

Walfront me791gt8nu-12

Walfront Single Phase Voltage Protector and Energy Meter (80A) Instruction Manual

Model: Walfrontme791gt8nu-12

1. PRODUCT OVERVIEW

The Walfront Single Phase Voltage Protector and Energy Meter is a multi-functional device designed to protect electrical circuits from overvoltage, undervoltage, and overcurrent conditions. It features an auto-recovery function, automatically restoring power once fault conditions return to normal. The integrated display provides real-time voltage, current, and power readings.



Figure 1: Front view of the Walfront Voltage Protector, highlighting the LCD display, undervoltage, overvoltage, and overcurrent indicators, as well as the 'SET' and adjustment buttons.

Key Features:

- **Auto-Recovery Function:** Automatically restores power after undervoltage or overcurrent faults are resolved.

- **Clear Display:** LCD shows real-time voltage, current, and power.
- **Multiple Protections:** Includes overvoltage, undervoltage, and overcurrent protection.
- **Anti-Thunder Protection:** Enhances device stability and safety.
- **Durable Construction:** Made from high-quality, flame-retardant materials for extended service life.



Figure 2: Side view illustrating the flame-retardant shell of the device, contributing to its durability and safety.

2. SETUP AND INSTALLATION

This device is designed for DIN rail mounting in an electrical panel. Proper installation by a qualified electrician is recommended to ensure safety and correct functionality.

2.1 Wiring Diagram

Connect the incoming neutral wire to the 'N' terminal and the incoming live wire to the 'L' terminal on the top of the device. Connect the outgoing neutral wire to the 'N' terminal and the outgoing live wire to the 'L' terminal on the bottom of the device. Ensure all connections are secure.

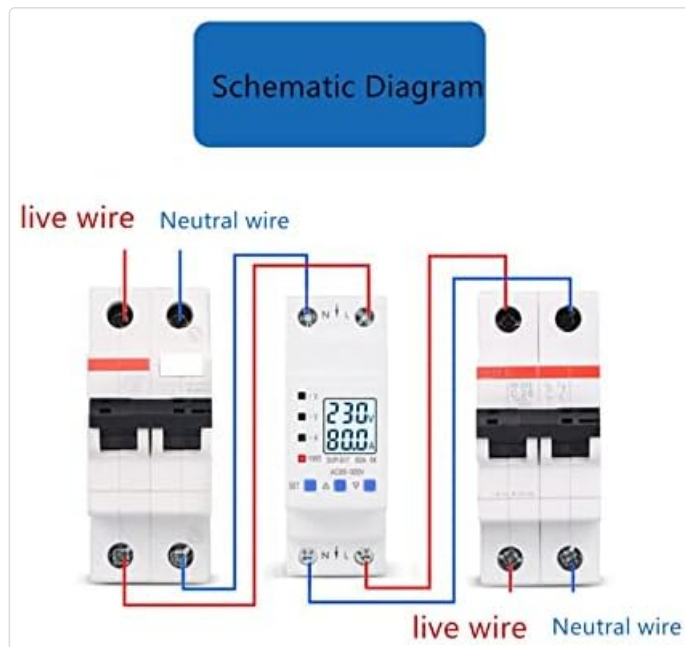


Figure 3: Wiring schematic. The device is installed between an incoming circuit breaker and an outgoing circuit breaker, with live and neutral wires connected to the respective 'L' and 'N' terminals.

2.2 Mounting

The device is designed for standard 35mm DIN rail mounting. Snap the device onto the DIN rail securely within your electrical enclosure.













			
Electricity Metering	Multiple Protection	Malicious Payload Protection	High Precision $\pm 1v$ Error
			
DC Switching Technology	Switching Power Supply Design	Flame Retardant Enclosure	Wide Voltage
			
Backlight Mode	Lightning Protection	Power Failure Protection Record	Cycle Switch Mode

Figure 4: The device mounted on a DIN rail within an electrical panel, demonstrating a typical installation scenario.

3. OPERATING INSTRUCTIONS

Upon successful installation and power-up, the LCD will display real-time voltage and current. Use the 'SET' button and the up/down arrow buttons to navigate and adjust settings.

3.1 Display Indicators

- **<V**: Undervoltage indicator.
- **>V**: Overvoltage indicator.
- **>A**: Overcurrent indicator.
- **POWER**: Power indicator.
- **LCD**: Displays voltage (V), current (A), and power (W).

