

AFERIY AF-P210

AFERIY P210 Solar Generator and 2x 200W Solar Panel Instruction Manual

MODELS: AF-P210 PORTABLE POWER STATION, AF-S200 FOLDABLE SOLAR PANEL

1. Introduction

This manual provides essential instructions for the safe and efficient operation of your AFERIY P210 Solar Generator system, which includes the AF-P210 Portable Power Station and two AF-S200 Foldable Solar Panels. This system is designed to provide reliable power for various applications, including home backup, outdoor camping, and emergency situations.

The AFERIY P210 Portable Power Station features a 2048Wh capacity and a 2400W AC output, powered by automotive-grade LiFePO4 battery cells for enhanced stability and safety. The accompanying AF-S200 Foldable Solar Panels offer 200W maximum power each, with a high sunlight conversion efficiency of 23%.



Image 1.1: AFERIY P210 Portable Power Station with two AF-S200 Foldable Solar Panels.

Package Contents:

- 1x AFERIY AF-P210 Solar Power Station
- 2x AFERIY AF-S200 Foldable Solar Panel
- 1x AC Charge Cable
- 1x MC4-XT90 Cable
- 1x Dust Cover
- 1x Cord Storage Bag
- 1x Operating Instructions (this manual)

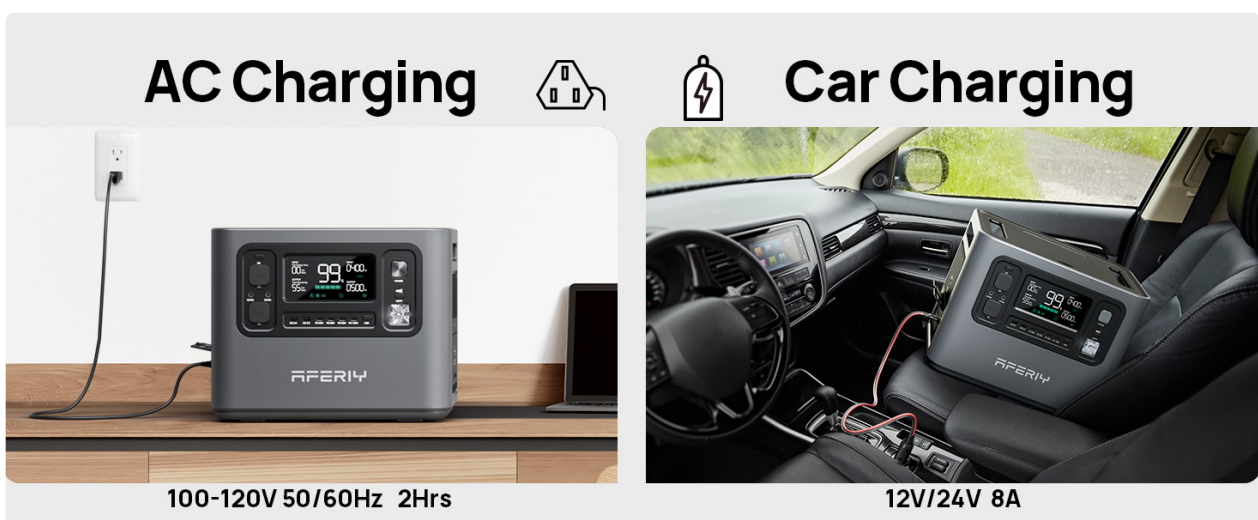


Image 1.2: All components included in the AFERIY P210 Solar Generator package.

2. Setup

2.1 Unboxing and Initial Inspection

Carefully remove all components from the packaging. Inspect each item for any signs of damage. If any components are damaged or missing, please contact AFERIY customer support immediately.

Video 2.1: AFERIY solar photovoltaic panel unboxing display. This video demonstrates the unboxing process for the solar panels, showing how they are packaged and the initial setup steps.

2.2 Positioning the Solar Panels

For optimal solar charging, position the AF-S200 solar panels in direct sunlight. Utilize the integrated freestanding stands to adjust the angle towards the sun (ideally 90 degrees) for maximum efficiency. Ensure no shadows are cast on the panels.

