

[Manuals.plus](#) /

› [EF ECOFLOW](#) /

› EF ECOFLOW Solar Generator RIVER 3 Plus with 110W Solar Panel User Manual

EF ECOFLOW EF-RV-H02-1

EF ECOFLOW Solar Generator RIVER 3 Plus with 110W Solar Panel

USER MANUAL

Introduction

Thank you for choosing the EF ECOFLOW RIVER 3 Plus Solar Generator. This portable power station, combined with the 110W solar panel, provides a reliable and versatile power solution for both indoor and outdoor use. Featuring a durable LiFePO4 battery, fast charging capabilities, and expandable capacity, the RIVER 3 Plus is designed to meet diverse energy demands with efficiency and quiet operation.



The EF ECOFLOW RIVER 3 Plus power station shown with its accompanying 110W solar panel, ready for use.

Setup

Follow these steps to set up your RIVER 3 Plus Solar Generator:

1. **Unboxing:** Carefully remove all components from the packaging. Verify that you have the RIVER 3 Plus power station, 110W solar panel, and all included cables and accessories.
2. **Initial Charge (AC):** For optimal performance, fully charge the RIVER 3 Plus using an AC wall outlet before first use. The unit supports 1-hour fast AC charging from 0-100%.
3. **Solar Panel Connection:** Unfold the 110W solar panel and place it in direct sunlight. Connect the solar panel to the RIVER 3 Plus using the appropriate cable. The unit features a 23% high conversion rate for efficient solar charging, achieving 0-100% in approximately 3 hours with the 110W panel.
4. **Expandable Capacity:** The RIVER 3 Plus can be expanded by connecting an additional battery (sold separately) to increase its capacity from 286Wh up to 858Wh. This connection is designed to be quick and tool-free.

CLEAN, GREEN CHARGING



110W
Solar Input

3 hrs



160W
Solar Input

2.1 hrs



220W
Solar Input

1.5 hrs



Illustration showing charging times for the RIVER 3 Plus with various solar panel wattages, including the 110W panel.

EXPAND CAPACITY IN A SECOND

Connect RIVER 3 Plus with an Extra Battery
in seconds without cables or screws



286Wh
RIVER 3 Plus

572Wh
RIVER 3 Plus +EB300

858Wh
RIVER 3 Plus +EB600

Visual representation of the RIVER 3 Plus's expandable capacity by adding an extra battery.

0-100% FAST CHARGING IN 1 HOUR

No battery damage with vehicle-grade cells and trickle charge technology

X-STREAM
380W
AC Input



220W Solar Input

1.5 Hr



Car Charging

3.3 Hr



Generator

1 Hr

Diagram illustrating the rapid charging capabilities of the RIVER 3 Plus from various power sources.

Operating Instructions

The RIVER 3 Plus is designed for intuitive operation:

- **Power On/Off:** Press and hold the main power button to turn the unit on or off.
- **AC Output:** Activate the AC output to use the three AC outlets. The unit provides a steady 600W output and can surge up to 1200W with X-Boost technology, allowing it to power a wide range of appliances.
- **USB & DC Output:** Utilize the two USB-A ports and one 100W USB-C port for charging mobile devices. The DC output (car charging port) is suitable for 12V devices.
- **UPS Functionality:** The integrated Uninterruptible Power Supply (UPS) features a <10ms automatic switchover time, providing seamless power backup for sensitive electronics during outages.

- **Integrated Light:** The unit includes a built-in light with multiple modes (low, high, and SOS signal) for emergency or general illumination.
- **Quiet Operation:** Thanks to X-Quiet technology, the RIVER 3 Plus operates at less than 30 dB, ensuring a quiet environment, especially beneficial for indoor use or camping.
- **Smart App Control:** Download the EF ECOFLOW app to monitor charging status, battery health, and customize charging settings for personalized power management.

POWER ANYWHERE ANYTIME

286Wh | 600W Output | 1200W X-Boost

1200W
X-BOOST



WiFi router

35 Hr
(3W)



Light

18 Hr
(9W)



CPAP

5.2 Hr
(40W)



Laptop

3.9 Hr
(60W)

The RIVER 3 Plus demonstrating its capability to power various devices with estimated runtimes.

<10 MS PRO-GRADE AUTO-SWITCH

Seamless home office and gaming experience



CPAP



Mini Fridge



Security Camera



IoT Terminals



Visual highlighting the <10ms pro-grade auto-switch for seamless power during outages.

<30 DB WHISPER QUIET

With X-Quiet technology, the RIVER 3 Plus operates on a library-like level of silence, with a volume of less than 30 dB at a distance of 1.6 ft.