3.2 Menu Settings and Parameters

Press the 'SET' button to enter the menu. Use the up (▲) and down (▼) arrow buttons to navigate through the settings and adjust values. Press 'SET' again to confirm a selection or value.

- **DE (Device Mode)**: Controls the operational mode of the device.
 - **DE1**: Overvoltage, undervoltage, and overcurrent protection with automatic switch off/on.
 - **DE2**: Overvoltage, undervoltage, and overcurrent protection with automatic switch off/manual switch on.
 - **DE3**: Overvoltage, undervoltage, and overcurrent protection disabled; output load switch remains off.
 - **DE4**: Overvoltage, undervoltage, and overcurrent protection disabled; output load switch remains on.
 - **DE5**: Overvoltage, undervoltage, and overcurrent protection disabled; output load switch cycles on/off (unit: seconds).
- **Bg (Backlight Mode)**:
 - **Mode 1**: Backlight always on.
 - **Mode 2**: Backlight illuminates for 30 seconds after a button is pressed.
- **SS (Start-up Delay)**: Delay time for load switch-on after input power is applied.
- **Uo (Overvoltage Protection Value)**: Sets the upper voltage limit.
- **UoH (Overvoltage Recovery Value)**: Sets the voltage at which the device recovers after an overvoltage event.
- **UL (Undervoltage Protection Value)**: Sets the lower voltage limit.
- **ULH (Undervoltage Recovery Value)**: Sets the voltage at which the device recovers after an undervoltage event.
- **SU (Voltage Fault Judgment Time)**: Time duration for judging overvoltage/undervoltage faults.
- **Io (Overcurrent Protection Value)**: Sets the upper current limit.
- **Ic (Malignant Load Protection Value)**: Pure Resistive Load limit.
- **SI (Overcurrent Fault Judgment Time)**: Time duration for judging overcurrent faults.
- **SH (Recovery Delay)**: Delay time setting for load recovery after an output load switch-off protection event.
- **Op (Cycle Switch Off Delay)**: Delay time set for cycle switch off under function mode 5.
- **CL (Cycle Switch On Delay)**: Delay time set for cycle switch on under function mode 5.
- **Er1 (Error Records)**: Displays the last five records of protection reasons.

4. MAINTENANCE

The Walfront Voltage Protector is designed for minimal maintenance. However, regular checks can ensure optimal performance and longevity.

- **Cleaning**: Keep the device clean and free from dust. Use a dry, soft cloth for cleaning. Do not use liquid

cleaners.

- **Connection Checks:** Periodically inspect wiring connections to ensure they remain tight and free from corrosion. Loose connections can lead to overheating or intermittent operation.
- **Environmental Conditions:** Ensure the device is operated within its specified environmental conditions (temperature, humidity) to prevent damage.

5. TROUBLESHOOTING

If you encounter issues with your Walfront Voltage Protector, refer to the following common troubleshooting steps:

- **Device Not Powering On:**
 - Check the incoming power supply.
 - Verify all wiring connections are correct and secure.
 - Ensure the main circuit breaker supplying the device is ON.
- **No Output Power:**
 - Check the display for active protection indicators (<V, >V, >A). If active, resolve the underlying voltage or current issue.
 - Review the 'DE' (Device Mode) setting. Ensure it is not set to DE3 (output off) or DE5 (cycling).
 - If in DE2 mode, a manual reset might be required after a fault.
 - Check 'Er1' for recent protection reasons.
- **Incorrect Readings:**
 - Ensure the device is correctly wired and that the load is within its specified limits.
 - Verify the device is the correct amperage (e.g., 80A model).
- **Settings Not Saving:**
 - Ensure you press the 'SET' button to confirm changes after adjusting a parameter.

6. SPECIFICATIONS

Specification	Value
Brand	Walfront
Model	me791gt8nu-12
Current Rating	80 Amps
Circuit Breaker Type	Standard
Mounting Type	DIN Rail Mount
Number Of Poles	1
Voltage	AC 85-300 Volts

