

HF-GT-203**Ground Grid Resistance Testing System**

Ground Grid Resistance Testing System is specially developed for substation grounding grid inspection. With dual-frequency anti-interference technology, it measures grounding impedance, soil resistivity, step & contact voltage, supports data storage and onsite thermal printing for power engineering acceptance.

Technical specifications

Parameter	Value
Functions	Ground resistance, soil resistivity, step voltage, distributed potential, contact voltage measurement
Ground Resistance Measuring Range & Accuracy	0.030ohm ~ 2000ohm: Error $\pm 2\%$ rdg ± 5 dgt 0 ~ 20.00ohm: $\pm 2\%$ rdg ± 5 dgt 0 ~ 200.0ohm: $\pm 2\%$ rdg ± 5 dgt
Resolution of Ground Resistance	0.001ohm
Rated Measuring Power	2000W
Anti-interference Capacity	Resists 50Hz power frequency interference voltage up to 50V
Reference Conditions	23°C $\pm$ 5°C, relative humidity $\leq$ 70%RH; auxiliary ground resistance $\leq$ 10%, earth voltage $<$ 10V
Power Supply	AC 220V 10A (50Hz)
Backlight	Adjustable brightness
Measuring Modes	4-pole method, 3-pole method, 2-pole method
Measuring Principle	Ground impedance: constant current method
Short-circuit Test Current	5 adjustable gears: 1A, 2A, 3A, 4A, 5A
Electrode Spacing for Soil Resistivity	Adjustable range: 1m ~ 100m
Test Frequencies	45Hz, 55Hz; automatic dual-frequency switching optional
Max Short-circuit Current	AC 5A $\pm$ 10%, sine wave
Max No-load Voltage	AC 400V $\pm$ 10%, sine wave
Display	7-inch touch color screen
Touch Screen	Equipped
Measurement Indication	Progress bar display & animation prompt during testing
Overall Dimensions	540mm $\times$ 440mm $\times$ 210mm
Standard Test Leads	Red 15m, Black 15m, Yellow 10m, Green 10m, Yellow 1.5m, Green 1.5m, 1 piece each
Auxiliary Ground Rods	2 pcs of 800mm + 2 pcs of 2000mm
Measuring Time	Approx. 1 minute per ground impedance test
Printing Function	Built-in thermal printer
Printing Paper Size	57*40mm
Data Storage	100 groups; "Saved Successfully" prompt; "Memory Full" symbol when storage is full
Data Query	Supported
Over-range Display	"OL" symbol for over-range indication
Auto Power Off	Not available
Power Consumption	Standby: $<$ 110W Measuring: 2000W

Parameter	Value
Weight	Main instrument: 27 kg Test leads + ground rods + packing case: 5.5 kg
Operating Temperature & Humidity	-10°C ~ 40°C, relative humidity <80%RH
Storage Temperature & Humidity	-20°C ~ 60°C, relative humidity <70%RH
Insulation Resistance	≥10Mohm (500V applied between circuit and enclosure)
Withstand Voltage	AC 3700V rms (between circuit and enclosure)
EMC Performance	Complies with IEC61010-4-3, radiated electromagnetic field ≤1V/m
Applicable Safety Standards	IEC61010-1, IEC61010-2-31, IEC61557-1, IEC60529 (IP54), Pollution Degree 2, CAT III 300V

Standard scope of supply

No.	Item	Qty	Notes
1	Main Tester Unit	1 Set	7-inch touch color screen, built-in thermal printer
2	Complete Set of Test Cables	1 Set	Red/Black/Yellow/Green leads in various lengths
3	Auxiliary Earth Rods	4 Pcs	2 pcs × 800mm, 2 pcs × 2000mm
4	Thermal Printing Paper Rolls	2 Rolls	Size: 57×40mm
5	Power Cord	1 Pc	AC220V power supply cable
6	Operation Manual (English Version)	1 Copy	Detailed operation & parameter introduction
7	Factory Calibration Certificate	1 Copy	Official calibration document
8	Shockproof Transport Case	1 Pc	For overall storage and transportation

Compliance and documents

Applicable standards	[TO BE CONFIRMED] standard applied to this model
Calibration certificate	[TO BE CONFIRMED]
Optional accessories	[TO BE CONFIRMED]

Warranty and support

12-month warranty on every exported instrument. English operation manual and remote video guidance at commissioning. T/T, L/C at sight and deposit terms for bulk orders; sea, air or rail shipping.