

AFERIY AF-P310-EC-H+400W

AFERIY Solar Generator 3840Wh Portable Power Station User Manual

Model: AF-P310-EC-H+400W

Brand: AFERIY

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your AFERIY Solar Generator 3840Wh Portable Power Station. This powerful unit, featuring a 3840Wh LiFePO4 battery and 3600W AC output, is designed for versatile power needs, including home backup, outdoor camping, RV use, and emergency situations. It comes bundled with a 400W solar panel for renewable charging.

Please read this manual thoroughly before using the product to ensure proper function and longevity.



Figure 1: AFERIY Solar Generator and 400W Solar Panel

2. IMPORTANT SAFETY INSTRUCTIONS

Always follow basic safety precautions when using this product to reduce the risk of fire, electric shock, and injury. This unit incorporates a Battery Management System (BMS) providing 6 levels of safety protection, including charge over-voltage, discharge low voltage, charge/discharge high temperature, charge/discharge overcurrent, and charge/discharge short circuit protection.

- Read all instructions before using the product.
- Do not expose the unit to rain or water.
- Do not disassemble or attempt to repair the unit yourself. Contact qualified service personnel.
- Keep the unit away from heat sources, direct sunlight, and flammable materials.
- Ensure proper ventilation during use and charging.
- Use only recommended accessories and charging cables.
- Keep out of reach of children.

3. PACKAGE CONTENTS

Verify that all items are included in your package:

- AFERIY 3600W Portable Power Station
- AFERIY 400W Solar Panel
- AC Charging Adapter
- MC4-XT90 Cable
- Storage Bag Protective Cover
- User Manual (this document)

4. PRODUCT OVERVIEW

4.1 Front Panel Features

The front panel of the power station features the main display screen and various output ports for connecting your devices.

You can apply for a 30% tax credit

You may apply for the Residential Clean Energy Credit
for qualified solar electric property costs.



30%
TAX credit

Check with your utility to verify eligibility and requirements on IRS

Figure 2: Front Panel Layout

- **Display Screen:** Shows battery level, input/output wattage, and other status indicators.
- **Adjusting the Charging Speed Knob:** Allows control over the AC input charging rate.
- **USB-A Ports (2x):** Standard USB outputs for charging small electronics.
- **USB-C Ports (4x):** High-speed USB-C outputs for modern devices.
- **AC Outlets (5x):** Standard 120V AC outlets for household appliances. One outlet supports 2400-3600W, while others are for under 2400W.
- **Cigarette Lighter Port:** 12V DC output for car accessories.

- **XT60 Port:** Dedicated input for solar panel connection.
- **ON/OFF Button:** Main power control for the unit.

4.2 Rear Panel Features

The rear panel provides additional ports and controls, including the main charging input and extra battery expansion ports.

For Travel & Home Use

You may apply for the Residential Clean Energy Credit for qualified solar electric property costs.

3840Wh



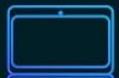
 Phone (3915mAh)	 Switch (4310mAh)	 Electric Grill (1450W)	 Portable Coffee Maker (80w)
231 times	210 times	2.3hr	41.9hr
 Projector (65W)		 Laptop (70W)	
51.6hr		48 times	
 Refrigerator (120W)		 Microwave (1300w)	
27.9hr		2.6hr	

Figure 3: Rear Panel Layout

- **Charging Port:** Main AC input for wall charging.

- **XT90 Port (Solar Panel Input):** Alternative or additional input for solar charging.
- **Overload Protection Button:** Resets the unit in case of an overload.
- **Light ON/OFF Button:** Controls the integrated LED light.
- **Extra Battery Ports (2x):** For connecting optional external battery packs to expand capacity.

4.3 Portability Features

The AFERIY power station is designed for easy transport with a sturdy pull handle and silky smooth dual wheels.



Figure 4: Portability Design

4.4 Integrated LED Light

The unit includes an integrated LED light with three modes: standard LED light, SOS mode, and flashing mode, activated via the Light ON/OFF button on the rear panel.

4.5 Smart APP Control

Control and monitor your power station remotely using the dedicated AFERIY Smart APP. This allows for convenient management of settings and power output from your smartphone.



Figure 5: Smart APP Interface

4.6 Solar Panel Features

The included 400W solar panel features industrial-grade monocrystalline silicon cells with an ETFE film for high light transmission and up to 23% conversion efficiency. It is IP67 waterproof, making it suitable for various outdoor conditions.

