PRY-CAM PORTABLE

A revolution in Partial Discharge management

PRY-CAM

A Brand of Prysmian Group

For data-driven power

Innovative solutions to real-world challenges

PD measurement is a key parameter to assess the conditions of any electrical system. Nevertheless, PD testing has never been widely used as a powerful online diagnostic tool due to several limitations of traditional PD technologies, which are usually complex, expensive, unscalable to the whole asset, and nearly impossible to integrate with all key asset parameters. In addition, defect detection and localisation can't always be performed online.

More than 80% of failures in HV/MV assets are related to Partial Discharge (PD) activity

% of insulation failures

Switchgear Bus	Cable Joints	Bus Duct	Cable	Cable Terminations	Transformers
95%	91%	90%	89%	87%	84%
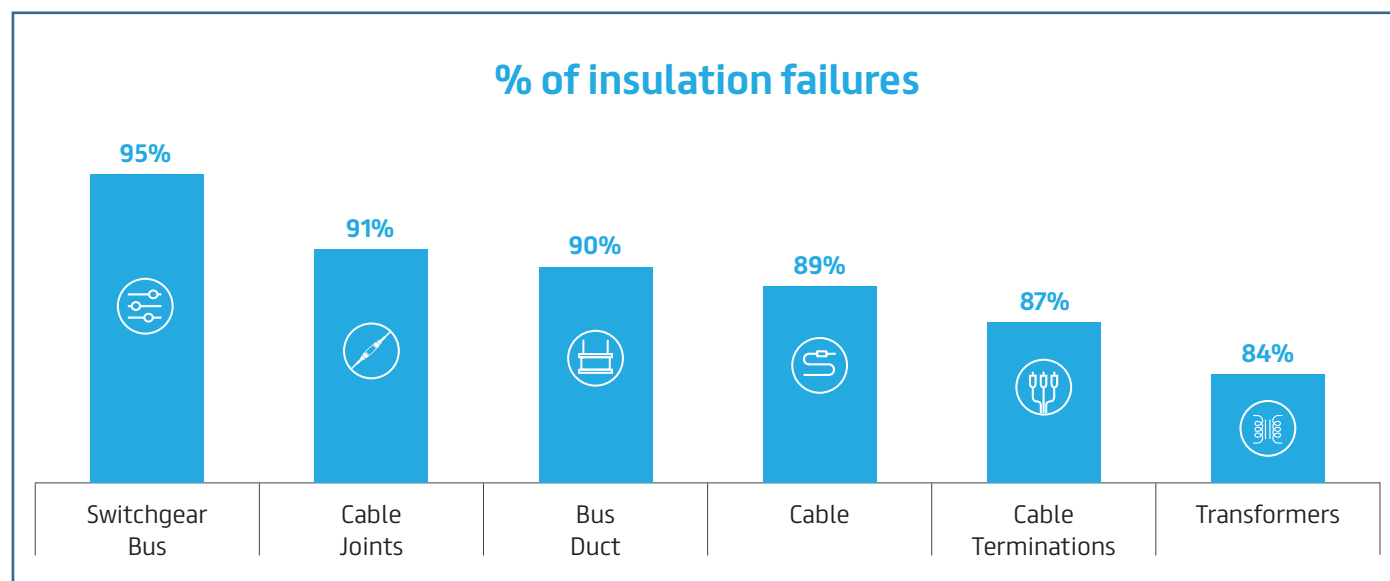
Source: 493-1997 – IEEE Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems (Gold Book)

The PRY-CAM answer

PRY-CAM's breakthrough wireless technology allows online, accurate and reliable PD measurements, diagnosis and defect localisation.

PRY-CAM allows PD testing to be performed online – i.e. without having to switch the system off – and without the need for a direct connection to what is being tested, which means also greater safety for operators.

PRY-CAM is faster, more data-driven and more effective than ever before, solving problems today and delivering learning for tomorrow.

