ROCKPALS R-PS300

ROCKPALS 300W Portable Power Station User Manual

Model: R-PS300

1. Introduction

The ROCKPALS 300W Portable Power Station is a versatile and reliable power source designed for various applications, including outdoor camping, emergency backup, and powering small electronic devices. Equipped with a 280Wh lithium-ion battery pack, it provides stable and efficient power through multiple output ports. This manual provides detailed instructions for safe and effective use, setup, operation, and maintenance of your power station.

2. Package Contents

- Rockpower 300 Portable Power Station
- AC charging adapter
- Car charger cable
- User manual
- Quick start card
- Safety Precautions card

3. Product Features and Components

The ROCKPALS 300W Portable Power Station offers a variety of ports and features to meet your power needs.

3.1 Overview of the Power Station



Figure 1: Front view of the ROCKPALS 300W Portable Power Station, showing the display, input/output ports, and carrying handle.

This image displays the main unit with its intuitive interface. On the left, an LCD screen shows battery status and power output. The center features DC input and output ports, including a 12V car port. On the right, multiple USB ports (USB-A, QC 3.0, USB-C PD) and a 110V AC outlet are available for various devices.

3.2 Powering Multiple Devices



Figure 2: The power station in use, demonstrating its 280Wh large capacity to power up to 8 devices, including laptops, phones, mini-fridges, and lanterns.

The power station is designed to handle multiple devices simultaneously, making it ideal for various scenarios. Its 280Wh (78000mAh) lithium-ion battery can charge an iPhone 12 approximately 28-29 times, an iPad Mini about 14 times, or a 12-inch MacBook 5-6 times. It can also power a mini car refrigerator (40W) for 5-6 hours.

