

AFERIY AF-P280

AFERIY P280 2800W Portable Power Station with 200W Solar Panel User Manual

Model: AF-P280 | Brand: AFERIY

INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your AFERIY P280 Portable Power Station and accompanying 200W Solar Panel. The P280 is a high-capacity, versatile power solution designed for various applications, including home backup, outdoor activities, and RV use. It features a durable LiFePO4 battery, multiple charging options, and expandable capacity.

SAFETY INSTRUCTIONS

- Read all instructions before using the product.
- Do not disassemble, repair, or modify the unit.
- Keep the unit away from fire, water, and extreme temperatures.
- Ensure proper ventilation during use to prevent overheating.
- Use only recommended accessories and charging cables.
- Keep out of reach of children.
- Dispose of the product according to local regulations.

PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 1 x AFERIY P280 Portable Power Station (2800W)
- 1 x 200W Solar Panel
- 1 x User Manual

- 1 x AC Charging Cable
- 1 x AC Charging Adapter
- 1 x MC4-XT90 Cable

Note: The P280 Power Station and 200W Solar Panels may ship separately.

PRODUCT OVERVIEW

The AFERIY P280 is a robust portable power station designed for reliability and performance. It integrates advanced LiFePO4 battery technology with versatile charging and output options.

Key Features

- **High Capacity:** 2048Wh LiFePO4 battery, expandable up to 10.24kWh with additional batteries.
- **Powerful Output:** 2800W AC output to power a wide range of appliances.
- **Rapid Charging:** 1800W AC input and 1200W PV input, allowing 0% to 80% charge in approximately 38 minutes.
- **Dual PV Inputs:** Supports multi-channel DC input for efficient solar charging without extra MPPT management.
- **Long Lifespan:** LiFePO4 battery offers 4000+ charge cycles for extended durability.
- **Uninterruptible Power Supply (UPS):** Provides backup power in under 10ms during outages.
- **Quiet Operation:** Operates at approximately 25dB (at 500W I/O), significantly quieter than traditional generators.
- **Smart App Control:** Monitor, control, and customize settings via a dedicated mobile application.

Ports and Interface

The P280 is equipped with 15 output ports to meet diverse power needs:

- 4 x AC Outlets (NEMA 5-20R TT-30)
- 1 x NEMA TT-30 Outlet (for heavy-duty use)
- 1 x XT60 DC Output (300W max)
- 4 x USB-C Ports (PD 140W max)
- 2 x QC 3.0 USB-A Ports
- 1 x Cigarette Lighter Port
- 2 x DC Output Ports

Product Diagram



Figure 1: Front view of the AFERIY P280 Portable Power Station with an accompanying solar panel.

SETUP

- Unpacking:** Carefully remove all components from the packaging. Retain packaging for future transport or storage.
- Initial Charge:** Before first use, fully charge the AFERIY P280 using the provided AC Charging Cable and Adapter. Connect the AC cable to the power station's AC input port and then to a wall outlet. The display will show charging status.
- Solar Panel Connection:** To connect the 200W Solar Panel, use the MC4-XT90 Cable. Connect the MC4 connectors from the solar panel to the MC4-XT90 cable, and then connect the XT90 end to the power station's XT90 input port. Position the solar panel in direct sunlight for optimal charging.
- Power On:** Press and hold the main power button on the power station for a few seconds until the display illuminates.



Figure 2: Illustration of AC and solar panel dual input charging for the AFERIY P280.

OPERATING INSTRUCTIONS

Charging the Power Station

The AFERIY P280 offers multiple charging methods:

- **AC Wall Outlet:** Connect the AC Charging Cable to the power station and a standard wall outlet. The unit supports up to 1800W AC input for rapid charging.
- **Solar Panels:** Connect compatible solar panels (e.g., the included 200W panel) using the MC4-XT90 cable to the XT90 input port. The unit supports up to 1200W PV input.
- **Car Charging:** Use a compatible car charger (sold separately) to charge the unit from your vehicle's 12V outlet.

