OMICRON

MPD 800

Universal partial discharge measurement and analysis system

The next level in partial discharge testing: MPD 800

20 years of reliability and experience

The MPD 800 is the successor to our MPD 500 and MPD 600 partial discharge (PD) measurement and analysis systems. After 20 years of experience in this sector, it was time to bring PD testing to a new level.

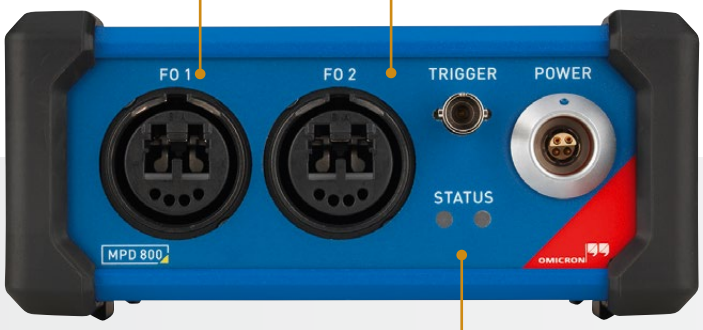
Established features were redesigned and new features have been added, resulting in the most powerful, accurate and robust test system on the market. MPD 800 is ideal for factory and on-site testing, even in the most demanding environments. Due to its excellent filtering features, even the smallest PD pulses can be separated from interference and analyzed.

FAST AND EASY

The two robust fiber-optic input channels are easy to connect. The improved MPD Suite software can be further simplified by defining individual user profiles. Both features help you to save time.

SYNCHRONOUS, SCALABLE SYSTEM

The MPD 800 system can be easily expanded by connecting multiple devices. It allows you to perform synchronous PD measurements with up to 20 measurement units.



STANDARDS-COMPLIANT TESTING

MPD 800 provides standard-compliant PD measurements according to IEEE and IEC standards. With just the click of a button, all parameters can be automatically set or reports generated

One device for all assets and testing applications

The MPD 800 is a versatile and wide-ranging PD measurement system for AC, DC or VLF PD testing, utilizing a variety of PD sensors to measure quantities such as charge, RIV or millivolt. With the UHF 800, the MPD 800 is expandable to perform PD measurements in the UHF-range.

Multiple PD testing applications

You can use the MPD 800 for a wide range of PD testing applications, beginning with the traditional power supply sector, at manufacturers or repair shops, in laboratories or, for example, during diagnostic testing of motors in the industry sector.

PD testing on a wide variety of electrical assets

The MPD 800 supports you during standards-compliant PD testing for routine and type testing, factory and site acceptance testing, as well as for troubleshooting to localize or investigate PD sources in:

- Power transformers
- Power cables
- Rotating machines
- Gas-insulated switchgear (GIS) and medium-voltage switchgear
- Industrial drives
- Railway transportation
- High-voltage components such as bushings, insulators, capacitors, cable terminations, busbars

MULTI-CHANNEL TESTING

Future ready, the two PD measurement channels allow synchronous, multi-channel measurements, and enable gating to suppress disturbances.

OUTSTANDING SPECS

MPD 800's cutting-edge specifications make it ready for all upcoming measurement challenges. Its input bandwidth of up to 35 MHz, the 125 MS/s sample rate and the PD pulse rate of up to 2 Mio./s guarantee that you will never miss a PD event.

POWERFUL NOISE SUPPRESSION

For reliable PD testing in noisy industry environments, the MPD 800 enables PD source and disturbance separation using the latest 3PARD and 3FREQ technology.

Measuring principle to minimize the impact of on-site interferences

Challenges during partial discharge detection

The challenge when analyzing partial discharge (PD) is to detect and evaluate discharges in the range of pico-coulombs (pC), while dealing with test voltages of up to several hundred kilovolts (kV) and large test set-ups which act as radio-frequency (RF) antennas.

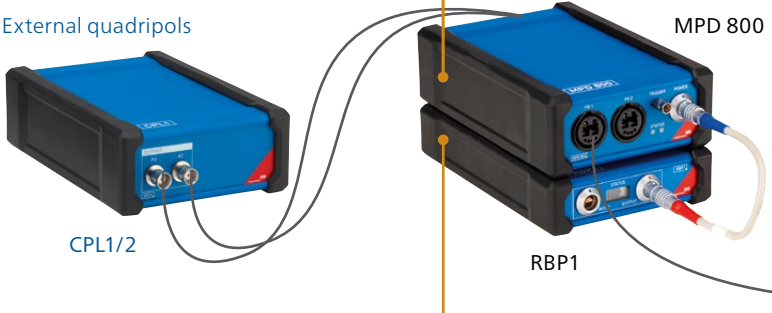
External interference and noise from nearby equipment, for example caused by corona or other radio-frequency sources, may overlay these highly sensitive PD measurements.

PD MEASUREMENT ON DIFFERENT ASSETS

With a wide range of accessories, the MPD 800 enables PD measurement on numerous assets.

Coupling capacitors

High-frequency current transformers



Bushing adapters

TEV sensors

HIGH SENSITIVITY AND DIGITAL FILTER

The MPD 800 is placed as close as possible to the measurement point of the test object in order to keep the length of the BNC cable between the test object and the MPD 800 to a minimum. The short connection cable and flexible digital filters increase the sensitivity of the PD measurement by reducing influences from the surroundings.

BATTERY-OPERATED

Due to the battery-based power supply, noise from the mains power supply cannot affect the measuring circuit. The RBP1 allows on-site PD testing of more than 16 hours* and this time period can be easily extended by using multiple RBP1 units.

* Applies to new batteries and operation at room temperature

Measuring principle using MPD technology

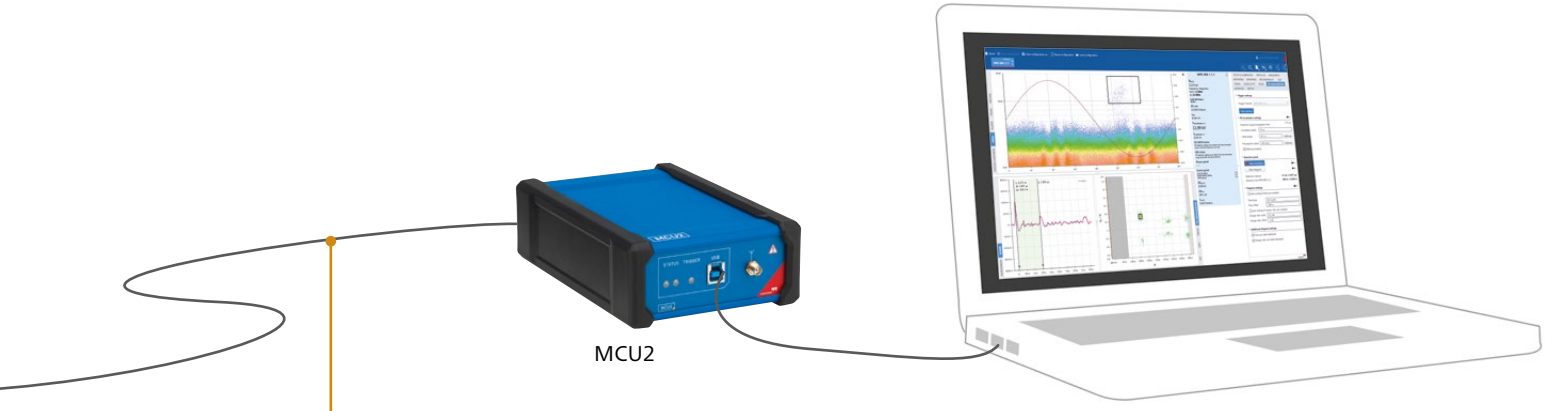
The MPD 800 system consists of an MPD 800 measurement device, the MCU2 control unit and the MPD Suite software. Depending on the measurement, the MCU2 is connected to a single or multiple MPD 800 devices using fiber-optic technology. The MPD 800 devices and RBP1 batteries are connected to the test object either directly or via CPL1 or CPL2 coupling devices. The MCU2 is connected via USB to a laptop or PC with the installed MPD analysis software. This approach results in several advantages:

- Safe testing approach due to galvanic isolation
- Battery-operated power supply
- Minimum of influences from the surroundings
- High synchronicity to improve PD analysis

SAFE APPROACH

You benefit from a clear separation of the high-voltage and working areas as only the measurement equipment must be placed in the high-voltage area. The test engineer can work safely on the computer in the working area due to the provided galvanic isolation.

