HVPD Longshot™

Diagnostic On-line Partial Discharge (OLPD) Test Unit

2 ✓

LOCATE
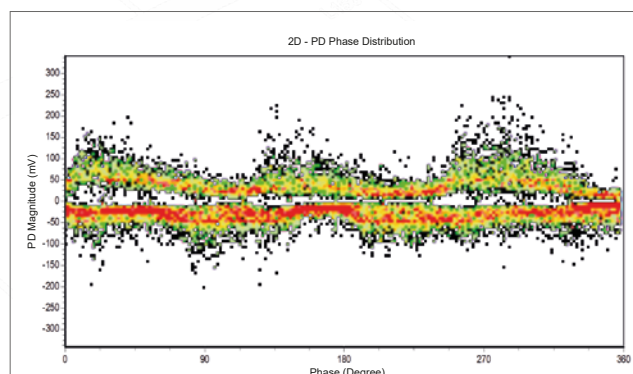
HVPD Longshot™

The most versatile portable diagnostic unit on the market

The **HVPD Longshot™** is designed to be used for both on-line (in-service) and off-line (factory/laboratory) testing of MV, HV and EHV assets. The unit comes pre-loaded with **PDGold©** and **PDReader© v8** data analysis and reporting software. Optional **PDMap©** expansion software, with the Portable Transponder System, enables On-line Cable Mapping (partial discharge site location) on cables.

The HVPD Longshot™ is available with a range of sensors and accessories suitable for multiple applications. Being the most versatile partial discharge (PD) test unit presently on the market, the unit can be used to test power cables, motors and generators, switchgear, power transformers and instrument transformers.

Synchronous and wideband (200 MHz) data acquisition accurately and rapidly measures PD magnitude and wave shapes. This light and portable unit has a typical spot-test time of five to ten minutes per plant item. Short-term OLPD monitoring of up to 48 hours is also possible.

Compatible Sensors:

- HVCC
- HFCT
- TEV
- SMART-TB3™
- Rogowski Coil
- Bushing Tap

1 IDENTIFY → 2 LOCATE — HVPD Longshot™ → 3 MONITOR → 4 MANAGE

HVPD 4-Phase Asset Management

Diagnostic OLPD Spot Testing

PDGold©

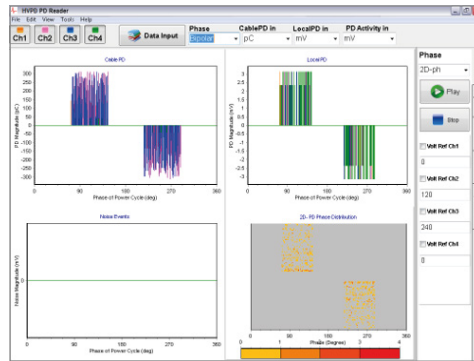The PDGold© software from HVPD provides high definition PD signal acquisition.

It is designed specifically for the HVPD Longshot™ PD Diagnostic System which can acquire large amounts of data with more precision than other test units.

The PDGold© v8 software captures several power cycles of data in a loop, extracting and saving the relevant PD events which can be later analysed in the PDReader© v8 data analysis and report generation software.

PDReader©

The PDReader© software uses an integrated PD EventRecogniser© module to scan the power cycle duration traces and extract short duration, high frequency pulses are the classified as Cable PD, Local Equipment PD, and Noise, using knowledge-rule based algorithms.

The data analysis is straightforward and can be performed on any Microsoft® Windows® based workstation or laptop.

The software allows the user to generate full and summary reports in a flash with a single click.

Diagnostic partial discharge testing

1

Permanent or temporary sensors installation

2

Diagnostic partial discharge testing

Features

- Suitable for both in-service and factory/laboratory PD testing.

- For all types of MV, HV and EHV assets including cables, switchgear, transformers and rotating machines.

- Voltage range from 3.3 kV to 750 kV.

- Short-term OLPD monitoring of up to 48 hours.

- Synchronous, wideband (0–200 MHz), 4-channel data acquisition.

- Intelligent event recognition differentiates between noise and RF interference from PD activity.

