

PDMonitorU

Online Partial Discharge Monitoring System



PDMonitorU utilizes UHF, HFCT, and AE Sensors to monitor, analyze, and diagnose the PD signals emitted from multiple high voltage electrical equipment.

It consists of sensors, Monitoring Endpoint Units (MEU), a Diagnostic Server Unit (DSU), and cables. The PD signals detected from the sensors are transmitted to the MEU for processing. The processed data is transmitted to the DSU through Ethernet or fiber optic cable and analyzed by the Intelligent Diagnostic System. It identifies PD types and provides maintenance suggestions.

Applications

- GIS
- MV switchgear
- Power cables
- Transformers
- Isolated-phase bus

Detection Bandwidth

- UHF: optional bandwidth for different field environments: 200MHz~1500MHz / 300MHz~1500MHz / 500MHz~1500MHz / 300MHz~3000MHz
- HFCT: optional bandwidth for different field environments: 500kHz~90MHz / 200kHz~50MHz
- AE: 20kHz~300kHz

Main Features

- Optional UHF/HFCT/AE detection methods
- Compares signals between the Noise Sensor and the UHF Sensor to identify disturbance and PD
- PD Signals are collected and processed through the MEU, which consists of High Speed Data Sampling Module, High Speed Data Processing Module, and Communication & Control Module.
- The High Speed Detection Technology is employed to capture the characteristics of the PD signals.
- The DSU identifies the possible PD types through statistics and analysis of the historical data.
- Database System for data storage
- Typical PD and disturbance characteristics database provided in the software

Technical Specifications

- Sampling rate: 100MS/s
- Measurement range: 1mV~4Vpp
- Display: PD amplitude, phase, frequency, and more
- No. of channels: 6~8
- Data spectrum: PRPD, PRPS, and more
- Data communication and protocol: RS485, Ethernet cable, and optical fiber, etc. Compatible with IEC 61850 communication protocol optionally.
- Power supply: AC 85~264V, 50/60Hz
- Operating temperature: -40 F ~ 158 F / -40°C ~ 70°C
- Humidity: 0~90%, non-condensing

Configuration Options

Internal UHF Sensor



External UHF Sensor



Diagnostic Server Unit (DSU)



HFCT Sensor

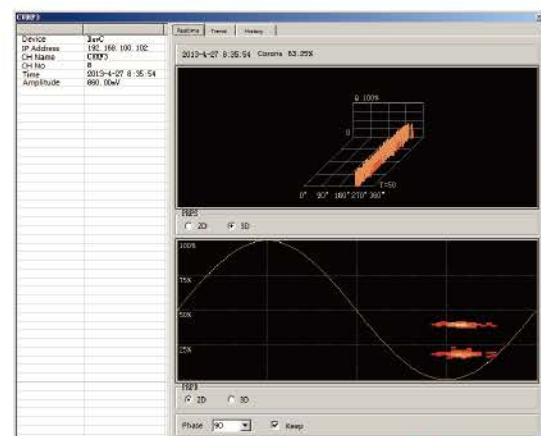
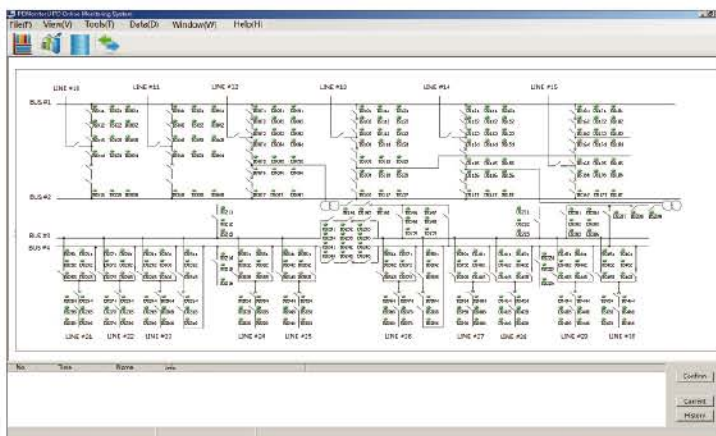


AE Contact Sensor



PDMonitorU Software

- High speed data sampling and processing in real time
- Multiple spectrums and analyzing methods
- Identifies all PD types and disturbance signals through statistics and Intelligent Diagnostic Technology
- Built-in typical PD and disturbance characteristics database
- Historical trend statistics and data record inquiry
- Partial discharge alarm
- Supports IEC 61850 communication protocol optionally
- External data access and data export capability



Note: Customized products are available upon request.

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