

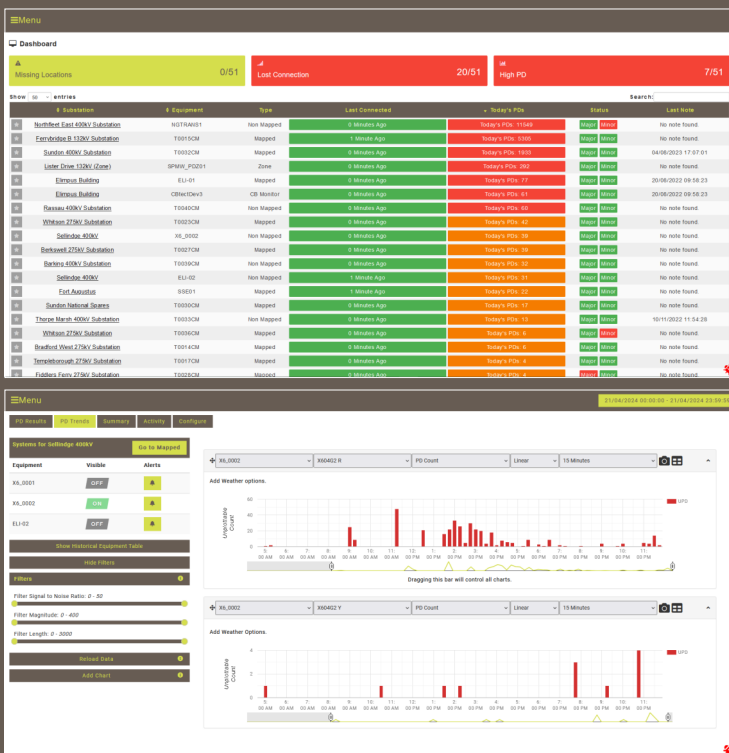


# RADIOMETRIC CONDITION MONITORING

PDtect<sup>®</sup> X6



The Elimpus PDtect® X6 partial discharge monitoring (PDM) system is a six-channel wideband PD monitoring system supplied in a stainless steel cabinet. Featuring ultra-high-speed, directly-sampled analogue inputs, the PDtect® X6 is suitable for all PD monitoring applications, but particularly where online time-of-flight measurements and waveform analysis is required.



## PDTECT® X6 TECHNOLOGY

The Elimpus PDtect® X6 series of radiometric PD locators detect the presence of partial discharge (PD) through the reception of radio frequency impulses emitted from stressed insulation. The ultra-high bandwidth and ultra-high speed sampling rate allows the locator to determine the time of arrival of PD pulses at the sensor  $< 1$  ns. This highly accurate timing allows for accurate calculation of PD to take place.

## OVERVIEW

The PDtect® X6 is an easy to install solution to monitoring small areas of HV, equipment especially GIS.

Six independent channels can be connected to individual sensors to detect and locate PD.

The PDtect® X6 contains high speed sampling acquisition hardware which allows accurate timing of any detected PD to be captured.

PD event data is uploaded every 90 seconds to a secure web server, the NServer.

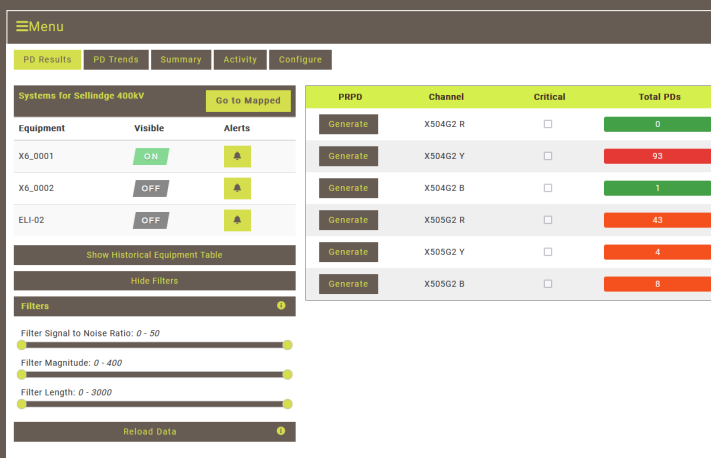
The NServer allows the user to calculate the PD location whether it is in a GIS, cable sealing end or transformer for instance. Individual waveforms are available for viewing on the NServer, along with other PD metrics including time of capture, amplitude, PRPD etc.

Additionally, the user can set alerts for a variety of PD behaviour patterns; the alerts are communicated by either email, or SMS message.



## MAIN FEATURES

- Six independently triggered channels.
- High speed sampling allows full waveforms to be captured and used for PD location.
- Easy to re-deploy and setup once monitoring campaign is complete.
- Allows for many assets to be monitored.
- On-site recording hardware monitors for PD 24 hours a day, 365 days a year.
- Battery backup for short term power fluctuations.
- Built-in diagnostics to detect equipment faults and correct with no user intervention.
- Ability to set alerts for PD rate of emission and amplitudes metrics.



Systems for Sellridge 400kV			PRPD		
Equipment	Visible	Alerts	Channel	Critical	Total PDs
X6_0001	ON	▲	Generate X504G2 R	<input type="checkbox"/>	0
X6_0002	OFF	▲	Generate X504G2 Y	<input type="checkbox"/>	95
ELI-02	OFF	▲	Generate X504G2 B	<input type="checkbox"/>	1
			Generate X505G2 R	<input type="checkbox"/>	43
			Generate X505G2 Y	<input type="checkbox"/>	4
			Generate X505G2 B	<input type="checkbox"/>	8



## PDTECT® X6 SPECIFICATIONS

Dimensions (W x L x H)	0.5 x 0.5 x 0.2 m
Supply Voltage	110 – 265 Vac
Number of Channels	6
Bandwidth	900 MHz
PD Recording Window	2.7 $\mu$ s
Sampling Interval	0.6 ns
Communications	3G/4G modem
Environmental	-10°C to +40°C

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