FUZRR 征能科技

ES3000 Digital Earth Resistance Tester

Ⅰ. Characteristic

ES3000 digital grounding resistance tester, also known as three-wire grounding resistance tester, grounding resistance meter, etc., is a common instrument for testing and measuring grounding resistance commonly used instruments. It adopts large LCD gray and white screen backlight display and microprocessor technology to meet the requirements of two-wire and three-wire testing. resistance requirements. It is suitable for telecommunications, electricity, meteorology, computer rooms, oil fields, power distribution lines, tower transmission lines, gas stations, factory grounding grids, lightning rods, etc. The instrument test is accurate, fast, simple, stable and reliable.

ES3000 digital grounding resistance tester is controlled by a microprocessor, which can automatically detect the connection status of each interface and the interference voltage and frequency of the grounding grid. It also has the function of testing the resistance value of the auxiliary grounding electrode, and displays the measured grounding and auxiliary grounding resistance on the same screen. The value is clear at a glance. Store 500 groups of data at the same time, resistance measurement range: 0.01Ω ~ 3000Ω, ground voltage range: 0 ~ 100V. The data can be monitored online through the monitoring software, and the USB data can be uploaded to the PC and has unique functions such as value retention and intelligent alarm prompts.

ES3000 digital grounding resistance tester is composed of host, monitoring software, test lead, USB cable and grounding pin. It has the functions of reading, viewing, saving, reporting, and printing historical data.

Ⅱ. Measuring Range&Technical Specification

Ground resistance range	0.01Ω～3000Ω Accuracy ±1.5%rdg±3dgt
Ground Resistance Resolution	0.01Ω
Ground voltage range	0～100V AC Accuracy ±1.5%rdg±3dgt
Ground voltage resolution	0.01V

Baseline conditions	23℃ ± 5℃, below 75%rh (auxiliary grounding resistance 100Ω ± 5%, voltage to ground <10V)
Features	Earth resistance measurement, ground voltage measurement, low value resistance measurement
Power supply	DC 6V 4.5Ah lead-acid battery, continuous standby for more than 100 hours
Backlight	Controllable gray and white screen backlight, suitable for use in dark places
Measurement method	Precision three-wire measurement, simple two-wire measurement
Measurement methods	Grounding resistance: rated current pole changing method, 128Hz;
Test frequency	Voltage to ground: average value rectification
Short circuit test current	128Hz
Wire resistance check	> 20mA (sine wave)
Display mode	Avoid errors caused by the test wire not fully inserted into the instrument interface or poor contact or the user replacing the extended test wire, so that the grounding resistance measurement is more accurate.
Measurement instructions	4-digit large LCD display, gray and white screen backlight
LCD size	LED flashing indication during measurement, LCD countdown display
Meter size	108mm×65mm
Test lead length	Length, width and height: 277.2mm×227.5mm×153mm
Simple test lead	3 pieces: 15m for red, 10m for yellow, 1 piece for each of 5m green
Auxiliary ground rod	2: Yellow 1.6m, 1 green 1.6m each
measure time	2 pieces: Φ10mm×200mm
Number of measurements	Voltage to ground: about 3 times/second; grounding resistance: about 5 seconds/time
Line voltage	More than 5000 times
USB interface	Measuring voltage to ground: measurement below AC 100V
Communication line	With USB interface, software monitoring, storage data can be uploaded to the computer, save and print
Data storage	1 USB communication cable, 1.5m long
Data access	500 groups, "MEM" storage indication, displaying "FULL" symbol means the storage is full
Overflow display	Data access function: "MR" symbol display
Alarm function	Overrange overflow function: "OL" symbol display
Battery voltage	When the measured value exceeds the alarm setting value, an alarm prompt will be issued
Automatic shut-down	Real-time display of battery power, reminding to charge in time when the battery voltage is low
Power consumption	The meter shuts down after about 15 minutes of inactivity
	Standby: 40mA Max (backlight off)

	Turn on the backlight: 43mA Max
Quality	Measurement: 120mA Max (backlight off)
	Meter: 2397g (including battery)
	Test line: 850g (including simple test line)
	Auxiliary ground rod: 425g (2 pieces)
Working temperature and humidity	Gauge bag: 271g
Storage temperature and humidity	-10℃～40℃; below 80%rh
Overload protection	-20℃～60℃; below 70%rh
Insulation resistance	Grounding resistance: AC 280V/3 seconds between E-H and E-S ports
Pressure resistance	10MΩ or more (500V between circuit and case)
Electromagnetic properties	AC 3700V/rms (between circuit and case)
Suitable for safety regulations	IEC61010-4-3, radio frequency electromagnetic field≤1V/m IEC61010-1, IEC1010-2-31, IEC61557-1, 5, IEC60529 (IP54), pollution, etc. 2, CAT Ⅲ 300V

Ⅲ. Packing List

Meter	1 set
Instrument bag	1
Auxiliary ground rod	2 roots
Monitoring software CD	1 serving
USB communication cable	1
Test line	3 strips (red 15m, yellow 10m, green 5m each)
Simple test lead	2 (yellow 1.6m, green 1.6m 1 each)
6V battery (built-in)	1
Charger	1
Manual, Warranty	1 set

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