

[Manuals.plus](#) /

› [ALLWEI](#) /

› ALLWEI LiFePO4 Portable Power Station 1200W User Manual

ALLWEI SGR-PPS1200-3



ALLWEI LiFePO4 Portable Power Station 1200W

USER MANUAL

1. Introduction

The ALLWEI LiFePO4 Portable Power Station 1200W (Model SGR-PPS1200-3) is a versatile and reliable power solution designed for various applications, including outdoor camping, RV use, CPAP machine operation, and home emergency backup. Featuring a robust 1008Wh LiFePO4 battery and a 1200W inverter (2400W peak), this power station provides stable and safe electricity wherever you need it.

Its advanced LiFePO4 battery cells offer an extended lifespan of 2500 cycles to 80% capacity, ensuring long-term durability. The integrated UPS function provides seamless power transition in less than 10ms during outages, protecting your essential devices. With multiple charging options and a compact, portable design, the ALLWEI Power Station is an ideal companion for both adventure and preparedness.



Figure 1.1: ALLWEI LiFePO4 Portable Power Station 1200W, showcasing its compact design and multiple output ports.

2. Safety Information

Please read all safety instructions carefully before using the ALLWEI Portable Power Station to ensure safe and optimal performance. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Do not disassemble, repair, or modify the unit. Incorrect reassembly may cause fire or electric shock.
- Keep the unit away from fire and direct sunlight to prevent overheating.
- Do not use or store the unit in a bathroom or in areas exposed to water or moisture.
- Ensure proper ventilation during use. Do not block the ventilation openings.
- Charge your devices within the specified 1200 watts. Exceeding this limit will trigger the over-load protection and turn off the battery.
- Keep out of reach of children and pets.
- Do not drop, hit, or subject the unit to strong impacts.
- If the unit shows signs of damage, leakage, or unusual odor, discontinue use immediately and contact customer support.
- When using solar panels, ensure they are not exposed to rain or excessive moisture, as some models may not be fully waterproof.

3. Package Contents

Upon opening your ALLWEI Portable Power Station package, please verify that all the following items are included:

- 1x ALLWEI 1200W 1008Wh LiFePO4 Portable Power Station
- 1x AC Charging Cable
- 1x Car Charging Cable
- 1x Solar Connect Cable (M20 to MC4 Cable)
- 1x User Manual



Figure 3.1: All items included in the ALLWEI Portable Power Station package.

4. Product Features and Components

The ALLWEI SGR-PPS1200-3 is designed with user convenience and functionality in mind. Below are the key features and components:

- **Power Button:** Used to turn the unit on/off and activate specific output sections.
- **LCD Display:** Shows real-time information including battery level, input/output wattage, remaining runtime, and warning indicators.

- **AC Output Ports:** Four 120V AC outlets (1200W continuous, 2400W peak) for household appliances.
- **DC Output Ports:** Includes a 12V/10A car outlet and two DC5521 ports for various DC-powered devices.
- **USB Output Ports:** Multiple USB ports, including PD60W USB-C and QC3.0 USB-A, for fast charging of mobile devices.
- **Input Port:** For AC wall charging, solar charging, and car charging.
- **Built-in LED Light:** Features 4 modes for illumination in various situations, including an SOS mode.



Figure 4.1: Detailed view of the power station's front panel, showing all input and output interfaces.

LONG-LASTING TECHNOLOGY

LiFePO4 Battery | 2500 Lifecycles | 1008Wh | 315000mAh



Short Circuit
Protection



Over Current
Protection



Over Voltage
Protection



Low Voltage
Protection



Over Load
Protection



Over Heating
Protection

Figure 4.2: Physical dimensions of the ALLWEI Portable Power Station (14.9"L x 8.6"W x 10.2"H).

5. Charging the Power Station

The ALLWEI Portable Power Station offers multiple convenient charging methods:

5.1 AC Wall Charging

For the fastest recharge, use the included AC Charging Cable to connect the power station to a standard wall outlet. The unit supports a max 1200W AC input.

- **Q (Quick Charging Mode):** 1.5-2 Hours for full charge.
- **N (Normal Charging Mode):** 4-5 Hours for full charge.
- **S (Silent Charging Mode):** 7-8 Hours for full charge.

AC WALL CHARGING

SUPER FAST RECHARGE IN **1.5 HOURS**

Q: Quick Charging Mode

1.5-2 Hrs ⚡

N: Normal Charging Mode

4-5 Hrs

S: Silent Charging Mode

7-8 Hrs



Figure 5.1: Charging the power station via an AC wall outlet.

5.2 Solar Charging

Connect compatible solar panels (not included, but ALLWEI offers various options) using the Solar Connect Cable. The power station supports any solar input from 12V-60V, 10A Max (Up to 400W).

- 200W Solar Panel: 6.6-7.6 Hours (in full sun)
- 400W Solar Panel: 3.3-4.3 Hours (in full sun)



Figure 5.2: Charging the power station using solar panels.

5.3 Car Charging

Use the included Car Charging Cable to charge the power station from your vehicle's 12V or 24V cigarette lighter port.

- 12V Car Charging: 7-8 Hours
- 24V Car Charging: 3.5-4.5 Hours

6. Operating the Power Station

6.1 Powering On/Off

Press and hold the main power button (ON/OFF) for a few seconds to turn the unit on or off. The LCD display will illuminate upon activation.

