DEWIN LT1-20

DeWin LT1-20 2P Modular Surge Protection Device User Manual

Model: LT1-20 | Brand: DEWIN

1. Introduction

The DeWin LT1-20 is a 2-pole modular surge protection device (SPD) designed to safeguard electrical systems and equipment from transient overvoltages caused by lightning strikes and switching operations. This device features a plug-in module design for easy maintenance and replacement. It is suitable for installation in various electrical environments, providing reliable protection with high precision components.

2. Safety Information

WARNING: Installation and maintenance of this device must be performed by qualified personnel only. Always ensure the power supply is disconnected before any installation, wiring, or maintenance work to prevent electric shock or damage to the device and system.

- Ensure proper grounding according to local electrical codes.
- Do not operate the device if it appears damaged.
- Verify correct voltage and current ratings before installation.
- Wear appropriate personal protective equipment (PPE) during installation and maintenance.

3. Product Features

- **Advanced Technology:** Features high-end HD glass with fine grinding and polishing treatment for durability and clarity.
- **Powerful Protection:** Internal components utilize precise, high-accuracy chips with strong conductivity for effective lightning protection.
- **Modular Plug-in Design:** Allows for simple and easy maintenance, enabling replacement of the protector without power failure, reducing maintenance costs.
- **High Safety Factor:** Manufactured under strict quality control and assurance, ensuring reliable and safe operation.
- **Excellent Workmanship:** Designed for optimal performance and reliability.