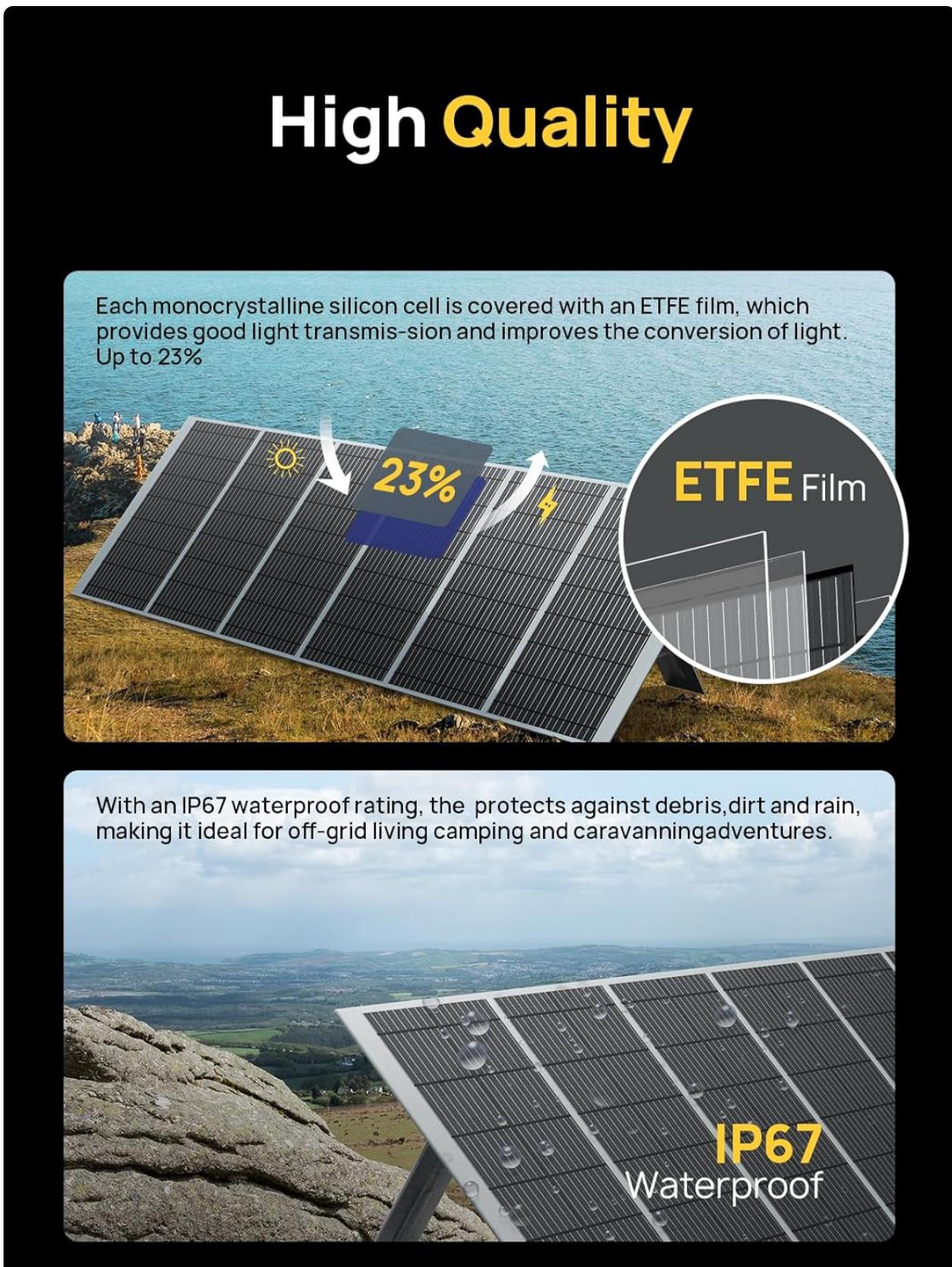


Figure 6: Solar Panel Quality Features

The solar panel is designed to be easily folded for transport and storage, with a nylon design for protection.

Easy to Carry and Protect

Can be easily folded and put anywhere Nylon design protects the solar panel and is **easy to carry**.



Unfolded: **110.24 x 32.28 x 0.16 inch** Folded: **18.98 x 32.28 x 2.52 inch**



Figure 7: Folded Solar Panel Dimensions

5. SETUP

5.1 Initial Charging

Before first use, fully charge the power station. Connect the AC Charging Adapter to the unit's charging port

and plug it into a standard wall outlet. The display will indicate charging status. A full charge from 0% to 100% takes approximately 2.5 hours via AC input.

