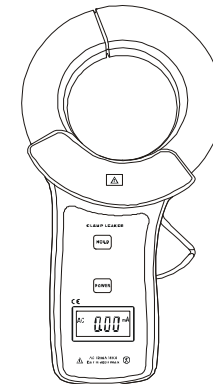


ETCR[®] HIGH ACCURACY CLAMP LEAKER

ETCR 6800



USER MANUAL

ETCR Electronic Technology company

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Warning





Thank you for purchasing our company's **High Accuracy Clamp Leaker**, for better use of this product, please:

——**Read carefully the user's manual.**

——**Follow strictly safety rules and notes listed in this manual.**

- ◆ Under any circumstances, please pay special attention to your safety in the course of using this leaker.
- ◆ Give heed to label texts and symbols on panel and back plate of this leaker.
- ◆ Please don't place and store this leaker in hot and humid condition, locations with moisture condensation and under direct sunlight for a long time.
- ◆ In case voltage of battery was low , please replace batteries.
- ◆ If you expect not to use the leaker for a long time, please take out batteries.
- ◆ When changing batteries, please pay attention to the polarity of battery.
- ◆ Use, disassembly and maintenance of this leaker shall be operated by authorized personnel.

- ◆ In case dangers would occur if continue to use a faulty leaker, please stop to use it and seal it for safekeeping immediately; and then, send it for disposal of authorized agency.
- ◆ Users shall carry out operation based on danger signs  " on leaker and manual.
- ◆ Users shall carry out safety operation based on instructions listed in this manual, e.g. "  " and danger signs on this manual.
- ◆ Please use mA to test leakage current (test by clamping grounding line, single-phase line together).







I Introduction

ETCR6800 High Accuracy Clamp Leaker is specially designed for measurement of AC leakage current; by adopting up-to-date CT technology and digital integration technology, it is a product with relatively small size, large clamp, high accuracy and perfect function compared with similar leakers in the world. The leaker could be widely applied in those fields as electricity, communications, meteorology, railroad, oilfield, construction, measurement, scientific & research teaching institutes, industrial and mining establishments. **Clamp core of this High Accuracy Clamp Leaker adopts special alloy; in addition, with utilization of magnetic shielding technology, it is almost free from influences of external magnetic field so as to ensure high precision, high stability and high reliability of perennial continuous measurement.**

This High Accuracy Clamp Leaker obtains one **USB interface**. With the help of the software that we provide, many functions are available. For example, on-line monitoring, historical data inquiry, active curve drawing,

indication of max, min and average value and indication. There are also functions like saving to documents and printing when connected to PC. It is an essential tool for electrician safety testing.

II Electrical Signs

	Extremely dangerous! Operators shall strictly keep to safety rules; otherwise there would be dangers of electric shock to cause personal injuries or casualties.
	Dangerous! Operators shall strictly keep to safety rules; otherwise there would be dangers of electric shock to cause personal injuries or casualties.
	Warning! Operators shall strictly keep to safety rules; otherwise personal injuries or equipment damages might be caused.
	Double insulation
	AC
	DC

III Technical Specifications

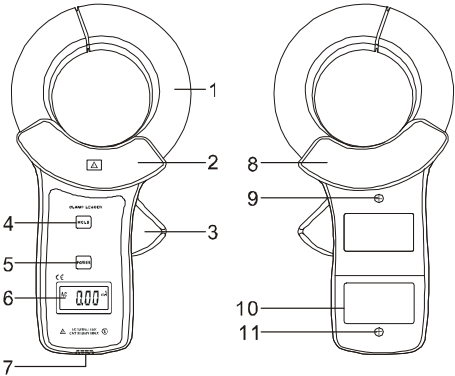
Function	Measurement of AC leakage current, AC current and on-line measurement
Power	Zn-Mn dry battery,6F22,9V
Size of jaw	Φ68mm
Test Mode	Clip-on CT, integral mode
Display Mode	Four digits LCD display
Dimension	Width × Height× Thickness: 115mm×224mm×43mm
LCD Dimension	35mm×21.5mm; display domain: 32mm×15mm
Sampling Rate	about 2 times/s
Frequency	50/60Hz Automatically
Range Shift	Automatically
Accuracy (23°C±3°C, below 70%RH)	0.00~59.9A: ±1.5%±5dgt
	60.00A~199.9A: ±2%±5dgt
	200.0A~599A: ±3%±5dgt
	600A~1200A: ±4%±5dgt
Voltage Range	AC600V