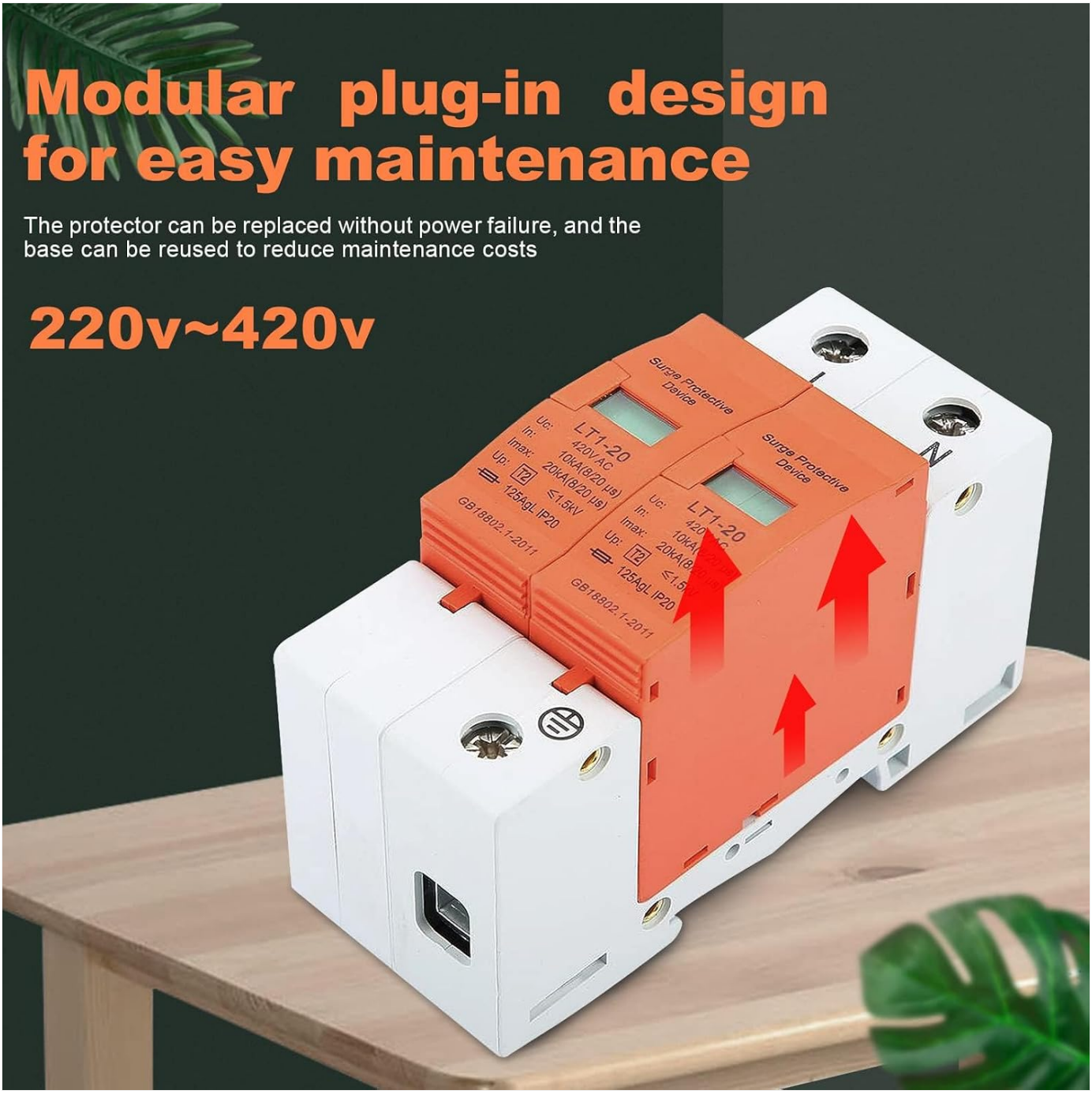


Figure 1: Front view of the DeWin LT1-20 Surge Protection Device, highlighting its modular design and clear labeling.



Figure 2: The modular plug-in design of the LT1-20, illustrating how the protection modules can be easily inserted and removed for maintenance.

4. Specifications

Parameter	Value
Type of Device	Surge Protection Device (SPD)
Model Number	LT1-20
Nominal Discharge Current (In)	10 kA (8/20 µs)
Maximum Discharge Current (Imax)	20 kA (8/20 µs)
Rated Voltage (Uc)	420 V AC

Parameter	Value
Voltage Protection Level (Up)	≤ 1.5 kV
Number of Poles	2P
Installation Method	DIN Rail Installation
Arc Extinguishing Medium	Magnetic Blowout
Wiring Method	Three-phase 4-wire (typical application)
Protection Type	Level 2
Response Time	0.2 seconds
Weight	Approximately 200 g

