



Manuals.plus /

› CNYST /

› CNYST ETCR9100 High and Low Voltage Clamp Current Meter User Manual

CNYST ETCR9100

CNYST ETCR9100 High and Low Voltage Clamp Current Meter User Manual

Model: ETCR9100

1. INTRODUCTION

The CNYST ETCR9100 is a high and low voltage clamp current meter designed for precise measurement of AC leakage current and general AC current. It is capable of measuring currents up to 600A and is suitable for line tests below 60kV when used with its insulated rods. This instrument incorporates advanced features such as peak hold, data retention, and data storage, ensuring reliable and accurate measurements in various industrial and scientific applications.



Figure 1.1: Front view of the ETCR910 Clamp Current Meter, showing the LCD display and control buttons.

2. PRODUCT COMPONENTS

The ETCR910 system includes the main clamp meter unit and a set of five high-voltage insulated rods, along with a carrying case for transport and storage.



Figure 2.1: The ETCR910 Clamp Current Meter kit, including the meter, insulated rods, and carrying case.

2.1 Main Unit Features

- **Clamp Jaw:** Φ 33mm opening for current clamping.
- **LCD Display:** 47mm x 28.5mm with backlight for clear readings.
- **Control Buttons:** PEAK, POWER, HOLD for various functions.
- **Battery Compartment:** Located at the rear for 4x 1.5V (AAA) batteries.

2.2 Insulated Rods

The system includes five sections of insulated rods, each 1 meter in length and Φ 32mm in diameter. These rods are designed for high insulation, moisture resistance, high temperature resistance, impact resistance, bending resistance, and detachability, enabling safe measurements on high-voltage lines.

3. SETUP AND ASSEMBLY

3.1 Battery Installation

1. Locate the battery compartment on the rear of the clamp meter.
2. Open the battery compartment cover.
3. Insert four 1.5V AAA (7#) batteries, ensuring correct polarity.
4. Close the battery compartment cover securely.

Note: Batteries are not included in the package and must be purchased separately.

3.2 Assembling the Insulated Rods

For high-voltage measurements, assemble the insulated rods by screwing them together securely. Ensure all connections are tight before use. The number of rod sections used will depend on the voltage level and required reach.

4. OPERATING INSTRUCTIONS

4.1 Power On/Off

- Press the **POWER** button to turn the meter on.
- The meter will automatically shut down after approximately 15 minutes of inactivity to conserve battery life.
- To manually turn off, press and hold the **POWER** button.

4.2 Current Measurement (AC Leakage and General Current)

1. Ensure the meter is powered on.
2. Open the clamp jaw by pressing the trigger.
3. Position the conductor to be measured within the clamp jaw. Ensure the jaw is fully closed around the conductor.
4. The meter will automatically identify the frequency (50Hz/60Hz) and shift to the appropriate range.
5. Read the AC current or leakage current value displayed on the LCD.

Measurement method: Clamp CT, non-contact measurement, integral method.

4.3 High Voltage Line Testing (Below 60kV)

When measuring current on lines below 60kV, attach the assembled insulated rods to the clamp meter.

Maintain a safe distance and follow all safety protocols for high-voltage environments. The non-contact measurement method allows for safe operation.

4.4 Peak Hold Function

- In test mode, press the **PEAK** button.
- The "PEAK" lamp on the display will illuminate, indicating the function is active.
- The meter will automatically hold and display the highest measured value.
- Press **PEAK** again to exit peak hold mode.

4.5 Data Hold Function

- During a measurement, press the **HOLD** key.
- The "HOLD" symbol will appear on the display, indicating the current reading is frozen.
- Press **HOLD** again to release the data and resume live measurement.

4.6 Data Storage and Review

- The meter can store up to 99 groups of data.
- Specific instructions for saving data are typically detailed in the full product manual.
- To review stored data, look for the "MR" symbol on the display, which indicates that data can be scrolled up and down.

5. MAINTENANCE

5.1 Cleaning

Wipe the meter's exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents. Ensure the meter is powered off before cleaning.

5.2 Storage

When not in use for extended periods, remove the batteries to prevent leakage. Store the meter and its accessories in the provided carrying case in a dry environment with temperatures between -10 °C and 60 °C and relative humidity below 70%.

5.3 Battery Replacement

Replace batteries when the low voltage alarm activates (battery voltage below 4.8V). Refer to Section 3.1 for battery installation instructions.

6. TROUBLESHOOTING

6.1 Low Battery Indication

If the battery voltage drops below 4.8V, a voltage alarm will activate. Replace the four 1.5V AAA batteries immediately to ensure accurate measurements and proper operation.

6.2 "OLA" Display (Overload Indication)

The "OLA" symbol on the display indicates an overrange overflow condition. This means the measured current exceeds the meter's maximum range of 600A. Disconnect the meter from the circuit and ensure the current is within the specified measurement range before attempting further measurements.

6.3 No Display or Erratic Readings

- Check battery installation and ensure batteries are fresh.
- Verify the clamp jaw is fully closed around the conductor.
- Ensure the operating environment is within specified conditions (-20°C to 40°C; 80% RH or less).
- If issues persist, contact customer support.

7. TECHNICAL SPECIFICATIONS



Figure 7.1: Rear and side views of the ETCR9100 Clamp Current Meter, showing product labels and profile.

Parameter	Specification
Function	High and low voltage AC leakage current, current measurement
Clamp Size	Φ33mm
LCD Size	47mm x 28.5mm (with backlight)
Range	AC 0.00mA ~ 600A
Resolution	0.01mA
Accuracy	±1%rdg±5dgt (23°C±5°C, 80%rh or less)
Data Storage	99 Groups
Automatic Shutdown	Approximately 15 minutes of inactivity
Working Environment	-20°C ~ 40°C; 80% rh
Storage Environment	-10°C ~ 60°C; 70% rh below
Structure	Anti-drip II
Measurement Method	Clamp CT, non-contact measurement, integral method
Frequency	50Hz, 60Hz automatic identification
Shift	Automatic shifting
Line Voltage Test	Below 60KV (with 5 sections insulation rod operation)
Measurement Time	0.5 seconds/time
Voltage Alarm	When battery voltage is lower than 4.8V
Insulation Rod Size	Φ32mm, 1m/section (5 sections)
Insulation Strength	Rod to detector shell: AC 100kV/rms; Detector shell to iron core: AC1000V/rms
Clamp Meter Quality (Weight)	Detector: approx. 335g; Total instrument mass: approx. 7Kg (with insulation rod)
Power Supply	DC 6V (4x 1.5V AAA batteries)
Clamp Meter Size (L x W x T)	245mm x 68mm x 40mm
Product Dimensions (Packaged)	43.31 x 3.94 x 9.84 inches; 15.43 Pounds
Manufacturer	CNYST
ASIN	B07CWPRR66
UPC	665059472101

8. WARRANTY AND SUPPORT

Information regarding the specific warranty period or terms for the CNYST ETCR9100 High and Low Voltage Clamp Current Meter is not available in the provided product data. For warranty claims, technical support, or service inquiries, please contact the manufacturer directly.

Manufacturer: CNYST

For more information, you may visit the [CNYST Store on Amazon](#).

9. OFFICIAL PRODUCT VIDEOS

No official product videos from the seller were found in the provided data for the CNYST ETCR9100 High and Low Voltage Clamp Current Meter.