

## S470A 3 Terminal Earth Tester



2 and 3 point testing
Resolution of 0.001Ω
Simple one-button operation
Portable, handheld
FFT and AFC technology
Ground resistance: 0.000Ω~200ΚΩ

## DESCRIPTION

S470A 3 Terminal Earth Tester is a robust,compact, handheld automatic earth (ground) test instrument designed to measure earth electrode resistance. Not only it is simple and intuitive to use, but also it is accurate. The instrument is installed with Fast Fourier Transform (FFT) and Automatic Frequency Control (AFC) technology, which will automatically identify interference and select the appropriate measurement frequency, minimizing the effect of interference, and provide an accurate ground resistance value.

## **APPLICATION**

S470 is widely used in industries such as power utility, geology, construction, lightning protection, etc. The main purpose of the instrument is to determine the quality of the grounding of an electrical system.

## **SPECIFICATIONS**

Functions	Grounding resistance, grounding voltage, and low value resistance measurement		
Power	12V DC (8 No.2 dry batteries)		
Backlight	Controllable white screen backlight, suitable for dark places		
Measure Mode	Precise 3-wire method and simple 2-wire method are used to measure the grounding resistance		
Measure Method	Grounding resistance measurement: rated current pole-changing method		
	Voltage to ground: average commutation (between P-E interface)		
Measure Range	Ground resistance: $0.000\Omega \sim 200 K\Omega$		
	Ground voltage: AC 0.000V~600V (50Hz/60Hz)		
Resolution	0.001Ω; 0.001V		
Accuracy	2\3 wire method to measure grounding resistance (R): 1. 0.000Ω ~ 10.00KΩ: ±2%rdg±5dgt 2. 10.0K~100.0KΩ: ±3%rdg±5dgt 3. 100.0K~200.0KΩ: ±3.5%rdg±5dgt Note: When the interference voltage is 5V the additional error is ≤±5%rdg±5dgt		
	Ground voltage: ±2%rdg±5dgt (50Hz/60Hz)		
Measured Voltage Waveform	Sine wave		
Measure Frequency	412Hz, 825Hz, 1280Hz		
Measure Current	0.001Ω~200.0Ω range : about 20mA constant current 200Ω~10.00KΩ range : about 3.0mA constant current 10.0KΩ~200.0KΩ range : about 0.25mA constant current		
Open Circuit Measured Voltage	AC 90V max		



Display	Extra-large LCD display			
Measuring Indication	LED flickers testing, and there is also an LCD count down display			
LCD size	140mm×85mm			
LCD Display Area	123mm×66mm			
	Host: 266mm × 220mm × 90mm			
Dimension	Package: 315mm x 210mm x 275mm			
Test Line	3 in total : red 15m, yellow 10m, green 5m			
Simple Test Line	2 in total: red 1.6m, green 1.6m			
Auxiliary Ground Rod	2 pcs: φ10mm×200mm			
Measurement Rate	Voltage to earth : about 2 times/sec Ground resistance : about 5 sec/time			
Number of Measurements	Above 5000 (in short circuit test, after each test stop for 30 seconds before test again)			
Circuit Voltage	Below AC 600V			
Communication Port	USB, stored data can be uploaded to computer			
Communication Line	1 USB cable, length 1.5m			
Data Hold	The "HOLD" symbol indicates when holding data			
Data Storage	300 sets, "HOLD" indicates storing, "FULL" indicates full storage			
Data View	The "READ" symbol indicates when reviewing data			
Overflow Display	When exceeding measuring range overflow, "OL" symbol displays			
Interference Test	It can recognize interference signal automatically. "NOISE" displays on LCD screen when interference voltage exceeds 5V			
Alarm Warning	When the measured value exceeds the pre-set value, an alarm "beep" will be emitted			
Low Battery Warning	When the battery voltage is low, the low battery sign will be displayed, please charge the battery when possible			
Automatic Shutdown	15-minute of no operation, it will shut down automatically			
	Backlight: 25mA Max (backlight consumption alone)			
Power Consumption	Standby: 35mA Max (backlight off)			
	Measuring: 150mA Max (backlight off)			
Weight	Device : approx. 1.55kg (battery included)			
	Total: approx. 4.12kg (package included)			
Ideal Working Conditions	-10 $^\circ\mathrm{C}$ $\sim$ 40 $^\circ\mathrm{C}$ ; below 80%RH			
Ideal Storage Conditions	-20 $\mathrm{C}\sim$ 60 $\mathrm{C}$ ; below 70%RH			
Overvoltage Protection	Between C-E ports AC 600V Between P-E ports AC 600V Between P-C ports AC 600V			
Insulation Resistance	Between test line and the sheath >500M $\Omega$			
Withstand Voltage	AC 10.0kV/50Hz 1min			
Electromagnetic Feature	 IEC61326(EMC)			
Safety Standards	IEC61010-1(CAT III 300V, CAT IV 150V, Pollution class 2); IEC61010-031; IEC61557-1(ground resistance); JJG 366-2004 (ground ohmmeter)			

ACCESSORIES & ORDER DATA					
Description	Order Code	Description	Order Code		
S470A 3 Terminal Earth Tester, 1 pc	S470A	Included accessories for S470A			
		Tool bag, 1 pc			
		Auxiliary ground rod, 2 pcs			
Link hade to be the		Test line, 3 pcs (red 15m, yellow 10m, green 5m)			
		Simple test line, 2 pcs (red 1.6m, green 1.6m)			
		R14P battery (No.2 dry battery), 8 pcs			
		Digital software (e-copy), 1 pc			
		USB cable, 1 pc			
		User manual, Warranty card, Certificate of Conformity, 1 copy of each			