

On-Line Partial Discharge Monitoring System (PowerPD™: PD-TP500A)

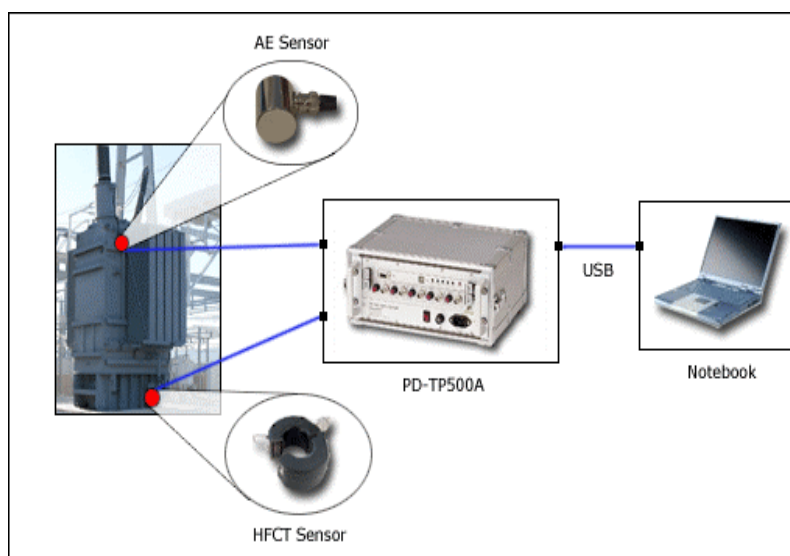
On-Line Partial Discharge Diagnostic for Cable joint, Transformer and GIS



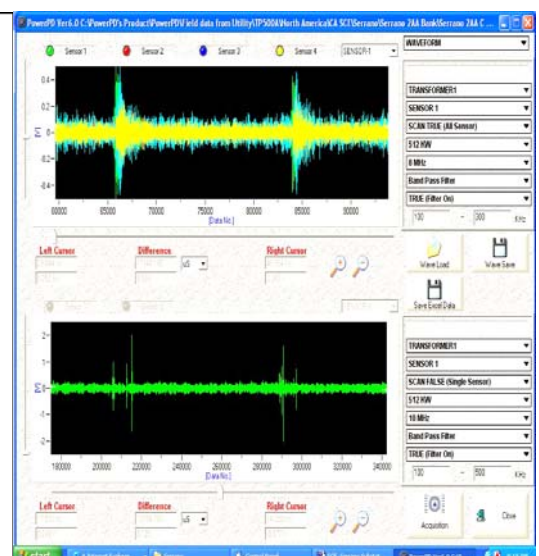
PD-TP500A is a portable online diagnostic system, which periodically monitors partial discharge in equipment such as Transformers, GIS, and Cable joint. The PD-TP500A will detect, analyze, and find the signal source locations. With the benefit of being portable, the PD-TP500A is perfect for day to day testing or special tests on equipment, which does not have a continuous on-line monitoring system.

(All PowerPD units include software, which allows accessibility of continuous monitoring from your home or office PC, via, remote Internet)

- Portable, uses AC power source;
- Connects to your laptop via USB port
- Used on fully loaded and energized electrical equipment, completely non-intrusive
- Simultaneously measures AE (acoustic emission) via 4 sensors and electrical discharges via a clamp-on type CT. The CT is a High Frequency Current Transducer (HFCT)
- Detects, measures and locates signal sources from PD or Arcing
- Used on transformers, LTC's, Cooling System pumps and motors, LA's, Circuit Breakers, & Gas Insulated Substations (GIS)
- Sensitivity = AE: 20pC; HFCT: 5pC



Configuration of PD-TP500A



Display of Partial Discharge Detection

PD Diagnostic System

PowerPD, Inc.

6131 Orangethorpe Ave. Suite 260

Buena Park, CA. 90620 U.S.A

Tel: 714-522-7676

E-Mail: PowerPD@PowerPD.net

Technical Specifications

Purpose

This system detects and analyses the PD generation status on the high voltage Transformers by using on-line, real time measurement. Simultaneous use of AE and HFCT sensors make the system more reliable in locating source of Partial Discharge.

System Configuration

PC	Local Station	Sensor
Notebook PC : Pentium	PD pulse counting and PD signal digitizing in high speed	Acoustic Emission (AE) sensors
OS : Windows 98/NT/2000/XP/Vista	Sensor signal conditioning	HFCT Sensors
System operation, data processing and management	Data communication with PC	

Functions

PD Detection and Measurement	PD pulse counting	PD waveform digitizing, processing display
Analysis and Diagnosis	Pulse data analysis Pulse vs Time, Pulse vs Phase Pulse vs Amplitude, Pulse-Time-Phase, Pulse-Amplitude-Phase	PD signal waveform analysis Digital filtering, FFT, Zoom-in, Zoom-out, Analysis of Freq., Amplitude and number of signals
Find signal source location		Alarm
Data management	Pulse and waveform data management for 30 years	
System operation		
GUI (Graphic User Interface)		Windows 98/NT/2000/XP

Specifications

System Type	Portable type	
Number of Sensor Channel	5Channel (AE: 4Ch, HFCT: 1Ch)	
Channel of Sensors	AE:(Freq: 80KHz ~ 300KHz) Sampling rate: 8 MHz (Max)	HFCT:(Freq: 100KHz ~ 5 MHz) Sampling rate: 20MHz (Max)
Communication	- USB: 12Mbps - RS-422 (Opt.): 500Kbps, 300m (Max. length) - Optical Fiber Com.(option) : 5 Km	Digitizing For 3 cycle of AC power (Min) Digitize 5 Ch. simultaneously
Power requirement	AC 110/240V +/- 10%, 50/60Hz, 1Φ, 0.5A	Size - 13"(W) x 13"(D) x 6" (H) 12lb
		Applicable targets Transformer