



# POWERSCOUT®

Recognising correlations –  
optimising maintenance



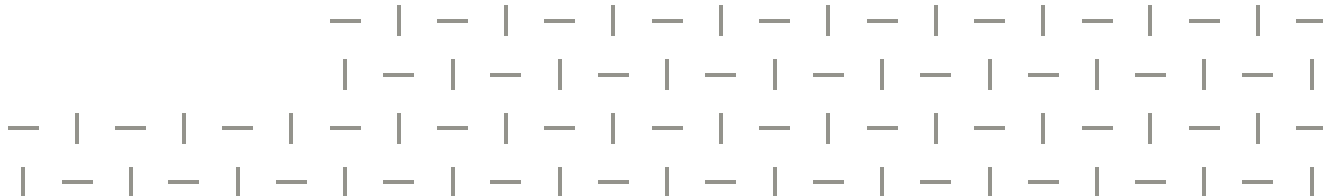
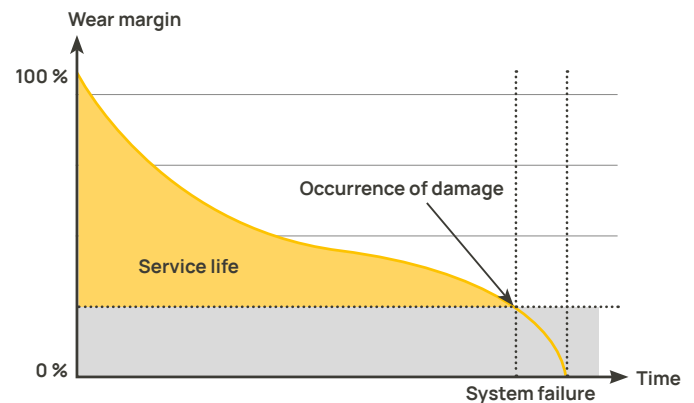
# POWERSCOUT® - Analysis – predictive maintenance – report