WORKING AREA



MINIMIZED INFLUENCES

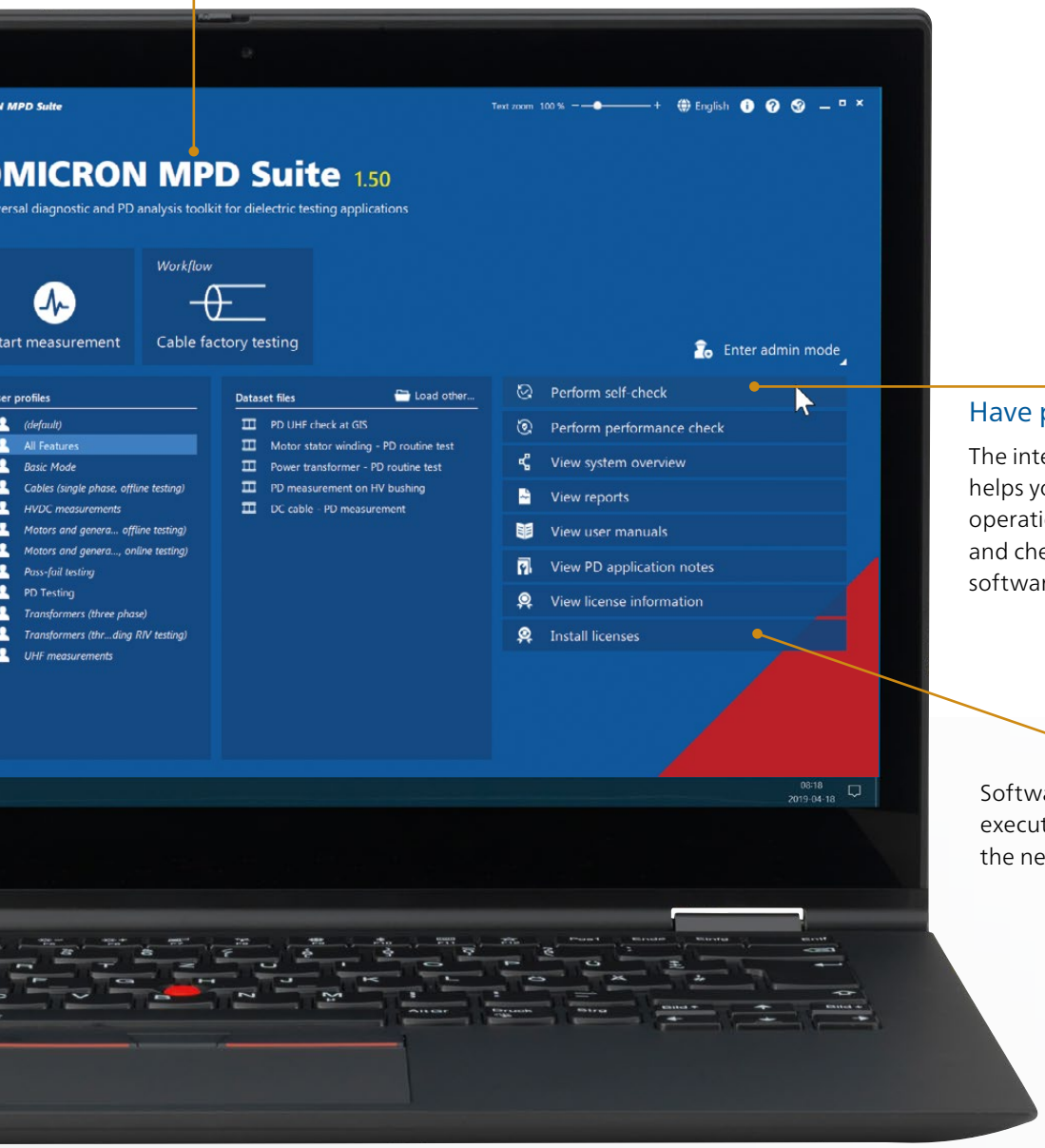
The fiber-optic cable to the MCU2 unit reduces the influence of interference coupling, minimizes ground loops and ensures a safe approach. Compared to conventional wires, fiber-optic cables enable precise synchronicity of all connected units down to the nanosecond range.

How to prepare partial discharge measurements

Flexible application-oriented packages

The MPD Suite software offers different software packages, software add-ons and modules for our MPD 800 system. You can choose between a set of software packages from essential to universal, and tailored application-oriented software packages.

Dedicated software modules provide you with specific functionalities, such as a .COM and web-based interface for easy automation, or for partial discharge (PD) measurement during DC voltage testing.



Have peace of mind

The integrated “self check” functionality helps you to ensure the correct and reliable operation of the connected MPD 800 units and check the communication with the software.

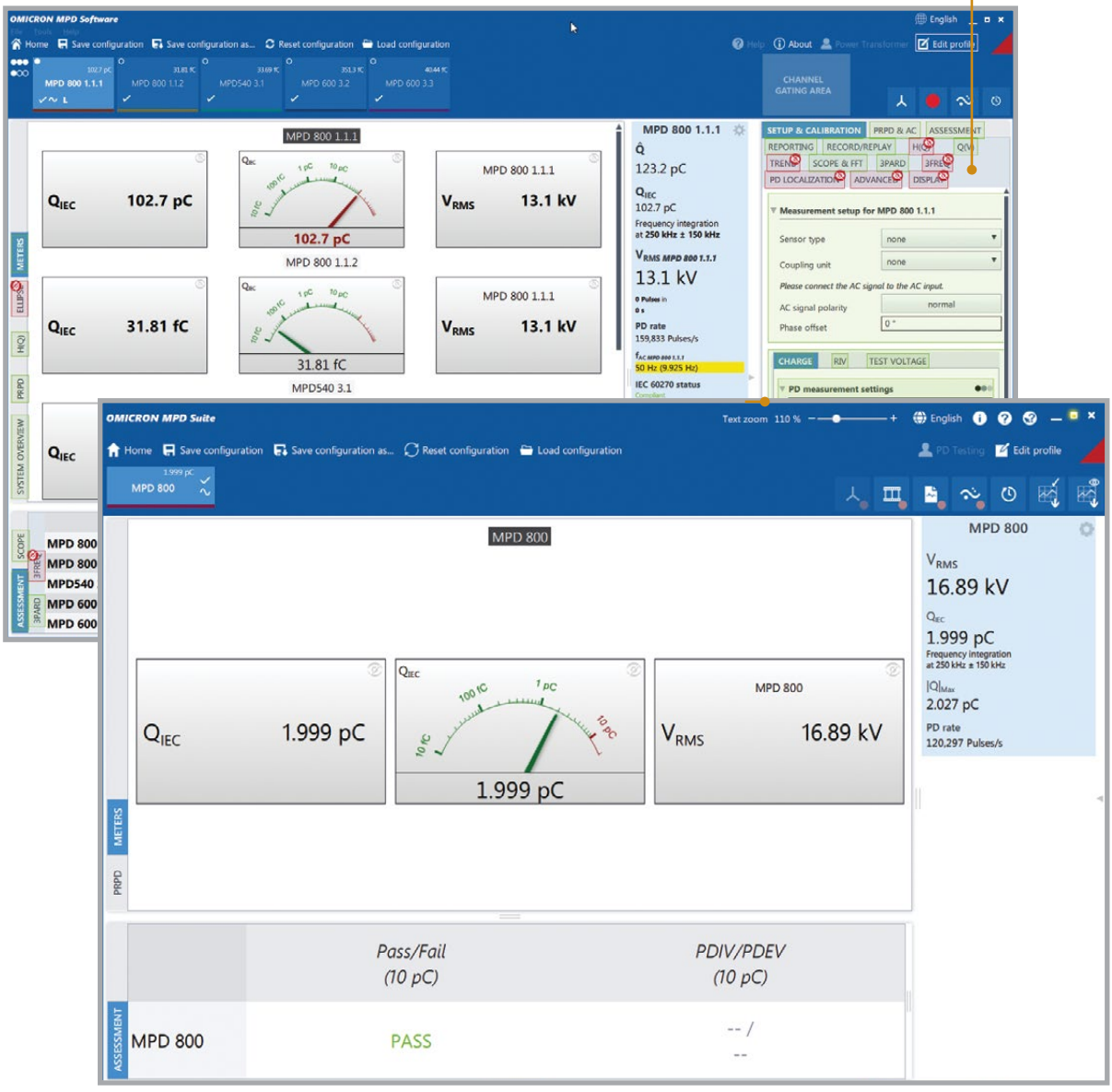
Software upgrades can be easily executed from the start page by installing the new license file.

The start page gives you easy access to recorded dataset files, created reports and customized user profiles.

Simplify your user profiles

The MPD Suite software can be completely customized depending on your needs. You can set individual test specifications, such as frequency range, filters, assessment levels or hide individual software components such as tabs, diagrams, buttons, or feature groups.

This is useful, for example, in cases of dedicated testing applications, such as PD analysis on rotating machines or cables where you do not need all of the features the software offers.

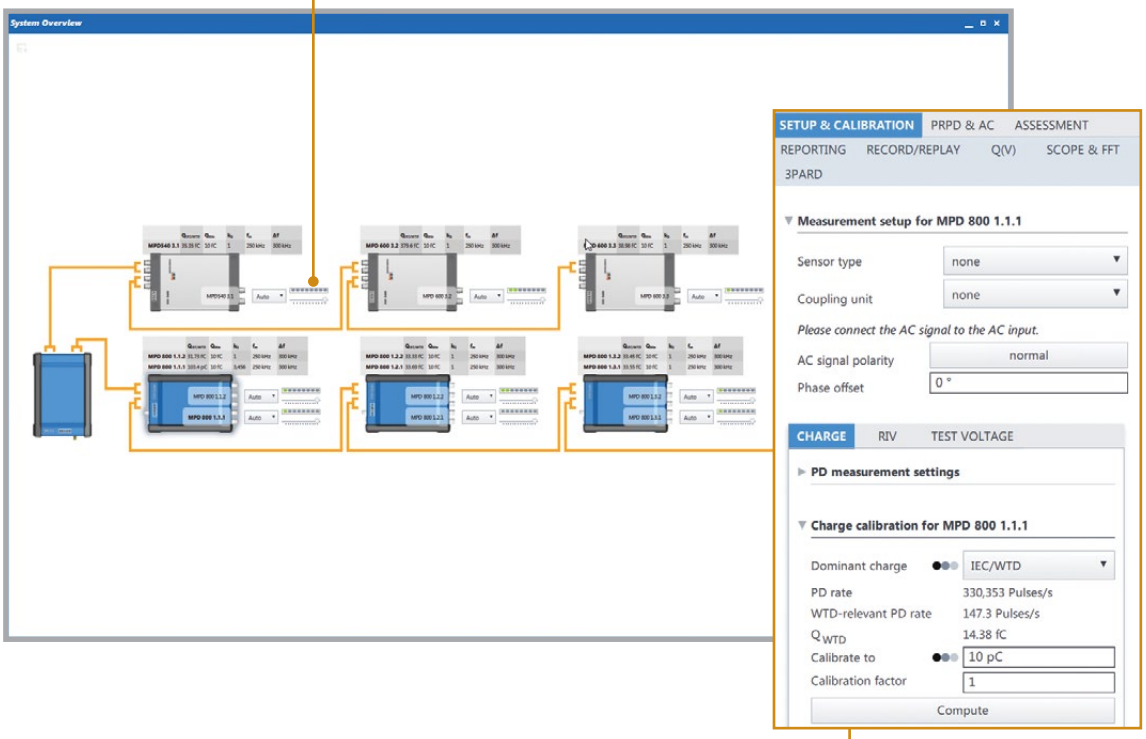


By changing the software settings and defining dedicated user profiles, you can simplify the user interface and save time.

