

Victron Energy PMP123021102

Victron Energy MultiPlus 3000VA 12-Volt Inverter Charger

INSTRUCTION MANUAL - MODEL PMP123021102

1. Introduction

The Victron Energy MultiPlus is a powerful combination of a true sine wave inverter, a sophisticated battery charger with adaptive charge technology, and a high-speed AC transfer switch in a single compact enclosure. This device is designed to provide reliable power for various applications, including RVs, marine vessels, and off-grid systems. Its unique PowerAssist feature prevents overload of limited AC sources, ensuring uninterrupted power supply.

2. Safety Information

WARNING: Incorrect installation can be hazardous. Please consult a licensed professional and follow all applicable electrical codes during installation. Ensure adequate ventilation during charging to prevent flames and sparks. This device is suitable for charging lead-acid or Li-ion batteries only. Disconnect the supply before making or breaking connections to the battery.

3. Product Overview

The MultiPlus unit integrates several key functionalities:

- **Pure Sine Wave Inverter:** Delivers high-quality AC power suitable for sensitive electronics.
- **Adaptive Charger:** Ensures optimal charging of various battery types.
- **PowerAssist Technology:** Prevents overload of limited AC sources by boosting power from the battery.
- **Uninterrupted AC Power (UPS Function):** Automatically takes over supply to connected loads in case of grid failure within 20 milliseconds.
- **Parallel Operation:** Up to 6 units can operate in parallel for higher power output. Three units can be configured for three-phase output.

IN ONE VIEW

Freedom. Powered by know-how.



A true sine wave inverter



Unique PowerAssist feature



Uninterrupted AC power (UPS function)



Virtually unlimited power thanks to parallel operation



Remote Monitoring and Control

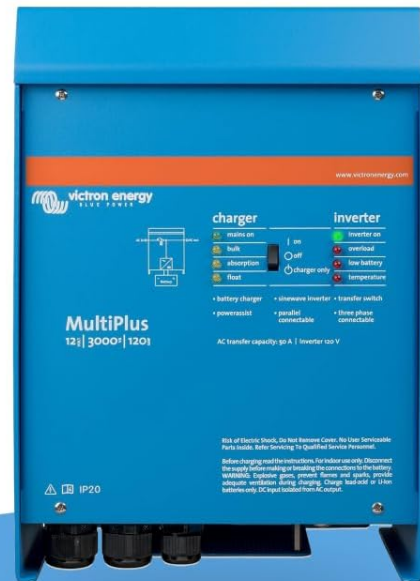


Image: Front view of the Victron Energy MultiPlus Inverter Charger, highlighting its compact design and clear labeling for charger and inverter status indicators.

DIMENSIONS

Compact size



Image: Diagram showing the compact dimensions of the MultiPlus unit, measuring 258 mm (10.2 inches) in width, 218 mm (8.6 inches) in depth, and 364 mm (14.3 inches) in height.