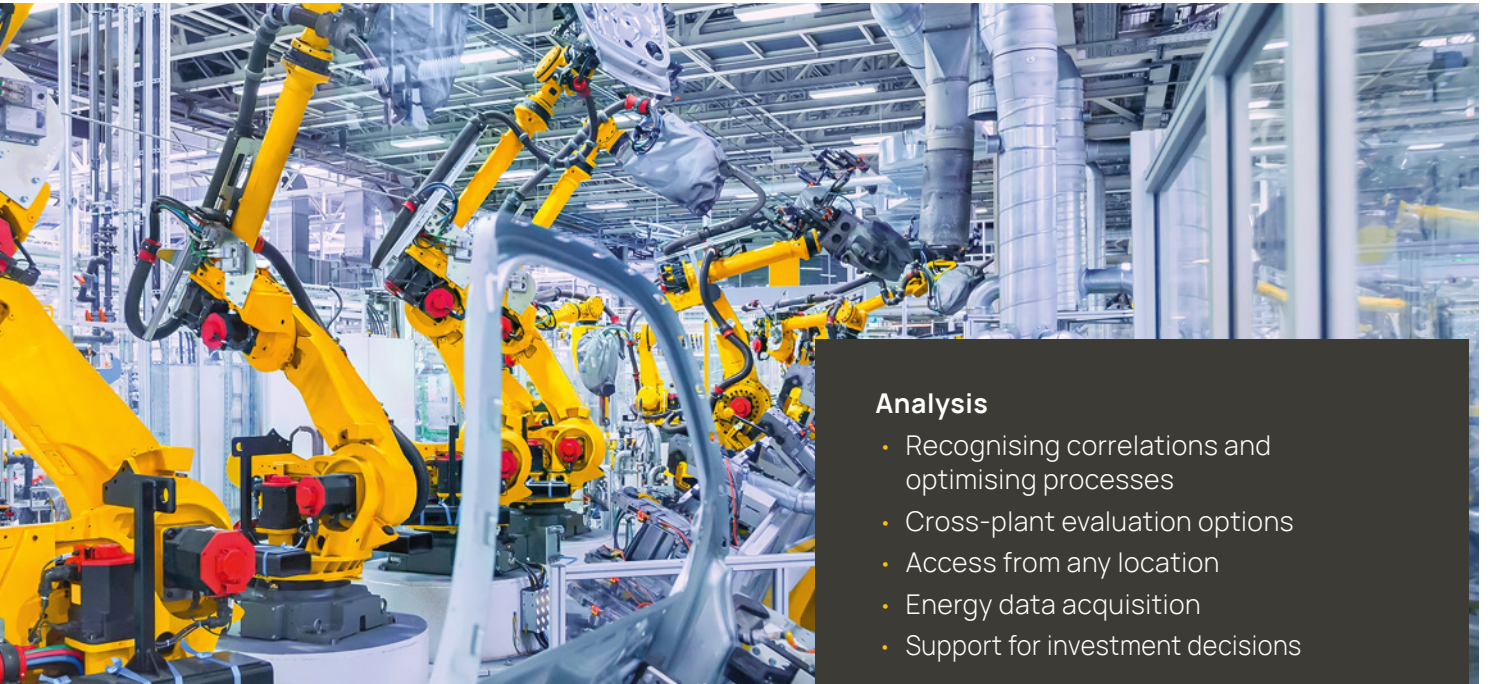


Moisture, deterioration, dirt, mechanical damage or faults caused by the impact of current, voltage and temperature impair every electrical installation.

The web-based software solution POWERSCOUT® helps you detect malfunctions at an early stage and eliminate the causes in an economically reasonable way. This guarantees a high safety level for the installation as well as high operational reliability, and it reduces costs.

Manual data acquisition is time consuming, error prone and only provides random sampling results. With POWERSCOUT® you have the complete data of your installation at your disposal at any time since all measured values are automatically and continuously saved. POWERSCOUT® combines the data of your measuring and monitoring equipment and generates easily comprehensible visualisations of all important measured values.





Predictive maintenance prevents downtimes, reduces costs and staff deployment. POWERSCOUT® informs you about the condition of your electrical installation at all times.

POWERSCOUT® is your tool: It can be precisely adjusted to your installation and your monitoring requirements during setup. Easy, clear and fast. Open the browser, log in, select the required measuring devices and measured quantities, done.

### Analysis

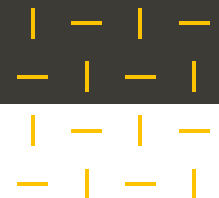
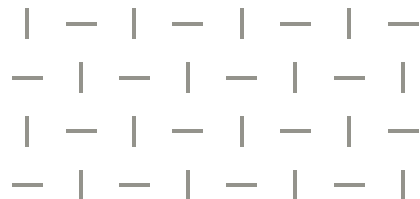
- Recognising correlations and optimising processes
- Cross-plant evaluation options
- Access from any location
- Energy data acquisition
- Support for investment decisions

### Predictive maintenance

- Higher availability
- Continuous monitoring
- Early detection of fault currents
- Lower costs incurred due to unexpected malfunctions and shutdowns
- Early detection of gradually developing insulation faults

### Report

- Historical comparisons
- Reliable storage of measured values
- Event and alarm statistics



## Analysis -

Recognising correlations,  
optimising processes





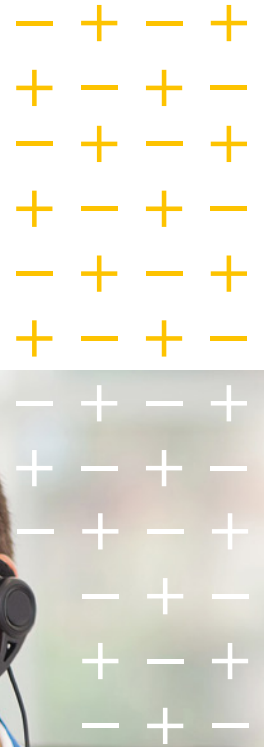
### **Analysis – as individual as your installation – as simple as possible**

An informative visualisation can be generated for each of your installation types in an easy and fast way with flexible and scalable dashboards for any display device, be it a smartphone, a laptop or a PC.

