PITE 3836 Ground Fault Locator

PITE 3836 is PITE's revolutionary ground fault locator. This patent-protected product is built based on years of field experience in different DC systems. It specially deals with current leakage DC system of high resistance below 1MΩ. With its unit and comprehensive way for current detection, It pinpoints faulty grounding where electrical lines have breakage and current lost to the ground. It gives excellent solutions for troubleshooting and preventative maintenance. It is widely used in locomotive, telecom, power utilities, and so on.

Why PITE 3836?

Cost can be tremendous upon bad insulation or grounding in the power system. It may even cause power break-off which is costly to repair. Fast localization and elimination of grounding faults will be significant for electricians and technicians. It is also required by DIN VDE 0100-410 (VDE 0100-410): 2007-06 chapter 411.6.3.1 and IEC 60364-4-41 chapter 413.1.5.4. PITE 3836 is developed to fast detect, track and locate virtual grounding faults on DC systems. This spares you from hours of unnecessary troubleshooting and helps to increase the reliability of your electrical equipment. It is widely used in locomotive, telecom, power utilities, etc

Composition of Signal Receiver

Standard signal receiver

Different sizes of current detectors

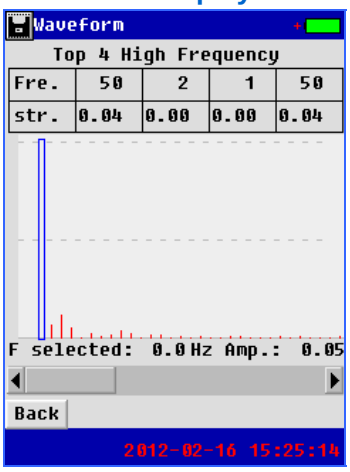
Optional signal receiver

Feature

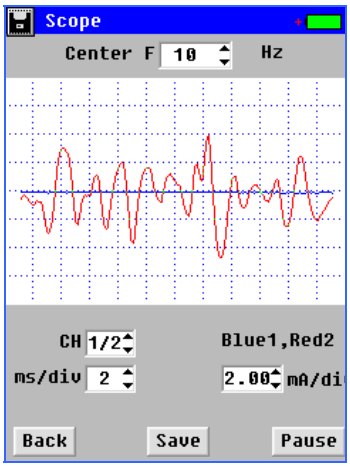
- Patented technology, pinpoint current leakage fault with grounding resistance lower than 1MΩ
- Config with different sizes of current detector for different environments application
- Adjustable output frequency on signal receiver effectively avoids interference from DC system itself
- Signal receiver with adjustable sensitivity in different location of circuit help judge current leakage quickly
- Digital signal processing technology for detecting grounding resistance and distributing capacitance
- No disconnection of the electrical installation, ground fault location is carried out during operation
- Precise current direction (positive or reversed) indicating for Leaking current help fast locate the faulty grounding
- Waveform analysis will analyze the interference signal in the circuit, greatly keep it away from interfered frequency

- Signal-generator with adjustable output voltage (24V, 48V, 110V and 220V) and output frequency (0.5～500Hz), suitable for different electronic equipments
- More signal receivers can work simultaneously to narrow down the searching scope and find out the fault quicker
- Reflects aging status of facilities for further reparation, and reduced maintenance and repair costs.

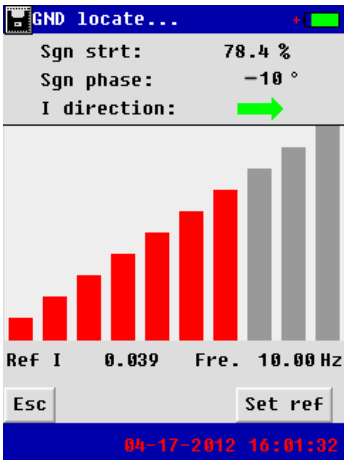
Functional Display



Frequency analysis to filter the environment frequency that might affect the testing result



Oscilloscope to compare waveform before and after filtering of affected waveform

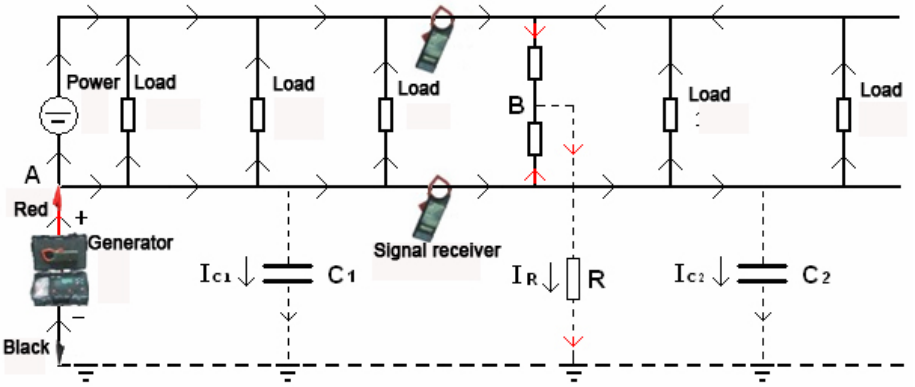


Signal strength, phase angle and current direction for easier and more accurate location of faulty grounding

How does it work?

PITE 3836 uses comprehensive ways to pinpoint the faults with the following working rules:

1) Signal generator has two testing leads connected with DC system. And it injects a low-frequency current signal with direction to the DC system. This signal will flow from red testing lead, outflow from the faulty grounding point and finally flow back to black testing lead.
2) Signal receiver will trace this current signal with the help of direction judgment. Direction of current signal always goes to the faulty point
3) Strength and phase angle of current signal will have big changes before and after the grounding fault.



Typical application

Railway: signal, communication and locomotive electronic equipments in railway
Communication: electronic equipments of different voltage range with faulty grounding
Power utility: DC system with faulty grounding, e.g. switchgear in substation
Others: DC system in aviation, metallurgy, auto works, household appliances and so on

Technical specification

Ground fault location	Output voltage: 24V, 48V, 110V, 220V, 500V Output frequency: Selectable among 0.5Hz, 1.0Hz, 2.5Hz, 5.0Hz, 10Hz, 20Hz, 50Hz, 100Hz, 200Hz, 325Hz Output current limitation: 1mA, 2mA, 5mA & no limit Fault location sensitivity: ≤ 1.5 MΩ Current detect sensitivity of AC/DC circuit: ≥ 0.5mA Quick-search clamp: 55mm (diameter), 60mm (jaw opening) φ8 current detector:8mm(diameter), 20mm(jaw opening),20mm (width) φ20 current detector:20mm(diameter), 30mm(jaw opening),36mm (width)
Power supply	Signal generator: 4200mAh/16.8V rechargeable Li-ion battery Input: AC220V/110V, output: DC16.8V/2A, durable for long time working with adaptor Standard signal receiver: 2400mAh/8.4V rechargeable Li-ion battery Charger input AC220V/110V, output:DC8.4V300mA Quick signal receiver: 200mAh/ 8.4V Ni-MH rechargeable battery Charger input: AC220V/110V, output: DC9V/20mA
Power consumption	≥4 hours
Memory	128M
Display	Signal generator: 128×64bit LCD Signal receiver: 240×320 pixel 3.5″ TFT touch screen
Working temperature	-10℃～55 ℃
Dimension	L360*W260*H135mm
Weight	7.0 kg

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