3.3 AC Power Output

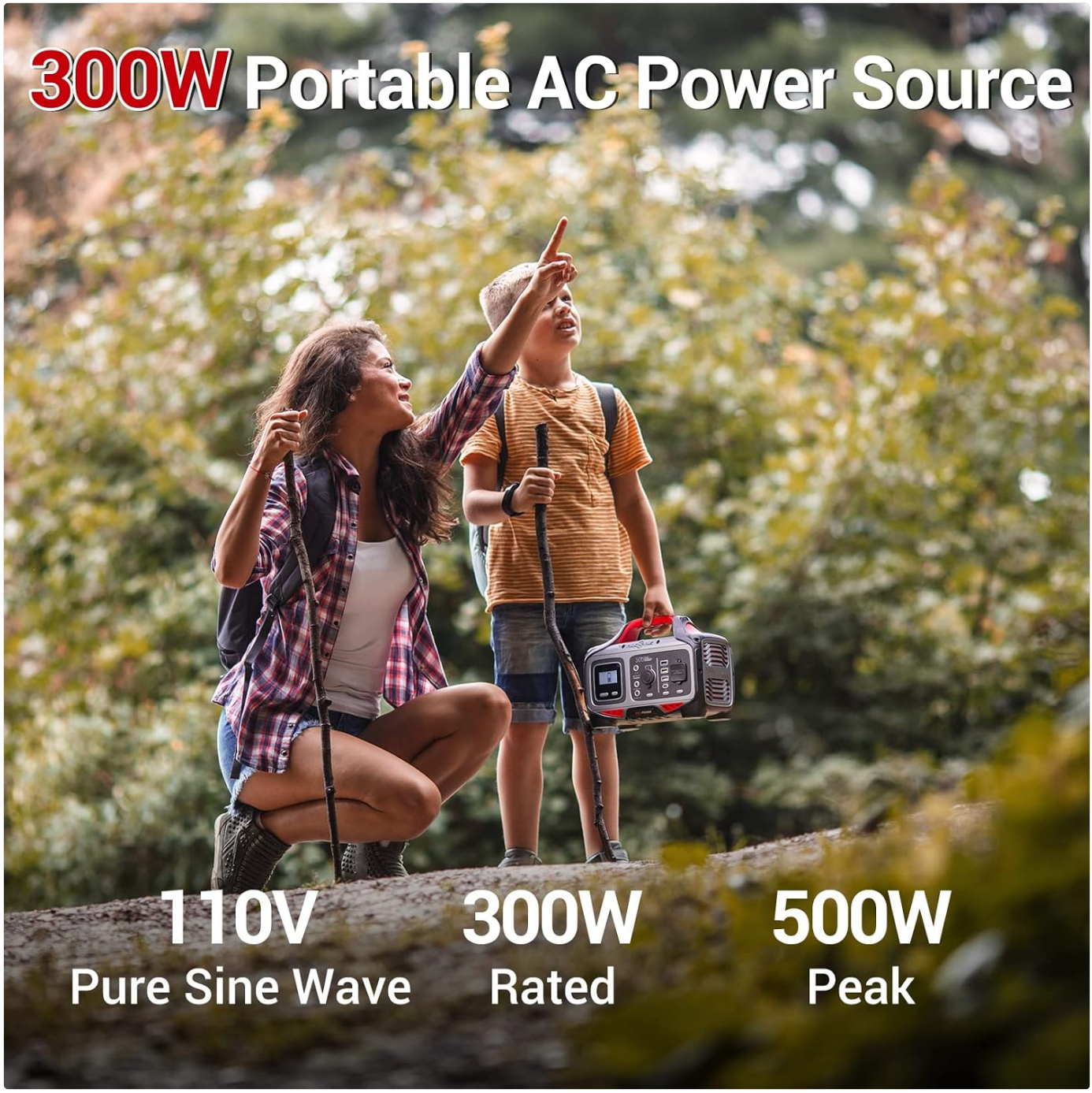


Figure 3: Illustration of the 110V Pure Sine Wave AC output, rated at 300W with a 500W peak.

The unit features a pure sine wave 110V AC outlet, providing stable and clean power suitable for sensitive electronics. This output is rated at 300W continuous power with a 500W peak, ensuring compatibility with a wide range of small appliances.

3.4 USB-C PD Input and Output



Figure 4: Demonstrates the USB-C 30W PD input/output for fast charging and recharging.

The power station includes a USB-C PD (Power Delivery) port that supports both input and output up to 30W. This allows for rapid charging of compatible devices like smartphones and laptops, and also enables faster recharging of the power station itself when combined with the AC wall charger for dual input (102W total).

