

EcoFlow 130W RVMax Rigid Solar Panel

Thank you for choosing our product.

Contents

About This Manual

Overview

Appearance

Solar Panel Installation

Pre-installation Requirements

Installation on RV Roof

Installation in the Yard

Maximize Power Output

Find an Ideal Environment

Connecting Multiple Solar Panels in Parallel

Care and Maintenance

Storage

Cleaning

What's in the Box

Accessories

FAQs

Safety Instructions

Disclaimer

Specifications



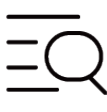
FAQs



EcoFlow App



After-sales
Policy



Downloads

About This Manual

- 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

EcoFlow 130W Rigid Solar Panel is specially designed for RVs and outdoor use. Built with high-efficiency monocrystalline silicon cells, it offers waterproof, dustproof, and weather-resistant performance. It is ideal for installation on the rooftops of Class B vans, Class C motorhomes, and trailers, or in outdoor courtyards. When paired with EcoFlow power stations or microinverters, it provides reliable power for onboard appliances such as refrigerators, lighting, and air conditioning—helping you enjoy a worry-free off-grid journey.

Appearance



1	Solar Panel (Front)	Position this side facing the sun. Adequate sunlight ensures higher power generation efficiency.
2	Junction Box	Includes solar panel output cables (1 m length), with an LFB-40 female connector on the left and an LFB-40 male connector on the right when viewed from the front, for convenient connection.
3	Mounting Holes	A total of 14 sets of 4 mm mounting holes (2 holes per set) are reserved, allowing secure installation of the solar panel with Z-shaped brackets.
4	Solar Panel (Rear)	Position this side facing the roof of the vehicle.

Solar Panel Installation

Pre-installation Requirements

How to Connect Solar Panels

You can connect the solar panel to an EcoFlow portable power station to store energy, or directly power EcoFlow smart devices.

When using, please ensure that the input voltage and current parameters of the device meet the **maximum output specifications** of the solar panel to avoid potential damage.

If connecting to a third-party device, make sure it supports solar charging and that the input port and electrical specifications are compatible with this product.



Maximum Output Specifications

The maximum output refers to the **open-circuit voltage (Voc)** and **short-circuit current (Isc)** of the solar panel.

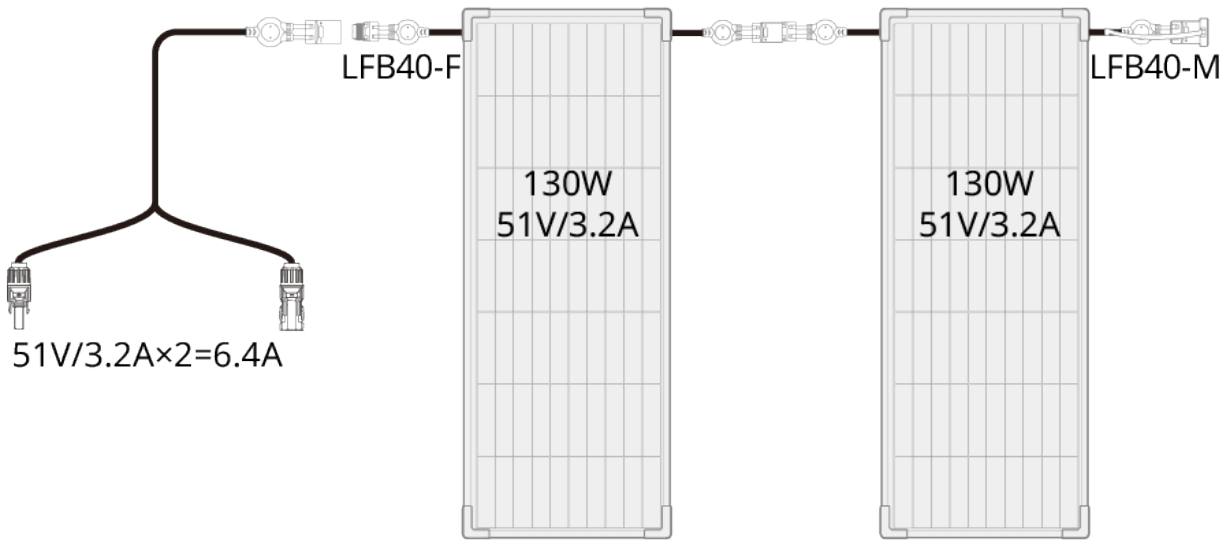
For this product, the open-circuit voltage of a single **130W** solar panel is **51V**, and the short-circuit current is **3.2A**.