How to set and perform partial discharge measurements

Keep an overview

Commonly, multiple MPD 800 devices are in use for multi-channel measurements or testing of transformers, generators, or on-site cable testing. The “system overview” functionality provides a clear overview of your measurement setup. It displays all connected MPD 800 units and shows the most important partial discharge (PD) measurement values and settings of each PD channel. Thus, you can keep an overview of the MPD measurement setup.



Configure your measurement

PD events can sometimes be overlaid by disturbances in certain frequencies. MPD 800 allows you to select individual measurement settings by adapting the center frequency and choosing between various bandwidths. By doing so, the frequencies with noise can be excluded and the analysis will target the real PD.

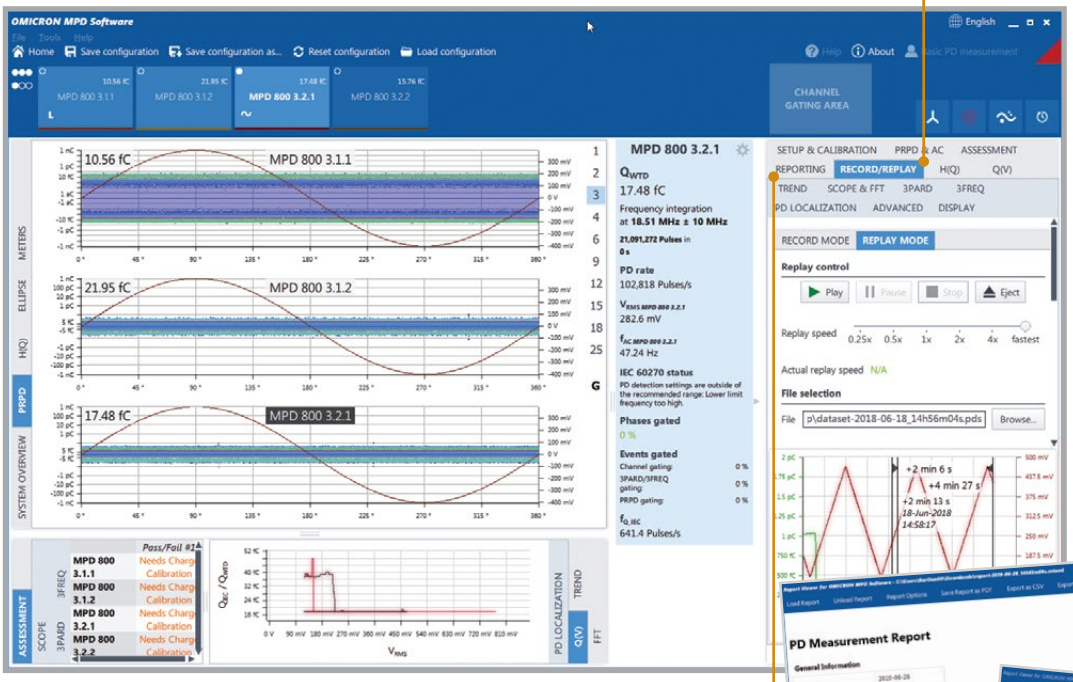
Calibrate your setup

Using the MPD 800 system, you can calibrate charge according to IEC or RIV (Radio Influence Voltage), which is mandatory according to IEC 60270, IEEE/NEMA and CISPR standards. Besides this, you can also use the MPD 800 to calibrate the test voltage. This ensures a comparability of the gained results.

Powerful recording and replay

MPD 800 records dedicated PD and RIV events into dataset files. These files contain unprocessed raw data and include all measured values and all relevant system settings. That way, measurements become traceable and you can use all kinds of analysis, gating and reporting functions for post-analysis.

The recorded dataset files can be cut individually, for example, to focus on relevant PD events. As the playback speed can be freely selected, some sections can be played back more slowly in order to be analyzed in greater detail.



Customize your reports

You can record specific PD events, export the measurement data afterwards as .xml or as .csv files, and save diagrams on an individual basis.

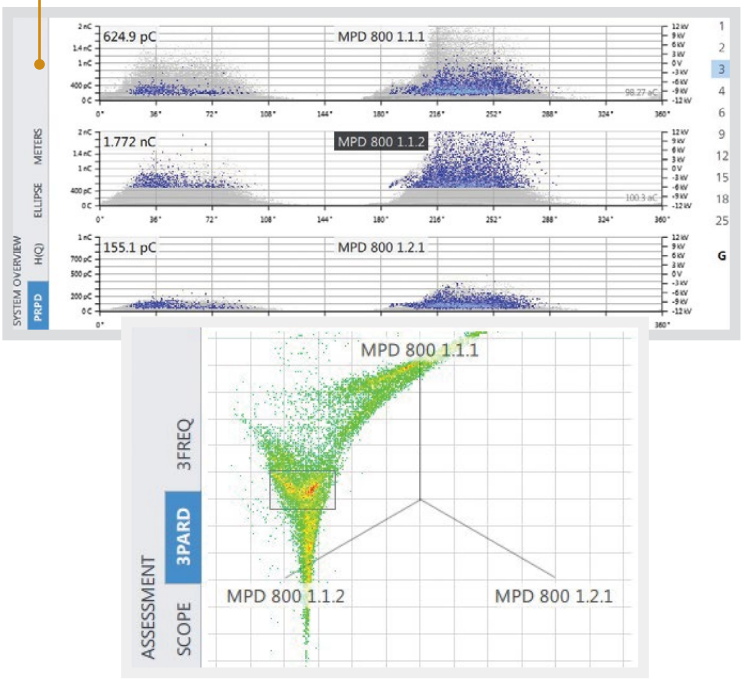
In addition, you can adapt the report by selecting all included parts, reordering information, add screenshots or your company logo. At the end, reports can be stored as PDF files.

How to suppress noise and separate partial discharge sources for re

Three-phase filtering tool 3PARD

Partial discharge (PD) events closer to one phase can also be detected on the other phases. The 3PARD (3-phase amplitude relation diagram) tool simplifies the differentiation of various PD sources and PD interferences. It relies on a synchronous three-phase measurement of a test object.

The combined results are displayed in a single diagram, the 3PARD star diagram, which facilitates result comparison and PD pattern selection. To further increase the testing reliability, the PRPD diagram can be used to show filtered out pulses in real time while greying out the residual pulses in the background.

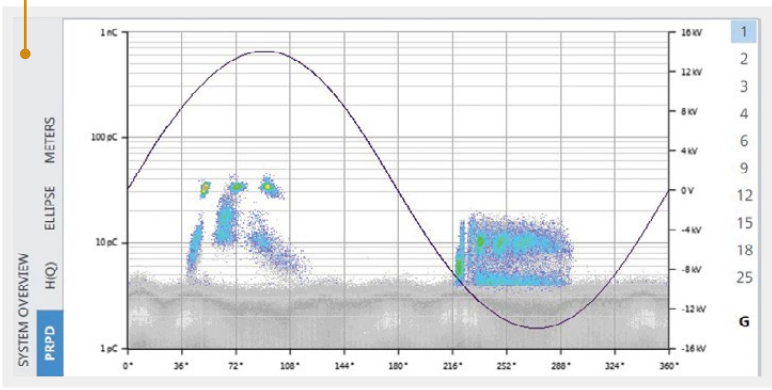


The 3PARD filter analyzes partial discharge on all three phases. Therefore you need at least three channels and respectively two MPD 800 devices in order to cover all phases.

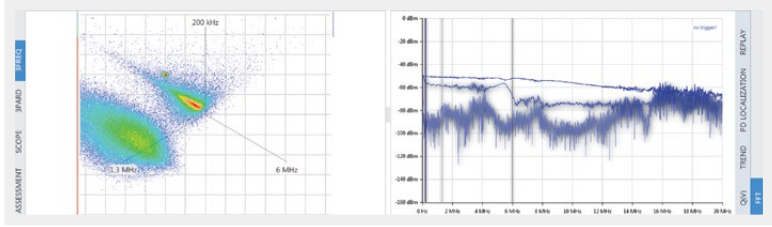
Single-phase filtering tool 3FREQ

The 3FREQ (3-center frequencies relation diagram) is a one-channel filtering tool using three digital filter frequencies. It characterizes PD sources by their frequency signature.

Using a 3FREQ diagram, you can separate PD events such as surface discharge, corona and internal void from disturbances. As with 3PARD, the PRPD diagram shows filtered out pulses while greying out the residual pulses in the background to improve the testing reliability.



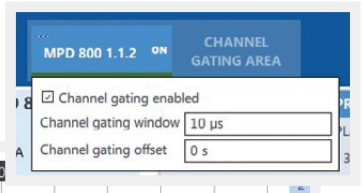
The 3FREQ filter uses three different center frequencies for PD analysis. Due to the one-channel measurement approach you only need one MPD 800 device.

