

ES3000 Digital earth resistance tester



- Resistance measurement range: 0.01 ~ 3000
- Voltage measurement range: 0.01-100V AC
- Measurement methods: precise 3-wire and simple 2-wire measurement
- Overload protection
- USB interface
- Data storage: 500 measured data groups

The microprocessor-controlled ES3000 digital earth resistance tester with a large, backlit LCD can perform accurate, fast, simple, stable and reliable measurements using the two- and three-wire method.

The ES3000 digital earth resistance tester automatically detects the state of each connection, as well as the disturbance voltage and its frequency, and also measures the resistance value of the auxiliary probes, and displays it on the same screen together with the value of the measured earth resistance. The measurement range of ground resistance is 0.01 ~ 3000 , the range of ground voltage is 0~100V. 500 data groups can be stored simultaneously in the device's built-in memory. The stored data can be recalled on to the display and downloaded to a PC via the USB port. Special functions are adjustable limit values and alarms.

- Functions: earth resistance, earth voltage and low resistance measurements
- Reference conditions:
 - temperature: 23 ±5 C, 75% RH, auxiliary ground resistance 100 ± 5%, voltage to ground <10 V
- Earthing resistance measurement range: 0.01 ~ 3000
- Earthing resistance resolution: 0.01
- Accuracy ±1.5%rdg ±5dgt
- Grounding voltage measurement range: 0.01~100.0 V AC
- Grounding voltage resolution: 0.01V
- Accuracy ±1% reading ±3 digits
- Measurement methods: precise 3-wire and simple 2-wire measurement
 - Earth resistance: current-voltage method, measuring current >20mA (sine wave), test frequency: 128Hz
 - Grounding voltage: average rectification
- Display mode: 4-digit large backlit LCD
 - LCD size: 108mm x 65mm
 - Overdrive indication: "OL" symbol on the display
 - Real-time display of battery charge
 - Adjustable backlight
- Measurement time:
 - Grounding voltage: approx. 2/s; grounding resistance: approx. 5 seconds
 - Number of measurements with one charge: >5000
- USB interface
- Overload protection
- Data storage: 500 data groups
- Alarm function: Alarm if the measured value exceeds the set limit

- Power supply: 8.4 V lithium battery (built-in)
- Energy consumption:
 - Backlight: 25mA max
 - Standby: max. 25mA (backlight of)
 - Measurement: 70mA max (backlight of)
- Instrument size: L/W/H: 277 x 228 x 153 mm
- Weight:
 - Instrument: 2397g
 - Measuring cables: 861.5 g
 - Grounding rods: 425g (2 pcs.)
 - Carry bag: 271g
- Operating temperature and humidity: -10-40 C, 80% RH
- Storage temperature and humidity: -20-60 C, 70% RH
- Overload protection (Earth resistance): AC 280V, 3 sec between E-H and E-S ports
- Insulation resistance: 10M (500V between circuit and housing)
- High voltage test: AC 3700V/rms (between circuit and housing)
- Electromagnetic properties: IEC61010-4-3 ,
- Radiated electromagnetic field 1V/m
- Relevant contact protection standards: IEC61010-1, IEC1010-2-31, IEC61557-1.5, IEC60529(IP54), pollution level 2, CAT III 300 V

Accessories

- Measuring cables: 3 red 15 m, 1 yellow 10 m, 1 green 5 m
- Measuring cable: 2 red 1.6 m, 1 green 1.6 m
- Auxiliary grounding rod, 2 pcs: Ø10 mm x 200 mm
- USB cable, 1.5 m
- Battery charger
- Software
- Carry bag
- Use manual

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