1

Connecting the Solar Panel (Parallel Connection Only)

As shown in the example below with two solar panels, simply connect the output cables (LFB-40 connectors) of both panels together to complete the operation.

For the unused LFB-40 output connector (male) at the end of the panel, please ensure the waterproof cap remains securely in place.



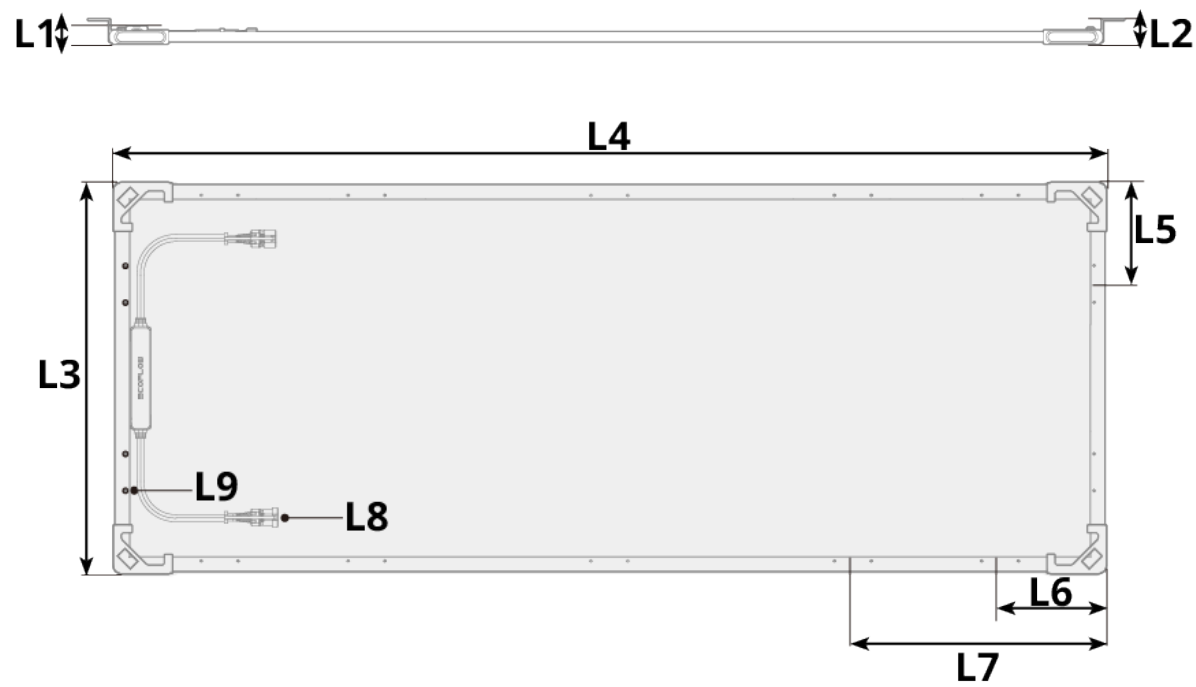
Due to cable limitations, a maximum of 10 solar panels can be connected in parallel directly.

When connected in parallel, the total output voltage remains unchanged, while the total output current and output power increase proportionally with the number of panels.

