

Wengart WG-15T (3+NPE)

Wengart WG-15T (3+NPE) Surge Protection Device User Manual

Model: **WG-15T (3+NPE)** | Brand: **Wengart**

1. PRODUCT OVERVIEW

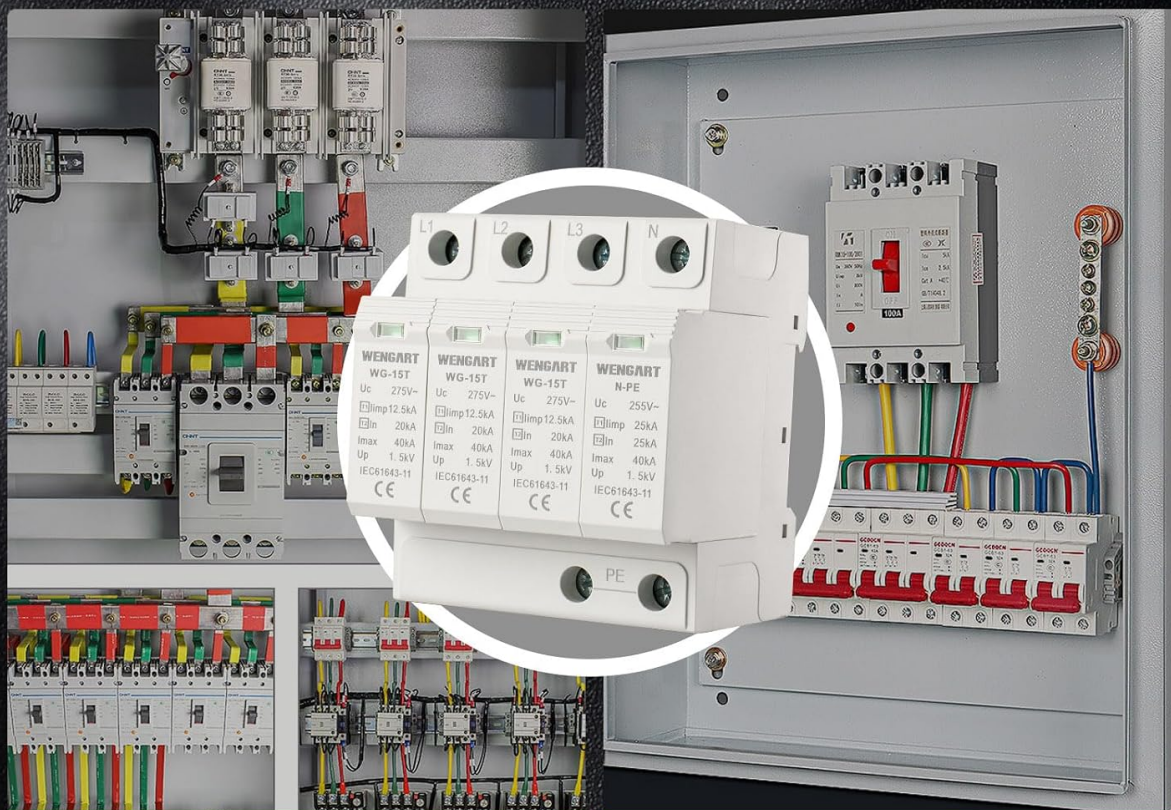
The Wengart WG-15T (3+NPE) is a comprehensive surge protection device designed to safeguard electrical systems and connected equipment from lightning strikes and various transient overvoltages. This device integrates the functions of a surge arrester and a surge protector into a single unit, providing robust protection for household electrical installations.

When the electrical system experiences a lightning overvoltage, the arrester component activates first to suppress the surge and divert it to the earth. If the initial arrester action does not fully dissipate the overvoltage, any remaining surge exceeding the system's protection level is directed to the surge protection component. This component then further reduces the overvoltage to a safe range before releasing it to the earth, thereby protecting the system from damage.

The WG-15T offers T1+T2 level protection, making it an efficient and economical solution for environments requiring protection against both direct lightning strikes and non-lightning induced overvoltages. It effectively shields electrical systems and appliances from sudden peak voltages.

