

# PDTD68

VLF Partial Discharge diagnostics system with integrated Tan Delta unit

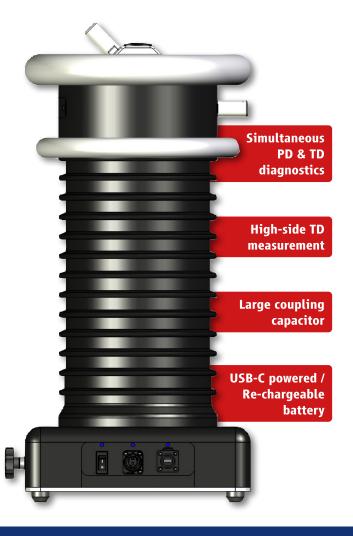


Available in spring 2025



## PDTD68 - TWO BECOME ONE

To make diagnostics as easy and efficient as possible, we have developed the new PDTD68, which allows simultaneous PD and Tan Delta (TD) diagnostics with one single device. This functionality has many benefits, including providing an efficient, cost-effective, and reliable method for assessing the condition and performance of medium voltage cables.



## PD DIAGNOSTICS MADE EASY!

Measuring Partial Discharge (PD) on medium voltage cables is essential for fault-free power distribution.

Conducting diagnostics of medium- and high voltage cables enables early detection of vulnerabilities and preventive maintenance work to ensure the long-term performance of the distribution system.

The PDTD68 is the newest member of our PDTD diagnostics series. While other PDTD systems consist of two separate devices (filter and coupling capacitor), the PDTD68 combines these into one housing.



### **GET TO KNOW THE PDTD68**

The PDTD68 is an integrated VLF diagnostics system specially designed for the use with HVA VLF test sets. Thanks to its practical design and the fiber optic interface it enables an easy and safe measurement setup, which can be built up very quickly.

A large 22 nF coupling capacitor, a built-in filter device and a newly developed data acquisition unit ensure sensitive and accurate PD measurements.

The PDTD68 is also equipped with a battery supply, which allows use in locations without a permanent power source. It can just as easily be powered via USB-C (PD 3.0).

#### **Complete system**

In combination with an HVA test set you get a full-featured and full-value cable test and diagnostics system for up to 68 kV.

#### **Application**

PD & TD diagnostics of all kinds of medium voltage cables with length up to 100 km with a quick and easy measurement setup.

#### PD localization

Precise & sensitive real time localization of PD faults in cables with 1% accuracy and a resolution of 0.1 pC and 0.1 m including the PD phase pattern of each PD event.

#### **Performance**

Enables simultaneous and sensitive PD & TD diagnostics up to 68 kV with simple and straightforward wiring.

#### **Compact and portable**

One compact device powered by an integrated battery or via USB-C (PD 3.0). The single fiber optic interface between the PDTD system and the PC ensures an easy set up.

#### **Compliance**

Test setup and calibration according to IEC 60270. Additionally, TD testing according to IEEE 400.2.



Top view: HV connections



Bottom view: Control & data connections

Operating voltage (sine wave)	max. 68 kV <sub>peak</sub> , 48 kV <sub>rms</sub>
Capacitance	
- PD coupling capacitor	22 nF
- Integrated PD filter	~ 2 nF
Velocity range (v/2)	10 - 150 m/μs
Sample rate	250 MS/s
TD (resolution/accuracy)	$1 \times 10^{-5} / \pm 1 \times 10^{-4}$

## **YOUR BENEFITS**



## SIMULTANEOUS PD & TD MEASUREMENT (with b2 Suite v2.2 and higher)

Parallel PD & TD diagnostics significantly saves time and prevents preconditioning of the cable.



#### TRUE MODULARITY

The PDTD68 can be combined with all HVA test sets. It expands your HVA test set into a complete VLF diagnostics system, extending your measurement portfolio & keeping initial investment low.



#### FIBRE-OPTIC COMMUNICATION

Provides secure, galvanically isolated, high-speed data transfer of PD & TD data via a single connection cable.



#### POWERFUL DATABASE

Convenient search functions in the extensive b2 Suite database allow fast comparisons with previous measurement results and enables performing reproducible measurements.

Contact us anytime, we look forward to getting in touch with you.







b2 electronics GmbH Riedstraße 1 | 6833 Klaus | Austria T +43 59896 | info@b2hv.com www.b2hv.com