5.2 Connecting Solar Panels

To charge using the solar panel, unfold the panel and position it in direct sunlight. Connect the MC4-XT90 cable from the solar panel to the XT60 input port on the power station. Ensure proper polarity (red to red, black to black) if using MC4 connectors. The display will show solar input wattage.

For optimal solar charging, multiple 400W solar panels can be connected. The unit can be fully charged in approximately 2.5 hours with 2000W solar input.

Your browser does not support the video tag.

Video: This video demonstrates the key functions and features of the AFERIY P310 portable power station, including its portability, various ports, and charging methods, as well as how to connect solar panels.

6. OPERATING THE POWER STATION

6.1 Powering On/Off

Press and hold the main ON/OFF button on the front panel to turn the unit on or off. The display screen will illuminate upon activation.

6.2 Using Output Ports

Once powered on, you can connect your devices to the available output ports:

- **AC Outlets:** Press the AC ON/OFF button to activate the AC output. Plug in your appliances. The unit supports up to 3600W continuous output.
- **USB Ports (USB-A, USB-C):** These ports are typically active when the unit is on. Simply plug in your USB devices for charging.
- **DC Output (Cigarette Lighter Port):** Press the DC ON/OFF button to activate the DC output. Connect your 12V DC devices.

6.3 Charging Methods

Your AFERIY power station supports multiple charging methods:

- **Wall Charging (AC):** Connect the AC charging adapter to a wall outlet. Full charge in 2.5 hours.
- **Solar Charging:** Connect the solar panel(s) to the XT60 or XT90 input. Full charge in 2.5 hours with 2000W solar input.
- **Car Charging:** Use a compatible car charger (not included) to charge from your vehicle's 12V outlet. Full charge in approximately 32 hours.
- **Wall + Solar Charging:** Combine AC and solar input for faster charging, achieving a full charge in approximately 1.3 hours.