Quantity	Total Current (Isc)	Total Power
1	3.2A	130W
2	6.4A	260W
3	9.6A	390W
4	12.8A	520W
5	16A	650W
6	19.2A	780W
7	22.4A	910W
8	25.6A	1040W
9	28.8A	1170W
10	32A	1300W

How to Use Preset Mounting Hole

When installing the bracket, be sure to use the mounting holes reserved for the solar panel. Do not modify the module frame without permission, otherwise this may void the warranty. Specific location as shown below:



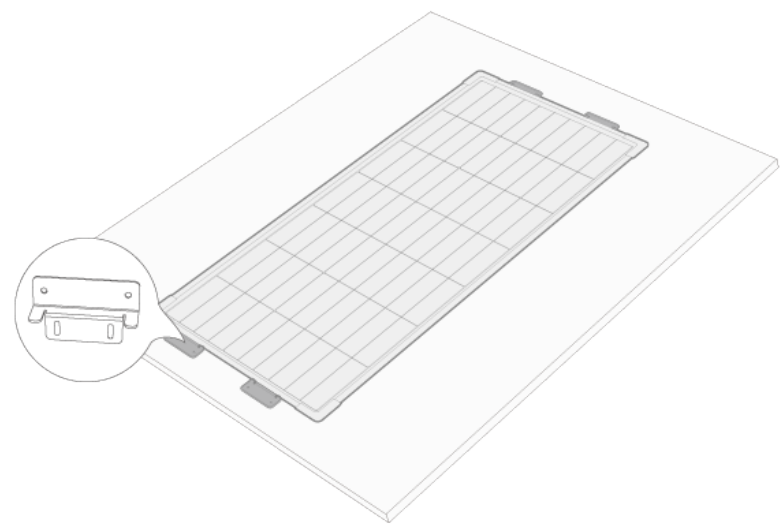
L1	23 mm (0.9 in)	L6	144 mm (5.67 in)
L2	34 mm (1.33 in)	L7	344 mm (13.54 in)
L3	531 mm (20.9 in)	L8	1 m (39.37 in)
L4	1350 mm (53.15 in)	L9	4 mm (0.16 in)
L5	138 mm (5.43 in)		

Installation on RV Roof

Using the EcoFlow Rigid Solar Panel Mounting Feet (Included)

This system allows the solar panel to be securely mounted flat on the installation surface using Z-shaped mounting brackets. Each solar panel requires at least **4 Z-shaped brackets** to ensure system stability.

Fix the Z-shaped bracket onto the 4 mm mounting holes on the back of the 130W solar panel using **M4 hex socket bolts**. Apply structural adhesive evenly at the contact points between the bracket and the roof. Finally, use **M6 hex self-drilling screws** to firmly secure the solar panel to the roof surface.



Installation in the Yard

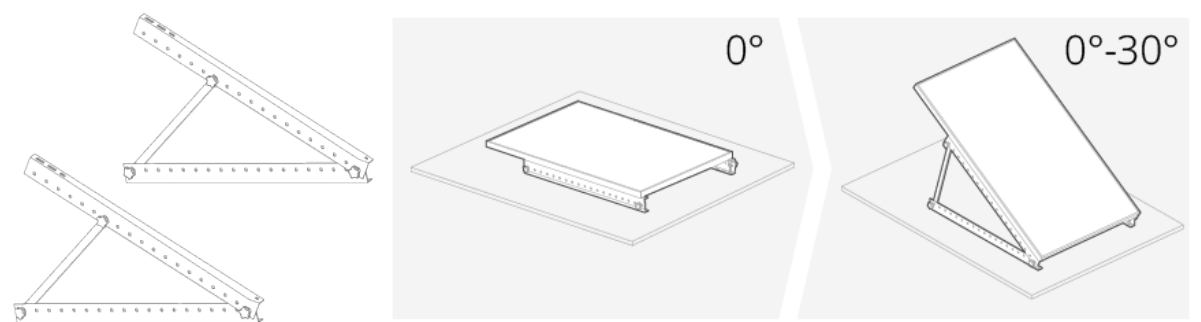
Using the EcoFlow 28''(0.7m) Tilt Mount Bracket (Optional)

This system allows flexible angle adjustment through the mounting bracket, ensuring that the solar panel remains as perpendicular as possible to sunlight for optimal efficiency. It can also be fixed on a flat surface for long-term use. Due to the dimensions of this solar panel, it must be installed vertically (short side mounted at the base). Vertical installation increases wind load in outdoor environments, therefore additional reinforcement is required:

- Ensure all bolts are securely tightened and checked regularly;
- Add ballast (such as sandbags or concrete blocks) at the base of the bracket;
- In high-wind regions, anchor the bracket to a solid surface for maximum stability.