- Data acquisition using the PDGold© v8 software and EventRecogniser© module.

- Diagnostics and report generation with the PDReader© v8 software.

- PD site location on long cables with On-line Cable Mapping*.

  PDMap© v8 expansion software module and HVPD Portable Transponder System required.

Benefits

- Detects the early stages of insulation deterioration, providing an early warning against HV insulation faults.

- Helps to avoid unplanned outages.

- Typical diagnostic OLPD spot-test time of 10 minutes per asset.

- Supplied with HVPD's 12-month data analysis (50x free files) and reporting service package.

- Provided with tailored training to meet customers requirements.

- Available with a wide range of PD sensors for multi-application testing and voltage levels.
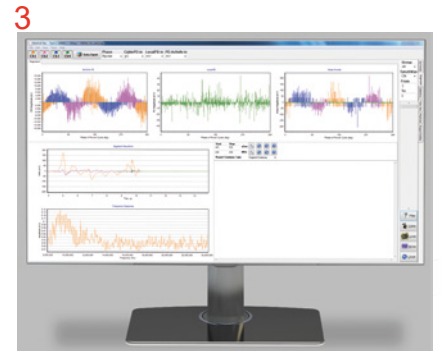
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Data analysis and reporting with PDGold© and PDReader©

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Test reports with asset management recommendations

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Technical Specification

Hardware Details	
Detection frequency range	0 - 200 MHz min. (Ultra Wide Band)
Input channels	4
Input connection type	BNC
Input connection internal impedance	50 Ω / 1 MΩ / AC / DC / GND
Data Acquisition	
Data capture method	Continuous
Trigger source	Line / Automatic / External
Max sample rate for 50/60 Hz	500 MS / second
Maximum sample memory	12.5 MS / channel
Maximum analogue to digital resolution	12-bit
PC Specification	
CPU frequency	Intel® Celeron B810 – 1.60 GHz
On-board RAM	4 GB
On-board HDD size	128 GB
Operating system	Windows 7 embedded 64-bit
On-board Interface	
Display type	Wide TFT-LCD touch-screen
Display size (diagonal)	12.1"
Display resolution	1280 x 800 pixels
Connectivity	
External monitor	15-pin D-Type SVGA DB-15 connector, DVI, HDMI
Ethernet	2x RJ45 10 / 100 / 1000 Base-T
USB 2.0	6
Audio line in	3.5 mm Jack
Audio line out	3.5 mm Jack
Enclosure Details	
Dimensions (Width, Height, Depth)	291.7 mm x 399.4 mm x 131.31 mm
Weight	5.9 kg
Operating Environment	
Temperature range	+5 to +40 °C
Relative humidity	< 90% (non-condensing)
Power Supply	
Supply voltage	90 - 264 VAC, 45 - 66 Hz
Max. power consumption	330 VA
Power supply connector type	IEC

PDGold©

Feature	v7	v8
Number of segments for monitoring period	50 000	80 000
User-friendly touch screen interface	✓	✓
Live Fast Fourier Transform (FFT)	✓	✓
Easy data input & data capture routine	✓	✓
Data capture auto scaling	✓	✓
Dynamic segment waveform duration	✓	✓
Customisable data input form	✓	✓
Synchronous segment acquisition	✓	✓
Data compression	✓	✓
Faster acquisitions via multithreading (up to 5x faster)	✗	✓
Responsive, optimised UI layout	✗	✓
Store all waveforms (sct) for complete regeneration of field results	✗	✓
HVPD engineer support by remote desktop	✗	✓
Compatibility with HVPD Kronos® software	✗	✓

PDReader©

Feature	v7	v8
User-friendly touch screen interface	✓	✓
Automatic report generation	✓	✓
Tabbed user interface	✓	✓
Segment property filtering	✓	✓
Manual segment classification method	✓	✓
Data compression	✓	✓
Customisable data input form	✓	✓
Optimised UI layout	✗	✓
Compatability with HVPD Kronos® software	✗	✓
Store all waveforms (sct) for complete regeneration of field results	✗	✓
New summary reports	✗	✓
Click to select event	✗	✓

Our Knowledge is Your Power