APPLICATION AREA

Suitable for many occasions



Distribution Cabinet

JP Cabinet

Figure 1: Typical installation environments for the Wengart WG-15T surge protection device, showing it integrated within both a standard distribution cabinet and a JP cabinet, highlighting its versatility for various electrical system setups.

2. KEY FEATURES

- **T1+T2 Level Protection:** Provides comprehensive protection against both direct lightning strikes and transient overvoltages.
- **High Discharge Capacity:** Ensures effective suppression of significant surge currents.
- **Visual Indicator Window:** Features red and green indicator lights for immediate status feedback.
- **DIN-Rail Mounting:** Designed for easy installation in standard electrical distribution boxes.
- **Replaceable Modules:** Allows for simple and cost-effective replacement of individual protection modules.
- **Durable Construction:** Made with flame-retardant materials, copper accessories, and precision chips for good conductivity and high accuracy.

PRODUCT FEATURE



24-Hour
Guard



Quick
Response



Fault
Indication



Heat
Resistant



Cold
Tolerance



Fire
Resistance

Figure 2: Key features of the Wengart WG-15T surge protection device, including continuous 24-hour protection, rapid response, visual fault indication, and robust resistance to heat, cold, and fire.

3. SETUP AND INSTALLATION

The Wengart WG-15T surge protection device is designed for DIN-rail mounting and should be installed in conjunction with a circuit breaker in the distribution box. Ensure all power is disconnected before beginning installation.

3.1 Wiring Instructions

1. Mount the device securely onto a standard DIN rail within your electrical distribution cabinet.
2. Connect the incoming phase lines (L1, L2, L3) and neutral line (N) to the corresponding input terminals on the surge protector.
3. Connect the protective earth (PE) terminal of the device to the main grounding bar of your electrical system.
4. Connect the output terminals of the surge protector to the protected electrical circuit or device.
5. Ensure all connections are tight and secure. The recommended wiring capacity for hard wiring is 10-25 mm², and for flexible wiring is 10-16 mm². The stripping length for wires should be approximately 10 mm.

