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> Victron Energy Smart IP43 24V 25A 3-Output Battery Charger (Model PSC242553095) User Manual

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1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Victron Energy Smart IP43 24-Volt 25 AMP 120-240 VAC, 3 Output Battery Charger with Bluetooth. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

1.1. Product Overview

The Victron Energy Smart IP43 Charger is designed for charging up to three independent battery banks. It features built-in Bluetooth Smart for monitoring, control, and firmware updates via the VictronConnect app. The charger also includes automatic voltage compensation to account for voltage drop in DC cabling.



Image: Front view of the Victron Energy Smart IP43 24V 25A 3-Output Battery Charger.

1.2. What's in the Box

Upon unpacking, verify that all components are present:

- Victron Energy Phoenix Smart IP43 24-Volt 25 AMP 120-240 VAC, 3 Output Battery Charger with Bluetooth (Model PSC242553095)
- User Manual (this document)
- Mounting hardware (if applicable)

2. SAFETY INSTRUCTIONS

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

- Always disconnect AC power before making or breaking DC connections.
- Ensure proper ventilation around the charger.
- Do not expose the charger to rain or moisture.
- Consult a qualified electrician for installation if you are unsure.
- Use appropriate cable sizes for all connections to prevent overheating.
- This device is designed for indoor use or protected outdoor environments (IP43 rating).

3. SETUP AND INSTALLATION

3.1. Mounting the Charger

Select a suitable location for mounting the charger. The location should be dry, well-ventilated, and protected from direct sunlight and excessive heat. Ensure there is sufficient space around the unit for air circulation.

- Mount the charger vertically on a non-flammable surface.
- Use appropriate screws and fasteners for the mounting surface.
- Ensure all connections are easily accessible after mounting.

3.2. Electrical Connections

The charger has three full current outputs designed to charge up to three separate battery banks. The total current drawn across all three outputs combined must not exceed the charger's rated output current (25 Amps).

1. DC Battery Connections:

- Connect the positive (+) terminals of your battery banks to the corresponding positive output terminals on the charger.
- Connect the negative (-) terminals of your battery banks to the common negative terminal on the charger.
- Use marine-style battery connectors (ring terminals or battery clamps) as appropriate for your setup.
- Ensure all DC connections are tight and secure to prevent voltage drops and overheating.

2. AC Input Connection:

- Connect the standard AC power cord (5-15P) to a compatible 120-240 VAC power outlet.
- Verify that the input voltage matches the charger's specifications.

4. OPERATION

4.1. Initial Power-Up

Once all connections are secure, plug the AC power cord into the wall outlet. The charger will initiate its startup sequence. Status indicators (LEDs) on the unit will provide information on the charging process.

4.2. Bluetooth Connectivity (VictronConnect App)

The charger features built-in Bluetooth Smart for advanced monitoring and control via the VictronConnect app. This app allows you to:

- Monitor real-time charging status and battery voltage.
- Configure charging parameters and battery presets (e.g., Gel, Lithium Iron Phosphate).
- Update the charger's firmware.
- Synchronize with other Victron Energy Smart devices.

Download the VictronConnect app from your device's app store. Follow the in-app instructions to connect to your charger via Bluetooth.



Image: Screenshot of the VictronConnect app interface on a smartphone, showing monitoring and configuration options.

4.3. Automatic Voltage Compensation

The charger automatically compensates for voltage drop that occurs over the DC cabling. As the DC current increases, the charger slightly increases its output voltage to ensure the batteries receive the correct charging voltage, optimizing charging efficiency and battery life.

4.4. Multi-Output Charging

The three outputs allow for simultaneous charging of up to three battery banks. While each output can deliver the full rated current, the combined total current from all three outputs will not exceed the charger's maximum output of 25 Amps.

Your browser does not support the video tag.

Video: This video demonstrates the VictronConnect App for monitoring performance, showing how users can check key monitoring data, see device performance, and use simple controls for configuration and firmware updates.

Your browser does not support the video tag.

Video: This video illustrates the Victron Remote Management (VRM) portal, demonstrating how to master remote systems by checking remote systems at a glance, managing devices with simple controls, and monitoring system performance in detail.

5. SPECIFICATIONS

Feature	Specification
Brand	Victron Energy
Model Number	PSC242553095

Feature	Specification
Product Dimensions	4.6"D x 9.8"W x 7.1"H
Item Weight	2.6 Kilograms
Output Voltage	24 Volts (DC)
Input Voltage	120-240 Volts (AC)
Current Rating	25 Amps
Number of Outputs	3
Connector Type	Marine-style battery connectors (ring terminals or battery clamps) and standard AC power cord (5-15P)
Bluetooth	Built-in Bluetooth Smart for VictronConnect app
Certifications	CE, FCC

6. MAINTENANCE

- **Regular Inspection:** Periodically inspect the charger and its connections for any signs of damage, corrosion, or loose wiring.
- **Cleaning:** Keep the charger clean and free from dust and debris. Use a dry cloth for cleaning. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure that the ventilation openings are not blocked to prevent overheating.
- **Firmware Updates:** Regularly check for and install firmware updates via the VictronConnect app to ensure optimal performance and access to new features.

7. TROUBLESHOOTING

If you encounter issues with your Victron Energy Smart IP43 charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger not turning on	No AC input power	Check AC power cord connection and wall outlet. Ensure circuit breaker is not tripped.
No charging output	Loose battery connections; Battery voltage too low for detection	Verify all DC battery connections are secure. If battery voltage is extremely low, try a different charging method to bring it to a detectable level.
Overheating	Insufficient ventilation; Blocked air vents	Ensure adequate airflow around the charger. Clear any obstructions from the air vents. Reduce load if possible.
Bluetooth connection issues	Distance from device; Interference; App issues	Move closer to the charger. Restart the VictronConnect app and your mobile device. Ensure Bluetooth is enabled.

If the problem persists after attempting these solutions, please contact Victron Energy customer support.

8. WARRANTY AND SUPPORT

8.1. Warranty Information

This product comes with a manufacturer's warranty. Please refer to the "Warranty Description" provided with your product or visit the official Victron Energy website for detailed warranty terms and conditions. Keep your proof of purchase for warranty claims.

8.2. Customer Support

For technical assistance, troubleshooting, or service inquiries, please contact Victron Energy customer support through their official website or authorized service centers. You can also find additional resources and FAQs on the Victron Energy website.

