

S-ETCR 3000

Digital Earth Resistance Tester

S-ETCR3000 Digital Earth Resistance Tester Introduction

S-ETCR 3000 Digital Earth Resistance Tester is specially designed and manufactured for field measurement, adopting the latest digital and micro-processing technology, 3-pole or 2-pole method for earth resistance measurement, with a unique function of wire resistance verification, anti-interference capability and the ability to adapt to the environment, to ensure high precision, high stability and reliability for prolonged measure.

S-ETCR 3000 Digital Earth Resistance Tester has a unique function of wire resistance verification, more accurate on measuring on-site low value earth ground resistance, which can avoid error caused by resistance change due to prolonged usage of testing wire; avoid error caused by testing wire that is failed to be fully inserted into tester interface or by poor contact; avoid error caused by users' replacing or lengthening testing wires.

S-ETCR 3000 Digital Earth Resistance Tester is composed of host machine, monitoring software, testing wires, communication wires and others. The large LCD display of host machine is with blue backlight and bar graph indicating that can be seen clearly. At the same time it can store 400 sets of data, fulfilling historical inquiry and online real-time monitoring through monitoring software, dynamic display, with the maximum, minimum, and mean indicators, with alarm settings and alarm indicator, and with the functions like historical data access, reading, preservation, report forms, printing and so on.

Tester Structure

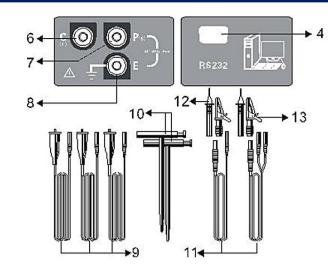




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- 1. LCD
- 2. Button area
- 3. Rotary switch for selecting function
- 4. RS232 interface
- 5. Interface of testing wires
- 6. C(H)interface: Current electrode
- 7. P(S) interface: Voltage electrode

- 8. E interface: Earth electrode
- 9. Testing wires
- 10. Auxiliary earthing rod
- 11. Simple earthing wires
- 12. Testing probe
- 13. Safety alligator clip

Technical Specifications

Function	Earth ground resistance measurement, voltage to ground measurement, low value
	resistance measurement
Power Supply	DC 9V(Zi-Mn dry battery R14S 1.5V 6 PCS, continuous standby for 300 hours)
Backlight	Controllable blue backlight, suitable for use in dark place.
Measuring Mode	Precise 3-pole measurement, simple 2-pole measurement
Measuring Method	Earth ground resistance: rated current change-pole method, measurement current
	3mA Max, 820Hz ; Voltage to ground: average value rectification
Data Mode	Average value, maximum, minimum
Wire Resistance Verification	Avoid error caused by testing wire that is failed to be fully inserted into tester interface
	or by poor contact or by users' replacing or lengthening testing wires, making it more
	accurate for earth ground resistance measurement.
Display Mode	4-digital super-large LCD display, blue screen backlight
Measuring indicator	During measurement, LED flash indicator, LCD count down display
LCD Dimension	128mm×75mm; Display field: 124mm×67mm
Tester Dimension	L×W×H: 215mm×190mm×95mm
Testing Wires	Three wires: each for Red 20m, Yellow 10m, and Green 5m
Simple Testing Wire	2 wires: each for Red 1.6m and Green 1.6m
Auxiliary Earthing Rod	2 PCS : Φ 10mm×150mm
Measuring Rate	Voltage to ground: about 3 times/second; earth ground resistance: about 5
	seconds/time

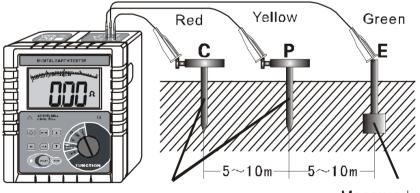


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Measuring Times	Over 5000 times (Measuring 10Ω for one time on 20Ω range and take a pause
	for 25s)
Circuit Voltage	Measuring voltage to ground: measuring below AC 600V
RS232 Interface	Possess RS232 interface, software supervision, storage data can be uploaded to
	computer, saved or printed.
Communication Wire	One piece of RS232 communication wire, with length 1.5m
Data Storage	400 sets, flash display "FULL" icon to indicate storage is full
Data Hold	Data hold function: "HOLD" icon display
Data Read	Data read function: "READ" icon display
Overflow Display	Exceeding measuring range overflow function: "OL" icon display
Alarm Function	When measuring value exceeds alarm setting value, there is "Toot-toot" alarm hint
Battery Voltage	When battery voltage decreases to about 7.8V, battery voltage low icon \mathbf{r} will display,
	reminding to replace battery.
Power Consumption	Backlight : 25mA Max
	Standby: 25mA Max(Backlight shut off)
	Measurement : 70mA Max(Backlight shut off)
Weight	Tester: 1443g(including battery)
	Testing Wires : 847g(including simply testing wires)
	Auxiliary earthing rod : 468g(2 PCS)
	• Meter bag : 915g
Working Temperature & Humidity	-10°C~40°C; below 80%rh
Storage Temperature & Humidity	-20°C~60°C; below 70%rh
Overload Protection	Measuring earth ground resistance: between each interfaces of E-P, E-C,
	AC 280V/3 seconds
Insulation Resistance	Over 10M Ω (between circuit and enclosure it is 500V)
Withstanding Voltage	AC 3700V/rms (Between circuit and enclosure)
Electromagnetic Features	Wireless frequency electromagnetic field
Protection Type	IEC61010-1,IEC1010-2-31,IEC61557-1,5 ,IEC60529(IP54) ,Pollution etc.2 CAT III 300V



Auxiliary earth ground rods

Measured earth object