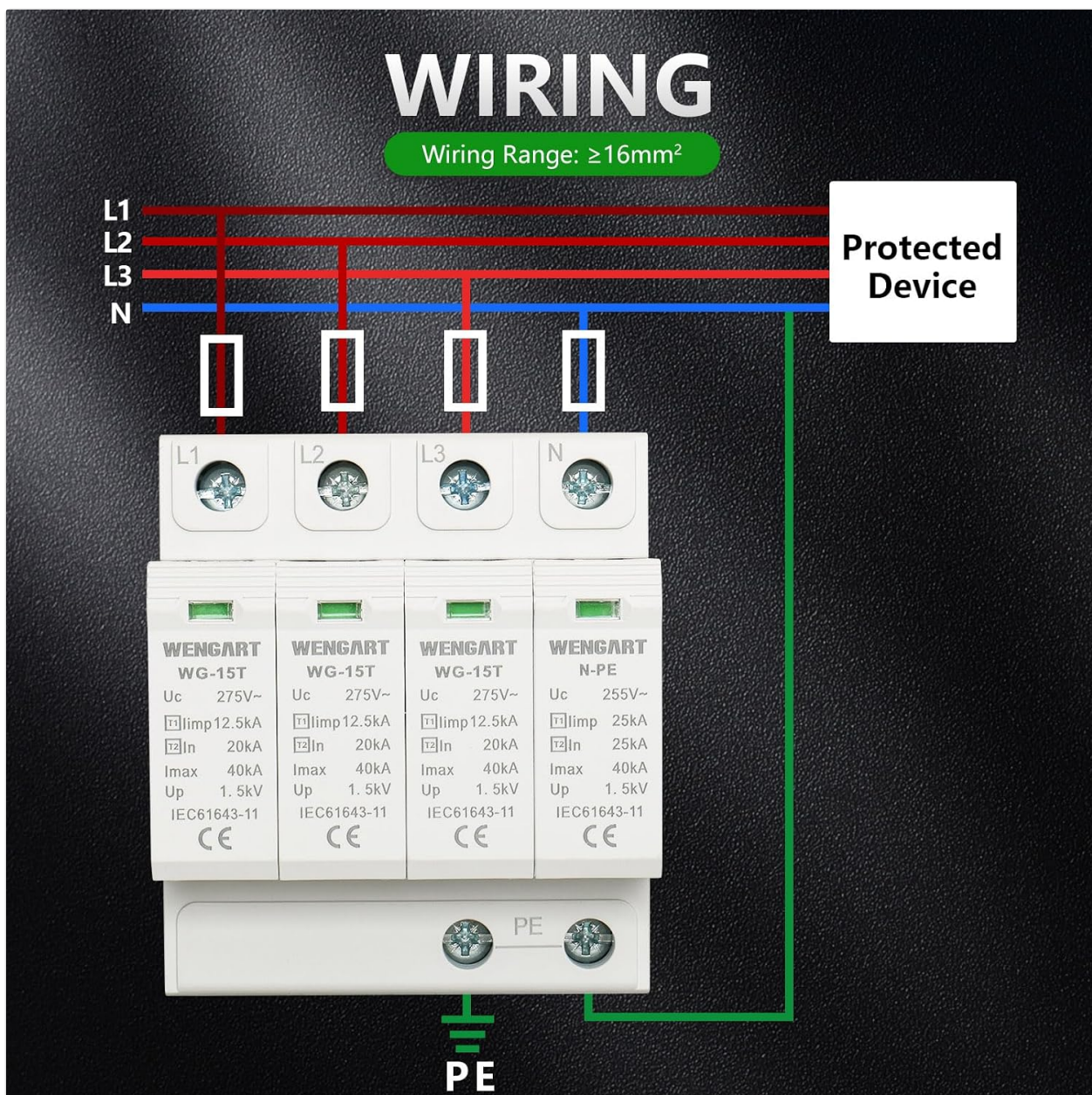


Figure 3: Correct wiring procedure for the Wengart WG-15T surge protection device, showing connections for L1, L2, L3, N, and PE to the protected electrical device. Recommended wiring range is $\geq 16\text{mm}^2$.



Figure 4: General view of the Wengart WG-15T surge protection device, illustrating its compact design suitable for DIN-rail mounting.

4. OPERATING INSTRUCTIONS

Once installed and powered, the Wengart WG-15T operates automatically to protect your electrical system. The device features visual indicator windows to display its operational status.

4.1 Status Indicators

- **Green Indicator:** A green light in the indicator window signifies that the surge protection module is functioning correctly and providing active protection.
- **Red Indicator:** A red light in the indicator window indicates that the surge protection module has failed or reached its end of life due to a significant surge event. In this state, the module needs to be replaced to restore full protection.

