

Victron Energy SCC115060211

Victron Energy SmartSolar MPPT Tr Solar Charge Controller User Manual

Model: SCC115060211 | Brand: Victron Energy

INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Victron Energy SmartSolar MPPT Tr Solar Charge Controller. This device is designed to efficiently harvest energy from your solar panels and charge your battery bank, ensuring optimal performance and longevity of your solar power system.

The SmartSolar MPPT controller features advanced Maximum Power Point Tracking (MPPT) technology, built-in Bluetooth for easy monitoring and configuration via the VictronConnect app, and intelligent load output management.

KEY FEATURES

- **Smart Solar Charge Controller:** Optimizes solar charging to convert every ray of available sunlight into usable energy, enhancing battery longevity.
- **Maximize Power Output:** Features lightning-fast optimum power point tracking and intelligent charge algorithms to ensure maximum power output, even under partial shading conditions.
- **Synchronized Charging:** Multiple SmartSolar MPPT charge controllers can synchronize their behavior, switching through different charge stages simultaneously for improved battery longevity and system-wide energy optimization.
- **Connectivity:** The VictronConnect app allows connection to your system for real-time data, 30-day performance history, device configuration (battery presets, settings, firmware updates), and alarm setup.
- **Intelligent Load Output:** Enables direct and secure power delivery to devices from your solar charger. Users can configure the voltage at which a load should disconnect, with the MPPT charge controller automatically disconnecting loads if battery voltage drops too low.

SETUP AND INSTALLATION

Proper installation is crucial for the safe and efficient operation of your SmartSolar MPPT charge controller. Always ensure all power sources are disconnected before making any connections.

1. **Mounting:** Choose a dry, well-ventilated location away from direct sunlight and heat sources. Ensure adequate space around the unit for cooling.
2. **Battery Connection:** Connect the battery to the "BATTERY" terminals on the charge controller first. Ensure correct polarity (+ to + and - to -).
3. **Solar Panel Connection:** Connect your solar panels to the "PV" terminals. Verify correct polarity.
4. **Load Connection (Optional):** If using the intelligent load output, connect your DC loads to the "LOAD" terminals.
5. **Initial Configuration:** Use the VictronConnect app via Bluetooth to configure battery type, charging parameters, and load output settings.



Figure 1: Front view of the SmartSolar MPPT 150 | 60 - Tr charge controller, highlighting the battery and PV connection terminals.