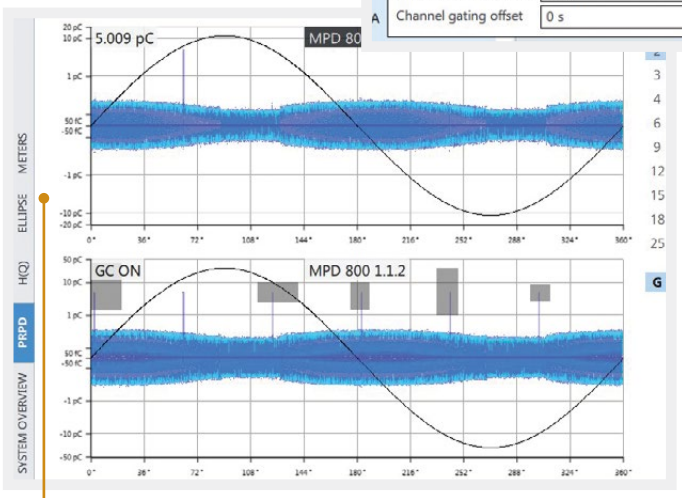


The high resolution FFT shows all disturbances and allows to place the filters selectively.

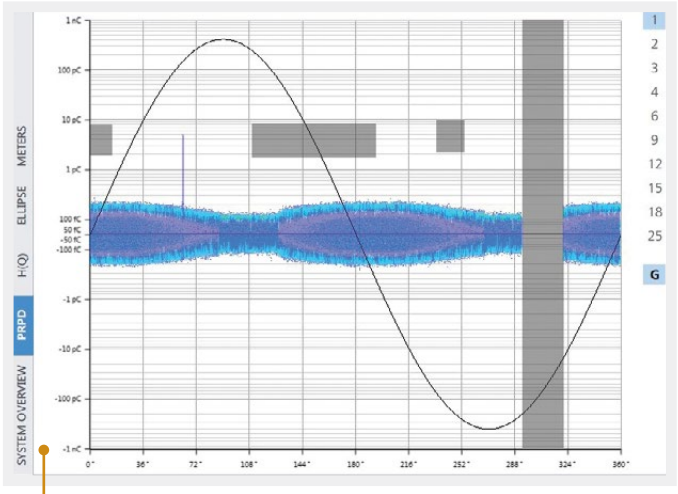
liable analysis

The channel gating can easily be configured or switched off in the software.





The 2-channel PRPD overview shows the filtered pulses (disturbances) and the measured PD pulses in real-time.



Measurement example using phase/amplitude window gating in the PRPD diagram.

Channel gating: Second channel for gating

To reduce the effect of frequency-variable disturbances, such as inverter noise on the measurement results, you can connect an additional MPD 800 channel as a gating channel.

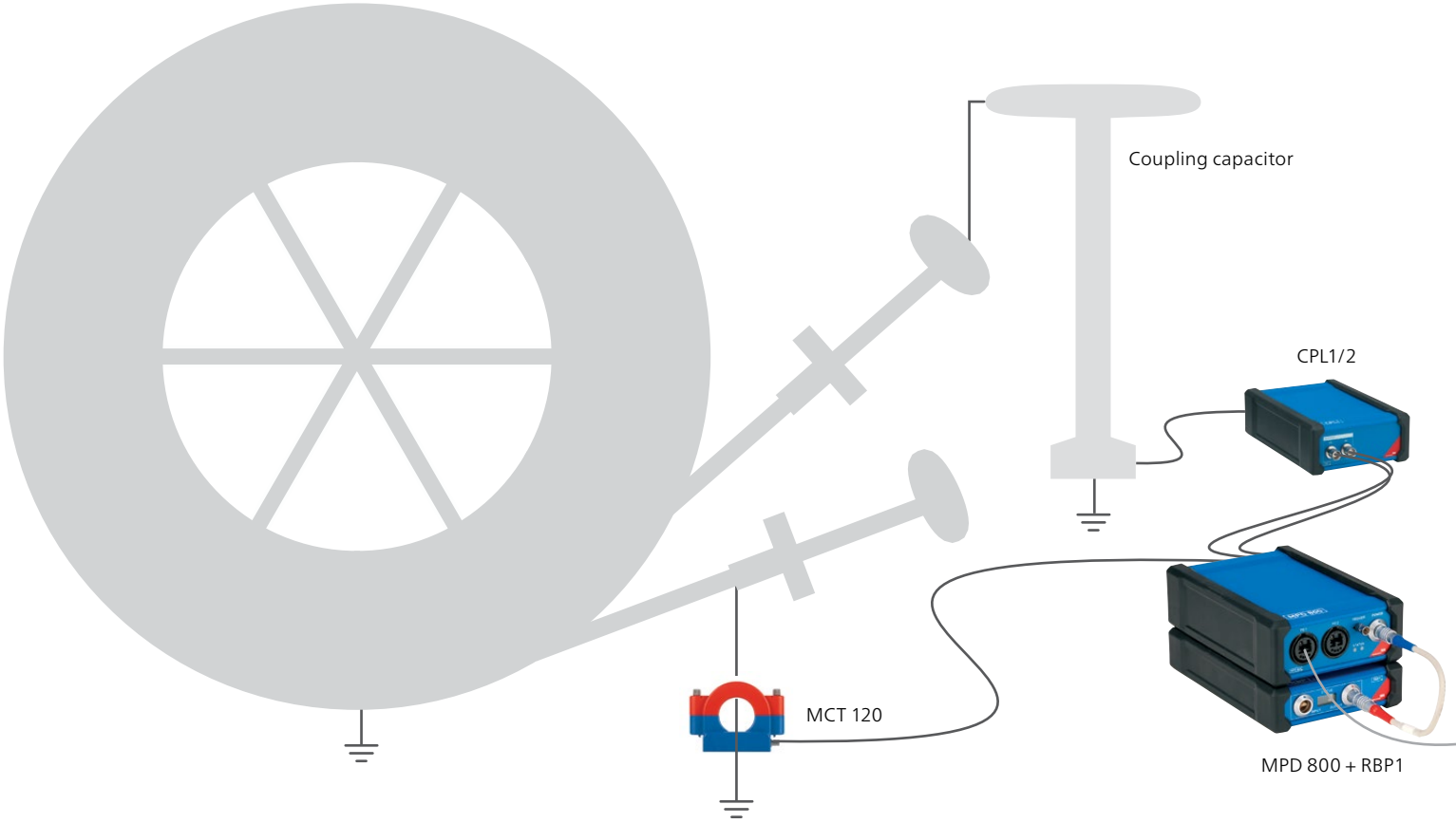
PRPD gating: Window gating of phase and amplitude

Phase/amplitude gates allow the MPD 800 to eliminate frequency-stable signals with a certain amplitude and fixed phase position, for example converter pulses, drives, irrelevant PD. You can easily define the gating areas by marking them with the mouse. These areas will be excluded during the subsequent PD measurement.

Cable factory testing

PD testing on medium- and high-voltage cables starts in the factory as this clearly reveals manufacturing-related insulation defects. During factory testing, the test voltage is increased according the relevant international standard, while the PD signals are decoupled within the coupling capacitor path.

A test voltage is applied that is higher than the normal operating voltage of the power cable and the PD measurement is made to determine whether the cable insulation is free from PD before it is put into service.



Your benefits for PD testing as a manufacturer of medium- and high-voltage cables

Guided Workflow

The guided workflow in five steps contains the configuration of the PD set-up, calibration, measurement, localization, and reporting. This feature improves decision-making by intuitive and guided testing with an optimized PD localization algorithm. Straightforward testing procedures save time and resulting costs during everyday routine tests.

Semi-automated calibration

Semi-automated charge and cable length calibration is done using a simple calibration pulse and reflection selection in the PRPD and TDR view.

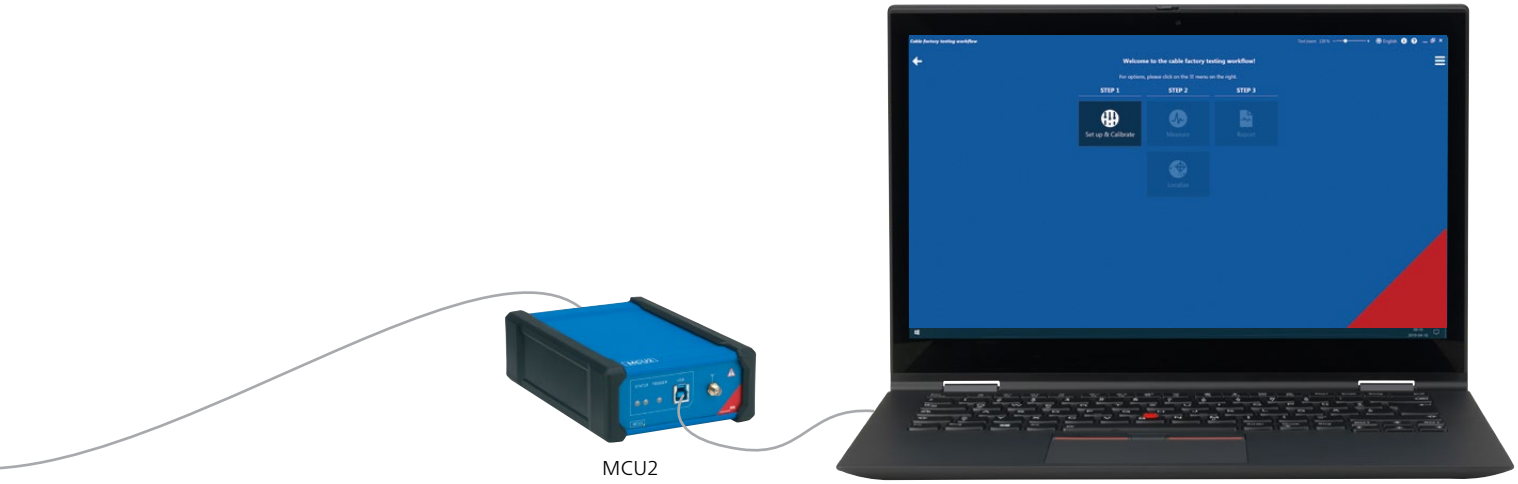
Intuitive PD localization

The workflow offers a simple PD localization by marking the suspicious PD area in the PRPD and to separate multiple PD sources.