Fast Charging

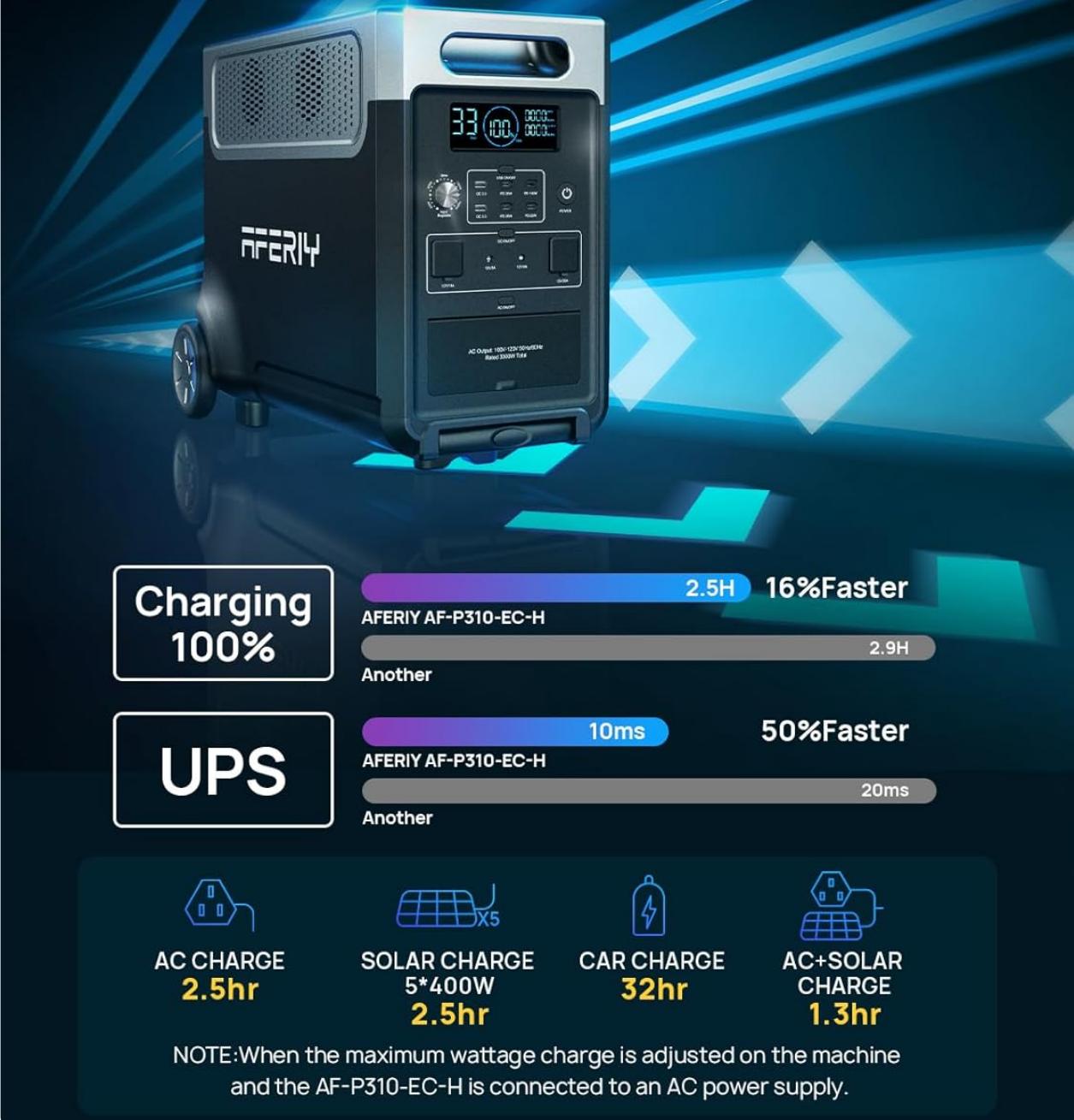


Figure 8: Charging Speed Adjustment

The charging speed can be adjusted using the dedicated knob on the front panel, allowing you to control the input wattage from the AC source.

6.4 Uninterrupted Power Supply (UPS) Function

The power station features an Uninterrupted Power Supply (UPS) function with a switching time of less than 10ms. When connected to an AC wall outlet and simultaneously powering devices, the unit can seamlessly switch to battery power in case of a power outage, ensuring continuous operation for connected electronics.

7. MAINTENANCE

7.1 Cleaning

Wipe the unit with a dry, soft cloth. Do not use abrasive cleaners or solvents. Ensure all ports are free of dust and debris.

7.2 Storage

Store the power station in a cool, dry place, away from direct sunlight and extreme temperatures. For long-term storage, it is recommended to charge the unit to approximately 50-80% every 3-6 months to maintain battery health.

7.3 Battery Care

The AFERIY power station uses a high-quality LiFePO4 battery designed for over 3500 cycles, providing a service life of up to 10 years. Avoid fully discharging the battery frequently to prolong its lifespan.

8. TROUBLESHOOTING

If you encounter issues with your AFERIY power station, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Unit not turning on	Battery fully discharged; Power button not pressed long enough.	Charge the unit; Press and hold the power button for 3-5 seconds.
No AC output	AC output not activated; Overload; Low battery.	Press the AC ON/OFF button; Reduce load or reset overload protection; Recharge the unit.
Solar charging not working	Insufficient sunlight; Incorrect connection; Damaged solar panel/cable.	Reposition solar panel for direct sunlight; Check cable connections and polarity; Inspect panel/cable for damage.
Display not working correctly	Loose connection; Software glitch.	Restart the unit; If problem persists, contact customer support.

For issues not listed here or if solutions do not resolve the problem, please contact AFERIY customer support.

9. SPECIFICATIONS

Feature	Detail
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Feature	Detail
Brand	AFERIY
Model Number	AF-P310-EC-H
Battery Capacity	3840Wh (LiFePO4)
AC Output Wattage	3600 Watts (Continuous)
Voltage	120 Volts
Charging Time (AC)	2.5 hours (0-100%)
Charging Time (Solar)	2.5 hours (with 2000W solar input)
Charging Time (AC + Solar)	1.3 hours
Item Weight	131.64 Pounds
Product Dimensions	27.32" L x 15.9" W x 23.11" H
Total Power Outlets	15 (5x AC, 2x USB-A, 4x USB-C, 2x DC5521, 1x Car Socket, 1x XT60)
UPS Switching Time	<10ms
Solar Panel Efficiency	Up to 23%
Solar Panel IP Rating	IP67

10. WARRANTY AND SUPPORT

10.1 Warranty Information

The AFERIY Solar Generator 3840Wh Portable Power Station comes with a 7-year warranty, providing peace of mind and ensuring long-term reliability. This warranty covers manufacturing defects and significant performance issues under normal use conditions.

10.2 Customer Support

For any questions, technical assistance, or warranty claims, please contact AFERIY customer service. Our dedicated support team is available to help you with product inquiries, troubleshooting, and service requests.

Please refer to the contact information provided on the AFERIY official website or your purchase documentation for the most up-to-date support channels.