Always use the supplied tilt bracket kit for installation. The kit includes fixed brackets, adjustable brackets, and matching bolts. The kit is available for purchase through EcoFlow's official sales channels if needed.

EcoFlow 28'' Tilt Mount ...



2 Connecting to EcoFlow Power Hub or Portable Power Station



Ensure all cable connections are securely plugged in to prevent poor contact that could cause terminal damage.

- **Connecting to EcoFlow Power Hub 5kVA**

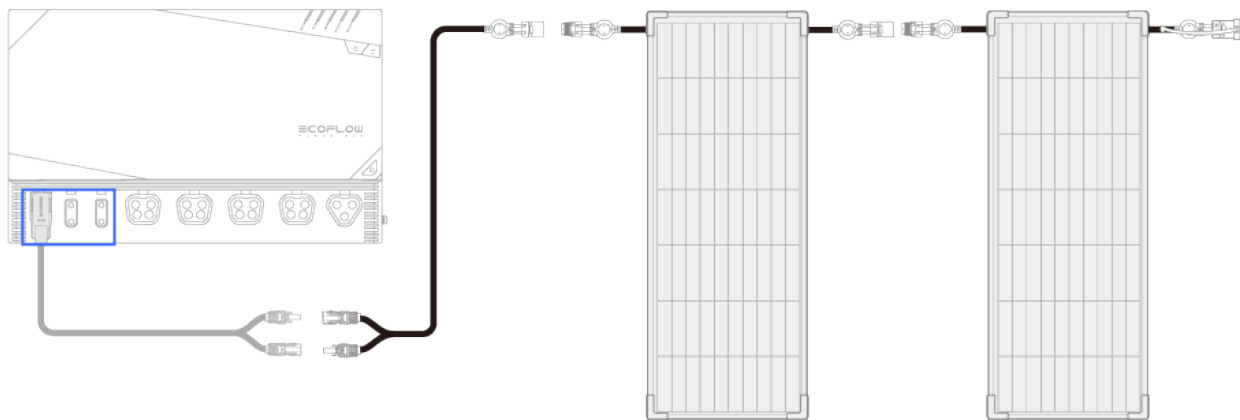
Use the LFB-40 to MC4 solar connector cable. Connect one end to the LFB40-F port of the 130W solar panel, and the other end to the solar input port of the Power Hub. Finally, insert the solar input cable into the Power Hub's PV IN1, PV IN2, or PV IN3 port.

The Power Hub 5kVA is equipped with three PV input ports:

PV IN 1: 13~60V DC, maximum current per port 100A, maximum power per port 4000W.

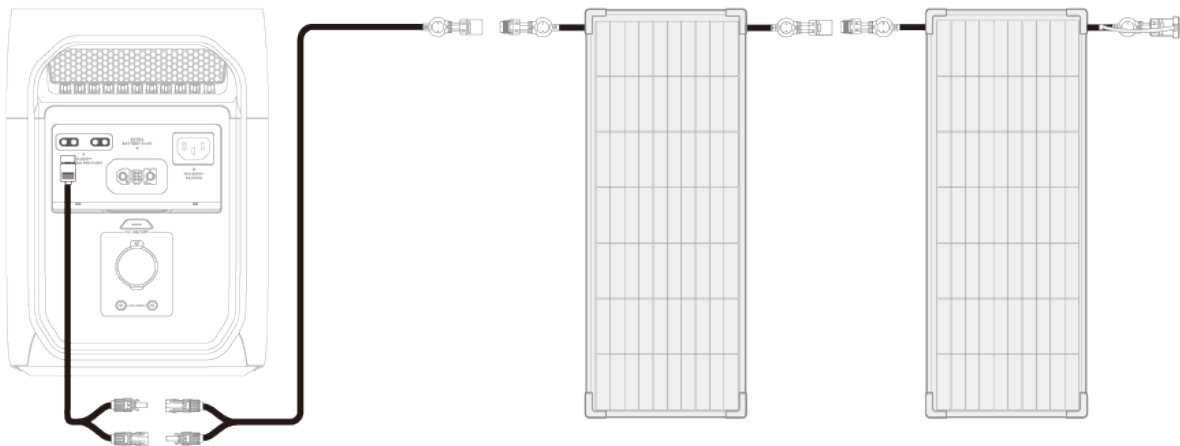
PV IN 2 & PV IN 3: 13~60V DC, maximum current per port 30A, maximum power per port 1600W.