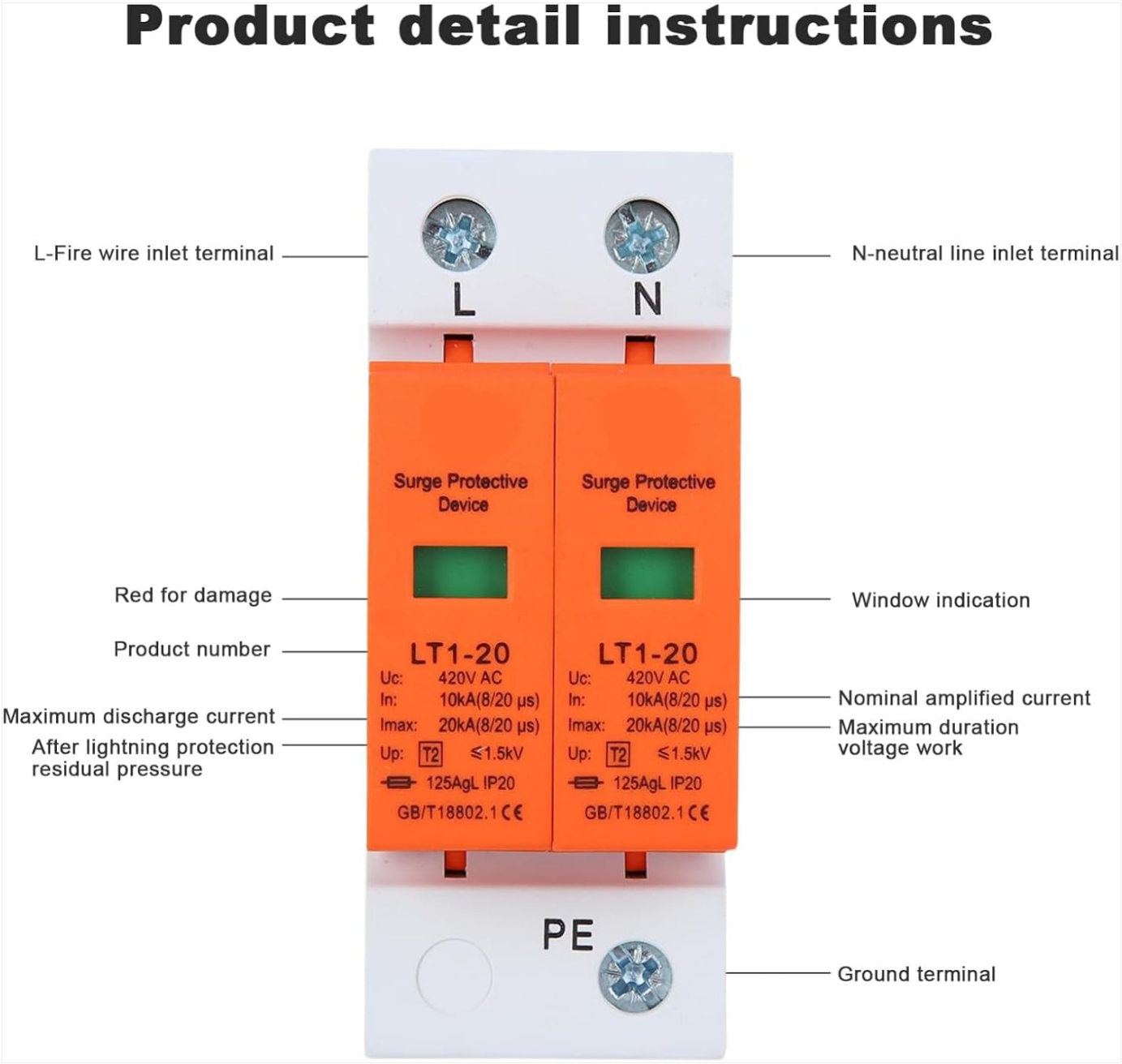


Figure 3: Detailed view of the LT1-20 showing product number, nominal amplified current, maximum discharge current, residual pressure after lightning protection, and window indication.

5. Setup and Installation

The DeWin LT1-20 surge protection device is designed for DIN rail mounting. For electrical maintenance and installation, it is essential to ensure that the operator has the necessary qualifications for electrical work and takes appropriate protective measures, including powering off the system and ensuring proper insulation.

5.1 Mounting

Mount the SPD onto a standard DIN rail within your electrical panel. Ensure it is securely clipped into place. The device features a yellow clip at the bottom for easy mounting and removal.