For data-driven power

Use on HV and MV equipment

CABLES

JOINTS

TERMINATIONS

SWITCHGEAR

TRANSFORMERS

ELECTRICAL MACHINES

TO DETECT

TO MONITOR

TO LOCALISE

TO PREVENT

PRY-CAM
PORTABLE

Key features

- **NO GALVANIC CONNECTION**
- **WIRELESS DATA TRANSMISSION**
- **USER-FRIENDLY MOBILE APPLICATION**
- **LIGHTWEIGHT AND EASY TO CARRY**
- **AUTOMATIC A.I. DIAGNOSIS**

PRY-CAM PORTABLE is an integrated portable instrument for the automatic acquisition, processing and classification of pulse signals generated by PD phenomena occurring in insulating materials of Medium and High Voltage electrical systems and equipment, such as transformers, electrical machines, cables systems and switchgear.

It provides an instant snapshot of the conditions of the object being monitored, that is easy and immediate to read thanks to a red-yellow-green traffic-light-like visual interface.

Automatic pre-diagnosis is based on the PRY-CAM BRAIN™ artificial intelligence algorithm.

Wireless data transmission paired with the absence of galvanic connections ensure maximum safety for operators.

Maximum safety for operators

Very high sampling rate and advanced filtering capabilities

PD measurement outcome with pattern, waveform (Time Domain Analysis) and frequency spectrum (Frequency Domain Analysis)
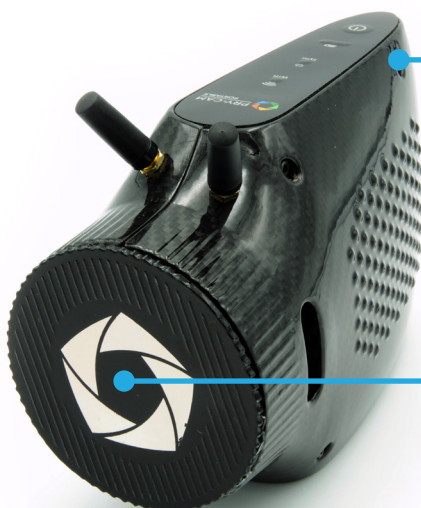
Patented ultra wide band capacitive probe sensor

Enhanced noise rejection

High sensitivity and directivity

Technical specifications

Sensor type: Electromagnetic sensor, based on a patented Ultra Wide Band (UWB) active capacitive probe

Sampling frequency: 200 MS/s

Bandwidth: 100 MHz

PD sensitivity: 1 pC

Synch frequency: From 10 Hz to 1 kHz

Processing: Real-time filtering capabilities

Communication interfaces: Wireless 802.11 b/g (WiFi)

AC synchronization source: Electric field, magnetic field, light, auxiliary/external

Internal battery: Li-Po 7.4 V, 2200 mAh Autonomy approx. 6 hours

Working Temperature: From -25 °C to 70 °C

Weight: 530 g

Dimensions: 175 × 125 × 70 mm (L × W × H)

Case: Carbon Fibre

One instrument and one APP, all your needs covered

Seamlessly move between BASIC, ADVANCED and PREMIUM operating modes depending on your information needs and PD expertise.

3 operating modes. Discover the right one for you.

		RECOMMENDED FOR MV	RECOMMENDED FOR HV
BASIC Free use	Your PRY-CAM PORTABLE can be used as a reliable PD surveyor with traffic light and simplified PD pattern	✓	
ADVANCED Pay-per-use	Provides you with the PD pattern for simple diagnosis only	✓	✓
PREMIUM Pay-per-use	Provides you with the complete PD pattern, including waveforms and frequency spectrum, for any single PD pulse	✓	✓

