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## EF ECOFLOW EF-DL-H15-3

# EF ECOFLOW DELTA 3 1500 Solar Generator

## USER MANUAL

### 1. Introduction

Thank you for choosing the EF ECOFLOW DELTA 3 1500 Solar Generator. This comprehensive system combines a powerful portable power station with a high-efficiency 220W solar panel, providing a reliable and sustainable energy solution for various applications, from home backup to outdoor adventures. This manual provides essential information on setup, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your device.

AC Charging

Solar Charging

Car Charge

Multi-Charging

Generator



Image: The DELTA 3 1500 power station paired with the 220W solar panel, illustrating a complete solar generator system.

### 2. Product Overview and Key Features

The DELTA 3 1500 is engineered for versatility and performance. It features a robust 1536Wh LiFePO4 battery, capable of powering a wide range of devices with its 1800W AC output, expandable to 2200W with X-Boost

technology. The included 220W solar panel ensures efficient recharging using renewable energy.

- **Ultra-Fast Charging:** Recharges from 0-100% in just 1.5 hours via 1500W AC input.
- **X-Boost Mode:** Supports resistive devices up to 2200W, compatible with 99% of household appliances.
- **Ultra-Quiet Operation:** Operates at 35dB for loads under 600W and 45dB for up to 1200W, ensuring minimal noise.
- **Built-in UPS:** Provides an Uninterruptible Power Supply with a transfer time of less than 15ms for critical devices.
- **Durable LiFePO4 Battery:** Offers 3,000 charge cycles to 70% capacity, ensuring up to 10 years of daily use.
- **Expandable Capacity:** Can be expanded up to 5.5 kWh by connecting additional DELTA 3, DELTA Pro 3, or DELTA 2 Max batteries.
- **IP54 Certification:** The battery pack is resistant to water splashes and dust, enhancing durability.
- **BMS (X-Guard) Protection:** Features over 40 protective measures against current, voltage, temperature, and circuit risks.

AC Charging      **Solar Charging**      Car Charge      Multi-Charging      Generator



*Image: A visual summary of the DELTA 3 1500's core functionalities and benefits.*

### 3. Setup

Before first use, ensure all components are present and undamaged. Unpack the DELTA 3 1500 power station and the 220W solar panel. Place the power station on a flat, stable surface with adequate ventilation. For solar charging, unfold the solar panel and position it to maximize exposure to direct sunlight.

1. **Unpacking:** Carefully remove the power station and solar panel from their packaging.
2. **Initial Charge:** It is recommended to fully charge the DELTA 3 1500 before its first use. Refer to the 'Charging Methods' section for details.
3. **Solar Panel Deployment:** For solar charging, unfold the 220W solar panel and use its integrated kickstand to angle it towards the sun. Connect the solar panel to the power station's solar input port.
4. **Ventilation:** Ensure the power station's vents are unobstructed during operation and charging to prevent overheating.



Image: The DELTA 3 1500 power station and 220W solar panel set up for use.

## 4. Operating Instructions

The DELTA 3 1500 is designed for intuitive operation. The front display provides real-time information on battery level, input/output wattage, and remaining run/charge time.

1. **Powering On/Off:** Press and hold the main power button for a few seconds to turn the unit on or off.
2. **AC Output:** Press the AC power button to enable or disable the AC outlets. Ensure the AC output is enabled before connecting AC appliances.
3. **DC Output:** Press the DC power button to enable or disable the DC (USB, Car Power) outputs.
4. **Connecting Devices:** Plug your devices into the appropriate ports (AC, USB-A, USB-C, DC5521, Car Power). The unit will automatically detect and begin powering them.
5. **X-Boost Function:** The X-Boost feature is automatically enabled when the output exceeds the rated 1800W, allowing the unit to power devices up to 2200W by lowering the voltage and current. This is suitable for resistive loads like heating elements.
6. **UPS Mode:** When the DELTA 3 1500 is plugged into an AC wall outlet and devices are connected to its AC outputs, it functions as an Uninterruptible Power Supply (UPS). In case of a power outage, it will automatically switch to battery power within 15ms.

# Uninterrupted Daily Living

## Built-in UPS

### < 15 ms



*Image: The DELTA 3 1500 highlighting its various output ports, including USB-A, USB-C, DC5521, and AC outlets.*

## 5. Charging Methods

The DELTA 3 1500 offers multiple charging options to suit your needs, ensuring you're always powered up.

### 5.1. AC Charging

Utilize the included AC charging cable to plug the DELTA 3 1500 directly into a standard wall outlet. With 1500W AC input, it can charge from 0% to 100% in approximately 1.5 hours.