PD analysis filters

The newly developed low-pass, high-pass, and band-pass filters are a great tool for improving PD localization. This feature will make it much easier to differentiate relevant PD pulses from noise in the PD scope. It can compare the filtered pulses with unfiltered pulses in grey color in the background.

The cable factory testing workflow is a separate user interface embedded into the MPD Suite software for factory tests such as FAT. It is an extremely useful tool for manufacturers of high-voltage or medium-voltage cables.



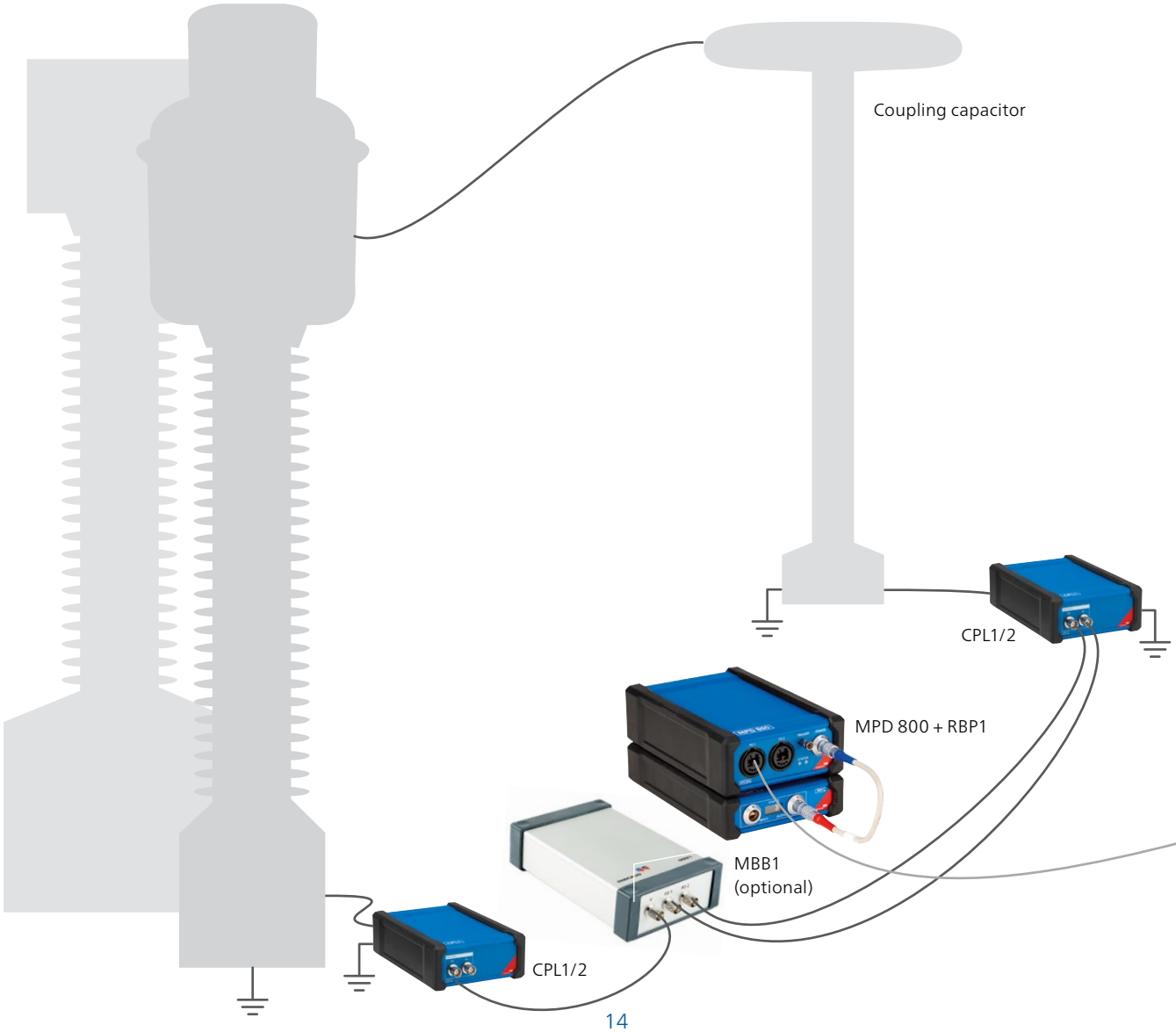
MCU2

Partial discharge testing in high-voltage test laboratories

Partial discharge (PD) testing is essential for high-voltage components used in many electrical assets, such as electrical insulators, bushings, converters and capacitors. It is important to determine whether they meet specific design and operational requirements.

Off-line single-phase PD measurements are performed on these components in a test lab with an external voltage source according to international standards. In many cases, a test voltage is applied that is higher than the normal operating voltage. Also the PD measurement is made while other machines run in the factory, creating disturbances which influence the PD testing.

These types of measurements are performed on a pass-fail basis during the development of high-voltage components as well as quality control during factory acceptance tests.



Your benefits for PD testing on high-voltage components in test labs

Standards-compliant measurements
MPD 800 ensures standards-compliant measurements – with just the click of a button, all parameters based on a specific standard can be automatically set.

Record and replay PD measurements
Live PD datasets can be recorded and replayed later for analysis and PD data comparison. You can focus on specific segments of the PD dataset and include these in reports.

Powerful separation tools
The advanced 3FREQ filtering option helps you to reliably distinguish between harmful PD and external noise for more reliable analysis. Additional noise filtering can be achieved with our MBB1 balanced measurement bridge.

Flexible user interface
The flexible MPD software allows you to configure measurements, select only the analysis tools you need and to determine how data should be displayed.

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The flexible MPD software allows you to configure measurements, select only the analysis tools you need and to determine how data should be displayed.

HVDC testing
The PD DC testing feature within the MPD Suite Software enhances the usability for standard compliant PD testing on HVDC equipment. The MPD Suite software supports several DC measurement described in standards such as IEC 61378-2, IEC/IEEE 65700-19-03, IEC 60076-6 or IEEE C57.129-2007.

To simplify the testing and to meet the needs of the applicable standards, two PD/DC counters are included in the measured value display with individual thresholds and time windows, allowing the user to verify the acceptance criteria given by the test specifications.

Create user profiles
For different types of PD tests on high-voltage coponents, you can set up specific measurement or user profiles with the required test parameters according to international standards.

Customized reporting
You can select the measurement parameters and images to include and how they are displayed in automatically generated reports.

Partial discharge testing on electrical assets

For on-site PD testing of transformers, rotating electrical machines, power cables, or medium voltage switchgear, the MPD 800 is a perfect fit for accurate and fast PD testing even under challenging test conditions. The MPD 800 helps you to:

> Clarify asset installation defects within the warranty period.
> Periodically check asset insulation condition state by scheduled off-line diagnostic measurements.
> Identify assets that require immediate intervention.
> Plan maintenance and investment based on asset condition.
> Identify assets that require permanent monitoring.

Your benefits for on-site PD testing

Powerful separation tools
Advanced filtering options (3PARD and 3FREQ) help you to reliably distinguish between harmful PD and external noise and to separate multiple PD sources.

Synchronous multi-channel measurement
Synchronous multi-channel measurements enable PD localization and modern disturbance reduction tools to ensure a complete assessment of the insulation system and reliable PD testing results.

Conditional trending
This feature allows for unsupervised measurements during prolonged tests without missing important events. It is possible to automatically create PRPD screenshots and record dataset files when certain conditions are met:

- Repeatedly after a specific time interval,
- When a measurement reading exceeds a configurable threshold;
- When a certain minimum number of PD pulses appear in the PRPD in a certain place.

Robust protection
Protected in the rugged MPC1 case, the pre-wired MPD 800 is ideal for outdoor usage and offers a fast on-site installation, providing galvanic insulation for optimal safety.

Online PD detection with the TEV1 sensor
Our the TEV1 transient earth voltage PD sensor offers a practical alternative for online PD detection on MV switchgear, power transformers, and power cable terminations.

Frequency variable digital PD filters create a benefit when using the MPD 800 combined with any sensor, including TEV sensors, compared to broadband detectors. Selecting the best signal-to-noise ratio in the measuring range will avoid disturbances and gain a more sensitive PD detection.