Freestanding Stands

Optimize angle adjustment towards sunlight (90°)



Image 2.1: Proper positioning of AF-S200 Foldable Solar Panels using freestanding stands.

2.3 Connecting Solar Panels to the Power Station

Connect the MC4-XT90 cable to the solar panels and then to the XT90 DC input port on the AFERIY P210 Power Station. The power station's display will indicate when solar charging is active.

High-Power High-Duration

2400W | 2048Wh



Camping light
(8W) **200Hrs**



Laptop (60Wh)
24Times



Electric griddle
(3000W) **0.6Hrs**



Electric kettle
(1000W) **1.7Hrs**



Image 2.2: AFERIY P210 Power Station connected to solar panels for charging.

3. Operating Instructions

3.1 Powering On/Off

To power on the AFERIY P210, press and hold the 'POWER' button located on the front panel. The display will illuminate. To power off, press and hold the 'POWER' button again until the display turns off.

3.2 Understanding the Display

The LCD display provides real-time information including battery percentage, input/output wattage, time remaining for charge/discharge, and active output ports. Familiarize yourself with these indicators for efficient power management.

3.3 Charging the Power Station

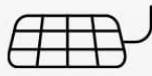
The AFERIY P210 supports multiple charging methods:

- **AC Charging:** Connect the AC charge cable to the power station and a standard wall outlet (100-120V 50/60Hz). The power station can fully charge in approximately 2 hours.
- **Solar Charging:** Connect the AF-S200 solar panels using the MC4-XT90 cable to the XT90 DC input port. Two AF-S200 panels can fully charge the P210 in about 5.5 hours under optimal sunlight. The XT90 DC input port supports 12V to 50V, with a maximum input power of 500W.
- **Car Charging:** Use a compatible car charger (not included in this package) to charge the power station from your vehicle's 12V/24V DC outlet.
- **AC + Solar Charging:** For the fastest charging, combine AC and solar input, achieving up to 1600W max combined charging power.

Charge Quicker Endure Further



AC Charging



PV Charging



AC + PV Charging



Car Charging



Image 3.1: Overview of available charging methods.



Image 3.2: AC Charging method.



Image 3.3: Solar Charging method.

3.4 Output Ports and Device Compatibility

The AFERIY P210 offers 16 output ports to meet diverse power needs:

- 6x AC Outlets (120V, 2400W total)
- 4x Type-C Ports (PD 100W + 3x PD 20W)
- 2x QC 3.0 USB Ports
- 2x DC Output Ports
- 1x XT60 Port
- 1x Cigarette Lighter Port

This wide array of ports allows you to power high-energy devices like coffee makers, microwaves, and air conditioners, as well as smaller gadgets such as phones, drones, CPAP machines, and desk lamps for extended periods.

App Control in 2025 Version

The intelligent **APP** enables seamless control of the energy storage power supply, featuring remote operation, intelligent dispatching, and precise monitoring for efficient **power management**.

Wireless Control



Image 3.4: AFERIY P210 output ports layout.

Uninterruptible Power Supply

Data Center-Level Response Time,
a Trustworthy Power Protector.

<10ms*

*The response time required by the server should be less than 10ms, otherwise it will pose a threat to data security.



Image 3.5: High-Power, High-Duration usage examples.

3.5 Uninterruptible Power Supply (UPS) Function

The AFERIY P210 features an Uninterruptible Power Supply (UPS) function with a response time of less than 10ms. This allows it to provide seamless power to connected devices during a power outage, protecting sensitive electronics from data loss or damage. The UPS function is limited to 1200W when plugged in.

7-YEAR Manufactured 	Smart Charging Mode Fully Charge in 1.5 Hrs 	4800W Peak 	UPS 10ms
2048 Wh Capacity 2400W AC Output 	48.5 Pounds Smaller Package 	15 dB Silent Operation 	
	16 Ports 	LiFePO4 3500+Cycles 3500 +cycles 	

Image 3.6: Uninterruptible Power Supply (UPS) feature.

