# PRODUCTS

## Key Features

**PDMS with true UHF bandwidth**

Superior accuracy and noise gating features based on the state–of-the-art UHF technology. Conventional PDMS systems may convert PD signals in UHF band to RF band because their systems do not have performance enough to analyze PD signals in UHF band directly. PDMS systems of APM Technologies include high performance data acquisition units that are enabled to analyze PD signals in UHF band without down converting.

**IEC 61850 certified**

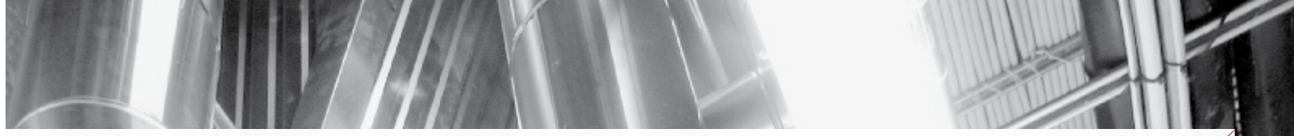
Supports the latest Substation Automation System including remote PD monitoring using IEC 61850 protocol.

**Unparalleled multi-step noise filtering method**

Step 1) Programmable hardware band pass filtering
Step 2) Eliminating external noises by comparing signals from PD Sensors with Noise Sensor
Step 3) Distinguishing various types of Noise signals including Mobile Network, WIFI by using Neural Network AI engine

**AI analysis**

Signals measured from each PD Sensor are analyzed in real time based on the database by AI, and reported instantly with its cause in case they are PD signals. The AI database includes various types of defect including Protrusion Electrode, Floating Electrode, Defective Insulator, Free moving particle and Noises.



**Enhanced HMI**

- Provides PD analyzing features using AI, Trend features which shows PD changes over time, and integrated features such as real time signal analysis
- Provides independent conditions setting according to each sensor's installation environment
- Provides user account and control management and regular automatic report generating features

**Expandability**

In case more bays are added to an existing GIS where APM's PDMS has been installed, the PDMS can be expanded to support the additional bays by adding Local Units and PD Sensors with the minimum cost.

**Self-Diagnosis**

- Monitors Local Units in HMI providing alarms and automatic recovery feature
- Provides PRPD, PRPS and other graphic charts for PD experts
- Stores and data for long period

## Why UHF Method?

- UHF PD detection method can be used for a wide range of high voltage equipment including GIS, GIB, AIB, Transformer, etc.
- UHF PD detection method can detect PDs earlier than other methods.
- UHF PD detection method can diagnose causes of defect in real time more accurately.

# APM 2000

## Portable PD Monitoring System


**APM 2000 detects and alerts various defects inside EHV/MV equipment by analyzing UHF signals generated by partial discharge. It monitors, records and analyzes PD signal continuously and alerts the condition of EHV/MV equipment with light-weight and small-sized equipment.**

- **Suitable for the PD measurement of the extra-high voltage and medium voltage equipment**
- **Portable light-weight and small-sized equipment maintain PD analysis features**
- **Provides project management features for multiple PD sensors at multiple sites.**
- **Able to detect less than 5 pC according to CIGRE TF 15/33.03.05**
- **Compliant with EMC and electricity safety international standards such as IEC61000-4-X, IEC60255-5, IEC60068-2-X, IEC60529/2001, IEC60270, and CISPR22**

### System

| Item | Specification |
|---|---|
| **Power** | 90 to 240 VAC, 50/60Hz<br>120 to 370 VDC |
| **Input** | 4 UHF Channels, N-Type Connector |
| **Bandwidth** | Wide Bandwidth 100 ~ 2000MHz |
| **Dynamic Range** | - 65 to 0 dBm |
| **Band Pass Filter** | Combination of 4 LPF and 4 HPF |
| **Noise Gating** | Enabled (External Noise Sensor) |
| **Sensitivity** | Can detect discharge below 5 pC within monitoring area |
| **Diagnosis** | Built in neural network engine classifies PD into 5 types: Protrusion Electrode, Floating Electrode, Defective Insulator, Free Moving Particle and Noise |
| **Storage** | Database |
| **Communication** | 10/100Base-T/TX Ethernet |
| **Operating Temperature** | -25°C to 55°C |
| **Operating Humidity** | 100% |
| **Enclosure Rating** | IP41 |
| **Dimensions** | 457 x 337 x 170 (W x H x D) mm |