



HTJF-9003 Ultrasonic Partial Discharge Detector



Product Introduction

Portable multifunctional partial discharge tester is our company's technical personnel according to many years of local discharge testing experience, suitable for high voltage equipment partial discharge online detection and location.

The system is equipped with composite TEV sensor, uhf sensor, hf current transformer and high sensitivity ultrasonic sensor to collect partial discharge signals inside the high-pressure equipment. The system adopts multi-stage detection and frequency reduction technology to reduce the frequency of discharge signal, and USES high-speed AD conversion circuit to digitize the signal, and ensures the reliability of detection data through digital signal processing, adaptive filtering and other interference signal processing methods. By collecting different signals generated by partial discharge in different high voltage equipment, the running state of the equipment can be quickly charged. The instrument can be installed and tested under the running state of the equipment, without any influence on the normal operation of the equipment. It is

convenient for the staff to timely evaluate the running state of the switch cabinet, and greatly improves the reliability, safety and effectiveness of the equipment running.

The portable multifunctional partial discharge tester consists of the main tester, TEV sensor, ultrasonic sensor, hf current transformer, uhf sensor and connecting wire.

Product Names : partial discharge detector、ultrasonic partial discharge detector

Product Parameters

TEV measurement

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|----------------------------|------------|
| Sensor | capacitive |
| Measuring range | 0 ~ 60dBmV |
| Resolution ratio | 1dB |
| Error | ± 1dB |
| Detection bandwidth | 5 ~ 70MHz |
| Maximum pulse/period | 655 |
| Threshold adjustment range | 3 ~ 57dB |

High-frequency current transformer

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|--------------------------|--------------------|
| Detection frequency band | 10kHz ~ 30MHz |
| Signal transmission mode | 50 Ω coaxial cable |
| Detection sensitivity | 10pC |

Ultrasonic transducer

| | |
|-------------------------|-----------------------------------|
| Measuring range | -7dBμV ~ 68dBμV |
| Resolution ratio | 1dB |
| Error | ± 1dB |
| Sensor sensitivity | - 65dB (0dB = 1volt/μbar RMS SPL) |
| Sensor center frequency | 20 ~ 50kHz |
| Sensor diameter | no greater than 50 mm |

| | |
|----------------------|---------|
| Heterodyne frequency | 38.4kHz |
|----------------------|---------|

Uhf sensor

| | |
|--------------------------|---------------------------|
| Detection frequency band | 300MHz ~ 1.5GHz |
| Signal transmission mode | 50 Ω coaxial cable |
| Detection sensitivity | 1dB |
| Gain | > 65dbm |

Using the environment

| | |
|-------------------------|---------------------|
| Altitude | $\leq 3000\text{m}$ |
| Environment temperature | -20 ~ 60°C |
| Relative humidity | $\leq 95\%$ |

Hardware requirements

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|-----------|--|
| Shell | with a protective case, the protection grade should be up to or better than IP53 |
| Connector | headphone jack, low voltage dc charger input, external ultrasonic sensor input |
| Weight | > 3 kg |
| Display | LED display, and can display battery status |

Product features

1. The system adopts multi-stage detection and frequency reduction technology to reduce the frequency of discharge signal. Meanwhile, high-speed AD conversion circuit is adopted to complete the digitization of the signal.
2. By collecting different signals generated by partial discharge in different high-pressure equipment, the running state of the equipment can be quickly charged.
3. The instrument can be installed and tested under the running state of the equipment without any influence on the normal operation of the equipment.