ES3002E Multifunction Earth Resistance Tester



Ⅰ,Features

Multi-function Earth resistance tester is also called grounding resistance tester. Its advanced grounding resistance tester integrating a variety of measurement methods, in addition to the function of the traditional auxiliary ground pole measurement and grounding resistance, the instrument also has the unique function of no auxiliary ground pole measurement. Using color display and microprocessor technology, measure the grounding resistance test by microprocessor control precision 4-line method, 3-line method, simple 2-line method, selection method and double clamp method. Using large diameter current clamp design, using double clamp measurement technology, without playing auxiliary ground pole, without isolating the ground body from the equipment, the online measurement was achieved. Widely used in telecommunications, electric power, meteorology, machine room, oil field, power distribution line, iron tower transmission line, gas station, factory grounding network, lightning rod, etc. The instrument has the characteristics of test accuracy, speed, simplicity, stability and reliability.

Multifunctional Earth resistance tester is controlled by a microprocessor, it can accurately detect the grounding resistance, soil resistivity, grounding voltage, DC voltage, DC resistance and AC current. It uses a rapid filtering technology to minimize the interference. The resistance value of the same screen shows the auxiliary electrode, which is convenient to judge the measurement error caused by environmental factors, and it is

convenient to measure the true grounding resistance value more accurately. At the same time, 500 sets of data are stored, connected to the mobile phone APP through Bluetooth, or connected to the computer through USB, to realize wireless or wired remote measurement, read historical data, export report analysis and other functions with the unique functions such as value keeping and intelligent alarm prompt.

Multifunction Earth Resistance tester is composed of host machine, host computer software, mobile phone APP software, test line, USB cable, charger and ground pin.

Model

Model	Functions
ES3002E	Two or three and four wire AC grounding resistance, soil resistivity, three / four wire selection method, double clamp resistance, DC resistance, AC voltage, DC voltage, AC current

Ⅱ,Technical Specifications

Two,three and four wire method grounding resistance	0.000Ω～200.00kΩ	accuracy:±1.5%rdg±70dgt	resolution ratio:0.001Ω
DC resistance	0.000Ω～200.00kΩ	accuracy:±1.5%rdg±70dgt	resolution ratio:0.001Ω
Selection method for grounding resistance	0.00Ω～3.000kΩ	accuracy:±2%rdg±30dgt	resolution ratio:0.01Ω
Dual-clamp grounding resistance	0.00Ω～200Ω	accuracy:±10%rdg±10dgt	resolution ratio:0.01Ω
Soil resistivity	0.00Ωm～9999kΩm	accuracy: ρ=2πaR	resolution ratio:0.01Ωm
Ground voltage	0.000V～50.00V	accuracy:±1.5%rdg±50dgt	resolution ratio:0.001V
DC Voltage	0.000V～50.00V	accuracy:±1.5%rdg±50dgt	resolution

			ratio:0.001V
AC Current	0.00A～1000.0A	accuracy:±2%rdg±50dgt	resolution ratio:0.01mA
Base condition	23℃±5℃, 75%rh below		
Power Supply	11.1V Lithium battery (built-in) full charge can be measured continuously for more than 1000 times in AC resistance mode		
Backline	Controlled backlight, suitable for dim place use		
Test the waveform, and the frequency	Sine wave at 128Hz		
Auto shut off	"APO" indicates automatic shutdown after 15 minutes (default).The shutdown time can be customized		
Measurement method	Two - three - four - wire method measurement、Soil resistivity、Selective measurement、Dual - clamp method、DC resistance、AC current、Ground voltage、DC voltage		
Alarm function	Sending an alarm prompt when the measured value exceeds the alarm set point		
Screen size	5 Inches		
Electrode spacing range	0.1m～100.0m		
Measurement time	AC current: about 3 times / second AC current: about 3 times / second Ground resistance, soil resistivity: about 10 seconds / time		
USB Interface	With USB interface, for data reading, saving record data, etc		
Bluetooth APP	With remote control, real-time monitoring, data reading and other functions		
Data storage	500 Groups		
Overload protection	Measure the grounding resistance： H-E, S-ES between each port of AC 280V / 3 seconds		
Auxiliary grounding rod	4 Piles： Φ10mm×200mm		
Auxiliary grounding test	With the auxiliary grounding resistance value test function, 0.00kΩ～200.00kΩ		
Power dissipation	screen intensity: 190mA Max (maximum brightness) 140mA Min (minimum brightness)		
	Measurement: 200mA Max (max) 150mA Min (minimum)		

Quality	Instrument: 1975g (including battery)
	Current clamp: 940g (2pcs)
	Test line: 1300g (including simple test line)
Suitable for safety regulations	IEC61010-1(CAT Ⅲ 300V、CAT Ⅳ 150V、Pollution degree 2)； IEC61010-031； IEC61557-1(earth resistance)； IEC61557-5(soil resistivity)； JJG 366-2004(earth resistance meter)； JJG 1054-2009(clamp earth resistance meter).

Ⅲ,Packing List

Instrument	1pcs (built-in battery)
Instrument bag	1 pcs
Auxiliary grounding rod	4 pcs
Current clamp	2 pcs(banana plug *1、audio plug*1)
Monitoring software CD	1 pcs
USB cable	1 pcs
Test cable	4 pcs
Simple test cables	2 pcs
Charger	1 pcs
Guarantee certificate of the user manual	1 pcs

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