Fafeicy JMRD-PS2X

Fafeicy Automatic Transfer Switch 3 Phase Voltage Protector

Model: JMRD-PS2X

Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Fafeicy Automatic Transfer Switch (ATS) 3 Phase Voltage Protector, Model JMRD-PS2X. This device is designed to protect electrical equipment from over-voltage, under-voltage, and over-current conditions by automatically switching between power phases to ensure a stable power supply. Please read this manual thoroughly before installation and use to ensure safe and efficient operation.

Safety Information

Warning: Electrical installation and maintenance should only be performed by qualified personnel. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- Always disconnect power before installing or servicing the device.
- Ensure all wiring connections are secure and comply with local electrical codes.
- Do not operate the device if it appears damaged.
- Keep the device away from moisture and extreme temperatures.
- Verify voltage and current ratings before connecting to any circuit.

Product Overview

The Fafeicy JMRD-PS2X is a 3-phase automatic transfer switch and voltage protector equipped with an LED display for real-time monitoring. It is designed to safeguard sensitive electrical equipment in various applications, including home use, data centers, and industrial environments, by providing reliable power protection for generators, inverters, or grid connections.

Figure 1: Front view of the Fafeicy Automatic Transfer Switch, showing the LED display and input/output terminals.

Key features include:

- **Automatic Voltage Switching:** Detects over-voltage, under-voltage, or over-current conditions and automatically switches to a stable phase. Returns to the priority phase once normal conditions are restored.
- **Real-Time Monitoring:** A 4-digit LED display provides clear and accurate readings of voltage and current status.
- **Adjustable Protection Settings:** Customizable over-voltage, under-voltage, and over-current thresholds to suit specific application requirements.
- **DIN Rail Installation:** Designed for secure and easy mounting on a standard 35mm DIN rail.
- **Durable Construction:** Made from PC flame-retardant material for enhanced safety and longevity.

Specifications

Parameter	Value

Parameter	Value
Item Type	Automatic Transfer Switch
Product Material	PC Flame Retardant
Power Supply Terminal	N, L1, L2, L3
Rated Frequency	50/60HZ
Working Voltage Range	80-350VAC
Rated Current	63A
Over Voltage Setting Range	110-300V
Under Voltage Setting Range	80-220V
Maximum Working Voltage	350V
Over Current Range	1-100A
Priority Phase	L1
Measurement Error	1%
Guard Recovery Delay	30s (set 1-600s)
Mechanical Life	$1x10^6$
Electrical Life	$1x10^5$
Installation Method	35mm DIN Rail
Operating Temperature	-25℃ to 50℃
Altitude	≤2000m
Allowable Relative Humidity	≤50% at 40℃ (non-condensing)
Wire Size	$0.5\text{-}1mm^2$
Dimensions (L x W x H)	Approx. 90 x 66 x 95mm / 3.5 x 2.6 x 3.7in
International Protection Rating	IP20
Specification Met	ISO 9001

Figure 2: Product dimensions for installation planning.

Setup and Installation

The Fafeicy JMRD-PS2X is designed for easy installation on a standard 35mm DIN rail. Ensure power is disconnected before proceeding with installation.

1. **Mounting:** Securely attach the device to a 35mm DIN rail. The sliding adjustment mechanism allows for flexible placement within electrical panels, RV power centers, or solar installations.
2. **Wiring:** Connect the power supply terminals (N, L1, L2, L3) to the input side and the load to the output side. Refer to the wiring diagram below for correct connections.

Figure 3: Key installation features: Rail Installation Buckle (01), Side Parameter Diagram (02), and Large Terminal Post (03).