Recommended configuration: Up to 10 × 130W solar panels (total power approx. 1300W) can be connected in parallel, ensuring voltage and current remain within the input range and avoiding overload of cables and connectors.



• **Connecting to EcoFlow Portable Power Station**

Use the LFB-40 to solar connector cable. Connect one end to the LFB40-F port of the 130W solar panel, and the other end to the XT60 solar connector cable. Then, connect via the XT60 port to the portable power station.



If the included cables are not long enough, a solar panel extension cable may be used.

The number of 130W solar panels that can be connected in parallel varies depending on the model of the EcoFlow portable power station. The recommended configurations are shown below:

No.	Power Station Model	Battery Capacity	Max. PV Input Power	Recommended 130W Solar Panel Quantity
1	DELTA 2/3	1024Wh	500W	≤4 panels (parallel)
2	DELTA 3+	1024Wh	1000W (500W ×2)	≤4 panels (parallel)
3	DELTA 2 Max	2048Wh	1000W	≤4 panels (parallel)
4	DELTA Pro	3600Wh (3840Wh)	1600W	≤4 panels (parallel)
5	DELTA Pro 3	4096Wh	1600W	≤4 panels (parallel)
6	DELTA Pro Ultra	6144Wh	1600W	≤4 panels (parallel)

3 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.



Minimize shading

Keep the panel free from shading, dust, leaves, droppings, or other debris. Otherwise, the panel's power output will decrease dramatically.



Ensure a 90° tilt angle

The angle of sunlight varies throughout the day. Adjust the solar panel as needed to keep it aligned perpendicularly with the sun.

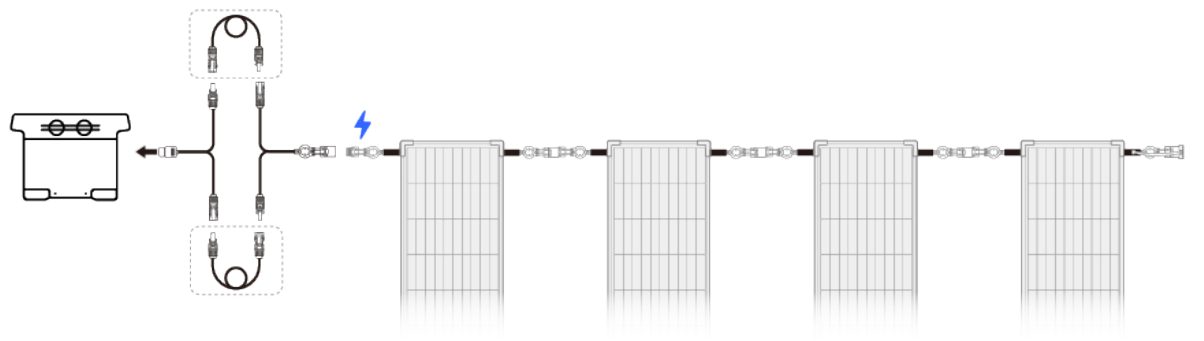
Connecting Multiple Solar Panels in Parallel

If you have multiple solar panel sets, you can first connect each set of panels in parallel. Then, use the included cables (and solar extension cables if necessary) to connect the sets in parallel, thereby achieving higher output power.

Connect the solar panels in sequence, join them into an XT60 solar parallel cable, and then connect to the solar input port of the power station. The diagram below shows an example of 4 solar panels connected in parallel.