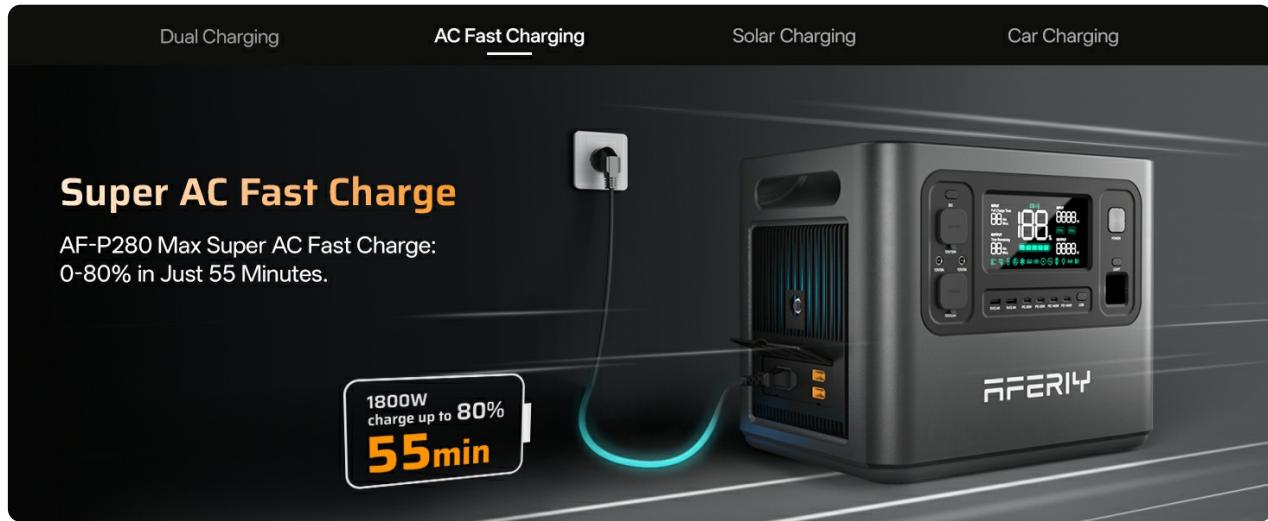


Figure 3: Visual representation of the AFERIY P280 charging rapidly via AC input.



Figure 4: The AFERIY P280 connected to solar panels for charging, illustrating 1200W solar power input.

Discharging (Powering Devices)

To power your devices, connect them to the appropriate output ports on the AFERIY P280. Ensure the power station is turned on. The display will show the output wattage and estimated remaining runtime.

- **AC Output:** Press the AC power button to activate the AC outlets. Plug in your AC-powered devices.
- **USB Output:** Connect your USB devices to the USB-A or USB-C ports. These ports are always active when the unit is on.
- **DC Output:** Press the DC power button to activate the DC ports (XT60, cigarette lighter, DC5521). Plug in your DC-powered devices.



Figure 5: Overview of the 15 output ports available on the AFERIY P280, powering various kitchen appliances.

Uninterruptible Power Supply (UPS) Function

The AFERIY P280 can function as an Uninterruptible Power Supply (UPS). When connected to an AC wall outlet and powering devices simultaneously, it will automatically switch to battery power within 10 milliseconds if the grid power fails, ensuring continuous operation for sensitive electronics.

A must-have for RVs

Numerous ports

Powerful output

10ms UPS

Quiet design

Computer Uninterruptible Power Supply

Built for server-level reliability, this UPS kicks in in under **10ms**



Figure 6: The AFERIY P280 acting as a UPS for a computer setup, highlighting its quick 10ms switchover time.

Smart App Control

Download the AFERIY mobile application to monitor, control, and customize your P280 power station remotely. The app allows you to view battery status, input/output power, adjust settings, and receive service support.

Upgraded Smart App Control

Monitor | Control | Customize | Service Support



Figure 7: Screenshot of the AFERIY smart app interface, showing monitoring and control options for the power station.