AC Charging

Solar Charging

**Car Charge**

Multi-Charging

Generator

## Car Charge

On-the-Go with 800W Car Charge, Full Charge in 2.1 Hours



8x faster than others

Using an 800W car power source, it takes just 2.1 hours to fully charge —8x faster than others. Charge on the road during travel, eliminating the need for pre-charging.



Image: The DELTA 3 1500 being charged from a standard AC wall outlet.

## 5.2. Solar Charging

Connect the 220W solar panel to the DELTA 3 1500 for clean, renewable energy charging. A single 220W solar panel can fully charge the unit in approximately 7.3 hours under optimal sunlight conditions. The bifacial design of the solar panel allows it to collect up to 28% more energy from the rear side.

AC Charging

Solar Charging

Car Charge

**Multi-Charging**

Generator

## Multi-Charging

Multi-Charging (AC + Solar), Full Charge in 1.5 Hr with 1500W Input

1.5 Hr

For daily use, plug in both AC and solar to charge DELTA 3 1500. With a 1500W max input, it fully charges in just 1.5 hours.



Image: The DELTA 3 1500 being charged by solar panels outdoors.

# Compact and Lightweight

Handle More Appliances Simultaneously  
with 15 Outlets



*Image: Illustration of the solar panel's bifacial design, capturing light from both sides for increased efficiency.*

## 5.3. Car Charging

Charge your DELTA 3 1500 on the go using your vehicle's 12V car outlet. With an 800W car power source, it takes approximately 2.1 hours to fully charge the unit.

# Generator

Hybrid Power with Generator,  
Full Charge in 1.5 Hr with  
1500W AC Input

 1.5 Hr

With 1500W input, it fully charges in 1.5 hours. The EcoFlow Smart Generator 3000 (Dual Fuel) automatically replenishes power overnight, providing constant backup without manual intervention (coming soon).



Image: The DELTA 3 1500 being charged inside a car trunk.

## 5.4. Multi-Charging (AC + Solar)

Combine AC and solar charging for the fastest possible recharge. With a 1500W max input from both sources, the DELTA 3 1500 can be fully charged in just 1.5 hours.

**Up to 2200W, Powers 99% of Household Appliances**  
1800W Output, 2200W Surge Beyond Limits



Image: The DELTA 3 1500 charging simultaneously from an AC outlet and solar panels.

## 5.5. Generator Charging

The DELTA 3 1500 can also be charged using a compatible generator, providing a full charge in 1.5 hours with 1500W AC input.



## Conveniently Expandable Up to **5.5kWh**

Expand to 5.5kWh by adding DELTA 3, DELTA Pro 3, or DELTA 2 Max Extra Battery packs.



2.5kWh



3.5kWh



5.5kWh

*Image: The DELTA 3 1500 being charged by a generator.*

## 6. Power Output and Appliance Compatibility

The DELTA 3 1500 provides a continuous 1800W AC output, with an X-Boost mode that can power resistive devices up to 2200W. This makes it compatible with approximately 99% of common household appliances.

# Powers 99% of Appliances

1800W Output | 1536Wh Capacity

**X-BOOST** 2200W



3.4 Hr



1.1 Hr



0.7 Hr



16.6 Hr



2 Hr



1.6 Hr

Image: The DELTA 3 1500 powering various appliances, demonstrating its 1800W output and 1536Wh capacity.



## UPS < 15 ms, Ensures Reliable Backup for Uninterrupted Daily Living

Switchover in under 15 ms during power outages, allowing devices like mini fridges, security cameras, TVs, and IoT terminals to instantly switch to battery supply, ensuring continuous operation.

Image: Visual examples of the DELTA 3 1500's application for both outdoor and home use, powering various devices.

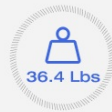
## 7. Expandable Capacity

The DELTA 3 1500's capacity can be expanded to meet greater power demands. By adding compatible DELTA 3, DELTA Pro 3, or DELTA 2 Max extra batteries, the total capacity can reach up to 5.5 kWh.



### Space-Saving Design, Ideal for Travel

Fits easily in the trunk, front passenger seat, or back seat without taking up much space.

