



EARTH CLAMP METER UNI-T UT-278A+

The **UNI-T UT-278A+** is an **Earth Clamp Meter** designed for measuring earth resistance, leakage current, and AC current without the need to disconnect the system under test. It is a versatile tool commonly used by electricians, maintenance technicians, and engineers for electrical safety testing and troubleshooting.

Key Features of the UNI-T UT-278A+:

1. **Earth Resistance Measurement:**
 - Measures earth resistance in the range of **0.1 Ω to 1200 Ω** .
 - Suitable for testing grounding systems in electrical installations.
 2. **Leakage Current Measurement:**
 - Measures AC leakage current in the range of **0.1 mA to 30 A**.
 - Helps identify insulation faults or improper grounding.
 3. **AC Current Measurement:**
 - Measures AC current in the range of **0.1 A to 600 A**.
 - Non-invasive measurement using the clamp design.
 4. **True RMS:**
 - Provides accurate readings for both sinusoidal and non-sinusoidal waveforms.
 5. **Data Hold:**
 - Freezes the displayed reading for easy recording.
 6. **Auto Power Off:**
 - Saves battery life by automatically turning off after a period of inactivity.
 7. **Backlit LCD Display:**
 - Ensures clear visibility in low-light conditions.
 8. **Clamp Design:**
 - Allows for easy and safe measurement without interrupting the circuit.
 9. **Safety Standards:**
 - Complies with safety standards such as **CAT III 600V** and **CAT IV 300V**, making it suitable for use in various electrical environments.
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Applications:

- Testing and maintaining grounding systems.
 - Detecting leakage currents in electrical installations.
 - Troubleshooting electrical faults.
 - Ensuring compliance with electrical safety standards.
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Specifications:

- **Earth Resistance Range:** 0.1 Ω to 1200 Ω .
 - **Leakage Current Range:** 0.1 mA to 30 A.
 - **AC Current Range:** 0.1 A to 600 A.
 - **Accuracy:** Typically $\pm 2\%$ to $\pm 3\%$ depending on the range.
 - **Clamp Jaw Opening:** Approximately 35 mm.
 - **Power Supply:** 4 x 1.5V AAA batteries.
 - **Dimensions:** Compact and portable design.
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How to Use:

1. **Earth Resistance Measurement:**
 - Clamp the meter around the grounding conductor.
 - Ensure the clamp is fully closed and free from obstructions.
 - Read the resistance value on the display.
 2. **Leakage Current Measurement:**
 - Clamp the meter around the live and neutral conductors together.
 - The meter will display the leakage current.
 3. **AC Current Measurement:**
 - Clamp the meter around a single conductor.
 - Read the current value on the display.
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Advantages:

- Non-invasive measurement ensures safety and convenience.



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- Combines multiple functions in one device (earth resistance, leakage current, and AC current).
 - Durable and reliable for field use.
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Limitations:

- Requires proper clamping around conductors for accurate readings.
- Not suitable for DC current measurements.

