



GDWR-30A Earth Resistance Tester for Ground Grid



General Information

GDWR-30A Earth Resistance Tester is a high-precision test instrument used in various fields such as substations for testing Soil Resistivity, Ground Grid Impedance, Earth Surface Potential and Step Voltage and related parameters. The instrument has the characteristics of small volume, light weight, convenient carrying, strong anti-interference performance and high accuracy. The instrument is an integrated structure, built-in variable frequency power supply module, and the output power supply is continuously variable frequency adjustable. The frequency can be changed to 45Hz or 55Hz, and the built-in high-speed processor core adopts high-end digital filtering technology, which effectively avoids the interference of the power frequency electric field to the test, and fundamentally solves the problem of accurate measurement under

strong electric field interference. A large number of on-site tests and user usage indicate that when the grounding grid is tested under the harsh electromagnetic environment of the running substation, the measured data of the grounding impedance tester of the special frequency ground network are accurate and repeatable. It is an ideal instrument for the measurement of the characteristic parameters of large and medium grounding grids.

Features

- Full touch large LCD

The operation is simple, the instrument is equipped with a high-end full-touch liquid crystal display, a large and full graphical operation interface, each process is very clear, and the operator can use it without additional professional training. The entire process can be measured with a single touch, making it an ideal smart measurement device.

Frequency conversion technology, accurate measurement

Strong anti-interference ability. The instrument measurement output power supply is provided by the internal variable frequency power supply module of the instrument, the frequency is variable to 45Hz or 55Hz, adopts the digital filtering technology, effectively avoids various power frequency interference signals on the spot, so that the instrument can achieve high precision, accurate and reliable measurement.

- DSP high speed processor

Accurate and fast, the instrument uses a professional DSP fast digital signal processor as the processing core. on the premise of guaranteeing the accuracy of measurement data, the operation and processing ability of the instrument itself is greatly improved.

- Whole process intelligent measurement and control

With the strong support of the internal high-performance processing core, the instrument quickly and automatically completes a series of complicated calculation steps such as current output, voltage acquisition and frequency conversion during the whole measurement process. The instrument can automatically judge the impedance of

the current loop, and automatically adjust the output current value of the inter-frequency power supply (**When the voltage is set to 200V, the maximum output current is 50A; when the voltage is set to 400V, the maximum output current is 30A; when the voltage is set to 800V, the maximum output current is 15A.**), and the test task can be automatically completed without human intervention. The measurement content of the instrument includes the grounding impedance Z of the grounding grid, the pure resistance component R and the pure inductance component X .

- Mass storage data

The instrument is equipped with a calendar chip and a large-capacity memory. The test results can be saved in chronological order, and the historical records can be viewed at any time, and can output and print.

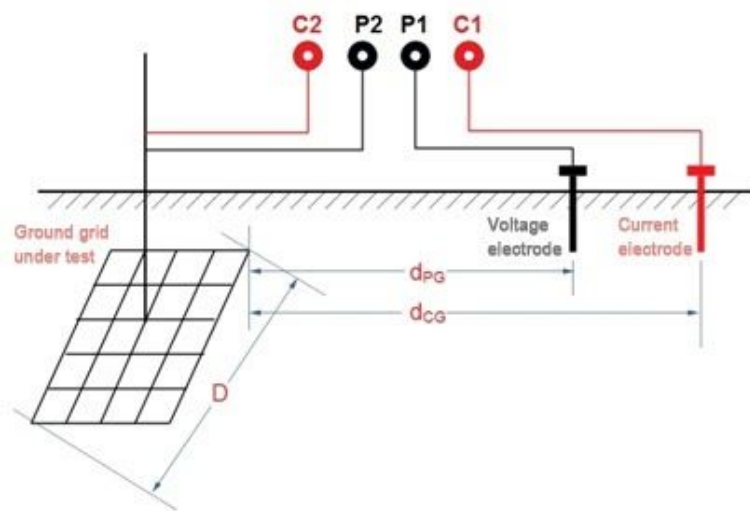
- Data processing of PC

The data measured by the instrument can be exported through the U disk, and then the relevant data can be consulted and managed on the PC.

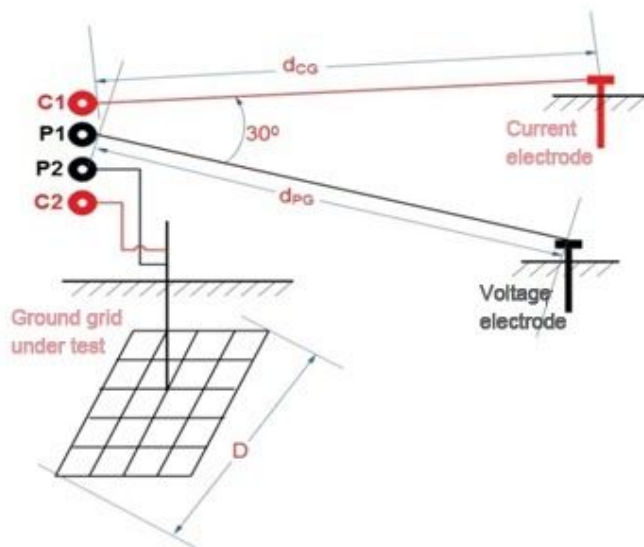
Specification

1	Use condition	-15°C~40°C	RH≤80%
2	Anti-interference principle	Frequency conversion method	
3	Power supply	Auxiliary power supply: AC220V±10% Main power supply: three-phase AC380V	Generator is allowable.
4	Measuring output current	1A~50A adjustable	

5	Measuring output voltage	0V~800V
6	Measuring frequency of power supply	45, 50, 55, 60, 65Hz single frequency 45/55, 55/65, 47.5/52.5Hz auto dual frequency
7	Rated output power	12kW
8	Resolution	Ground impedance: 0.0001
		Impedance angle: 0.0001°
9	Accuracy	Ground impedance: $\pm(1\%*\text{reading}+0.002)$
		Impedance angle: $\pm(1\%*\text{reading}+0.02^\circ)$
10	Resistance measuring range	0.001Ω~5kΩ
11	Dimension	Host: 450(L)*350(W)*480(H) Transformer: 450(L)*350(W)*540(H)
12	Memory size	100 groups, support U disk data storage
13	Weight of host	Host: 20kg; Transformer: 35kg; Cables: 3kg; Ground pile: 4kg



Wiring method 1



Wiring method 2

Accessories

No.	Name	Quantity	Unit
1	GDWR-30A Host	1	piece
2	Transformer	1	piece
3	Ground pile	1	set
4	Test cable	1	set
5	Power cord	1	piece
6	Ground cable	1	piece
7	Print paper	1	roll
8	Test report	1	piece
9	User's manual	1	piece