# ETCR®

## ETCR3100C Earth Resistance /Soil Resistivity Tester



#### **Product Function**

Precision 4-wire methos, 3-iwre method and simple 2-wire method earth resistance measurement, soil resistivity measurement, earth voltage measurement.

#### Product features

- 1. Import FFT (fast fourier transform) technology, AFC (automatic frequency control) technology, with unique anti-interference ability and environment adaptability, with strong retest consistency.
- 2. Packing with waterproof protection case, which is waterproof, crash proof, anti-drop and durable, and equip with the large-capacity rechargeable lithium battery pack, especially suitable for using at outdoor construction site.
- 3. The host equip with large LCD, with white backlight and bar graph indication which can reading clearly and obvious. And the tester has audible and visual alarm function, overload protection function, automatic shutdown and data upload function.
- 4. Support Bluetooth communication function of Android system, after installing APP, can use the mobile terminal to operate testing and reading the test records, with the good and new experience.

### **Technical Specification**

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Technical Specification	/II		
Earth Resistance (R)	Range: 0.00~30.00KΩ	Resolution: 0.01Ω	Accuracy: ±2%rdg±3dgt
Earth Voltage	Range: AC 0.0~600V	Resolution: 0.1V	Accuracy: ±2%rdg±3dgt
Soil Resistivity (ρ)	Range:0.00Ωm~99.99Ωm	Resolution:0.01Ωm	Accuracy: According to the precision of <b>R</b> ( $\rho$ =2 $\pi$ aR, a:1 m-100m, $\pi$ =3.14)
	Range:100.0Ωm~999.9Ωm	Resolution:0.1Ωm	
	Range:1000Ωm~9999Ωm	Resolution:1Ωm	
	Range:10.00kΩm~99.99kΩm	Resolution:10Ωm	
	Range:100.0kΩm~999.9kΩm	Resolution:100Ωm	
	Range:1000kΩm~9000kΩm	Resolution:1kΩm	
Power Supply	DC 7.4V 2600mAh rechargeable lithium battery, full charge about DC 8.4V		
Measurement Method	Earth Resistance: rated current change-pole method, measure current 20mA Max Soil Resistivity: 4-pole method (Wenner method) Earth Voltage: average rectification(between P(S)-ES)		
Test Frequency	128Hz/111Hz/105Hz/94Hz(AFC)		
Test Voltage Wave	Sine wave		
Test Current	AC 20mA max	Open-circuit Test Voltage	AC 40V max
Data Storage	300 groups	Data Hold	Data hold function: "HOLD" symbol display
Data Access	Data access function: " <b>READ</b> " symbol display	Overflow Display	Over range overflow function: " <b>OL</b> " symbol display
LCD Dimension	LCD size: 128mmX75mm; LCD Display area:124mmX67mm		
Tester Dimension	280mm(L)X260mm(W)X160mm(H)		
Weight	Total Weight: 6.3kg(Include accessories and package)		
Tes Line	Red 20m, black 20m, yellow 10m, green 10m, red 1.6m, black 1.6m (total 6PCS)		
Auxiliary Ground Stake	4PCS: φ9mmX230mm		
USB Interface	Equip with USB interface, software monitoring, storage data can be uploaded to computer, saved and printed; Communication cable length:1.5m		
Alarm Function	When the measured value exceed alarm setting value, will have "Dududu" alarm sound		
Automatic Shutdown	15 minutes without any operation after starting up, the tester will shutdown automatically		
Overload Protection	Measure earth resistance: between each interfaces of C(H)-E P(S)-ES, AC 280V/3 seconds		





Interference Test	Automatic identify the interference signal, interference voltage higher than 5V will display "NOISE" symbol	
Auxiliary Earth Test	With auxiliary earth resistance test function: $0.00K\Omega$ - $30k\Omega$ ( $100R+rC$ < $50k\Omega$ , $100R+rP$ < $50k\Omega$ )	
Protection Level	IP65(close the case)	
Battery Voltage	While battery voltage drop to DC 7.2V±0.1V, low battery voltage symbol" D" will display, and remind to Charge in time	
Working Current	Standby: 20mA (Backlight off); Power on with backlight: 45mA(backlight off 25mA); Measurement: 100mA (Backlight off)	
Accessories	Tester:1PC; Ground stake:4PCS; Test line:4PCS; Simple test line:2PCS; USB communication cable:1PCS; Tool bag:1PC Special charger: 1PCS	