Built to last in the toughest conditions

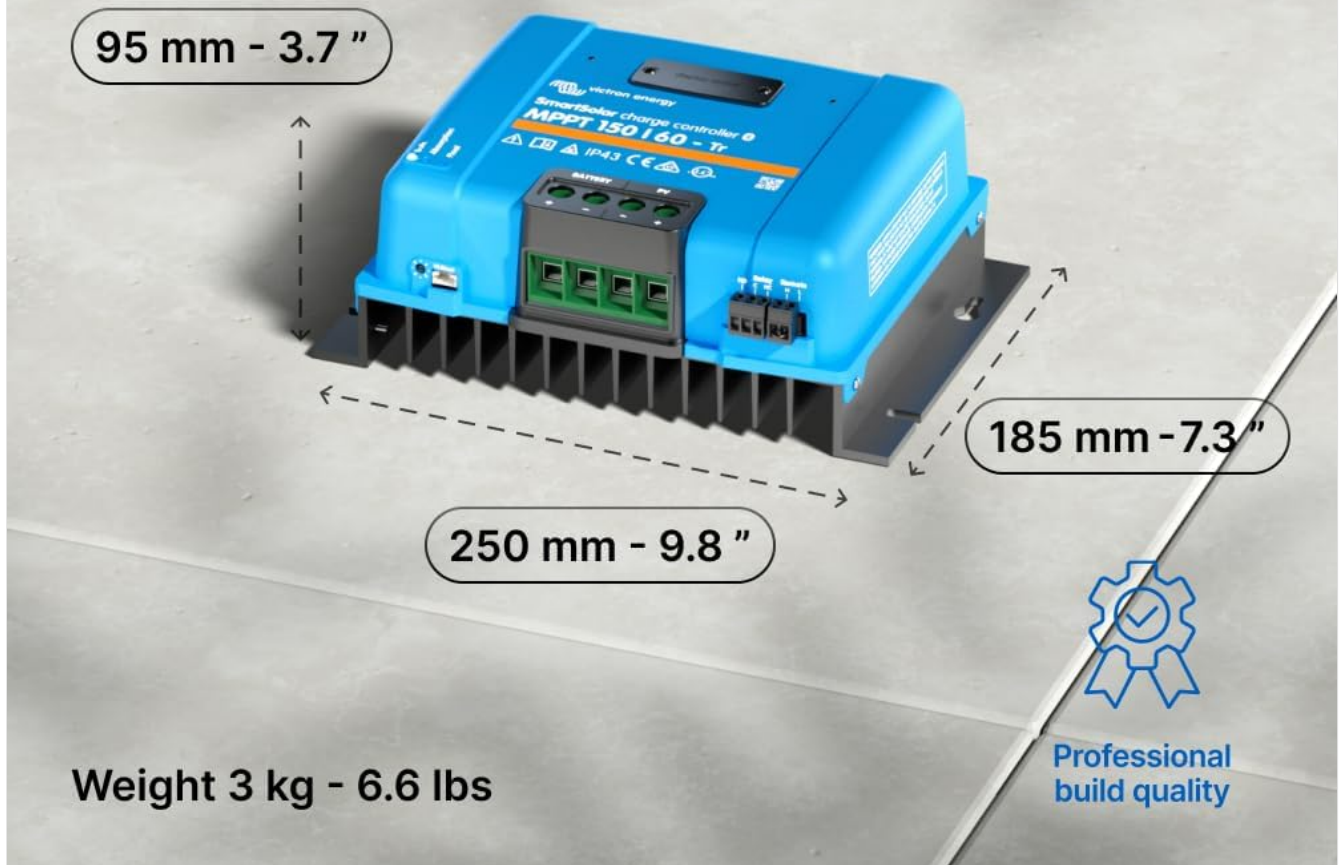


Figure 2: Physical dimensions of the SmartSolar MPPT 150 | 60 - Tr charge controller, showing its compact size for installation planning.

OPERATING INSTRUCTIONS

Once installed and configured, the SmartSolar MPPT charge controller operates automatically. Its advanced algorithms continuously optimize power harvest from your solar panels.

- **Automatic Operation:** The controller will automatically detect the battery voltage and begin charging based on the configured settings.
- **Monitoring with VictronConnect App:** For detailed real-time monitoring and historical data, connect to the device using the VictronConnect app on your smartphone or tablet via Bluetooth. The app provides insights into solar power generation, battery status, and load consumption.
- **Load Output Management:** The intelligent load output will automatically disconnect loads if the battery voltage drops below a user-defined threshold, protecting the battery from deep discharge.



VictronConnect

The pocket powerhouse app

More than 1 million users worldwide



Local Bluetooth connection



30-day performance history



Hassle-free configuration



Instant solar insights



Figure 3: The VictronConnect app in use, showing real-time solar power input and battery charging status.

Synchronize to behave as one



Maximizes charging efficiency &
battery longevity

Figure 4: Overview of the VictronConnect app's capabilities, emphasizing its role as a comprehensive monitoring and configuration tool.

MAINTENANCE

The Victron Energy SmartSolar MPPT charge controller is designed for minimal maintenance. However, periodic checks can ensure long-term reliability and performance.

- **Visual Inspection:** Periodically inspect the unit for any signs of damage, loose connections, or corrosion.
- **Cleanliness:** Keep the unit clean and free from dust and debris. Ensure the cooling fins are not obstructed to allow for proper heat dissipation.
- **Connection Checks:** Annually, or as needed, verify that all electrical connections (battery, solar, load) are secure and free from corrosion.
- **Firmware Updates:** Regularly check for and apply firmware updates via the VictronConnect app to ensure your device has the latest features and performance improvements.

TROUBLESHOOTING

If you encounter issues with your SmartSolar MPPT charge controller, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power output/charging	Incorrect wiring, blown fuse, insufficient solar input, battery voltage too low.	Check all wiring connections for correct polarity and tightness. Verify solar panel output. Check battery voltage; if too low, pre-charge it. Inspect internal fuses if accessible (refer to full manual).
Bluetooth connection issues	Out of range, incorrect PIN, app issues, device not powered.	Ensure you are within Bluetooth range (10-15 feet). Verify the correct PIN (usually on a sticker on the unit or packaging). Restart the VictronConnect app and your device. Ensure the charge controller is powered on.
Unit not recognized by app	Firmware outdated, app version outdated, hardware fault.	Update the VictronConnect app to the latest version. If possible, try connecting from another device. If the issue persists, contact Victron Energy support.
Overheating	Poor ventilation, excessive load, high ambient temperature.	Ensure adequate airflow around the unit. Reduce load if possible. Consider relocating the unit to a cooler environment or adding active cooling.

For more complex issues or if the problem persists, please refer to the comprehensive online manual or contact Victron Energy customer support.

SPECIFICATIONS

Model Number	SCC115060211
Brand	Victron Energy
Voltage	150 Volts
Current	60 Amps
Product Dimensions	3.74 x 9.84 x 7.28 inches
Item Weight	7.72 pounds
Material	Plastic
Charging Port Type	No external charging port

Included Components	Victron Energy SmartSolar MPPT Tr 150V 60 amp 12/24/36/48-Volt Solar Charge Controller (Bluetooth)
Manufacturer	Victron Energy
Made In	USA

WARRANTY AND SUPPORT

This product comes with a manufacturer's warranty. For detailed warranty information, please refer to the documentation included with your product or visit the official Victron Energy website.

For technical support, product inquiries, or to explore other Victron Energy products, please visit the official Victron Energy store or contact their customer service:

[Visit the Victron Energy Store on Amazon](#)

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