Ensure that the number of solar panels in each parallel group is consistent. Otherwise, mismatched currents may result in reduced efficiency, causing a $1+1<2$ effect.



Extension cables are optional and may be used as needed based on actual installation conditions.

[Purchase extension cabl...](#)

Care and Maintenance

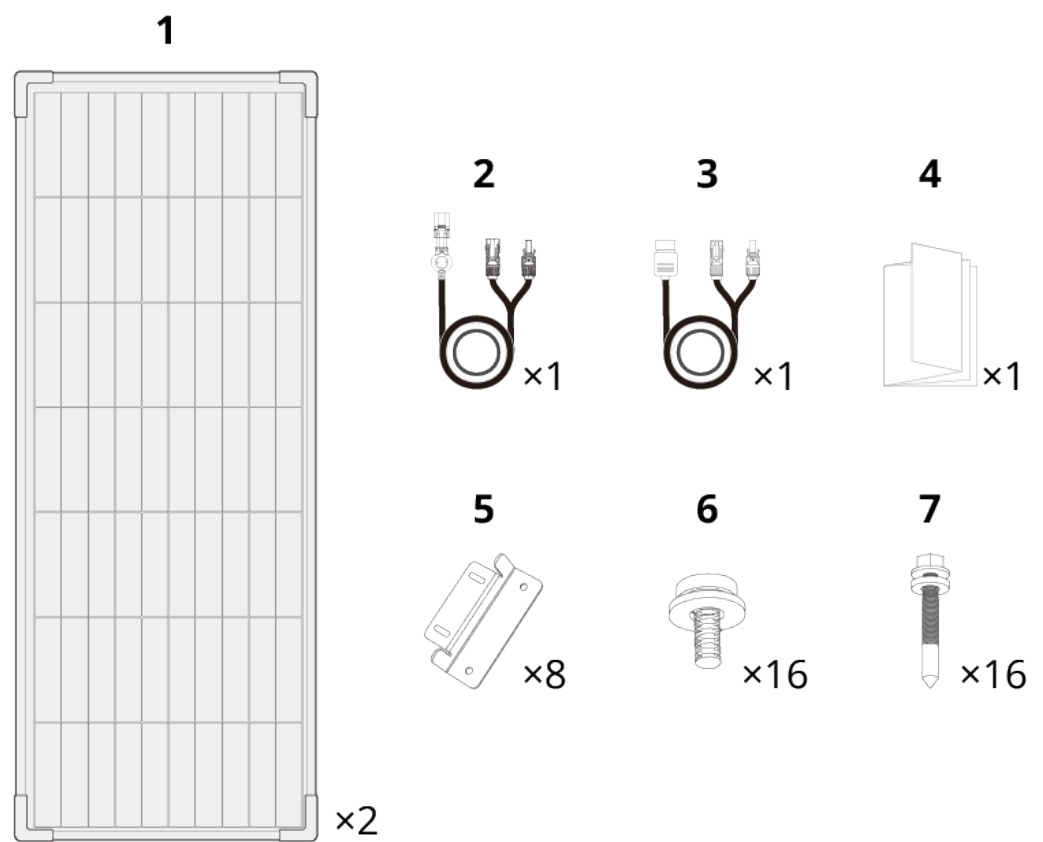
Storage

- When transporting or storing, it is recommended to place the solar panel upright.
- For long-term storage, ensure the waterproof caps on the output cable terminals are securely fastened.

Cleaning

- Ensure the solar panel is disconnected from the power station or any other load, and that the panel surface has cooled down to room temperature. Use a soft, damp cloth to gently wipe the exterior surface of the solar panel. Do not scrub or rinse the connectors with water.

What's in the Box



1. EcoFlow 130W RVMax Rigid Solar Panel × 2
2. EcoFlow LFB40-M to MC4 Solar Connector Cable (1 m / 39.37 in) × 1
3. EcoFlow XT60i to MC4 Solar Connector Cable (2.5 m / 98.43 in, 14AWG) × 1
4. Quick Start Guide, Safety Instructions, Warranty Card × 1
5. Z Bracket × 8
6. M4 Hex Bolt × 16
7. M8 Hex Self-drilling Screw × 16

Accessories



This product (130W) comes with certain cables included in the package. Accessories not included (such as the solar extension cable) are not part of the standard package. If needed, please purchase the required accessories separately from the official EcoFlow website.

