



Product Function

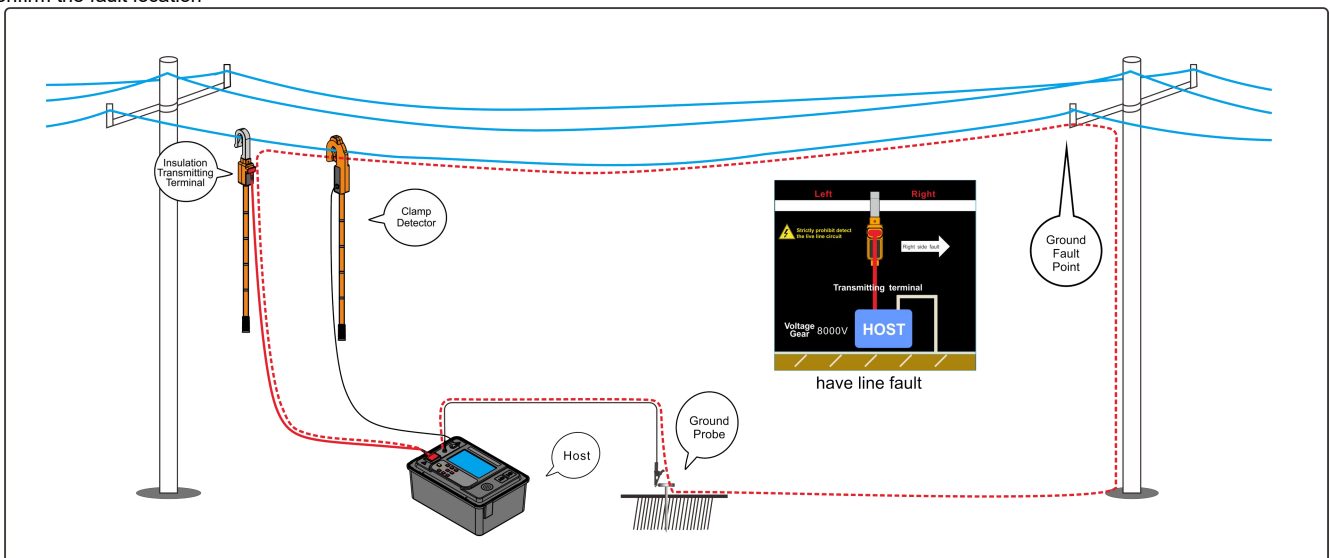
Apply for single-phase ground fault detection of overhead high-voltage lines, Accurately search the hidden ground faults of overhead line such as single-phase metallic grounding, arcing grounding, transition resistance grounding, insulator breakdown, and lightning arrester breakdown, etc.