USB Interface	Data stored in the memory of the meter via USB upload to PC, or on-line monitoring
USB line	1.5m
Storage	99units,all used when display FULL
Peak Hold	Push HOLD without release, the meter will show the peak value during the pushing period
Reading Hold	DH indicating the reading is hold
Out of Range	OL indicating the current is out of range
Auto Power-off	5 Minutes after power on, it will power off automatically to lower the power consumption
Battery Voltage	⚡ Indicating the battery voltage is lower than 7.2V.Then the battery have to be changed
Weight	515g(including the battery)
Consumption	About 15mW
Temperature and Humidity	Working: 0°C~40°C,below 80%rh Storage: -10°C~60°C,below 70%rh
Insulating Strength	AC2kV/rms (between the alloy of the clamp and the housing)

Applicable Safety Rules	IEC1010-1、IEC1010-2-032、pollution, etc 2、CAT III(600V)
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IV Structure of the Leaker

1. Double Input Totpid
2. Upper Cover
3. Totoid Opening Lever
4. **HOLD** Key
5. **POWER** key
6. LCD
7. USB Interface
8. Back cover
9. Screw of up/down cover
10. Battery cover
11. Screw of battery cover





V Operating Method


1. Start-up, Shutdown

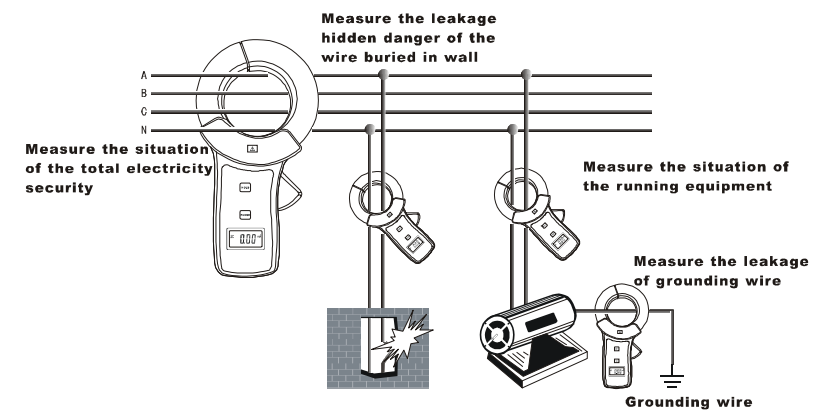
Press **POWER** key to start up, LCD will begin to display; Press the **POWER** key again, the leaker will shut down. After starting up for 5 minutes, LCD will flick notes that the leaker will shut down automatically; after flickering for 30s, it will shut down formally to reduce battery consumption. In case you have pressed **POWER** key when LCD was flickering, the leaker will continue to work for 5 minutes. If LCD was very dark after starting up, it might be caused by low-voltage battery, in this case, please change battery immediately.


2. Leaker Measurement

	High voltage, extremely dangerous! Operators shall strictly observe safety rules; otherwise there would be risk of electric shock to cause personal injuries or casualties.
	Dangerous! Please don't use it to measure current higher than 300A; otherwise there would be risk of electric shock to cause personal injuries or equipment damages.