FAQs

1. How do I connect the solar panel?

This solar panel uses an LFB-40 interface design. Panels can only be connected in parallel, which saves significant cabling.

2. What are the features of the LFB-40 connector?

The LFB-40 connector supports up to 40A of DC current, meeting the standard requirement of 30A. It ensures stable current-carrying capacity and reduces the risk of overheating or burning. By connecting in parallel, it can support up to ten pieces of 130W solar panels. In addition, the compact design allows the solar panel to be securely installed without causing structural issues.

3. Is the solar panel waterproof?

Yes, the solar panel is rated IP68 for water resistance. If the panel is exposed to rain or water, please promptly check if the connectors have been exposed to moisture. After wiping them dry, the panel can continue to be used. Do not immerse the product in water.

4. Why is my solar panel not generating power?

Please check that all connections are secure, the cables are properly inserted, and lighting conditions are adequate. If all these conditions are met but the panel still does not generate power, please contact customer support.

5. Can the solar panel generate power under light conditions (e.g., cloudy days or indoor lighting)?

No. The reason is that solar panels are made of monocrystalline silicon cells, which have relatively weak photoelectric conversion under low-light conditions.

6. Is the solar panel compatible with all EcoFlow portable power stations?

Please check whether the solar panel parameters are compatible with the input specifications of your EcoFlow power station.

7. Will the solar panel leak electricity or cause electric shock?

The solar panel itself does not store electricity, but if connected to a power station, you must take precautions to avoid short circuits or damaged cables that may lead to electric shock.

8. Will installing the solar panel increase my vehicle's weight?

Each solar panel weighs approximately 5.6 kg, which typically has little effect on vehicle load when installed in reasonable quantities.

[View More →](#)

Safety Instructions

Disclaimer

Please read the product document and ensure that you understand it fully before using the product. After reading this document, keep it 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 the product in compliance with the product document.

1. Please avoid exposing the solar panel and its components to water or prolonged humid environments. In particular, do not allow the junction box and cable connectors to come into contact with liquids, as this may result in short circuits, electric shock, or equipment damage.

2. Do not expose any component of the product to highly corrosive materials such as corrosive organic solvents.
3. Do not use this product near open flames or flammable or explosive materials.
4. 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.
5. Do not knock, squeeze or bend the solar panel. It is recommended to place this product upright during transportation or storage.
6. Do not place heavy objects on the solar panel to avoid damage when using the product.
7. Do not disassemble any component of the product by yourself, as this will void the warranty.
8. When using this product to charge an energy storage power source, make sure it complies with the requirements for parameters and specifications. If you connect multiple solar panels in series or parallel, please verify the maximum number of solar panels that can be connected to the power source in advance.
9. When connecting this product in series or parallel, using connecting wires through EcoFlow's official sales channels is recommended. If you are using a third-party solar panel cable, make sure that the connector and the voltage and current of the cable are compatible. When connecting more than 6 solar panels in parallel, use a PV extension cable of 4 mm² (10 AWG) or higher size.
10. Do not connect or disconnect any cables while the solar panel is operating, as this may cause electric arcs, short circuits, melting, or electric shock hazards. If it is necessary to connect or disconnect cables, please follow the steps below strictly:
 1. Move the solar panel out of direct sunlight, or completely cover the surface with an opaque cloth/shade board to ensure it is no longer generating electricity.
 2. Turn off all electrical equipment connected to the solar panel (such as inverters, power stations, or controllers).
 3. If the system is equipped with circuit breakers or switches, please turn off both the DC and AC power supply first.
 4. Wear insulating gloves and use insulated tools to check that there is no voltage at the connectors before proceeding.
 5. When connecting or disconnecting, press the locking tab gently and pull or insert smoothly. Do not operate under load, with wet hands, or while wearing metal accessories.
 6. After reconnecting, ensure the connectors are dry, secure, and fully locked, then restore the power supply and check the system status.
11. Do not wear any metal accessories when plugging or unplugging the solar panel.
12. Do not apply any chemicals (such as paint, adhesives) to the sun-facing side of the solar panel.
13. Do not use devices such as magnifying glasses to focus sunlight on the solar panel.
14. Keep this product out of the reach of children and pets.
15. Do not dispose of waste solar panels at will, and follow local laws and regulations for their disposal.
16. The provided cable accessories are designed for EcoFlow solar products. Using them to charge or discharge third-party products may lead to equipment damage or personal injury due to overloading.
17. Make sure the cables are connected firmly before use to avoid port melting