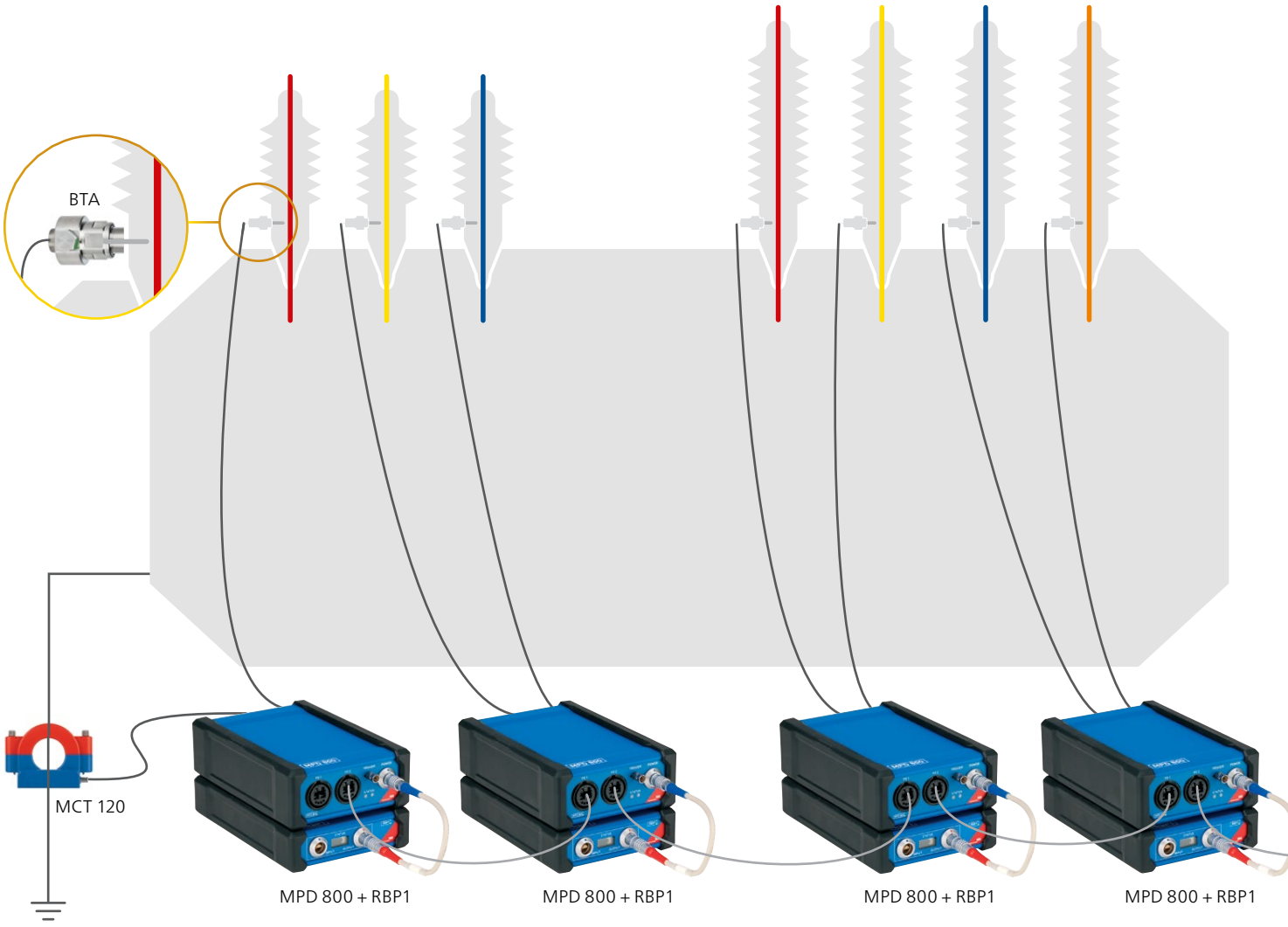
UHF PD measurements with the UHF 800
To further verify the signal source in testing environments with high levels of external noise, PD can be additionally measured using ultra-high frequency sensors, such as in gas-insulated switchgear, inside the tank of liquid-insulated transformers, and at cable terminations.

Partial discharge measurements on power transformers

When measuring and analyzing partial discharge (PD) activity in power transformers, the particular tests and test set-ups are determined by the type of transformer and depend on the standards according to which the measurements are performed.

Depending on the type of bushings used, MPD 800 is connected either to the capacitive tap of the bushings or to an external coupling capacitor. PD is measured either in µV (according to IEEE standards) or in pC (according to the IEC 60270 standard).

PD measurements on power transformers are performed during factory acceptance, on-site commissioning and routine testing in order to detect critical defects in the insulation and assess potential risks.



Your benefits for PD testing on power transformers

Standards-compliant measurements

MPD 800 ensures standards-compliant measurements – with just the click of a button, all parameters based on a specific standard can be automatically set and added to a report

Simultaneous testing

MPD 800 supports you in the simultaneous measurement and analysis of charge (Q_{IEC}) and Radio Interference Voltage (RIV) values, for example during factory acceptance testing

Powerful separation tools

Advanced filtering options (3PARD and 3FREQ) help you to reliably distinguish between harmful PD and external noise and to separate multiple PD sources.

Two input channels

MPD 800 has two PD input channels to enable synchronous, multi-channel measurements using one device, and to allow real-time gating of the current measurement in order to suppress surrounding noise.

PD trigger functionality

By drawing a trigger-window, pulses can be displayed in the PD scope from a variety of PD sensors for detailed pulse shape analysis and for triggering acoustic PD localization with PDL 650 via the optical output of MPD 800.

UHF measurements

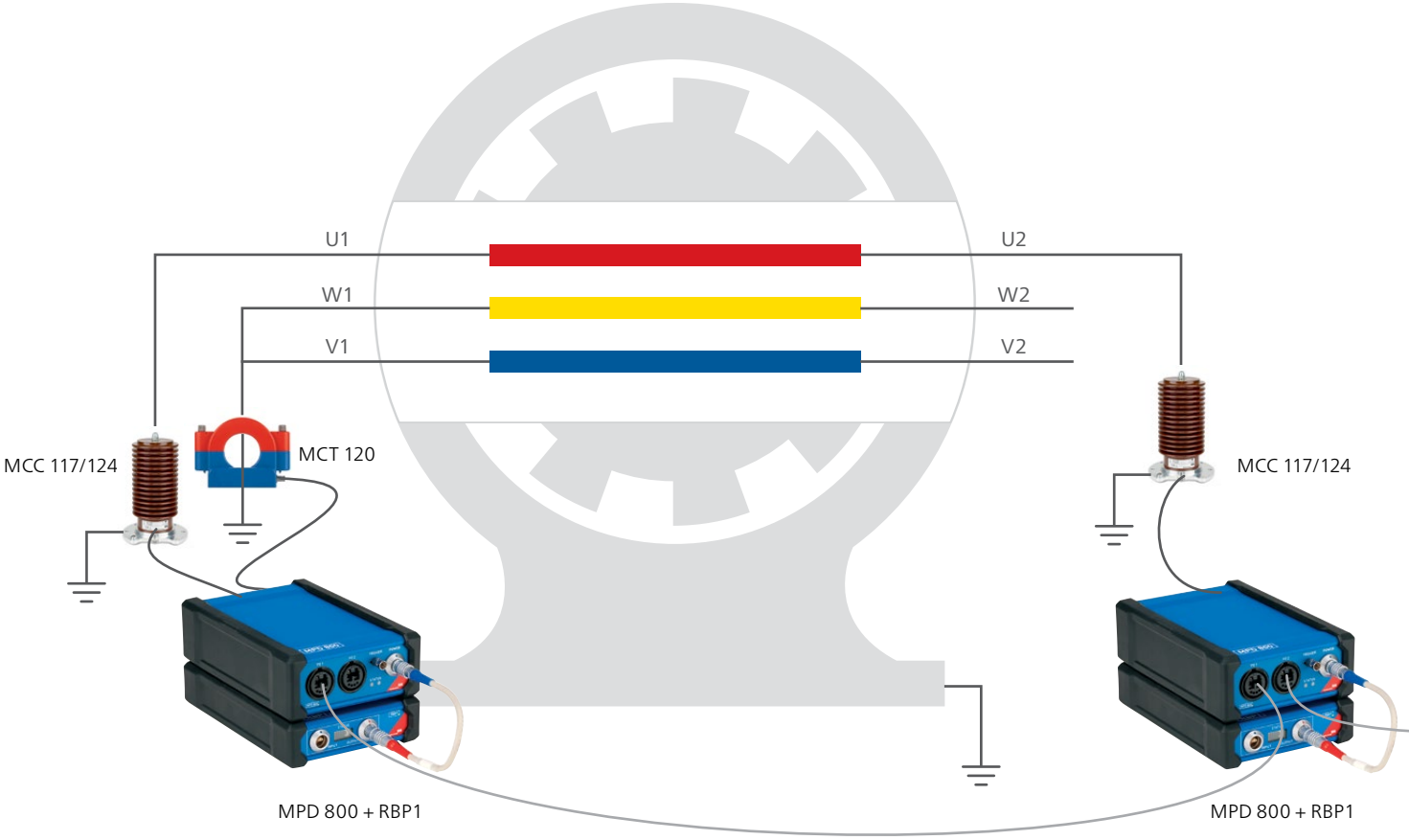
To further verify the signal source, PD can be additionally measured inside the tank of liquid-insulated transformers using ultra-high frequency sensors.

Partial discharge measurements on rotating machines

Partial discharge (PD) testing on rotating electrical machines is performed according to international standards, either off-line when the machine is taken out of service and energized with a high-voltage source or when the machine is in service.

Depending on whether the star point is accessible, a single-phase measurement can be done. Otherwise a three-phase measurement in combination with source separation techniques enables you to identify PD activity in a specific phase.

Off-line PD measurements on rotating machines are performed during factory acceptance, on-site commissioning and routine maintenance testing to detect critical defects in the insulation and assess potential risks. On-line PD measurements can also be performed on large generators when in service using permanently installed coupling capacitors.



Your benefits for PD testing on rotating machines

Standards-compliant measurements

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Powerful separation tools

Advanced filtering options (3PARD and 3FREQ) help you to reliably distinguish between harmful PD and external noise and to separate multiple PD sources.

