
- Never manipulate the product's wires or connectors while it is exposed to sunlight – the panels generate voltage even with minimal lighting.

Overheating hazard:

- Ensure that the panels are used in appropriate temperature conditions, according to the user manual.
- Provide adequate ventilation during the use of the panels to avoid overheating of electrical components.

Information on proper usage

Setup and installation:

- Position the panels in a location with maximum sunlight exposure, avoiding shadows cast by trees, buildings, or other obstacles.
- If using the panels on a balcony, camper roof, or in other portable configurations, ensure they are securely mounted to prevent them from tipping over in the wind.

Connecting and operating:

- Before connecting the panels to the power system, check the condition of the wires, connectors, and charge controllers.
- When connecting the panels to batteries or other devices, use only the cables and connectors supplied by the manufacturer.
- Avoid using the panels in harsh weather conditions, such as strong winds, rain, or storms.

Storage and transport:

- Store the panels in a dry place, away from moisture and at a temperature in accordance with the manufacturer's recommendations.
- Transport the panels in appropriate protective cases to avoid mechanical damage.

Additional precautions

Service and maintenance:

- Regularly clean the surface of the panels, removing dust and dirt that may reduce their efficiency. Use a soft, damp cloth for cleaning – avoid chemical agents that may damage the

product's surface.

- In case of damage, such as cracks or leaks, contact an authorized service center.

Safe disposal:

- Photovoltaic panels must be disposed of in accordance with local regulations regarding electronic waste.
- Do not throw them in municipal waste – contact your local electrical equipment collection point. If you need additional information about the product, contact customer service (email: hurt@innpro.pl, website: <https://innpro.pl/>) or another specialist.

Environmental protection

Used electronic equipment marked in accordance with the European Union directive must not be placed together with other municipal waste. It is subject to selective collection and recycling at designated points. By ensuring its proper disposal, you prevent potential negative consequences for the natural environment and human health. The system for collecting used equipment complies with locally applicable environmental protection regulations regarding waste disposal. Detailed information on this topic can be obtained from the municipal office, cleaning plant, or the store where the product was purchased. The product meets the requirements of the so-called New Approach directives of the European Union (EU) concerning issues related to user safety, health protection, and environmental protection, identifying hazards that should be detected and eliminated. This document is a translation of the original user manual created by the manufacturer. Detailed information about the distributor/manufacturer warranty conditions is available on the website <https://serwis.innpro.pl/gwarancja>.

The product should be regularly maintained (cleaned) by the user or through specialized service points at the user's cost and responsibility. In the absence of information about necessary periodic or service maintenance actions in the user manual, the user should regularly, at least once a week, assess the physical condition of the product against that of a physically new product. If any deviation is detected or noted, urgent maintenance (cleaning) or service steps should be taken. Failure to perform proper maintenance (cleaning) and to respond upon detecting a deviation may lead to permanent damage to the product. The guarantor is not responsible for damages resulting from negligence.

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