

RADIOMETRIC CONDITION MONITORING

PDtect[®]2 Portable



Portable PD locating equipment for all Air Insulated Substations (AIS). Bespoke ultra-high-speed recording unit is powered from 12V DC battery. Analysis software is run on a supplied Toughbook PC and presents graphical data to the user and records results.



PDTECT® TECHNOLOGY

The Elimpus PDtect® series of radiometric PD locators detect the presence of partial discharge (PD) through the reception of radio frequency impulses emitted from stressed insulation. Due to the ultra-high bandwidth (0.01 – 0.75 GHz) and ultra-high speed sampling rate (1.5 G samples per second), the locator is able to determine the direction of arrival of a PD impulse by tracing its propagation across a two-antenna array. Thus, by computer analysis of the recorded signals, the source of the PD can be located and its severity assessed.



OVERVIEW

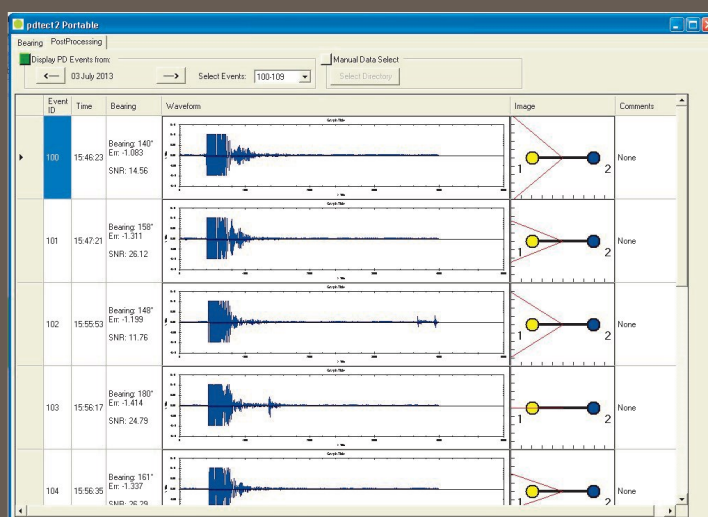
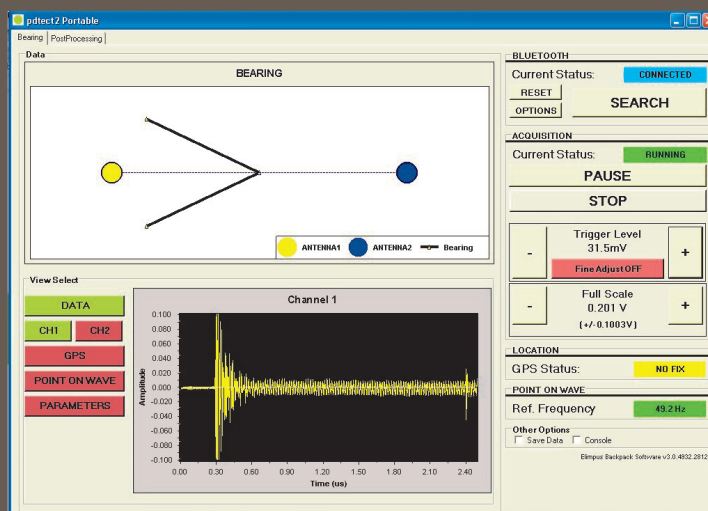
The PDtect[®]2 Portable system in a backpack, self contained compact solution allows accurate location of PD sources by walk through inspection of the high voltage yard.

Simple, intuitive and easy to use the PDtect[®]2 Portable can detect and locate partial discharge in HV environments. It is ideal tool for engineers and technicians with responsibility for operation, service and maintenance of HV assets.

Using radiometric technology the PDtect[®]2 Portable is non intrusive and non-contact based. It can measure multiple assets simultaneously.

MAIN FEATURES

- PDtect[®]2 system fitted into a backpack for personal use.
- Easy to use software running on Windows 7.
- Ideal for use in all AIS high voltage compounds from 33 kV and above.
- Compact design and portability allow access into hard to reach areas of substation.
- Two monopole antennas allow PD direction to be determined.
- High speed 1.5 Gbps analogue sampling.
- Electric field sensor allows measurement of phase resolved PD (PRPD) patterns.
- GPS receiver allows survey route through substation to be recorded.



- Results shown on rugged, sunlight readable laptop.
- Bluetooth wireless connection between PDtect2 unit and laptop.
- Battery capacities allow more than 3 hour operation of equipment.
- Antennas and laptop fit into backpack compartments for easy transport around site.



PDTECT®2 PORTABLE COMPONENTS

- PDTECT®2 UNIT (x 1)
- LITHIUM-ION BATTERY (x 1)
- BATTERY CHARGER FOR ABOVE (x 1)
- MONOPOLE ANTENNAS (x 2)
- PURPOSE DESIGNED RUCKSACK (x 1)
- RUGGED LAPTOP (x 1)
- BATTERY CHARGER FOR ABOVE (x 1)
- FLIGHT CASE (x 1)



PDTECT®2 PORTABLE SPECIFICATIONS

ARRAY	Array dimensions	1.08 m
	Antenna type	Monopole
	Number of antennas	2
PDTECT®2	Weight (Rucksack & Laptop)	Combined weight 7 kg
	Laptop	Panasonic Toughbook
	Rucksack dimensions when packed for transport	0.46 x 0.32 x 0.51 m
	Dimensions (W x L x H)	0.46 x 0.32 x 0.51 m
	Operating time	> 3 hrs.
	Bluetooth Communications	v2.0, Class1
FLIGHT CASE	Weight including PDtect®2	20 kg
	Dimensions	0.60 x 0.63 x 0.33 m
ENVIRONMENTAL	Operating temperature range	-5°C to +40°C
	Internal cooling fan	Yes

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