You can temporarily upgrade from BASIC to ADVANCED or PREMIUM modes for more detailed diagnosis as and when you need it.
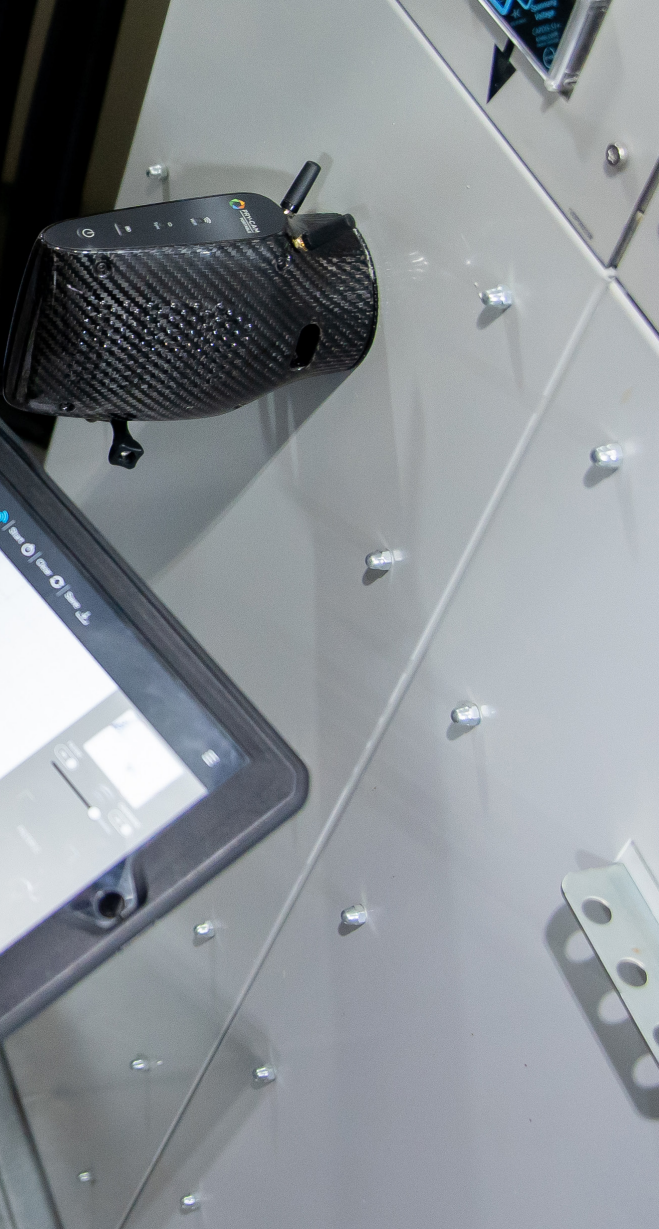
Why PRY-CAM PORTABLE is good for your business

100% successful diagnosis on HV and MV

80% measurement time saved against traditional technologies

Up to 5× higher sensitivity on small defects

One device for all types of equipment and all voltage classes

Cost saving generated by online (system in operation) measurement

Easy to use – training available

Reliable remote diagnosis by PD experts on demand

Applications

Suitable for any electrical equipment from 3 kV to 600 kV

Suitable for cable systems (cables, joints, terminations), GIS, switchgear, transformers and electrical machines (motors, generators, turbines, etc.)

Suitable for AC and DC

Data management

Every single PD measurement can be saved alongside other useful details, such as pictures, recorded messages, GPS coordinates, notes and tags.
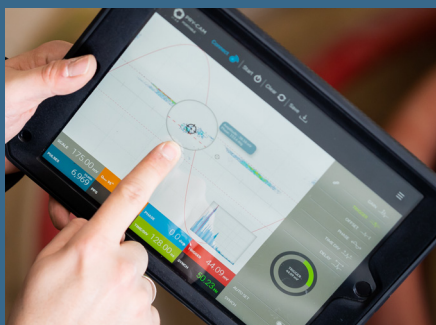
Optional extras

PRY-CAM backpack kit

Includes one backpack, one telescopic stick, one tripod, one strap and one car charger, giving you everything you need, even in the most difficult situations.

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