3.5 Recharging Methods

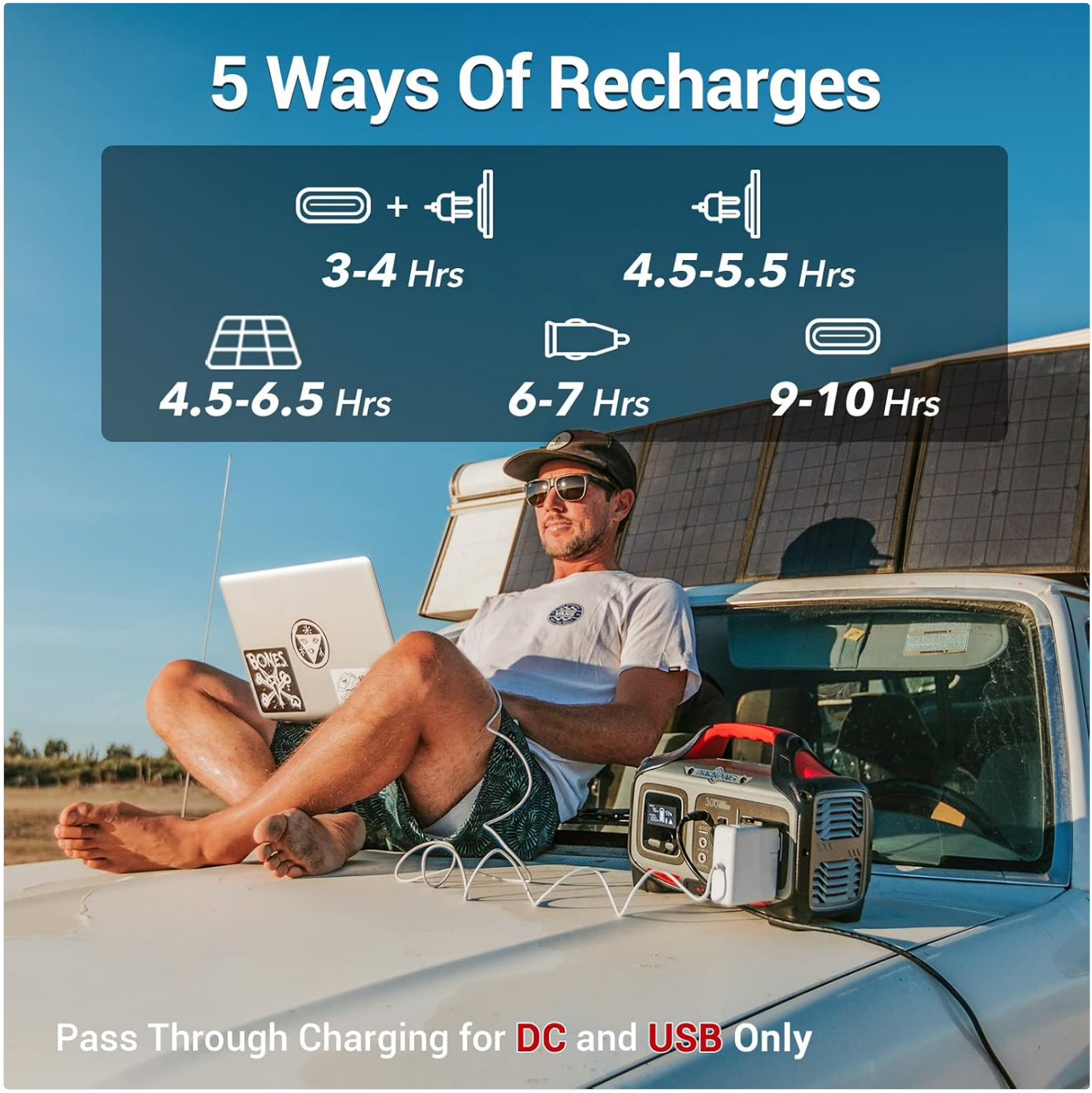


Figure 5: Visual representation of various recharging options for the power station.

The power station can be recharged using multiple methods: from an AC wall outlet (approx. 4.5-5.5 hours), via a ROCKPALS 100W solar panel (sold separately, approx. 4.5-6.5 hours with MPPT technology), from a USB-C 30W PD input by wall outlet, or from a car port (approx. 6-7 hours). It supports pass-through charging for DC and USB outputs, but not for AC.

3.6 Fast Recharging Technology



Figure 6: The power station being recharged using both wall charger and USB-C PD for rapid charging.

With its fast charging capabilities, the power station can reach 80% charge in only 3 hours when utilizing both the AC wall charger and a USB-C PD charger simultaneously. This dual input method significantly reduces recharge time.

3.7 Pure Sine Wave Output



Figure 7: Comparison of pure sine wave output from ROCKPALS versus modified sine wave from others, highlighting stable power delivery.

The pure sine wave AC output ensures that your sensitive electronic devices receive clean, stable power, preventing damage and reducing audible and electrical noise often associated with modified sine wave inverters.

3.8 Power Level Display



Figure 8: The LCD display clearly shows real-time input wattage, output wattage, and remaining battery percentage.

The integrated LCD display provides clear and immediate feedback on the power station's status, including input power (W), output power (W), and the exact battery percentage remaining. This allows for easy monitoring of power consumption and remaining charge.

3.9 Versatile Use Cases



Figure 9: Examples of the power station's diverse applications, including camping, emergency backup, CPAP machine power, and outdoor parties.

The ROCKPALS 300W is designed for a wide array of uses, from providing power during outdoor camping trips and emergency power outages to running medical devices like CPAP machines and powering entertainment for outdoor gatherings.

3.10 Product Dimensions



Figure 10: Dimensions of the power station, highlighting its compact and portable design.

With dimensions of 10.5"L x 5.3"W x 8.5"H and a weight of 10.32 pounds, the power station is compact and lightweight, making it easy to transport and store.

3.11 Official Product Video: Unboxing & Demo

Your browser does not support the video tag.

Video 1: An unboxing and demonstration of the ROCKPALS 300W Portable Power Station, showcasing its features and initial setup.

This official video provides a visual guide to unboxing the power station and demonstrates its various features and functionalities. It offers a practical overview of how to get started with your new device.