caused by poor connection.

- 18. To store the product for an extended period of time, disconnect the cables and put in the dust plugs.
- 19. Please regularly inspect and clean the surface of the solar panel to remove dust, bird droppings, leaves, snow, and other debris to ensure normal power generation efficiency. Failure to clean the panel for an extended period may result in reduced power output, surface damage, overheating, or even smoke and fire hazards. Such situations are not covered under the warranty.
- 20. Any performance degradation caused by external environmental factors or mechanical forces shall not be regarded as a product quality issue, and the EcoFlow shall not bear responsibility in such cases.
- 21. **High-Risk Warning:** This product generates high-voltage direct current when exposed to sunlight, and contact may result in serious personal injury or death. Installation must be carried out only by licensed electricians or professional installation teams, and all applicable national electrical safety standards and local building regulations must be strictly followed. The EcoFlow shall not be held responsible for any personal injury, fire, structural damage, or other consequences caused by non-professional installation or improper operation. Users must ensure that the installation base (such as rooftops, ground mounts, or vehicles) is stable, waterproof, wind-resistant, and capable of bearing long-term loads and environmental impacts. If the panel is damaged, displaced, or falls due to strong winds, heavy rain, or improper fixation, the EcoFlow shall not be liable for any resulting losses or damages.
- 22. This product supports both off-grid and grid-connected applications. For grid connection, users must comply with the relevant regulations and approval requirements of the local power company and government authorities. Users are solely responsible for project registration, application for grid connection, and any related subsidy applications. The EcoFlow shall not be held liable for policy changes or the outcomes of such approval processes.

Special Disclaimer:

EcoFlow shall not be liable for any direct or indirect losses, damages, malfunctions, accidents, or personal injuries arising from the user’s failure to comply with any of the above terms during the use of this product.

In compliance with laws and regulations, EcoFlow reserves the right to the final interpretation of this document and all documents related to the 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: <https://www.ecoflow.com>.

Specifications

General Info	
Model	EF-SG-130
Rated Power	130W±3W (STC)
	143W±3W (BNPI)
Open Circuit Voltage (Voc)	51V

Short Circuit Current (Isc)	3.2A (STC) 3.5A (BNPI)
Optimal Operating Voltage (Vmp)	43.5V
Optimal Operating Current (Imp)	3.0A (STC) 3.3A (BNPI)
Recommended Ambient Temperature	−20°C to 85°C (−4°F to 185°F)
Power Generation Efficiency	≥80%
Temperature Coefficient of Rated Power	−0.30%/°C
Temperature Coefficient of Open Circuit Voltage	−0.25%/°C
Temperature Coefficient of Short Circuit Current	+0.04%/°C
Maximum System Voltage	150VDC (IEC/UL)
IP Rating	IP68
Dimension Specifications	
Weight	Approx. 5.6 kg (12.35 lbs)
Dimension	531×1350×23 mm (20.9×53.15×0.9 in.)
Battery Specifications	
Cell Type	TOPCon monocrystalline silicon
Solar Cell Efficiency	≥25%
Connector Type	LFB-40

- Standard Test Conditions: 1000W/m² (92.9W/ft²), AM1.5, 25°C (77°F)
- Bifacial Standard Test Conditions (BSTC/BNPI): Front side 1000W/m² (92.9W/ft²), rear side 135W/m² (12.5W/ft²), 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)**.

 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., inverter efficiency, cable loss), and natural degradation over time. As a result, the actual output may differ from the rated values.