3.6 App Control

The AFERIY P210 can be controlled via a dedicated smartphone application. Scan the QR code in the included documentation to download the 'BrightEMS' app. The app enables remote operation, intelligent dispatching, and precise monitoring for efficient power management, including turning on/off outputs and controlling the integrated light.

Video 3.1: AFERIY APP Instructions and Operation Guide. This video demonstrates how to download, connect, and use the AFERIY app to control the power station.



Image 3.7: Wireless control via the AFERIY app.

4. Maintenance

4.1 Battery Care

The AFERIY P210 is equipped with automotive-grade LiFePO4 battery cells, offering over 3500 charge cycles under slow charging and discharging conditions. To maximize battery lifespan:

- Avoid extreme temperatures. Do not operate or store the unit in freezing conditions.
- Store the power station with a charge level between 50% and 80% if not used for extended periods.
- Recharge the unit every 3-6 months to prevent deep discharge.

4.2 Cleaning and Storage

Keep the power station and solar panels clean and free from dust and debris. Use a soft, dry cloth for cleaning. Ensure all ports are covered with their respective dust covers when not in use. Store the unit in a cool, dry place away from direct sunlight and moisture.

The AF-S200 solar panels feature ETFE high-transparency encapsulation film, which is wear-resistant and lightweight, and IP65 waterproof rating, making them suitable for outdoor use. However, avoid prolonged exposure to heavy rain or submersion.