PRODUCT ANALYSIS

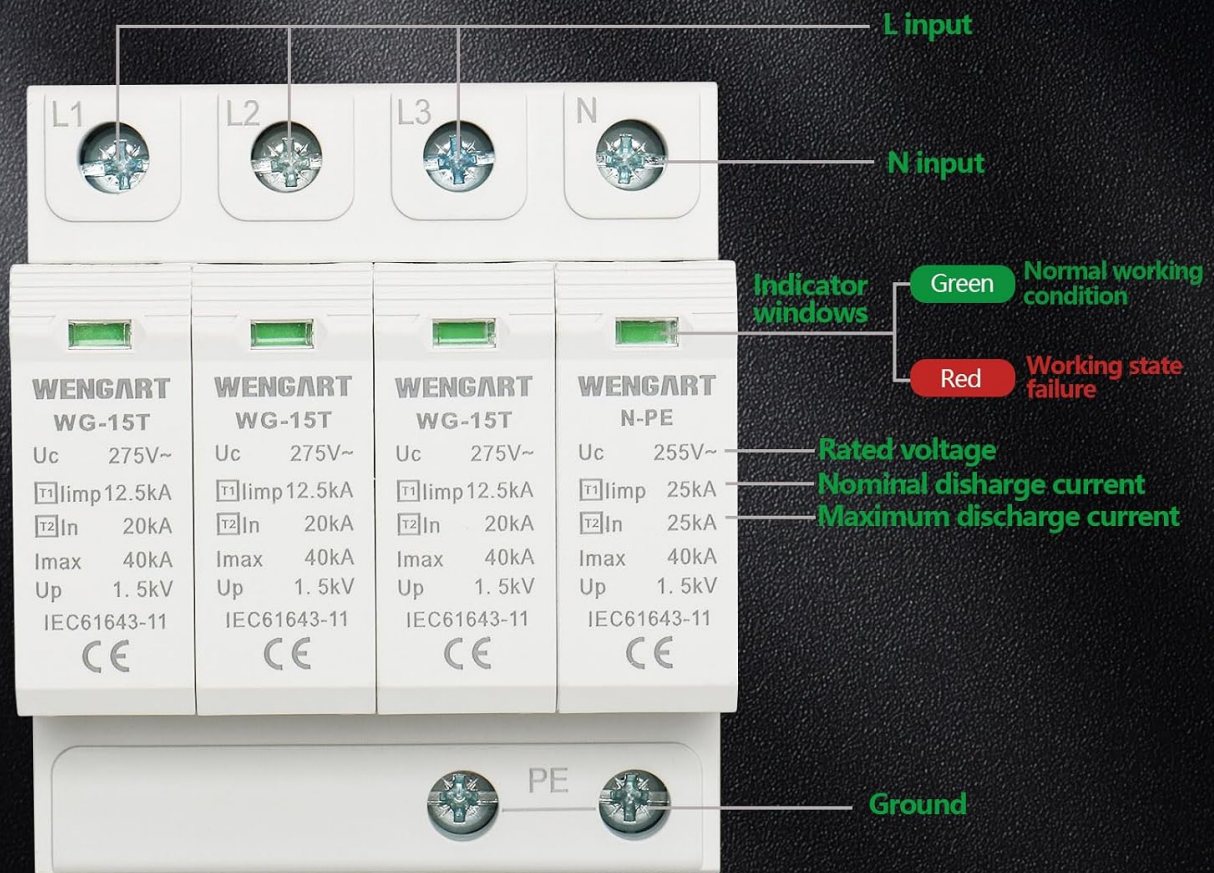


Figure 5: Product analysis of the Wengart WG-15T, detailing input terminals, indicator windows (green for normal, red for failure), and key electrical specifications.

REAL-TIME PROTECTION

Electricity is also safe during thunderstorms



Figure 6: The Wengart WG-15T surge protection device safeguarding common household appliances from electrical surges during thunderstorms.

5. MAINTENANCE

The Wengart WG-15T surge protection device is designed for minimal maintenance. The primary maintenance task involves monitoring the status indicator windows and replacing modules as needed.

5.1 Module Replacement

If an indicator window turns red, it signifies that the corresponding protection module has absorbed a significant surge and is no longer fully functional. To maintain continuous protection, the affected module must be replaced.

1. **Disconnect Power:** Always ensure that the main power supply to the surge protector and the entire electrical system is completely disconnected before attempting any module replacement.
2. **Identify Module:** Locate the module with the red indicator window.
3. **Remove Module:** The modules are detachable. Carefully unclip or slide out the faulty module from its housing.
4. **Insert New Module:** Insert a new, identical replacement module into the empty slot, ensuring it clicks

securely into place.

5. **Restore Power:** Once the new module is securely installed, restore power to the system. The indicator window for the new module should now display green.



Figure 7: The replaceable module design of the Wengart WG-15T surge protection device, demonstrating how individual protection modules can be easily removed and replaced when the visual indicator window turns red.

6. TROUBLESHOOTING

The primary troubleshooting for the Wengart WG-15T involves checking the visual indicator windows.

6.1 Red Indicator Light

- **Symptom:** One or more indicator windows on the surge protector display a red light.
- **Cause:** The corresponding protection module has been activated by an overvoltage event and is no longer fully functional.
- **Solution:** Replace the faulty module as described in Section 5.1. Ensure power is disconnected before replacement.

6.2 No Indicator Light

- **Symptom:** No indicator lights are visible on the device.
- **Cause:** The device may not be receiving power, or there might be an internal fault.
- **Solution:** Check the circuit breaker supplying power to the surge protector. Ensure it is in the 'ON' position. Verify all wiring connections are secure. If the issue persists, consult a qualified electrician.