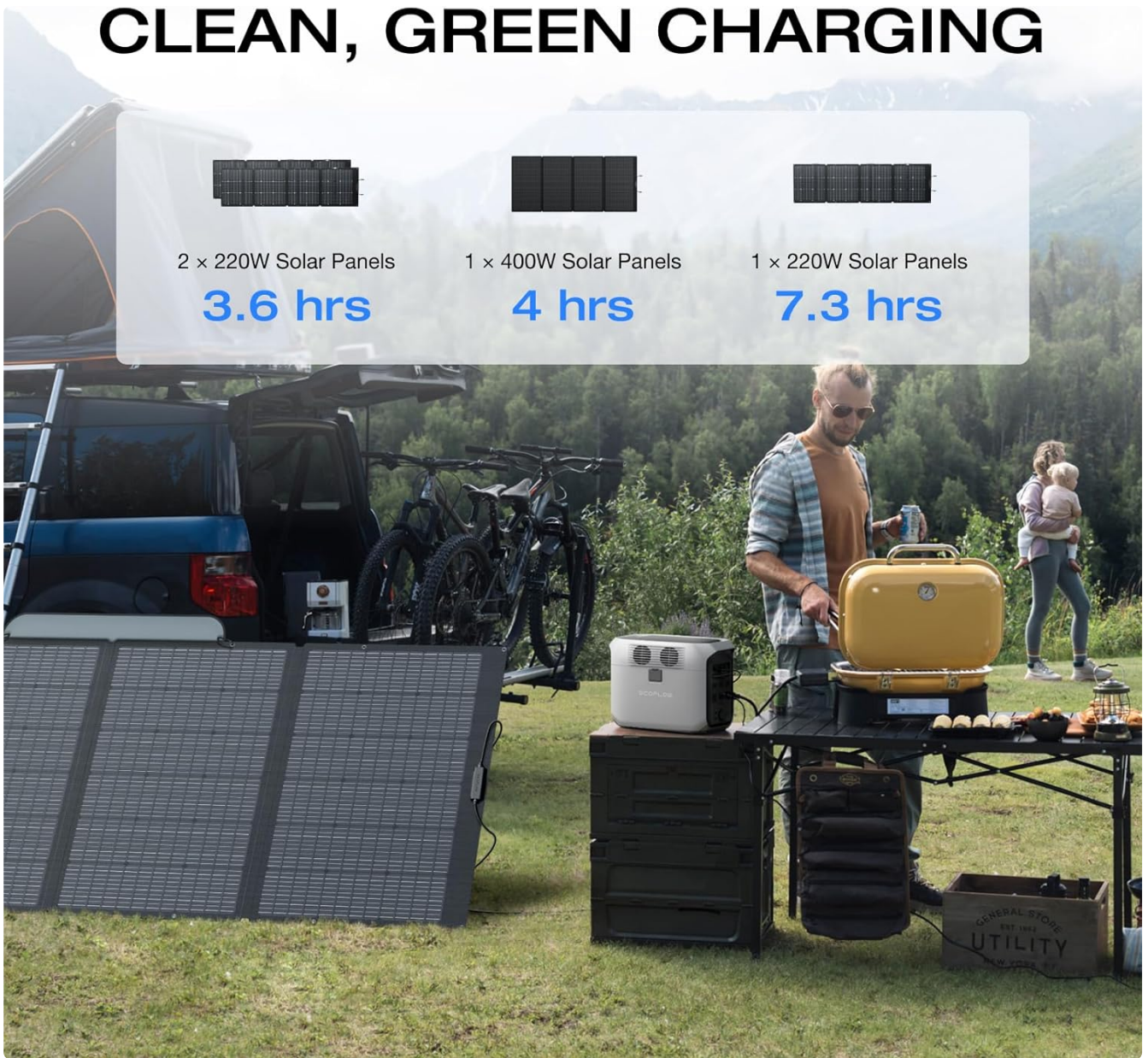


*Image: Illustration demonstrating how to expand the DELTA 3 1500's capacity by connecting additional battery modules.*

## 8. Uninterruptible Power Supply (UPS) Function

The DELTA 3 1500 features a built-in UPS function, providing seamless power backup for your essential devices. In the event of a power outage, the unit automatically switches to battery power in less than 15 milliseconds, ensuring continuous operation for connected electronics.

# CLEAN, GREEN CHARGING



  
2 x 220W Solar Panels  
**3.6 hrs**

  
1 x 400W Solar Panels  
**4 hrs**

  
1 x 220W Solar Panels  
**7.3 hrs**

*Image: The DELTA 3 1500 acting as a UPS, providing continuous power to a workstation during an outage.*

## 9. Smart App Integration

Manage and monitor your DELTA 3 1500 remotely with the EcoFlow app. The app provides real-time energy insights, allows you to control outputs, and receive regular firmware updates for an optimized user experience.

- **Monitor:** View battery status, input/output wattage, and remaining time live from your smartphone.
- **Control:** Remotely turn on/off AC and DC outputs, and adjust charging parameters.
- **Updates:** Receive firmware updates to enhance performance and add new features.