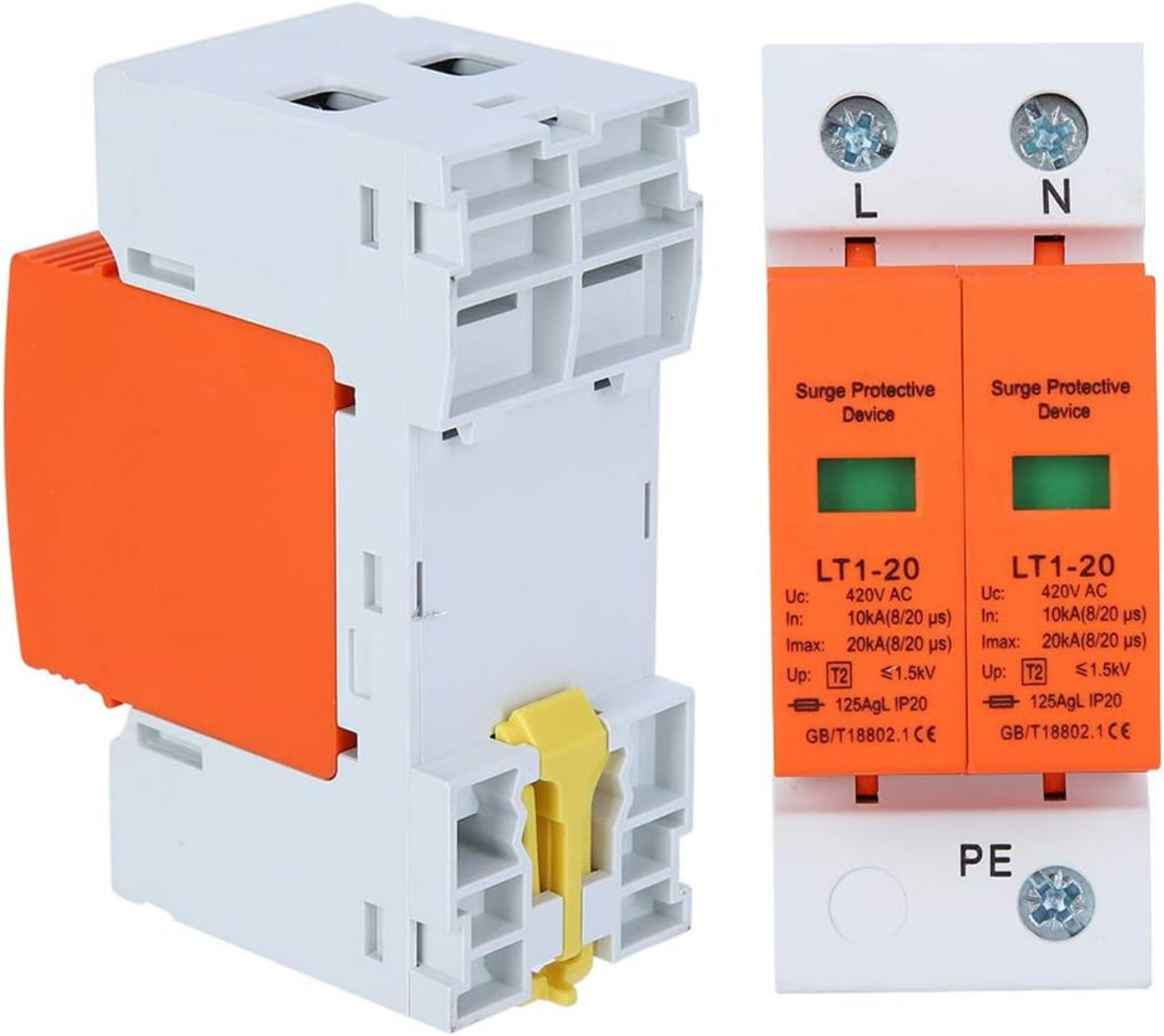


Figure 4: Side view of the LT1-20, showing the yellow DIN rail mounting clip at the bottom.

5.2 Wiring

Connect the surge protector into your electrical system as shown in the wiring diagram. The device is typically connected in parallel with the main power supply or downstream of a circuit breaker.

1. Connect the Line (L) terminal to the live wire.
2. Connect the Neutral (N) terminal to the neutral wire.
3. Connect the Protective Earth (PE) terminal to the ground bar.

Ensure all connections are tight and secure.