PARALLEL CONNECTION

Up to 6 units per phase

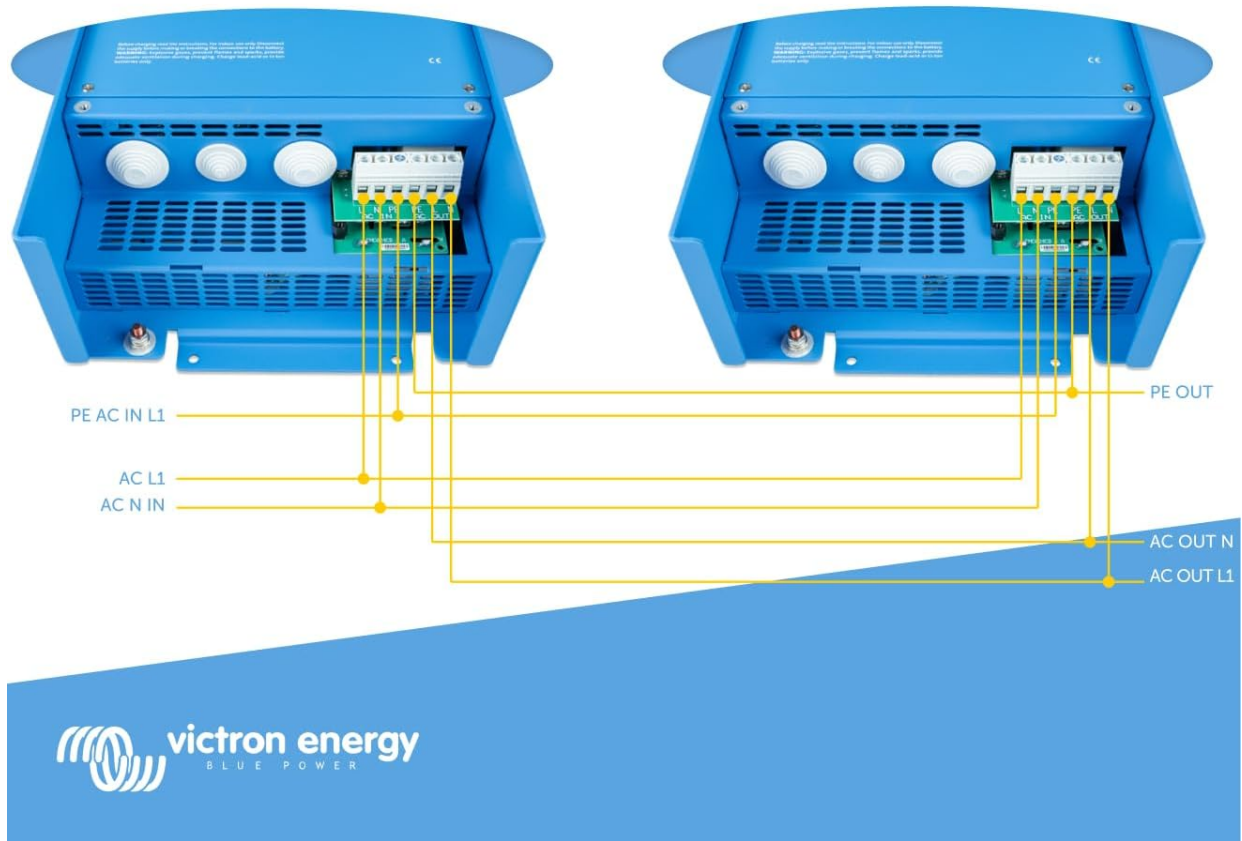


Image: Illustration demonstrating how two MultiPlus units can be connected in parallel for increased power output, showing the wiring for AC input and output.

4. Setup

The MultiPlus is designed for easy installation. A wall mount plate is included for secure mounting. Ensure all connections are made correctly and securely.

1. **Wall Mounting:** Secure the included wall mount plate to a sturdy surface. The MultiPlus unit has a hook at the back that fits into this plate.
2. **Battery Connections:** Connect the battery cables to the designated terminals. Use a torque wrench with an insulated box spanner to tighten connections to a maximum of 7 Newton-meters to prevent shorting.
3. **AC Mains and Load Connections:** Connect the AC mains input and AC load output cables to the appropriate terminals.
4. **Accessory Connections:** Connect any desired accessories, such as a Venus GX, Color Control GX, or current transformer, to the unit's ports.
5. **Power On:** Locate the switch at the bottom of the unit. Position '1' means on, '0' means off, and '2' means charger only.

Video: An introduction to the Victron Energy MultiPlus-II, demonstrating its features and providing a visual guide to the physical installation process, including wall mounting and cable connections.

5. Operating

The MultiPlus offers flexible operating modes and monitoring capabilities.

- **Operating Modes:** Select between 'On' (inverter and charger active), 'Off', or 'Charger Only' using the physical switch on the unit.
- **PowerAssist:** This feature automatically reduces battery charging when an overload is detected on the AC input, and can boost the AC output by drawing power from the battery when needed.
- **VictronConnect App:** Use the free VictronConnect app on your Android or iOS device to monitor, operate, and configure your MultiPlus. Connect via Bluetooth, USB, or WiFi/LAN/Internet (with a GX device).
- **VRM Portal:** For remote monitoring and management, connect your MultiPlus to the Victron Remote Management (VRM) portal via a GX device. This allows you to view system performance data and configure settings from anywhere with internet access.



Image: A graphic illustrating the four-stage adaptive charging process (Bulk, Absorption, Float, Storage) with BatterySafe mode, ensuring optimal battery health and longevity.

Video: A demonstration of the VictronConnect App, showing how to monitor and configure the MultiPlus inverter charger from a smartphone, including adjusting AC input current limits and viewing system status.

Video: An overview of the Victron Remote Management (VRM) portal, showcasing its capabilities for remote monitoring and management of Victron energy systems, including detailed performance data and alerts.

6. Maintenance

Regular maintenance ensures the longevity and optimal performance of your MultiPlus unit.

- **Firmware Updates:** Keep the device firmware updated using the VictronConnect app. Note that settings may be lost during firmware updates, so back up your configuration beforehand.
- **Cleaning:** Periodically clean the unit's exterior and ventilation openings to ensure proper airflow and prevent overheating.
- **Connection Checks:** Regularly inspect all electrical connections for tightness and signs of corrosion.

Video: A step-by-step guide on how to update the firmware of a Victron MultiPlus or Quattro device using an Android phone, an OTG adapter, and an MK3 interface, emphasizing the importance of backing up settings.

7. Troubleshooting

If you encounter issues with your MultiPlus, consider the following general troubleshooting steps:

- **No Power Output:** Check battery connections, AC input source, and the unit's power switch. Ensure no overload or low battery conditions are indicated.
- **Charging Issues:** Verify the AC input is active and the charger mode is correctly selected. Check battery health and connections.
- **Overload Indication:** Reduce the connected load. The PowerAssist feature should help manage temporary overloads.
- **Temperature Warning:** Ensure adequate ventilation around the unit. Clear any obstructions from air vents.

For persistent issues, refer to the detailed troubleshooting section in the complete product manual available on the Victron Energy website or contact customer support.

8. Specifications

Feature	Detail
Product Dimensions	10.2 x 8.6 x 14.3 inches
Item Weight	39.4 pounds
Item Model Number	PMP123021102
Brand	Victron Energy
Recommended Uses	Boat, Camping, Home, Recreational Vehicle
Power Source	Battery Powered
Wattage	3000 watts
Battery Capacity	120 amp
Date First Available	June 7, 2011

9. Warranty

Victron Energy products are designed for reliability and come with a manufacturer's warranty. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official Victron Energy website.

10. Support

For further assistance, technical support, or to find authorized service centers, please visit the official Victron Energy website at www.victronenergy.com. You can also find additional resources, FAQs, and community forums there.