MAINTENANCE

- Storage:** Store the power station in a cool, dry place, away from direct sunlight and corrosive materials. For long-term storage, charge the unit to 50-80% every 3-6 months to prolong battery life.
- Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Do not use harsh chemicals or abrasive materials.
- Battery Care:** Avoid fully discharging the battery frequently. While LiFePO4 batteries are durable, maintaining a charge above 20% when possible can extend overall lifespan.
- Ventilation:** Ensure the ventilation openings are clear of dust and debris to maintain optimal cooling.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Unit not turning on	Battery is depleted; Power button not pressed correctly.	Charge the unit; Press and hold the power button for 3 seconds.
Devices not charging	Output port not activated; Cable faulty; Device incompatible.	Activate the specific output port (AC/DC); Try a different cable; Check device power requirements.
Slow charging via solar	Insufficient sunlight; Panels not optimally angled; Dirty panels.	Reposition panels for direct sunlight; Clean panels; Check cable connections.
Overload warning on display	Connected devices exceed unit's output capacity.	Disconnect some devices to reduce load.

SPECIFICATIONS

Feature	Detail
Brand	AFERIY
Model Name	AF-P280
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Battery Capacity	2048Wh
Expandable Capacity	Up to 10.24kWh with extra batteries
AC Output Wattage	2800W
AC Input Wattage	1800W
PV (Solar) Input Wattage	1200W
Charging Time (0-80%)	Approx. 38 minutes (AC input)
Cycle Life	4000+ cycles to 80% capacity
UPS Switchover Time	Under 10ms
Noise Level	~25dB (at 500W I/O)
Item Weight	58.5 Pounds
Product Dimensions	15.43" L x 10.98" W x 12.72" H
Material	ABS
Voltage	110 Volts

WARRANTY AND SUPPORT

The AFERIY P280 Portable Power Station comes with a **7-year coverage**. For warranty claims, technical support, or any inquiries, please contact AFERIY customer service.

Manufacturer: Shenzhen Wodefeng Technology Co., Ltd.

Please refer to the official AFERIY website or your purchase documentation for detailed contact information and warranty terms.

Related Documents - AF-P280

	<p>AFERIY AF-P280 Portable Power Station 2800W User Manual</p> <p>Comprehensive user manual for the AFERIY AF-P280 Portable Power Station. Learn about its features, operation, safety precautions, troubleshooting, product parameters, and warranty. This 2800W, 2048Wh LiFePo4 power station offers UPS functionality and multiple charging options.</p>
	<p>AFERIY P280 2800W Portable Power Station User Manual</p> <p>User manual for the AFERIY P280 2800W Portable Power Station, detailing its features, operation, safety precautions, and specifications. Includes information on expandable battery packs.</p>
	<p>AFERIY AF-P280 Tragbares Kraftwerk Benutzerhandbuch</p> <p>Benutzerhandbuch für das AFERIY AF-P280 tragbare Kraftwerk mit 2800W Leistung. Enthält Informationen zur Verwendung, Funktionen, Sicherheitshinweisen, Fehlerbehebung und technischen Spezifikationen.</p>
	<p>AFERIY AF-P280-B Smart Power Pack User Manual 2048Wh</p> <p>User manual for the AFERIY AF-P280-B Smart Power Pack, detailing specifications, usage precautions, connection instructions, FCC statement, and warranty information for the 2048Wh portable power solution.</p>

 <p>AFERIY Portable Power Station AF-P210 User Manual 2400W</p>	<p><u>AFERIY AF-P210 Portable Power Station User Manual</u></p> <p>User manual for the AFERIY AF-P210 Portable Power Station, detailing its features, operation, safety precautions, and troubleshooting.</p>
 <p>AFERIY Portable Power Station AF-P310-EC-H User Manual 3500W</p>	<p><u>AFERIY AF-P310-EC-H Portable Power Station User Manual</u></p> <p>User manual for the AFERIY AF-P310-EC-H Portable Power Station, detailing its features, operation, safety precautions, and specifications. Learn about AC output parameters, button functions, display interface, troubleshooting, UPS mode, battery pack connection, solar panel charging, vehicle charging, and warranty information.</p>