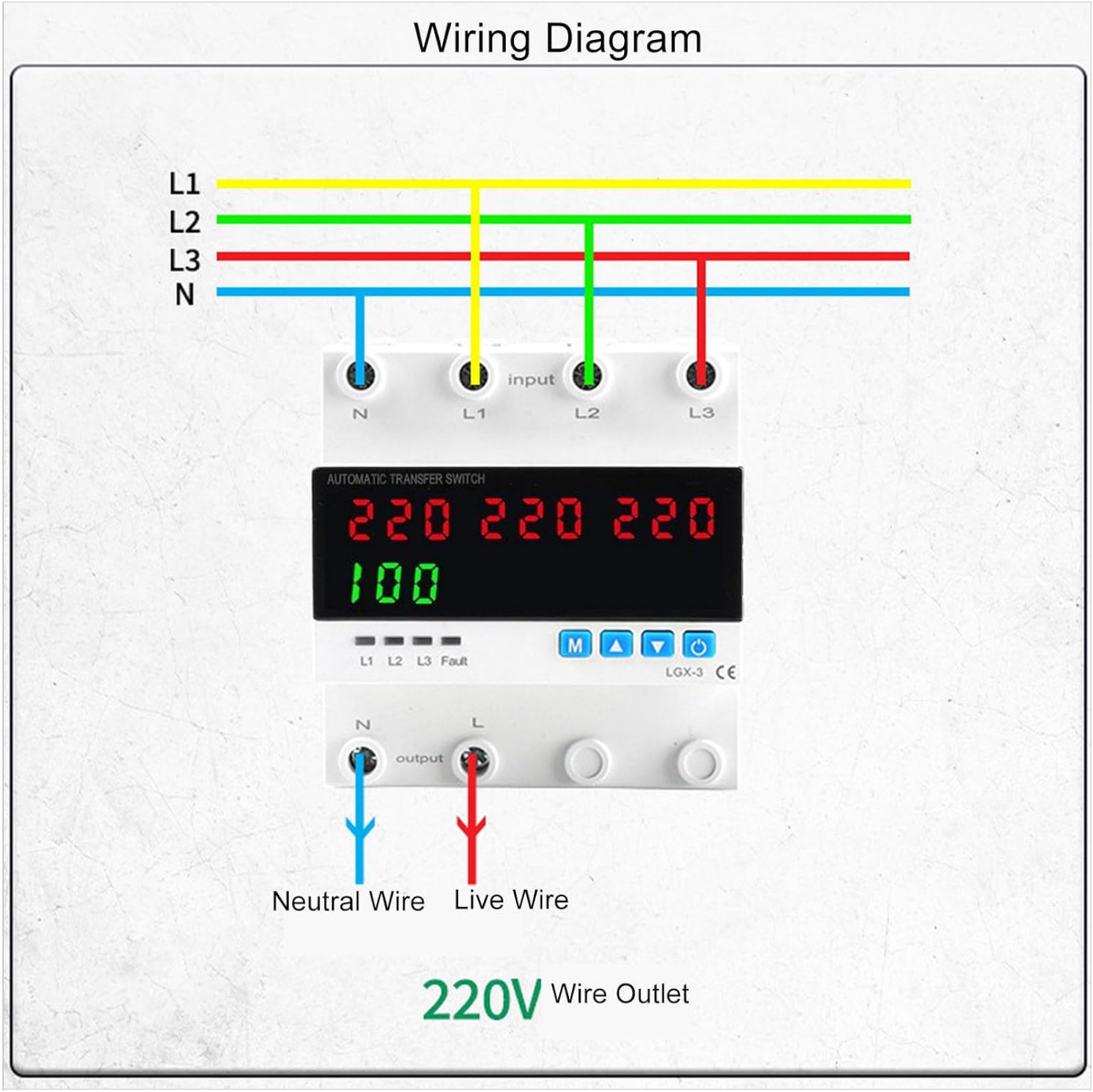

Figure 4: Wiring diagram showing connections for Neutral Wire (N), Live Wires (L1, L2, L3) for input and output.

3. **Power On:** After all connections are verified, restore power to the circuit. The LED display will illuminate.

Operating Instructions

The device provides real-time monitoring and automatic protection. The LED display shows current voltage and current status for each phase.

Figure 5: Detailed view of the panel display, indicating L1, L2, L3 voltage displays, current display, output indicators, fault indicator, and control buttons (ON/OFF, digit -, digit +, parameter setting).

Real-Time Monitoring

The bright 4-digit LED display continuously shows the voltage for each phase (L1, L2, L3) and the current. This allows for immediate assessment of power conditions.

Figure 6: Example of the real-time working current and voltage display.

Automatic Protection and Switching

When an over-voltage, under-voltage, or over-current condition is detected in the current phase, the device automatically switches to another stable phase to protect connected electrical equipment. Once the power supply returns to normal, the device automatically switches back to the priority phase (default L1).

- Default under-voltage tripping: ≤170V
- Default over-voltage tripping: ≥270V
- Guard recovery delay: 30 seconds (adjustable from 1-600 seconds)

Adjusting Parameters

The device allows for adjustment of over-voltage, under-voltage, and over-current thresholds. Refer to the detailed user manual included in the package for specific instructions on how to access and modify these settings using the control buttons on the front panel (digit -, digit +, parameter setting).

Figure 7: Side view displaying model number JMRD-PS2X and default voltage protection settings.

Maintenance

The Fafeicy Automatic Transfer Switch is designed for minimal maintenance. Regular checks can help ensure optimal performance and longevity.

- **Cleaning:** Periodically clean the exterior of the device with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Connection Checks:** Annually inspect all wiring connections to ensure they remain tight and free from corrosion.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent damage.
- **Firmware Updates:** No user-serviceable firmware updates are typically required for this device.

Troubleshooting

If you encounter issues with your Fafeicy Automatic Transfer Switch, refer to the following common troubleshooting steps:

- **Device Not Powering On:**
  - Check the main power supply to ensure it is active.
  - Verify all input wiring connections are correct and secure.
  - Ensure the operating voltage is within the specified range (80-350VAC).
- **No Output Power:**
  - Check the LED display for fault indicators or abnormal voltage/current readings.
  - Confirm that the device has not tripped due to over-voltage, under-voltage, or over-current. Allow for the guard recovery delay if a trip occurred.
  - Verify output wiring connections.
- **Incorrect Readings on LED Display:**
  - Ensure the device is properly grounded.
  - Check for any loose connections that might affect measurement accuracy.
  - If the error persists and is significant, contact support.
- **Frequent Switching:**
  - This may indicate unstable incoming power. Monitor the power source.
  - Review and adjust the over-voltage and under-voltage settings if necessary, ensuring they are appropriate for your power supply conditions.

For issues not covered here, or if troubleshooting steps do not resolve the problem, please contact Fafeicy customer support.

Warranty and Support

Fafeicy products are manufactured to high-quality standards. For specific warranty details, please refer to the warranty card included with your product or contact Fafeicy customer service directly. Keep your purchase receipt as proof of purchase.
Customer Support: For technical assistance, troubleshooting, or warranty inquiries, please visit the official Fafeicy store on Amazon or contact their customer support channels as provided with your product documentation.
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Question

Example: How do I reset this device or fix this error?

Details

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

Submit question