Create user profiles

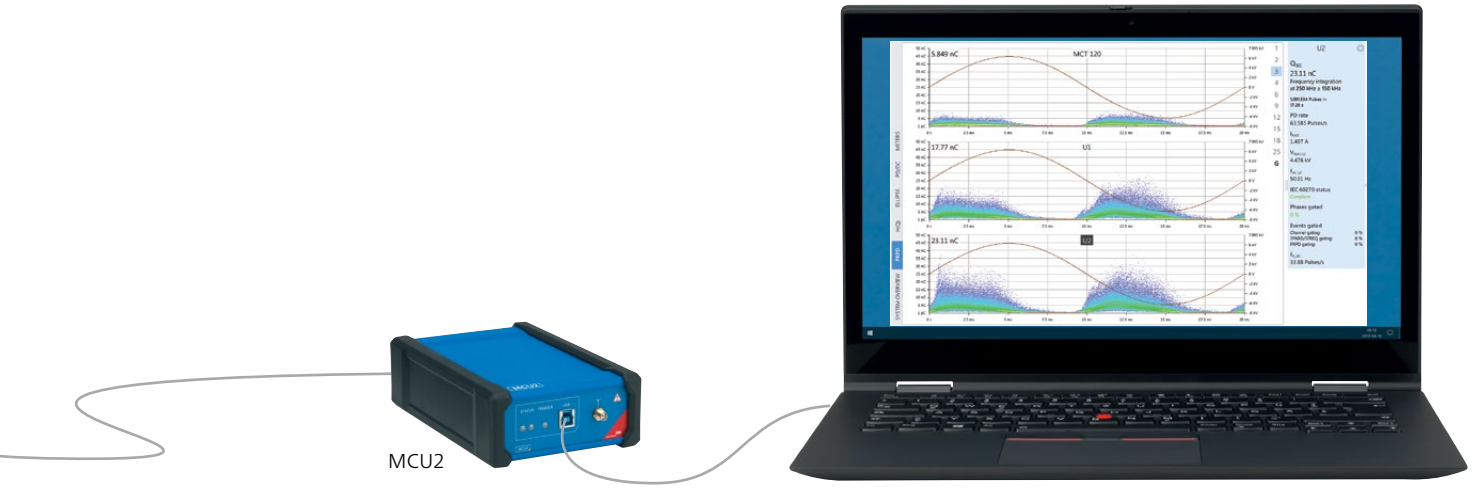
For different types of PD tests on rotating machines, you can set up specific measurement or user profiles with the required test parameters according to international standards.

Flexible user interface

The flexible MPD software allows you to configure measurements, select only the analysis tools you need and to determine how data should be displayed.

Record and replay PD measurements

Live data sets can be recorded and replayed later for analysis. You can focus on specific segments of the data set and include these in reports.



Partial discharge testing on power cables

PD testing is also important during site acceptance testing of installed cable systems at their joints and terminations. Regular in-service PD testing can also be performed on-line to assess the dielectric condition of the cable system as it ages.

For on-site PD testing of long power cables with a large distance between the joints, a special MPD 800 version with single-mode fiber optical modules was developed to cover a distance of at least 15 km or longer, depending on fiber optical cable specifications. The MPD 800 standard acquisition units can bridge up to 2.5 km distances. Much larger distances exist in some cases, such as PD testing of DC cables.

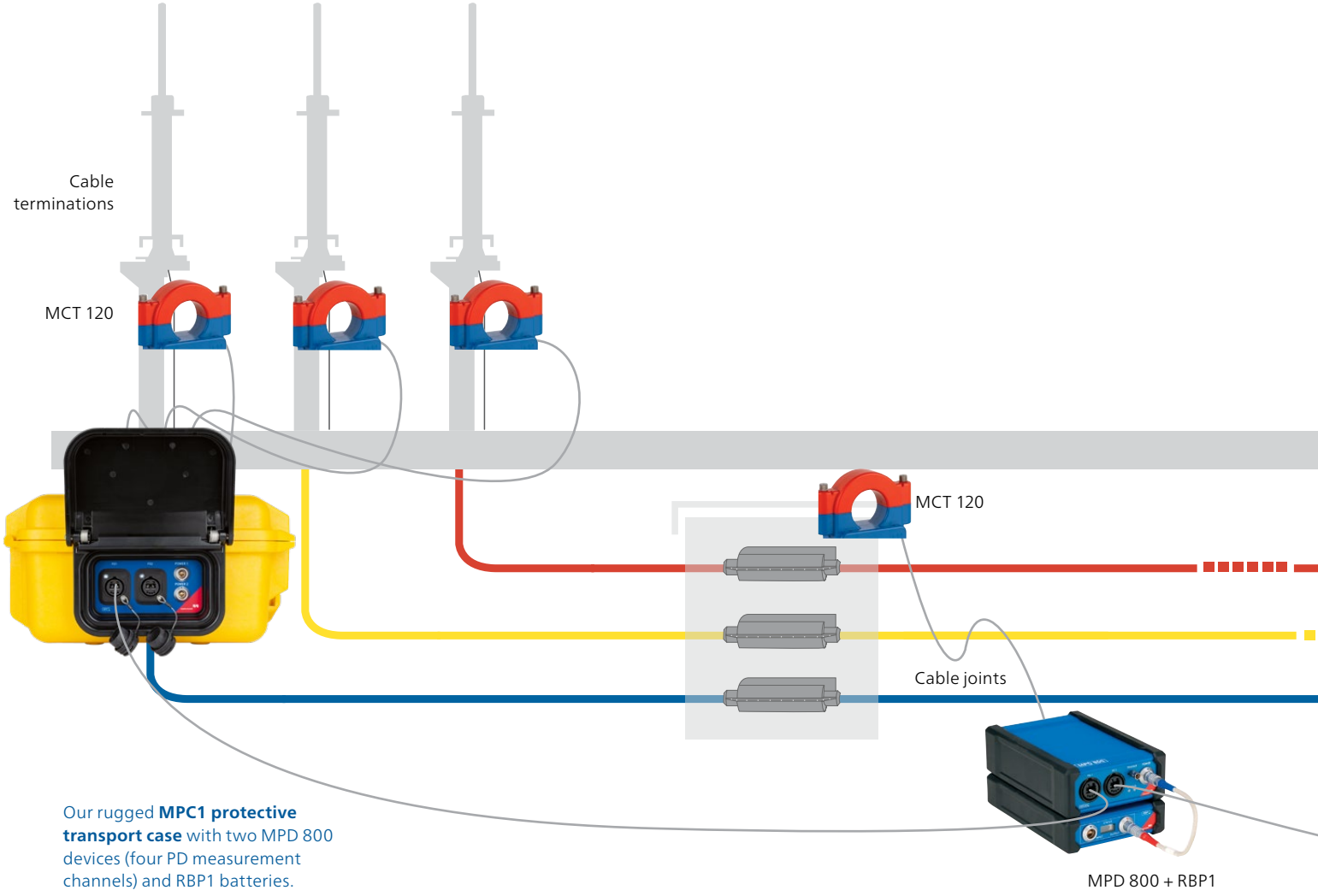
Your benefits for PD testing on power cables

GPS synced PD datasets

For PD localization in power cable applications where it is not possible to route fiber optic cables, you can use the GPS synced PD dataset feature to merge and display the data sets recorded with two or more MPD 800 measurement devices at different locations along a power cable, such as at joints and terminations.

PD analysis filters

The low-pass, high-pass, and band-pass filters are powerful tools for improving PD localization. These filters make it much easier to differentiate relevant PD pulses from noise in the PD scope. The filtered pulses can be compared with unfiltered pulses which are colored gray in the background.



Our rugged **MPC1 protective transport case** with two MPD 800 devices (four PD measurement channels) and RBP1 batteries.

Synchronous multi-channel measurements

Synchronous multi-channel measurements at the terminations and joints ensure a more complete assessment of the insulation system and reliable localization of defects along the entire cable length for on-site testing.

Powerful separation tools

An advanced 3PARD filtering option helps you to reliably distinguish between harmful PD and external noise and to separate multiple PD sources on site.

Multiple fault localization methods

Time-domain reflectometry (TDR) offers a wide range (> 130 µs) for localization using one MPD 800 unit. Its sensitivity can be increased by using two MPD 800 units and applying the time of flight (ToF) method. PD analysis filters further improve these methods.