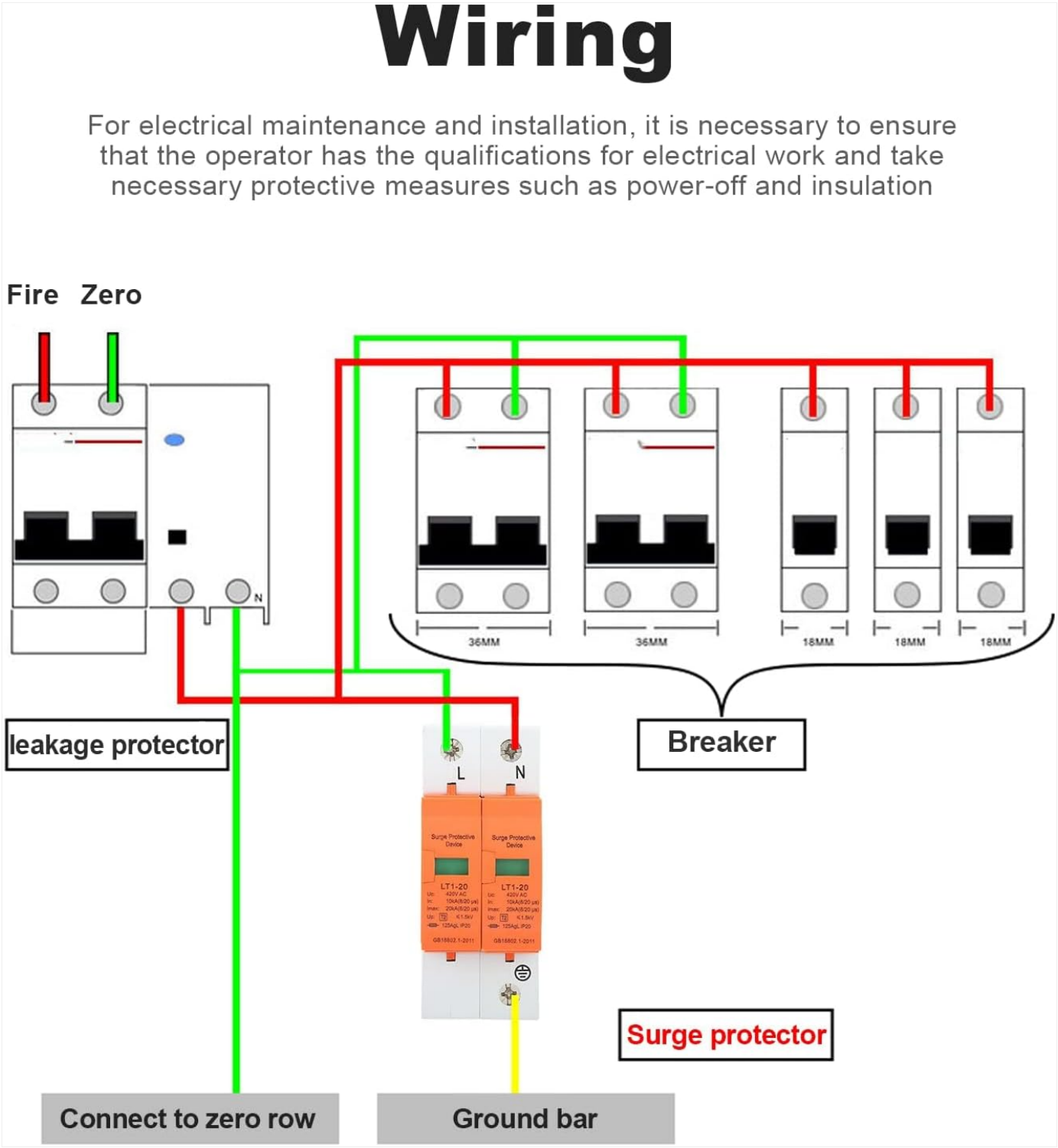


Figure 5: Wiring diagram illustrating the connection of the surge protector (Surge protector) with a leakage protector and breakers in a typical electrical setup. The L (Live), N (Neutral), and PE (Ground) connections are clearly indicated.

6. Operation

The DeWin LT1-20 surge protection device operates automatically to protect your electrical system from overvoltages. It features a visual indicator window on each module to show its operational status.

- **Green Indicator:** Indicates that the surge protection module is functioning correctly and providing protection.
- **Red Indicator:** Indicates that the surge protection module has been activated due to an overvoltage event and needs replacement.



Figure 6: Front view of the LT1-20, showing the status indicator windows on each module. A green window signifies normal operation, while a red window indicates a fault or activation.

7. Maintenance

The modular design of the DeWin LT1-20 allows for easy maintenance and replacement of individual protection modules without needing to replace the entire device base. This simplifies upkeep and reduces costs.

- Regularly inspect the indicator windows on the modules.
- If an indicator window shows **red**, the corresponding module has been activated and needs to be replaced.
- To replace a module, ensure the power supply is disconnected. Carefully unclip the faulty module and insert a new, compatible DeWin LT1-20 replacement module.



Figure 7: Angled view of the LT1-20, demonstrating the separate, replaceable modules that plug into the main base unit.

8. Troubleshooting

Problem	Possible Cause	Solution
Indicator window shows red	The surge protection module has been activated by an overvoltage event (e.g., lightning strike).	Replace the faulty module. Ensure power is off before replacement.
No protection, even with green indicator	Incorrect wiring, loose connections, or internal fault.	Verify all wiring connections are secure and correct. If the issue persists, consult a qualified electrician or contact customer support.
Device does not fit DIN rail	Incorrect DIN rail type or improper mounting technique.	Ensure you are using a standard 35mm DIN rail. Review mounting instructions and ensure the clip is properly engaged.

9. Warranty and Support

Warranty information for the DeWin LT1-20 Surge Protection Device was not provided in the product data. For specific warranty details, please refer to the product packaging or contact your point of purchase.
For technical support or inquiries, please contact DEWIN customer service through their official channels or the retailer from whom the product was purchased.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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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