

## T-3630E

### ADVANCED MULTIFUNCTION EARTH GROUND RESISTANCE TESTER

T-3630E advanced multifunction earth ground resistance tester specially design for the measurement of earth resistance, soil resistivity, earth voltage, leakage current of grounding line, AC current, DC resistance. Adopting the latest digital technology, precise 4-pole, 3-pole and simple 2-pole method, selection method, double clamp method to measure grounding resistance, for earth resistance measurement; large caliber clamp design, used to measure the grounding system which adopt large-scale down conductor; can flexibly and precisely measure the value of grounding resistance in every complicated situation like single point grounding, grounding mesh. T-3630E earth resistance tester is not need to disconnect any parallel connection pole when measuring parallel-grounding, and massively improve the convenience when measuring. Importing FFT and AFC technology, with a unique function of anti-interference capability and the ability to adapt to the environment, consistency of repeat testing, to ensure high precision, high stability and reliability for prolonged measure, which is widely used in electric power, telecommunications, meteorology, oil field, construction, lightning protection, industrial electrical equipment and other earth resistance, soil resistivity, earth voltage, AC voltage measurement.

T-3630E multifunction earth ground resistance meter is composed of host machine, monitoring software, testing wires, auxiliary ground pillars, 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 100 sets of data, fulfilling historical inquiry and online real-time monitoring through monitoring software, dynamic display, and alarm indicator, auto-shut down and with the functions like historical data access, reading, preservation, report forms, printing and so on.

## Functions

1. Selection method;
2. 3-pole measurement;
3. Testing Soil resistivity;
4. Double clamp method;
5. AC voltage measurement;
6. Simple 2-pole measurement;
7. Precise 4-pole measurement;
8. Measure grounding resistance;
9. Measurement of earth voltage;
10. AC leakage current measurement;



## Features

1. Accuracy 2%;
2. DC voltage 0-1000V;
3. AC voltage 0-100V;
4. Recorder 500 sets data;
5. With gray backlight;
6. AC current measurement 0-1000A;
7. With IP65 protection;
8. Earth resistance range 0.01Ω - 30.00kΩ;
9. Soil Resistivity ( $\rho$ ) 0.00Ωm - 9999kΩm;

## Parameters

### Electrical parameters

|                        |   |
|------------------------|---|
| Function               | Measure grounding resistance, soil resistivity;<br>Measurement of earth voltage, AC voltage, leakage  |
| Accuracy               | 2%  |
| Power Supply           | DC 6V(4.5AH battery, continuous standby for 300 hours )   |
| Backlight              | White screen backlight, suitable for dim places   |
| Measuring Mode         | Precise 4-pole measurement, 3-pole measurement,<br>simple 2-pole measurement, selection method, double<br>clamp method measure grounding resistance   |
| Measuring Method       | 2/3/4 pole method: change-pole method, measurement<br>current 20mA Max<br>Selection method: change-pole method, measurement<br>current 20mA Max<br>Double clamp method: disconnect mutual inductance<br>method, measurement current 1mA Max<br>Soil Resistivity: 4-pole measurement (Wenner method)<br>DC resistance: change-pole method<br>AC current: mutual inductance method<br>Earth Voltage: average rectification(between P(S)-ES) |
| Measuring Rate         | AC current: about 2 times/second<br>Voltage to ground: about 2 times/second<br>Earth resistance, soil resistivity: about 7 seconds/time   |
| Measuring Times        | Over 5000 times (Short-circuit test, interval time should<br>be at least 30 seconds)  |
| Earth resistance range | 0Ω - 30.00KΩ  |
| Resolution             | 0.01Ω/0.1Ω/1Ω/10Ω   |
| Soil resistivity range | 0.00Ωm - 9999kΩm  |
| Resolution             | 0.01Ωm/0.1Ωm/1Ωm/10Ωm/100Ωm/1kΩm  |

**Electrical parameters - continued**

|                            |   |
|----------------------------|---|
| Earth Voltage Range        | 0 - 100V; Resolution: 0.01V   |
| Clamp AC current Range     | 0 - 1000A; Resolution: 0.1mA  |
| Test Voltage Wave          | Sine wave   |
| Test Frequency             | 128Hz   |
| Short-circuit Test Current | AC 20mA max   |
| Open-circuit Test Current  | AC 40V max  |
| Electrode Distance Range   | set 1m-100m   |
| Backlight                  | Yes   |
| LCD display                | 108mm×65mm, 4-bit LCD display, gray screen backlight  |
| Communication              | USB Port  |
| Data Storage               | 500 GROUPS  |
| Alarm Function             | Yes   |
| Power Consumption          | Standby: about 25mA Max(Backlight shut off)<br>Boot 28mA Max(without backlight)<br>Measurement: about 120mA Max(Backlight shut off)   |
| Overload Protection        | Earth resistance: between each interfaces of C(H)-E, P(S)-ES, AC 280V/3 seconds   |
| Insulation Resistance      | Over 20MΩ (between circuit and enclosure it is 500V)  |
| Withstand voltage          | AC 3700V/rms. (Between circuit and enclosure)   |
| Standard                   | IEC61010-1 (CAT III 300V, CAT IV 150V, Pollution 2),<br>IEC61010-031;<br>IEC61557-1 (Earth resistance);<br>IEC61557-5 (Soil resistivity);<br>JJG 366-2004(Grounding resistance meter)<br>JJG 1054-2009(Clamp grounding resistance meter)<br>IEC61326(EMC) |

**Mechanical parameters**

|                               |  |
|-------------------------------|--|
| Dimensions (L×W×H) (mm)       | 277.2mm×227.5mm×153mm  |
| Size of clamp(L×W×H) (mm)     | 101mm×27mm×214mm   |
| Standard Test Wire            | 4 wires: each for red 15m, black 15m, yellow 10m, and green 10m  |
| Simple Test Wire              | 2 wires: each for red 1.5m and black 1.5m  |
| Auxiliary Grounding Rod       | 4 wires: Φ10mm×150mm Over 5000 times (Short-circuit test, interval time should be at least 30 seconds) |
| 1000A current clamp(Optional) | 2pcs :1 blue-black plug and 1 red-black. 50mm diameter,1000:1, 2m                                      |

**Mechanical parameters - continued**

|             |   |
|-------------|---|
| Weight (kg) | Total weight: 8.05kg (including package)<br>Tester: 2430g (including battery)<br>Testing wires: 940g<br>Auxiliary grounding rods: 935g (4pcs) |
|-------------|---|

**Environmental conditions**

|                       |                |
|-----------------------|----------------|
| Operating temperature | -10°C to +50°C |
| Storage temperature   | -40°C to 70°C  |
| Relative humidity     | ≤90%RH         |