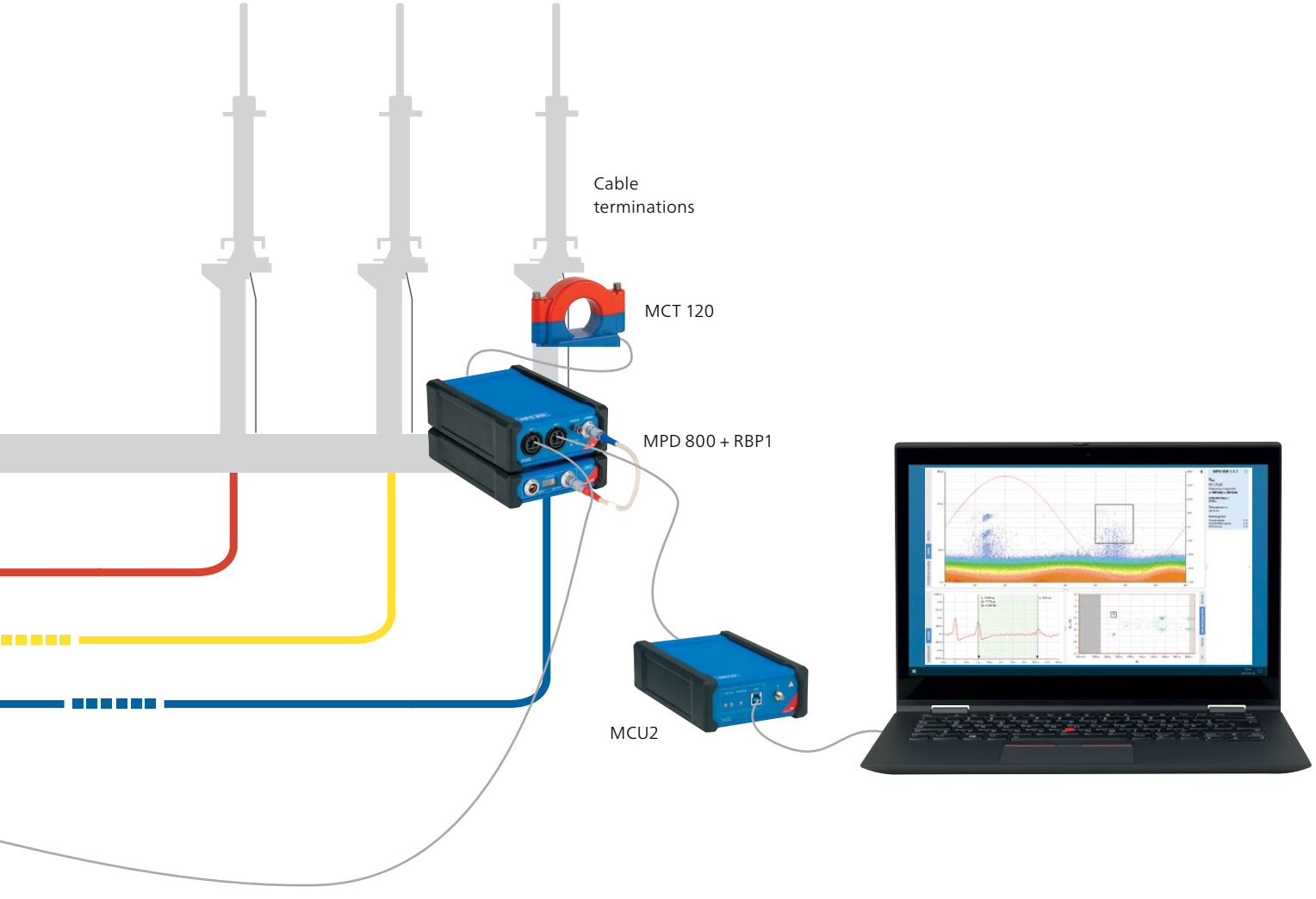
With two well-established statistical localization techniques, the multi-channel statistical TOF and single-channel sTDR, the user can quickly locate defects along entire lengths of cables. This method profits from the use of the broadband digital PD filters.

High sensitivity for locating PD defects

The combination of a set of broadband digital filters and a very low system noise and disturbance reduction tools (3PARD or 3FREQ) makes the MPD 800 a high-sensitive PD measurement device that is required for early-stage PD identification.

Synced PD scope triggers

The PD scope trigger can activate other MPD 800 PD channels of the same or different MPD 800 units. This feature is also helpful for the PD localization.



Extend your MPD 800 system to meet application needs

MPD 800 standard packages include:	Power transformer testing	Rotating machine testing	Medium- and high-voltage Power cable testing	Instrument transformer testing	High-voltage GIS testing	Medium-voltage switcgear testing	Other high-voltage component testing
MPD 800	Typically 3 or 6 PD channels	Typically 1 or 3 PD channels	**Factory:** 1 or 2 PD channels **On-site:** 1 PD channel per sensor	Typically 1 PD channel	Typically 1 PD channel	Typically 1 PD channel	Typically 1 PD channel
RBP1	■	■	■	■	■	■	■
Fiber-optic cables (3m or 20m)	■	■	■	■	■	■	■
MCU2	■	■	■	■	■	■	■
Calibration							
CAL 542	□ (Type C)	□ (Type D)	□ (Type A or B)	□ (Type B)	□ (Type A or B)	□ (Type B)	□ (Type B)
RIV1	□	–	–	□	–	–	□
Sensors							
CPL1 / CPL2 *	□	□	□	□	□	□	□
MCC	□	□	□	□	□	□	□
BTA	□	–	–	–	–	–	□
MBB1	–	–	–	□	–	–	□
MCT 120	□	□	□	□	□	□	□
TEV1	□	–	□	–	□	□	–
Extensions							
MPD 800 (for multi-channel measurements)	□	□	□	□	□	□	□
PDL 650 (for PD localization in oil-filled transformers)	□	–	–	–	–	–	–
UHF 800 (for UHF measurements)	□	–	□	–	□	–	–

■ required □ typically required or optional – usually not requested

* Required either for tests with coupling capacitors larger than 2 nF, when the MPD is installed in the test object path, or when breakdowns of the test objects are expected during testing for additional protection.

High product reliability and PD sensitivity combined with continuous product improvements

Since the launch of the MPD 800, the MPD Suite Software has been continuously improved. From the start, the focus was set on the product quality and reliability.

Within the last five years, a new update was released each year. Features are continuously enhanced and new features are added to optimize the overall performance, make PD testing convenient, and extend the toolset of the MPD 800 and MPD Suite software to help you meet a wide variety of testing needs, such as:

IEC 60270 Independently type-tested

In the tradition with our previous MPD 540 and MPD 600 PD measurement devices, the MPD 800 is the only PD measurement device on the market which is independently type tested in compliance to the IEC 60270 PD standard by the IPH belonging to CESI.

MPD 800 self-check feature

To verify the condition of the MPD 800, the device includes an automated one-click self-check functionality which is essential after flashovers or breakdowns.

IEC compliance check

The MPD Suite includes the IEC performance check as required by chapter 7.3.4 of the IEC 60270: 2000 + AC:2001 + A1:2015). A simple wizard is offered which guides the user through the process.

2nd PD measurement channel - peace of mind

Avoid costly downtime in case of an unexpected flashover or breakdown which might cause damage. The MPD 800 is designed with an additional PD measurement channel. Simply switch the PD channel for uninterrupted testing and schedule a maintenance repair when convenient (available from the MPD 800 standard package onwards).

A very high PD sensitivity

A very low system noise, measuring more than 2 Mio. pulses per second and a fiber optical bus connection ensure the detection of every PD pulse during the standard compliant PD measurement.

The MPD 800 offers a great return on investment into the future by profiting from continues product improvements and high-quality standards to ensure the best quality assurance of your high-voltage asset.

OMICRON Calibrations

Full-service IEC 17025 and factory calibrations

OMICRON Calibrations offers IEC 17025 calibrations for the MPD 800 and MPD 600 systems (incl. CPL) and charge calibrators CAL 542 in its accredited IEC 17025 calibration laboratory. New MPD 800 devices can be delivered with IEC 17025 calibrations and the OMICRON factory calibration.

The OMICRON factory calibration includes the determination of linearity and transfer impedance Z(f), which is defined as a routine test for PD measurement devices in accordance with IEC 60270. Existing MPD 800 systems can benefit from a Full-Service IEC 17025 Calibration, including the OMICRON factory calibration (ISO 9001). Your MPD 800 device is automatically tested, calibrated, and adjusted during the OMICRON factory calibration.

Please scan this QR code for more information about our calibration services.

We create customer value through ...

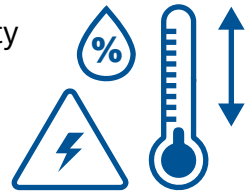
Quality

You can rely on the highest safety and security standards

Superior reliability with up to

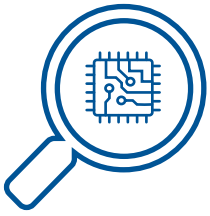
72

hours burn-in tests before delivery



100%

routine testing for all test set components



ISO 9001
TÜV & EMAS
ISO 14001
OHSAS 18001

Compliance with international standards

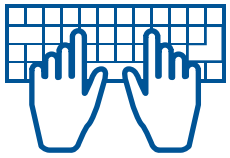
Innovation

... a product portfolio tailored to my needs

More than

200

developers keep our solutions up-to-date



More than

15%

of our annual sales is reinvested in research and development

Save up to

70%

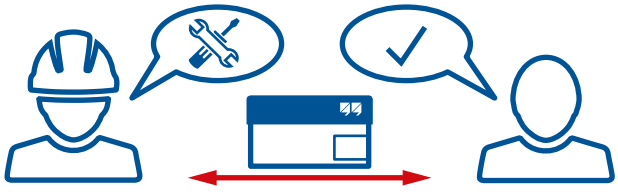
testing time through templates, and automation

Support

24/7

Professional technical support at any time

Loaner devices help to reduce downtime



Cost-effective and straight-forward repair and calibration

25

offices worldwide for local contact and support

Knowledge

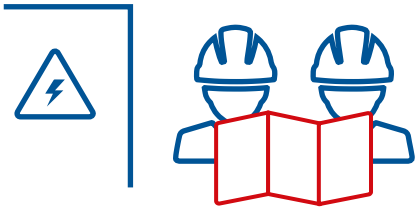
More than

300

Academy and numerous hands-on trainings per year

Frequently OMICRON hosted user meetings, seminars and conferences

to thousands of technical papers and application notes



Extensive expertise in consulting, testing and diagnostics

OMICRON is an international company that works passionately on ideas for making electric power systems safe and reliable. Our pioneering solutions are designed to meet our industry's current and future challenges. We always go the extra mile to empower our customers: we react to their needs, provide extraordinary local support, and share our expertise.

Within the OMICRON group, we research and develop innovative technologies for all fields in electric power systems. When it comes to electrical testing for medium- and high-voltage equipment, protection testing, digital substation testing solutions, and cybersecurity solutions, customers all over the world trust in the accuracy, speed, and quality of our user-friendly solutions.

Founded in 1984, OMICRON draws on their decades of profound expertise in the field of electric power engineering. A dedicated team of more than 900 employees provides solutions with 24/7 support at 25 locations worldwide and serves customers in more than 160 countries.

The following publications provide further information on the solutions described in this brochure:

For more information, additional literature, and detailed contact information of our worldwide offices please visit our website.

The following publications provide more information about MPD 800:

- MPD 800 Technical Data
- MPD 800 Ordering Information
- MPD 800 Upgrade Information for MPD 600 Users

For more information and detailed contact information of our worldwide offices please visit our website.

www.omicronenergy.com