

Clamp AC Current Probe

User's Manual

1. Overview

This equipment is a clamp AC current probe with high reliability and safety, which can be used as an expansion device for multimeter current measurement. This equipment needs to be used with a multimeter. It can convert the current signal into a voltage signal and sends it to the multimeter through the transmission cable. The multimeter displays the corresponding voltage value and can measure the AC current up to 600A. The reliable measurement accuracy and unique appearance design make it a practical auxiliary tool for current detection in electrical equipment.

2. Safety Information

This instrument is designed in accordance with IEC61010-1 CAT III 600V and pollution class 2. In order to ensure the correct and safe use of the instrument, please read the instruction carefully.

⚠ Warning: To avoid possible safety accidents such as electric shock or personal injury, please abide by the following specifications:

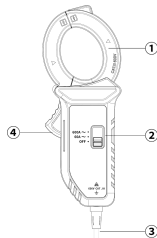
- Before using the equipment, please read this manual carefully and pay special attention to the warning information.
- Before using the equipment, please check the meter housing for cracks or damaged plastic parts. If so, please do not use it again.

- Before using the equipment, please check the insulator around the input terminals of the meter carefully and do not use it again if it is damaged.
- Before use, please check whether the insulation layer is damaged, whether there is exposed metal or signs of wear. If there it is, please do not use it again.
- Use the equipment in strict compliance with the operation of this manual, otherwise the protection provided by the equipment may be damaged or weakened.
- Use the equipment according to the measurement category, voltage or rate current value specified in the equipment or manual.
- personal protective equipment (such as approved rubber gloves, masks and flame-retardant clothing) to prevent injury from electric shock and arcing when dangerous live conductors are exposed.
- Special care should be taken when measuring beyond AC true RMS at 30V, AC peak value at 42V or DC at 60V. There is a risk of electric shock with these types of voltage.
- Do not use the meter around explosive gases or steam or in a humid environment.
- Remove the probes from the equipment before opening the housing or battery cover. Never use the device when it is disassembled.
- In case of any abnormality, stop using it immediately and send it for repair in time.
- Calibration or maintenance can only be carried out by professionals.

Security Signs

~	AC (alternating current)
CE	Compliance with all relevant European legal requirements
⏏	Grounding
□	Equipment protected by double insulation or reinforced insulation
⚡	This electrical/electronic product must not be disposed of in household trash.
CAT III 600V	IEC61010-1 safety grade Class III 600 V overvoltage protection
⚠	Warning, important safety signs

3. Product Appearance and Specifications



- ① clamp AC current probe
- ② Current range
- ③ Signal output cable
- ④ Clamp-type AC current probe wrench

4.Operation guide

1. Prepare a multimeter that can be used normally and measure AC voltage.
2. Select the AC voltage range or AC millivolt voltage range of the multimeter.
3. Connect the terminal of this device to the AC voltage socket of the multimeter.
4. Set the range switch of the clamp current probe to 600A or 60A.
5. Open the clamp current probe and place the cable at the geometric center indicated on the clamp head, ensuring that the left and right clamp heads are fully closed. Failure to fully close will result in incorrect readings.
6. Check the voltage reading on the multimeter and calculate the current value based on the reading:
Clamp current probe 60A range: 10mV/A means when measuring a current of 1A, the multimeter displays a voltage of 10mV;
Clamp current probe 600A range: 1mV/A means that when measuring a current of 1A, the multimeter displays a voltage of 1mV.

Note:

1. The clamp current probe can only measure one current conductor at a time. If two or more current conductors are measured simultaneously, the measurement reading will be incorrect.
- 2.When measuring current, try to stay away from other live wires

as much as possible and keep the tested wire at the center of the clamp in a vertical position.
3.Choosing a multimeter with high accuracy in AC voltage can help reduce errors.

5.Technical Indicators

5.1General Characteristics

- Safety level of clamp probe: CAT III 600V.
- Pollution level: 2
- Altitude:<2000 meters.
- Work environment: 0 ~ 40°C; < 80% RH.
- Storage conditions:- 10 ~ 50°C; < 70% RH.
- Safety level: IEC61010-1, CAT III 600V.
- Dimensions: 168mm (L) × 65mm (W) × 33mm (H).
- The maximum size of the clamp head opening: 30mm.
- Transmission cable length: approximately 1.1m.
- Weight: Approximately 179g.

5.2 Accuracy Index

Accuracy: % readingword; Warranty period: one year from the date of manufacture.
Test position error: Failure to place the tested cable at the center of the clamp head during current measurement will result in a maximum±1.5% additional reading error.
Environment temperature: 18°C~28°C. Environment humidity:< 80%.
Temperature coefficient: ± 0.1%/°C.

5.3 AC Current

Range	Output	Accuracy
60A	10mV/A	± (2.5% reading + 5 words)
600A	1mV/A	

Minimum input value of AC current: 0.01A (effective value)
Maximum input value of AC current: 600A (effective value)
Frequency range: 40Hz~400Hz

6. Maintenance

Clean the instrument surface with a soft cloth when necessary. Do not use organic solvents or abrasives that corrode and dissolve the casing.
If any abnormality is found in the instrument, it should be immediately stopped from use and sent for repair. When it is necessary to calibrate or repair the instrument, please have it repaired by qualified professional maintenance personnel or designated maintenance departments.

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