6.2 Using Output Ports

Once the unit is on, press the respective button for AC, DC, or USB outputs to activate them. The corresponding icon on the LCD display will light up. Connect your devices to the appropriate ports.

Note: Your device's run time can be estimated by the formula: $1008\text{Wh} \times 90\% / \text{Your device's watts}$.

POWER UP TO 99% OF YOUR DEVICES



TV
90W
10 Hrs



Mini Cooler
50W
18 Hrs



Coffee Maker
550W
1.6 Hrs



Projector
100W
9 Hrs



Electric Tools
80W
11 Hrs



CPAP
40W
22.7 Hrs



Figure 6.1: The power station providing power for outdoor tools.

6.3 UPS Function

The ALLWEI 1200W solar generator features a built-in Uninterruptible Power Supply (UPS) function. When connected to a wall outlet, the UPS will provide 120V AC power to connected loads in less than 10ms if the wall outlet power is interrupted. This ensures continuous operation for essential appliances like CPAP machines, mini-fridges, or desktop computers.

UPS BYPASS MODE & LiFePO4 BATTERY

No Fear of Power Cut, Be on Power at Any Time

- Double Protection For Your Essentials
- Switch Within **10ms** When Home Power Off



Figure 6.2: Illustration of the UPS bypass mode, ensuring power continuity during outages.

Important: To utilize the UPS function, ensure the AC button on the power station is turned on.

6.4 Estimated Device Run Times

The 1008Wh capacity allows for extended operation of various devices. Here are some common examples:

Device	Estimated Wattage	Approximate Run Time
TV	90W	~10 Hours
Mini Cooler	50W	~18 Hours
Coffee Maker	650W	~1.6 Hours
Projector	100W	~9 Hours
CPAP Machine	40W	~22.7 Hours
Laptop	58W	~16+ Hours

Device	Estimated Wattage	Approximate Run Time
Electric Grill	900W	~1+ Hours
Heated Blanket	120W	~8+ Hours

SOLAR CHARGING & CAR CHARGING

200W Solar Panel in **6.6-7.6** Hrs(in full sun)

400W Solar Panel in **3.3-4.3** Hrs(in full sun)

12V Car Charging in **7-8** Hrs

24V Car Charging in **3.5-4.5** Hrs



Figure 6.3: The power station providing power for multiple devices during outdoor activities.

7. Maintenance and Storage

Proper maintenance ensures the longevity and optimal performance of your ALLWEI Portable Power Station.

- **Regular Charging:** If the unit is not used for a long period, charge it every three months to maintain battery health.
- **Storage Conditions:** Store the power station in a cool, dry place, away from direct sunlight, heat sources, and moisture.
- **Cleaning:** Use a dry, soft cloth to clean the exterior of the unit. Do not use abrasive cleaners or immerse the unit

in water.

- **Battery Lifespan:** The LiFePO4 battery cells are designed for 2500 life cycles to 80% capacity, providing a reliable and secure power backup for many years.



Figure 7.1: The power station's durable design supports various usage environments.

8. Troubleshooting

If you encounter issues with your ALLWEI Portable Power Station, refer to the following common problems and solutions:

- **Unit Not Turning On:**
 - Ensure the battery is charged. Connect to an AC outlet for charging.
 - Press and hold the power button for a few seconds.
- **No Output from Ports:**

- Ensure the specific output section (AC, DC, USB) is activated by pressing its respective button.
- Check if the connected device's power consumption exceeds the power station's output limit (1200W). Overload protection will shut down the output. Disconnect the device and restart the output.
- Verify that cables are securely connected.

• **Slow Charging:**

- For AC charging, ensure you are using the Quick Charging Mode (Q) if faster charging is desired.
- For solar charging, ensure solar panels are in direct sunlight and properly angled. Check for any obstructions.

• **Overheat Warning:**

- If an overheat warning appears, disconnect all loads and allow the unit to cool down in a well-ventilated area.
- Ensure ventilation vents are not blocked.

If the problem persists after attempting these solutions, please contact ALLWEI customer support for further assistance.

9. Technical Specifications

Specification	Detail
Brand	ALLWEI
Model Name	1200W Solar Generator (SGR-PPS1200-3)
Wattage	1200 watts (Running & Starting)
Peak Wattage	2400 watts
Battery Type	LiFePO4
Battery Capacity	1008Wh (315000mAh)
Life Cycles	2500 cycles to 80%
AC Output Voltage	110 Volts (AC)
Total AC Outlets	4
UPS Function	Yes, <10ms switch time
AC Input Max	1200W
Solar Input Max	400W (12V-60V, 10A Max)
Product Dimensions	14.9"L x 8.6"W x 10.2"H
Item Weight	28 Pounds
Material	PC+ABS
Recommended Uses	Camping, Commercial, Residential
Certifications	CE/FCC Certified, ETL Certified Safety

Specification	Detail
UPC	602835845681

10. Warranty and Support

ALLWEI stands behind the quality of its products. The ALLWEI LiFePO4 Portable Power Station comes with a **5-Year Premium Warranty**, significantly exceeding the industry standard of 2 years. This warranty covers defects in materials and workmanship under normal use.

For any assistance, technical support, or warranty claims, please contact ALLWEI customer service:

Email: support@allweipower.com

ALLWEI also offers a 30-Day No-Hassle Return policy.



Figure 10.1: ALLWEI's 5-Year Premium Warranty information.