

FR2050 Flexible clamp power meter



I. Product Introduction

FR2050 series flexible clamp power meter is a multi-function digital smart meters that specially developed by our company for measuring three-phase AC voltage, current, leakage current, phase between voltage, phase, frequency, phase sequence, electric energy, active power and reactive power, power, apparent power, power factor, total power, etc. The use of flexible coil sensors with a diameter of $\phi 150\text{mm}$ or $\phi 300\text{mm}$ (other diameters can also be customized) is convenient and flexible, and can replace the traditional bulky clamp-type leakage current meter and micropower clamp meter function. It can also be used to identify transformer wiring groups, inductive, capacitive circuits, read the phase relationship between the CTs of the differential protection groups, check the correctness of the wiring of the watt-hour meter, and repair the line equipment, etc, provides a safe, accurate and convenient new type of power meter for electricity inspection personnel.

The flexible current sensor, Rogowski Coil, adopts advanced Rockwell coil (or Rogowski coil) technology and is a toroidal coil uniformly wound on a non-ferromagnetic material, without hysteresis effect and without magnetic saturation phenomenon. High linearity, strong anti-interference ability. The output signal is the current-to-time differential. By integrating the output voltage signal, the input current can be truly restored. The measured current range can be from milliamperes to tens of thousands of amps. Flexible current clamp part without any exposed metal conductor, non-contact measurement, safe and fast; Its small size, light weight, exquisite appearance, soft and flexible, suitable for narrow environments and cable intensive places; High measurement accuracy, high reliability, and response frequency bandwidth, users can customize the coil length according to demand.

The instrument also has the function of backlight, data retention, data storage, etc. It is easy to use and is an essential tool for electrician safety testing.

II. Technical Specification

Function	Three-phase AC voltage, leakage current, current, active power, reactive power, apparent power, total power, phase of current and voltage, phase between voltage, frequency, energy, phase sequence, etc.
Power	DC4.5V 7# Alkaline battery (1.5V AAA \times 3)
Measure mode	Flexible CT, three-phase voltage clip

Jaw size	φ 150mm/ φ 300mm
Wire position	The measured wire is at the center of the flexible coil
Data storage	200groups, display "FULL" symbol indicates that storage is full
Frequency	50Hz/60Hz automatic identification
Shift	Automatic switching
Sample rate	About 2 times/second
Line voltage	AC 600V line measurement
Display mode	LCD: 128dots×64dots; Display area: 43mm×29mm
Instrument size	Host size:W/T/H 151*100*35mm (without coil)
Backlight	Have
Data storage	Data storage function: “HOLD” symbol display
Overflow display	Overrange overflow function: “OL” symbol display
Automatic shut-down	About 15 minutes after power on, the meter will automatically shut down to reduce battery consumption
Battery voltage	When the battery voltage drops to about 3.15V, the battery voltage is low and the symbol is displayed to remind you to replace the battery.
Instrument weight	Instrument: 1kg(with battery and accessories)
Working current	Backlight turn on 50mA
Working temperature and humidity	-10℃～40℃; below 80%rh
Storage temperature and humidity	-10℃～60℃; below 70%rh
Insulation strength	AC 3700V/rms(Between core and shell)
Suitable for Safety Regulations	IEC1010-1、IEC1010-2-032、pollution level 2、CAT III(600V)

IV. Accessories

Instrument	1PC
Test pen	1SET (yellow, green, red, black each one)
Instrument bag	1PC
Instrument battery	7# alkaline AAA batteries 3 section
Manual, certificate	1SET



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