4. Setup

1. **Unpack:** Carefully remove all items from the packaging. Verify that all package contents listed in Section 2 are present.
2. **Initial Charge:** Before first use, fully charge the power station using the provided AC charging adapter. Plug the adapter into a wall outlet and connect it to the DC input port on the power station. The LCD display will show the charging progress.
3. **Power On:** Press and hold the "Power" button on the LCD display panel for 3 seconds to turn on the unit. The display will light up, showing the current battery level.

5. Operating Instructions

5.1 Charging External Devices

- **AC Output:** Press the "AC" button to activate the 110V AC outlet. Plug your device into the AC port. The LCD display will show the output wattage.
- **USB Output:** Press the "USB" button to activate the USB ports (USB-A, QC 3.0, USB-C PD). Connect your USB-powered devices. The Quick Charge 3.0 and USB-C PD ports offer faster charging for compatible devices.
- **DC Output:** Press the "DC" button to activate the 12V DC ports and the car port. Connect your 12V devices. For CPAP machines, using a DC converter (sold separately) is recommended for better efficiency.

5.2 Recharging the Power Station

- **AC Wall Outlet:** Use the provided AC charging adapter. Charging time is approximately 4.5-5.5 hours.
- **Solar Panel (Sold Separately):** Connect a ROCKPALS 100W solar panel to the DC input port. The built-in MPPT technology optimizes solar charging, taking approximately 4.5-6.5 hours.
- **USB-C PD Input:** The USB-C port can also be used as an input for charging the power station, especially when combined with the AC adapter for faster dual-input charging.
- **Car Port:** Use the provided car charger cable to charge the unit from your vehicle's 12V outlet. Charging time is approximately 6-7 hours.

6. Maintenance

- **Storage:** Store the power station in a cool, dry place away from direct sunlight and extreme temperatures.
- **Regular Use:** For optimal battery life, it is recommended to use and recharge the unit at least once every 3-6 months.
- **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 Management System (BMS):** The integrated BMS protects the battery from overcharge, over-discharge, over-current, over-voltage, overload, and overheating, extending its lifespan.

7. Troubleshooting

If you encounter issues with your ROCKPALS 300W Portable Power Station, please refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Unit does not power on	Battery is completely drained.	Connect to AC charger and allow to charge for at least 30 minutes before attempting to power on.
No output from AC/DC/USB ports	Output port not activated or device draws too much power.	Ensure the respective AC/DC/USB button is pressed. Check if device wattage exceeds the power station's limits (300W AC, 120W car port, 60W DC). Reduce load.
Charging slowly	Using single input method or inefficient solar conditions.	Use both AC adapter and USB-C PD input simultaneously for faster charging. Ensure solar panel is in direct sunlight and free from obstructions.

Problem	Possible Cause	Solution
Overload/Overheat warning on display	Device connected draws too much power or internal temperature is too high.	Disconnect devices immediately. Allow the unit to cool down. Reduce the total wattage of connected devices.

8. Specifications

Specification	Value
Brand	ROCKPALS
Model Name	Rockpower 300
Wattage	300 watts (Running), 500 watts (Starting/Peak)
Power Source	Battery Powered (280Wh / 78000mAh Lithium-Ion)
Voltage	110 Volts (AC Output)
Item Weight	10.32 pounds (4.69 Kilograms)
Product Dimensions	10.5"L x 5.3"W x 8.5"H
Special Feature	Portable
Color	Red
Total Power Outlets	1 (AC) + multiple DC/USB
Frequency	60 Hz

9. Safety Information

- Do not disassemble, repair, or modify the unit.
- Do not expose the unit to fire or high temperatures.
- Do not use or store the unit in a bathroom or in areas exposed to water or rain.
- Do not use the unit if it is damaged or has been modified.
- Keep out of reach of children.
- Use only recommended accessories.
- Ensure proper ventilation during use and charging.

10. Warranty and Support

For warranty information and customer support, please refer to the official ROCKPALS website or contact their customer service directly. A digital version of this user manual can also be found via the following link: ROCKPALS User Manual (PDF).

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Model number, symptoms, what you tried, or the section of the manual you are using.

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