Product Features

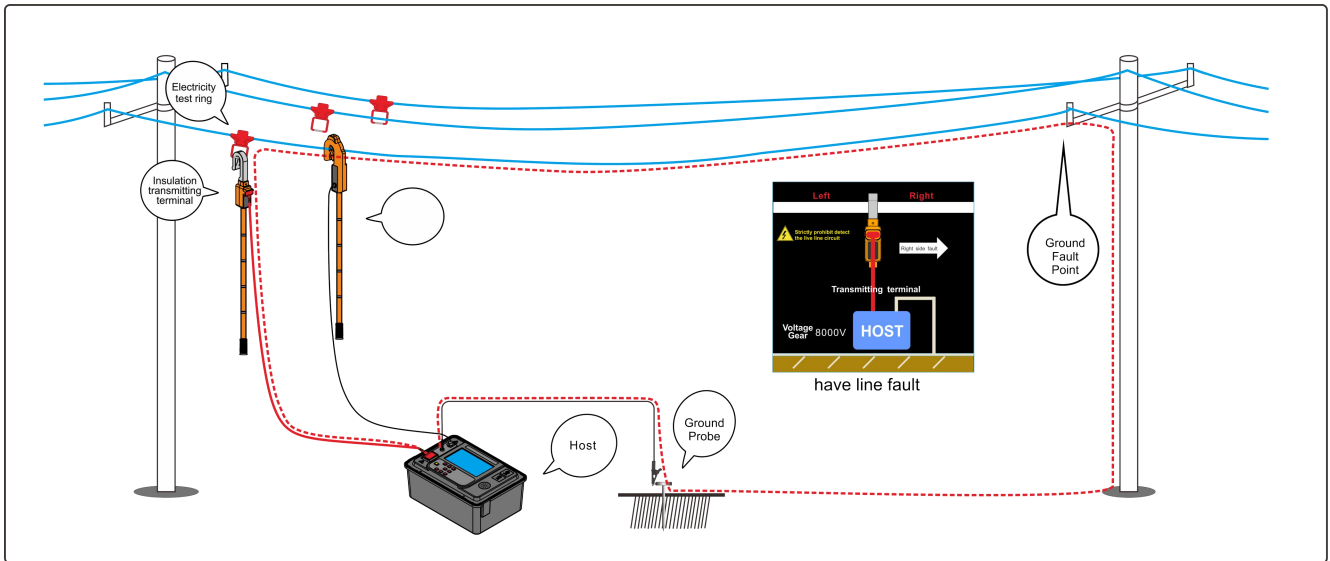
1. The instrument can accurately judge the direction of ground fault and measure the resistance value of ground fault, and also no need to disconnect the PT, The detection is convenient and fast which is especially suitable for faulty lines with cable branches.
2. The detector can be applied to the cables with insulation sheath (the transmitting terminal is hung on the test ring).
3. Output voltage have 8000V and 3000V two gears option, output current $\leq 50\text{mA}$.
4. With strong short-circuit detection capability, which can detect the direct short-circuit fault of the ground resistance is 0Ω .
5. Equip with Large-capacity rechargeable battery which can complete the inspection of the entire line after being fully charge.
6. Fast detection speed, will get test result within a few seconds after installation.
7. Voice broadcasting function, indicate the direction of the fault.
8. With Bluetooth communication function, the communication distance up to 40m. After downloading the APP, can test and view the test results on mobile phone, and use it as a handheld receiver

Grounding Fault Detection Principle

After the overhead line network is stopped, the host outputs low frequency and high voltage signals, and the AC voltage signals are applied to the line through the transmitting terminal, the highly sensitive current transformer of current detector detects the current amplitude and phase of the line. The current passes through the host and the clamp detector, flows through the fault line, enter to the ground at the grounding fault point, and return to the host through the ground pin. The host output high-voltage AC signal. The distributed capacitance and fault ground resistance form an RC parallel circuit. By detecting the voltage and current signals on both sides of the line and the phase between the voltage and current, it can be judged whether the present load is capacitive or inductive, and then compare the purely resistive impedances on the left and right to determine if the ground fault is on the left or right side. Use the dichotomy method to detecting section by section, and test from the middle to two ends of the line to quickly approach the fault point and confirm the fault location