7. TECHNICAL SPECIFICATIONS

Specification	Value
Model	WG-15T (3+NPE)
Rated Voltage (Uc)	275V AC
Nominal Discharge Current (In 8/20 μs)	20 kA
Maximum Discharge Current (Imax 8/20 μs)	40 kA
Voltage Protection Level (Up)	1.5 kV
Impulse Current (Iimp)	12.5 kA
Hard Wiring Capacity	10-25 mm²
Flexible Wiring Capacity	10-16 mm²
Stripping Length	10 mm
Protection Class	IP20
Operating Temperature	-40°C to +70°C
Material Type	Polybutylene Terephthalate
Mounting Type	DIN-rail mounting
Number of Items	1
Package Dimensions	9.65 x 7.11 x 4.57 cm
Weight	190 g

PRODUCT SIZE

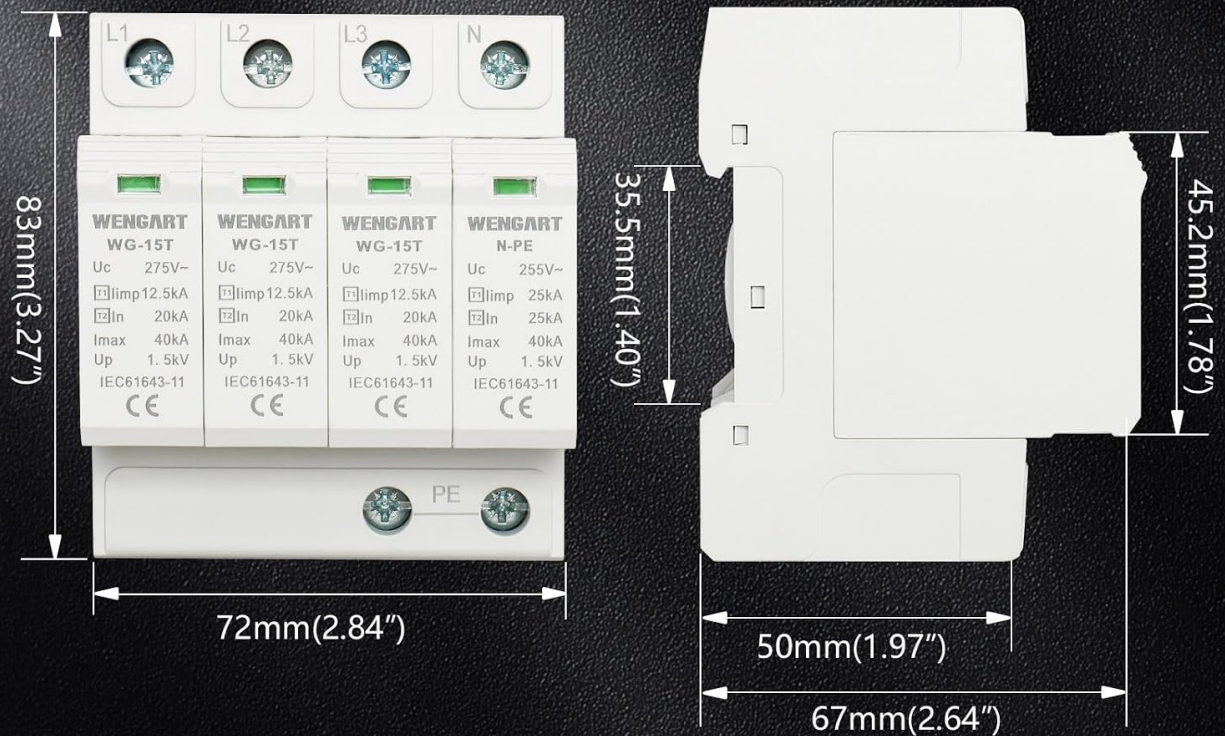


Figure 8: Physical dimensions of the Wengart WG-15T surge protection device, with measurements in both millimeters and inches.

8. WARRANTY AND SUPPORT

For warranty information or technical support regarding your Wengart WG-15T surge protection device, please refer to the documentation provided at the time of purchase or contact Wengart customer service. Ensure you have your product model number (WG-15T (3+NPE)) and purchase details available when seeking support.