X-QUIET



Maintenance

Proper maintenance ensures the longevity and optimal performance of your RIVER 3 Plus:

- **Battery Care:** The LiFePO4 battery is designed for over 3000 cycles, providing a 10-year lifespan. For best results, avoid prolonged storage at extremely low or high charge levels. Recharge the unit every 3-6 months if not in regular use.
- **X-Guard Battery Protection:** The unit features X-Guard technology with over 40 safety measures to protect against current, voltage, temperature, and circuit risks.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the power station and solar panel. Do not use harsh chemicals or abrasive materials.
- **Storage:** Store the unit in a cool, dry place away from direct sunlight and extreme temperatures.
- **Durability:** The power station is designed to be sturdy and durable, with an IP54 waterproof-rated battery pack (note: the entire device is not waterproof). The solar panel has an IP68 waterproof rating and an ETFE film for UV protection.

STURDY AND DURABLE

Triple protection: Waterproof, fireproof and drop-resistant.



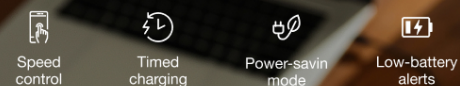
* Please note that only the battery pack is waterproof to prevent combustion and explosion; the entire device is not waterproof.



Illustration highlighting the 10-year lifespan and 3000+ cycles of the LiFePO4 battery.

UPGRADED SMART APP CONTROL

Personal portable power manager, offers advanced charging status and battery health insights. Versatile and customized charging settings, making power usage clear and meeting personalized needs.



WATERPROOF AND DURABLE

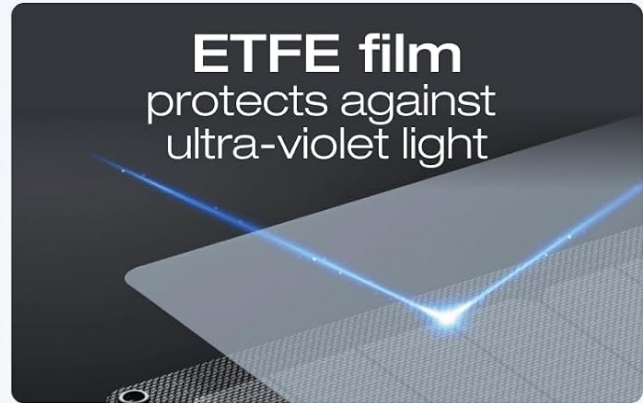


Image showcasing the IP68 waterproof rating and adjustable kickstand of the solar panel.

Troubleshooting

If you encounter issues with your RIVER 3 Plus, refer to the following common solutions:

- **Unit Not Turning On:** Ensure the battery is charged. Connect to an AC outlet for at least 10 minutes to see if it powers on.
- **No Output from Ports:** Verify that the specific output (AC, DC, USB) is enabled on the unit's display. Check cable connections and ensure the device you are trying to power is within the unit's wattage limits.
- **Slow Charging:** For solar charging, ensure the panel is in direct sunlight and free from obstructions. Check that the solar panel is correctly connected. For AC charging, ensure you are using the original charging cable and a functional

wall outlet.

- **Overload Protection:** If an overload warning appears, disconnect the high-power device immediately. Reduce the load to within the unit's rated output (600W continuous, 1200W X-Boost) before resuming operation.
- **Unusual Noise/Smell:** Immediately power off the unit and disconnect all devices. Contact customer support for assistance.

For more detailed troubleshooting or issues not listed here, please refer to the official EF ECOFLOW support resources or contact customer service.

Specifications

Feature	Specification
Brand	EF ECOFLOW
Model Name	EF-RV-H02-1
Battery Type	LiFePO4
Capacity	286Wh (Expandable to 858Wh)
AC Output	600W (Pure Sine Wave, 1200W X-Boost)
Total AC Outlets	3
USB-A Output	2 Ports
USB-C Output	1 Port (100W)
DC Output	1 Car Charging Port
UPS Switchover Time	<10ms
AC Charging Time	1 Hour (0-100%)
Solar Input	Up to 220W (110W panel included)
Noise Level	<30 dB
Dimensions (L x W x H)	9.2"L x 9.1"W x 5.8"H
Weight	10.4 Pounds
UPC	842783143587

Warranty and Support

Your EF ECOFLOW RIVER 3 Plus Solar Generator is backed by a manufacturer's warranty. Please refer to the warranty card included in your product packaging for specific terms and conditions.

For technical support, product inquiries, or warranty claims, please contact EF ECOFLOW customer service through their official website or the contact information provided in your product documentation. Keep your purchase receipt and product serial number handy for faster service.

Visit the [EF ECOFLOW Store](#) for more information and product accessories.

© 2025 EF ECOFLOW. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question