

# PDMonitorS

## Switchgear Online Partial Discharge Monitoring System



PDMonitorS utilizes TEV, AE, Ultrasonic, External UHF, and HFCT Sensors to detect, analyze, and diagnose the partial discharge signals from switchgear.

PDMonitorS consists of sensors, Monitoring Endpoint Units (MEU), Data Concentrator Units (DCU), a Diagnostic Server Unit (DSU) (Optional), and cables. Since the MEU can operate independently, you can use a certain number of MEUs to monitor several switchgear or choose to

establish a monitoring network for a whole substation(s) of any size through the communication network according to your needs. The DCU receives data results from every MEU and analyzes the severity of the PD signals. Test data is displayed on the DCU and the monitoring status of the PD signals can be observed on-site or online.

### Applications

- MV Switchgear

### Main Features

- Optional layout and wiring methods: wired or wireless
- For wired layout, the power is supplied through a power cord and the data is transmitted through the RS485 protocol.
- For wireless layout, the power is supplied through a rechargeable battery and the data is transmitted wirelessly through a ZigBee configuration.
- The MEU is placed on the switchgear through an electromagnet on its back. No wiring needed and it is quite simple to install.

### Detection Bandwidth

- TEV: 3MHz ~ 100MHz
- Ultrasonic: 40kHz
- UHF: 300MHz ~ 1500MHz
- HFCT: 500kHz ~ 50MHz
- AE: 20kHz ~ 300kHz

### Technical Specifications

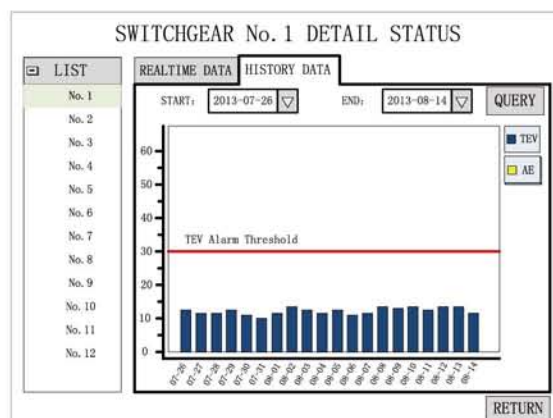
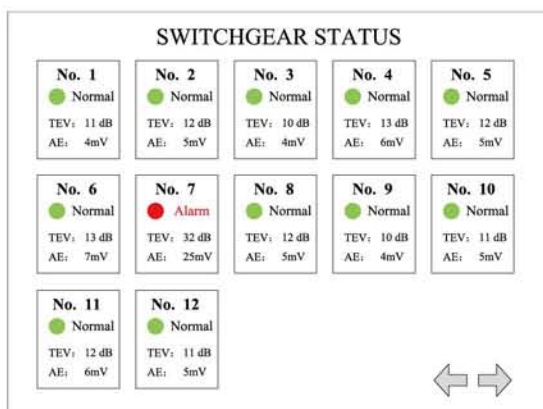
- Measuring resolution: 1dB
- Network communication (optional): Compatible with RS485 bus and Modbus communication protocols. The MEU is extensible.
- Wireless networking
- Assembly method: Attached to the surface of the switchgear enclosure through an electromagnet.
- Operating temperature: -40 °F ~ 158 °F / -40 °C ~ 70 °C
- Humidity: 0~90%, non-condensing

# Configuration Options

- Monitoring Endpoint Units (MEU)
- Data Concentrator Units (DCU)
- External UHF Sensors
- AE Contact Sensors
- Ultrasonic Sensors
- TEV Sensors
- HFCT Sensors
- Diagnostic Server Unit (DSU) (Optional)

## PDMonitorS 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
- External data access and data export capability



\* Note: Customized products are available upon request.

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