## Long-Lasting and Durable

Third-gen LiFePO<sub>4</sub> (LFP) cells offer fast charging without sacrificing longevity. With 3000 cycles to 70% capacity, enjoy up to 10 years of reliable use—25% above the industry standard.



*Image: Screenshots illustrating the EcoFlow app's interface for monitoring and controlling the power station.*

## 10. Durability and Protection

The DELTA 3 1500 is built with advanced technologies to ensure long-lasting performance and safety.

### 10.1. LiFePO<sub>4</sub> Battery Cells

Equipped with third-generation LiFePO<sub>4</sub> (LFP) cells, the DELTA 3 1500 offers fast charging capabilities without compromising longevity. These cells provide 3000 cycles to 70% capacity, translating to up to 10 years of reliable daily use.

## IP54 Battery Pack

### Waterproof and Durable

IP54 battery pack resists water splashes and dust, ensuring durability in diverse environments. Built to withstand harsh conditions, offering long-lasting performance.



*Image: An internal view of the DELTA 3 1500, highlighting its long-lasting LiFePO<sub>4</sub> battery cells.*

### 10.2. IP54 Battery Pack

The IP54-rated battery pack resists water splashes and dust, making the DELTA 3 1500 suitable for diverse environments and built to withstand harsh conditions.

# BMS

## X-Guard Battery Protection Technology

Over 40 protective measures against current, voltage, temperature, and circuit risks. The intelligent management system and thermal runaway propagation protection prevent explosions and fires, ensuring maximum safety.



*Image: A visual representation of the IP54 rating, indicating the battery pack's resistance to water splashes and dust.*

### 10.3. BMS (X-Guard) Protection Technology

The intelligent Battery Management System (BMS) with X-Guard technology provides over 40 protective measures against current, voltage, temperature, and circuit risks, ensuring maximum safety and preventing explosions and fires.

## Thermal Runaway Propagation Protection Technology

Prevents explosions and fires.



*Image: A detailed diagram of the BMS (Battery Management System) and its X-Guard protection technology.*

## 11. Maintenance

Proper maintenance ensures the longevity and optimal performance of your DELTA 3 1500. Follow these guidelines:

- **Regular Cleaning:** Keep the unit clean and free of dust. Use a dry, soft cloth to wipe surfaces. Ensure vents are clear of obstructions.
- **Storage:** Store the unit in a dry, well-ventilated area away from direct sunlight and extreme temperatures. For long-term storage, maintain the battery charge between 30% and 80%.
- **Battery Cycling:** To maintain battery health and warranty, it is crucial to **completely discharge and then fully recharge the battery every six months**. This helps calibrate the battery management system and prolong its lifespan.
- **Solar Panel Care:** Keep the solar panel surface clean to maximize efficiency. Wipe off any dirt, dust, or debris regularly.

## 12. Troubleshooting

If you encounter issues with your DELTA 3 1500, refer to the following common troubleshooting steps. For more complex problems, contact customer support.

- **Unit Not Turning On:** Ensure the battery is charged. If not, connect to an AC outlet for charging.
- **AC Output Not Working:** Check if the AC output button is enabled. Ensure the connected appliance's wattage does not exceed the unit's capacity (1800W continuous, 2200W with X-Boost).
- **Slow Charging:** Verify that the charging source (AC, solar, car) is providing adequate power. For solar charging, ensure panels are in direct sunlight and clean. Check cable connections.
- **Unusual Noise/Overheating:** Ensure all vents are clear and unobstructed. If the issue persists, discontinue use and contact support.
- **App Connectivity Issues:** Ensure Bluetooth/Wi-Fi is enabled on your device and the DELTA 3 1500. Restart both the unit and the app.

## 13. Specifications

Feature	Specification
Brand	EF ECOFLOW
Model Name	EF-DL-H15-3
Battery Capacity	1536Wh (LiFePO4)
AC Output	6 x 1800W (2200W X-Boost)
Max Device Power (X-Boost)	2200W
AC Input	1500W Max
Solar Input	220W (Included Panel)
Car Charge Input	800W Max
Charging Time (AC)	1.5 Hours (0-100%)
Charging Time (220W Solar)	7.3 Hours (0-100%)
UPS Transfer Time	< 15ms
Noise Level	35dB (<600W), 45dB (<1200W)
Dimensions (L x W x H)	16"L x 8"W x 12"H
Weight	36 Pounds
Certifications	IP54 (Battery Pack)

## 14. Warranty and Support

The EF ECOFLOW DELTA 3 1500 Solar Generator comes with a **5-year warranty**, ensuring peace of mind regarding your investment. For technical support, warranty claims, or any inquiries, please contact EF ECOFLOW customer service through their official website or the contact information provided with your product packaging. Please retain your proof of purchase for warranty validation.