Safe and Durable

ETFE, IP65 waterproof, monocrystalline

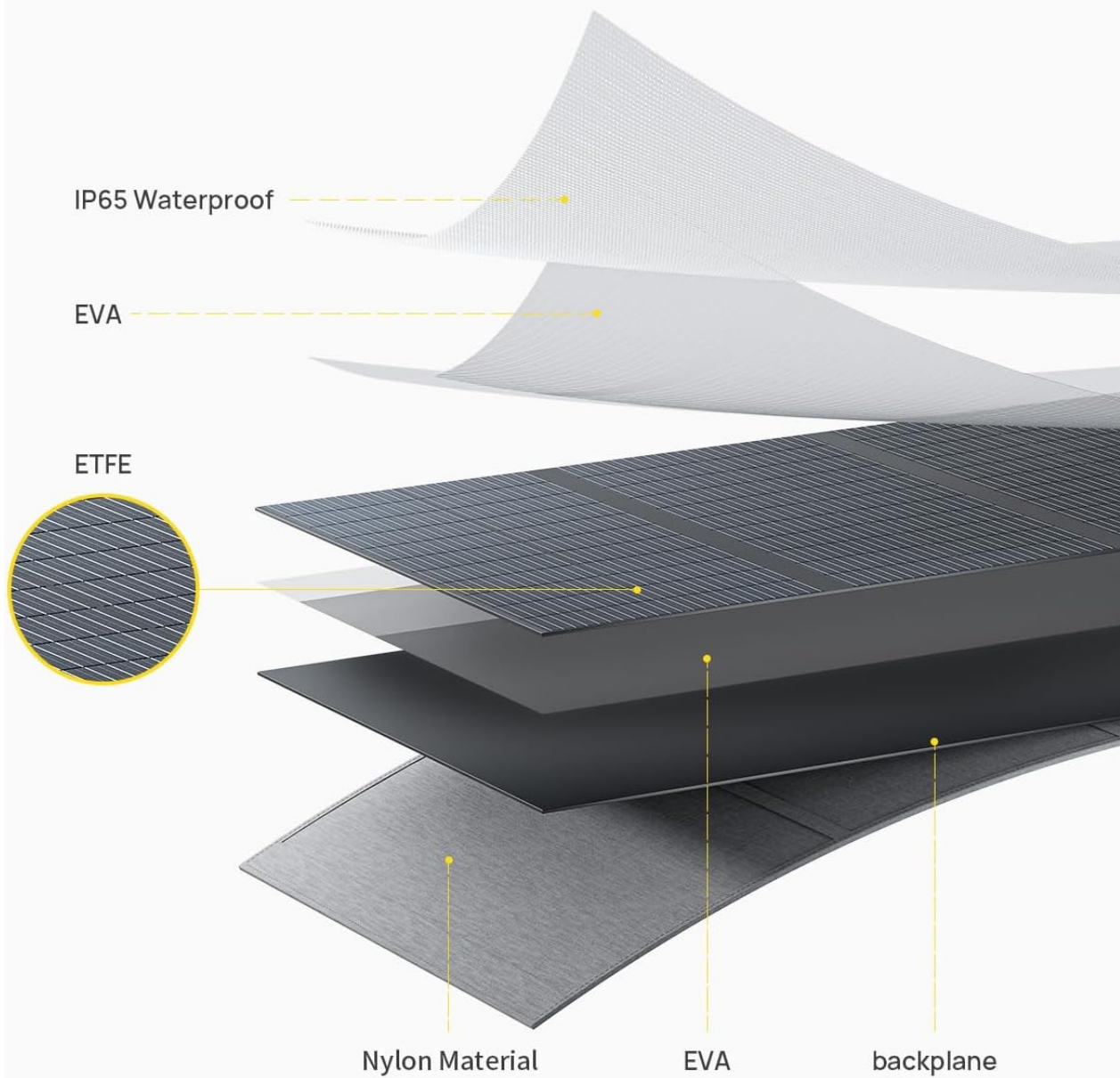


Image 4.1: Construction of the AF-S200 Solar Panel.

5. Troubleshooting

If you encounter issues with your AFERIY P210 Solar Generator system, please refer to the following general troubleshooting steps:

- **No Power Output:** Ensure the power station is turned on and has sufficient battery charge. Check that the specific output port (AC, DC, USB) is activated.
- **Charging Issues:** Verify all charging cables are securely connected. For solar charging, ensure panels are in direct sunlight and not shaded. Check the input wattage displayed on the screen.
- **Overload Protection:** If the unit shuts down unexpectedly, it may be due to an overload. Disconnect some devices and restart the power station.
- **App Connectivity:** Ensure Bluetooth is enabled on your smartphone and the power station. Restart both

the app and the power station if connection issues persist.

For persistent problems or specific error codes, please consult the detailed troubleshooting section in the full user manual or contact AFERIY customer support.

6. Specifications

Feature	Specification
Brand	AFERIY
Model Name	AF-P210 (Power Station), AF-S200 (Solar Panel)
Power Station Capacity	2048Wh
AC Output Wattage	2400W (Pure Sine Wave), 4800W Peak
Voltage	120 Volts
Battery Type	LiFePO4 (3500+ cycles)
AC Input Max	1100W (100-120V 50/60Hz)
DC (XT90) Input Max	500W (11.5-50V)
Combined AC+Solar Charging	1600W Max
Solar Panel Power	200W per panel
Solar Panel Conversion Efficiency	23%
Solar Panel Material	ETFE, EVA, Monocrystalline silicon
Waterproof Rating (Solar Panel)	IP65
Item Weight (Power Station)	54 Pounds (approx. 48.5 lbs for smaller package)
Product Dimensions (Power Station)	15.43"L x 10.98"W x 12.72"H
Total Power Outlets	16
Special Features	High Energy Efficiency Ratio, IP65 (Solar Panel), Portable, UPS Function (<10ms), App Control, Silent Operation (15 dB in low-power mode)

7. Warranty and Support

The AFERIY P210 Solar Generator system comes with a **2-year warranty** as per product specifications. Some users have reported the possibility of extending this warranty to 7 years through online registration; please refer to the official AFERIY website or contact customer support for the most current warranty terms and

registration details.

For technical support, warranty claims, or any inquiries regarding your AFERIY product, please visit the official AFERIY website or contact their customer service department. Contact information can typically be found on the product packaging or the official brand website.

AFERIY Store: [Visit the AFERIY Store on Amazon](#)