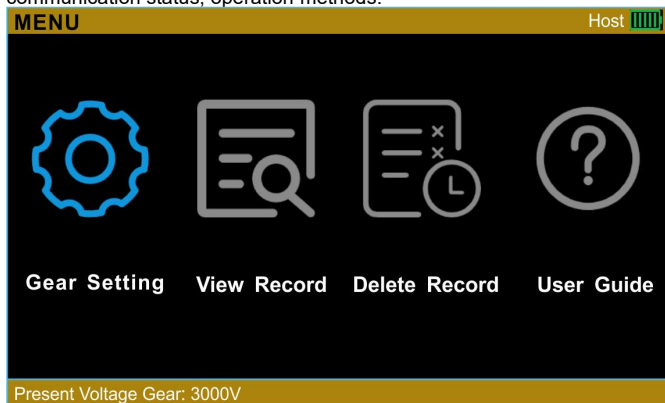
Bare line ground fault detection



Host Test Interface

Insulation cable ground fault detection

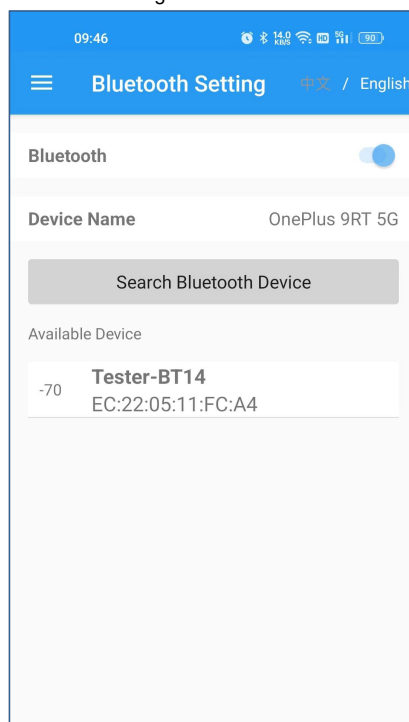
Equip with 7-inch colorful screen, which can display clearly: fault indication direction, field test parameters, historical test records, battery power, communication status, operation methods.



Record No.	502	
Test Parameters	Left	Right
Voltage(V)	129.3	130.4
Resistive Current (mA)	-1.4	-0.9
Reactive Current (mA)	-10.9	-20.4
Resistance (Ω)	-1.0 K	-214
Reactance (Ω)	-8.2 K	-4.5 K
Test Record	Used 501	Usable 499 Total 1000

Bluetooth APP Test Interface

Equip with Bluetooth communication function which supports Android system. After scanning the QR code to install the APP program, can test and view the test results on the mobile phone, which is very convenient for using on-site.



Overhead Line Ground Fault Detector		
TEST PAGE		HISTORICAL RECORD
4		
	Yellow Side	Red Side
Voltage	283.9V	254.5V
Resistance	44.2KΩ	39.3KΩ
Reactance	30.5KΩ	27.5KΩ
Impedance Current	-3.0mA	3.0mA
Reactive Current	2.1mA	-2.1mA
Test Result	NoGroundingFault	
Test Conditions	Voltage 3000V	
PREVIOUS PAGE	Record No	SKIP NEXT PAGE
CLEAR ALL DATA		

Technical Specifications

Power Supply	Host: 29.6V, 10400mAh Rechargeable lithium battery;
Detection Method	Clamp type CT
LCD	7-inch colorful screen, size: 153.8mX85.6mm
Output Voltage	AC 3000V/8000V
Output Current	≤50mA
Ground Fault Resistance	≤150kΩ
Line Reactance	≤30MΩ
Output Frequency	50Hz
Clamp Size	Φ36mm
Voice Broadcast	Yes
Instrument Size	Host unit: 355mmX272mmX164mm Current detector: 297mmX118mmX94mm Transmitting terminal: 293mmX116mmX51mm
Instrument Weight	Total Weight: 22kg (include accessories)
Overheat Protection	When the instrument overheats will stop testing and issue prompt, and will automatically resume after 3 minutes.
Automatic Shutdown	The instrument will automatic shutdown without any operation after 15minutes
Battery Power	Indicates the battery power of the host
Data Upload	The host equip with USB interface which can uplaod the test data
Bluetooth Communication	Communication distance 40m (Open environment)
Working Temperature & Humidity	Temperature: -20°C~70°C, Humidity: 5~90%RH
Working Altitude	Altitude<5000m
Insulation Rod Length	About 4300mm
Accessories	Host:1PCS, Transmitting terminal:1PCS; Clamp detector: 1PCS; High voltage test line: 1PCS; Aviation plug ground line: 1PCS; Ground Probe:1PCS; Communication data cable: 1PCS; Charger:1SETS; Instrument case: 1PCS; Insulation rod :2PCS; Tool bag: 2set