6.1 Dimensions

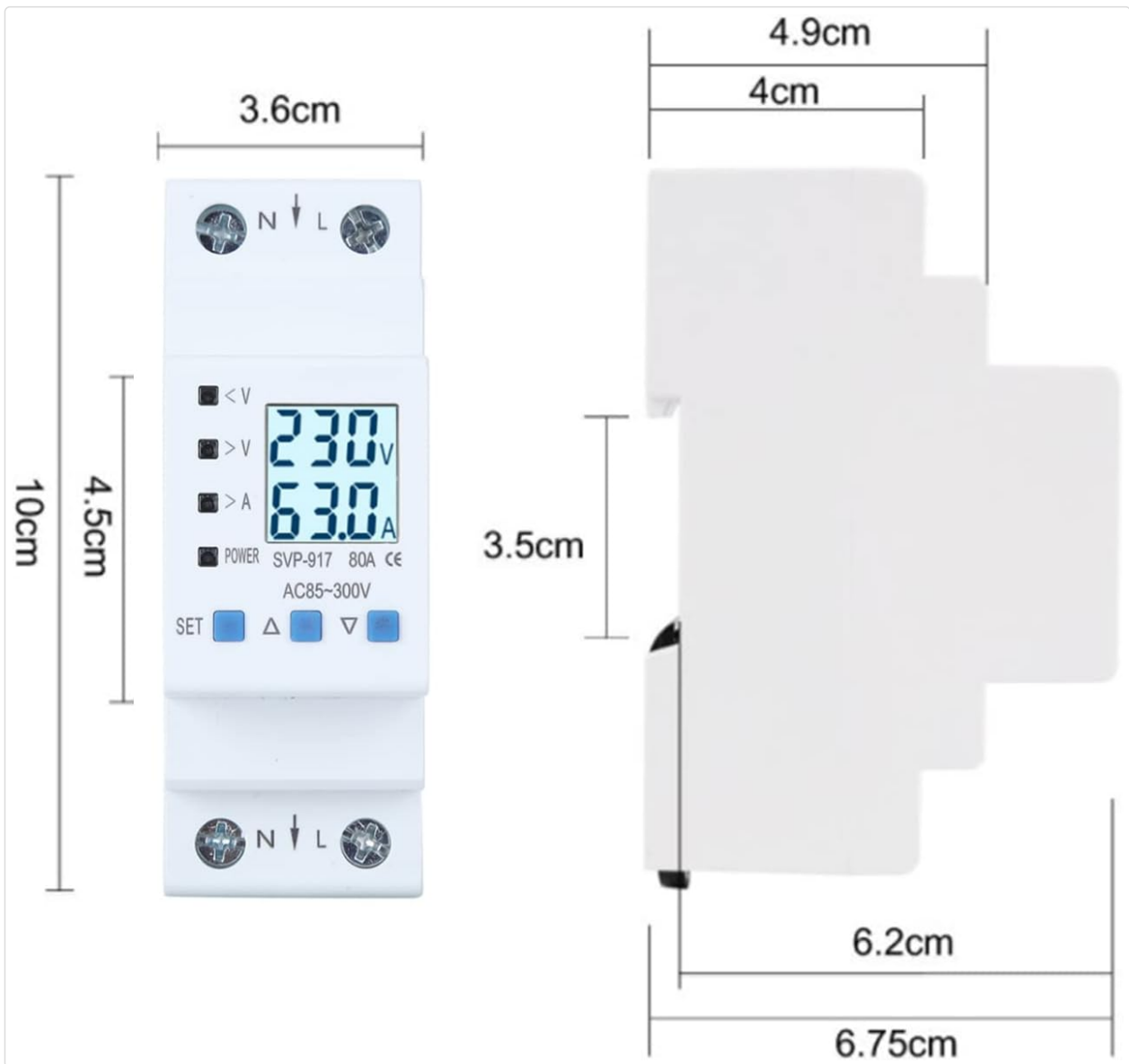


Figure 5: Device dimensions, including front and side views with measurements in centimeters.

6.2 Available Models

The Walfront Voltage Protector is available in different current ratings.

Optional Style: 63A, 80A



Figure 6: Optional styles available, including 63A and 80A versions of the device.

7. WARRANTY INFORMATION

Walfront products are manufactured to high-quality standards. For specific warranty details, please refer to the product packaging or contact Walfront customer support. Typically, a limited warranty covers defects in materials and workmanship under normal use.

8. CUSTOMER SUPPORT

For technical assistance, troubleshooting, or inquiries regarding your Walfront Voltage Protector, please visit the Walfront store on Amazon or contact their customer service directly. Contact information can usually be found on the product packaging or the official Walfront brand page.

Walfront Store Link: [Visit the Walfront Store on Amazon](#)