- 1) Power on.
- 2) Press down trigger to open clamp head and clamp to-be-measured Conductors (Be attention that clamp heads must be totally closed)

	Clamp live wire and null line together is to measure leakage current of electrical equipment. (Note: 2 lines)
	Clamp earth wire is to measure grounding line leakage current of electrical equipment. (Note: single line)
	Clamp main line is to measure total current of that main line.(Note: single line)
	Clamp 3 phase 3 wire together is measure the leakage current of 3 phase 3 wire(Note: three line)
	Clamp 3 phase 4 wire together is measure is measure the leakage current of 3 phase 4 wire(Note: four line)



	Attention! For your safety, when measuring heavy current, after confirmed the completion of correct operating test, please move the leaker away from measured conductor.
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3) Read LCD display data. In case **OL mA** symbol was displayed, it means that current of measured line is beyond the maximum limit of this leaker; with this case, please shift gear with much higher range limit.

	In locations with difficulty to read out data, please use the data holding function. If [DH] symbol displayed, please discharge data holding state first, and then do the test.
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3. Peak Holding

Pressing **HOLD** key continually in the course of measurement (More than 3 seconds), the leaker will capture current peak values of lines in this period of time; release the key, it then will return to measuring state

4. Hold, Storage and Access Reading

1) Pressing **HOLD** key for a short time in the course of measurement (less than 3 seconds), **DH** symbol will display, the leaker will hold current measuring data and automatically stored in the memory with a unit ID; press **HOLD** key again to release the hold state, and the leaker continues its measuring; in case stored data reached to 99groups, press **HOLD** key

again, the "FULL" symbol will display, which means storage memory is full; press **HOLD** key to cancel "FULL" flickering and return to measuring mode.

2) Press **HOLD+POWER** keys to enter into data access mode and display Unit 1 storage data automatically; and then press **HOLD** key again to turn the page of stored data; **NULL** will display when there is no data in stored in the memory, press **POWER** key to exit data access mode.

3) After entering into data access mode, press **HOLD** key for more than 3 seconds will clean up all stored data; when the meter displaying "DEL" symbol, it means that it has finished cleanup process, and then return to measuring state automatically.

5. Upload data to computer

Before use this meter please insert USB driver software and the upload software of this meter

Connect the computer and the meter with the USB connecting line allocate with the meter, turn on the meter, run the software, enter into data access mode, and read, save, report forms, and print the historical data, etc. The more data has saved the more time it will cost when the data read. The historical data can save into TXT or Excel format.

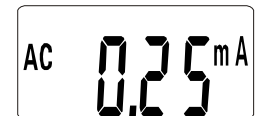
VI Function Quick Look Up

POWER Key	Short Press	Power on/shutdown/exit
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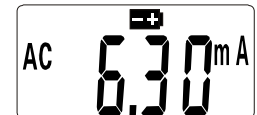
HOLD Key Shot Press	Data Holding/release/storage
HOLD Key Pressing for more than 3s	Peak Holding (at measuring mode)
HOLD Key Pressing Press for 3s	Clear Data(at access data mode)
HOLD Key + POWER Key	Data access /turn pages (HOLD key)

VII Display Example and Meaning

1.---Measured leakage current is
0.25mA.



2.---Low battery, please change.




3.--- Measured leakage current is
0.25mA is held and automatically
stored unit ID is NO.03.




4. ---Access the unit 3 of the stored Data



VIII How to Change Battery

	Warning! It is dangerous to carry out test when the battery cover plate was not on its position.
	Please pay attention to the polarity of battery to avoid damaging the leaker.
	Chang the low battery in time
	If you expect not to use the meter for a long time, please get off the battery to storage.

- 1) “ ” symbol means the battery is undercharge and need to be replaced.
- 2) Press **POWER** key to shut down the leaker; before opening the battery cover, please confirm the leaker is in off position, and then replace with qualified new battery; special attention shall be paid to the polarity of battery; at last, cover battery cover plate.

IXAccessories

Clamp tester	1 pc
USB Com cable	1 pc
Software	1 disk
Battery (6F22 9V)	1 pc
User Manual	1 copy
Warranty card / Certification	1 copy



Manufactured by

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