POWERSCOUT® is a tool designed for storage and analysis of data from Bender measuring devices as well as measuring devices from other manufacturers. Analysis across locations allows the comparison of several buildings or company headquarters.

Weather conditions or faulty equipment may cause malfunctions in your installation. POWERSCOUT® puts you on the right track.

**Predictive maintenance -  
safety made easy**



### Information advantage saves money and resources

In the field of automation of electrical installations, using modern communication technologies has become indispensable in order to enhance the transparency of the power supply by means of operating, warning and fault messages.

Information about location and cause at an early stage allows time-, cost- and staff-optimised service visits. Possible installation downtime or destruction of expensive equipment is avoided. In the context of these modern network technologies that become faster and faster, central database solutions are an established technical standard.

### Continuous monitoring instead of random tests

POWERSCOUT® continuously collects measured values and generates user-specific reports. This well-founded database allows real trend curves to be visualised and the causes of malfunctions to be identified.

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# Report – keeping an eye on your installation yesterday – today – tomorrow

## Data logger full?

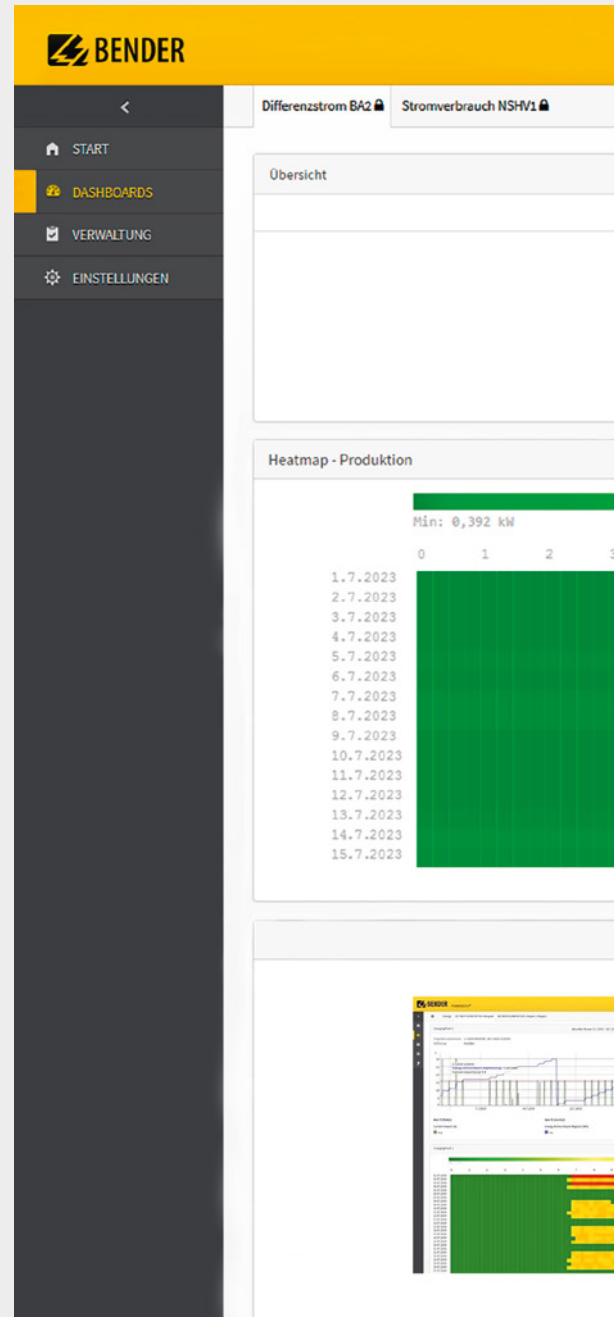
Installation monitoring generates a great deal of data. POWERSCOUT® allows storing data reliably and keeping it available for years.

## Key information at a glance – automatically, customised

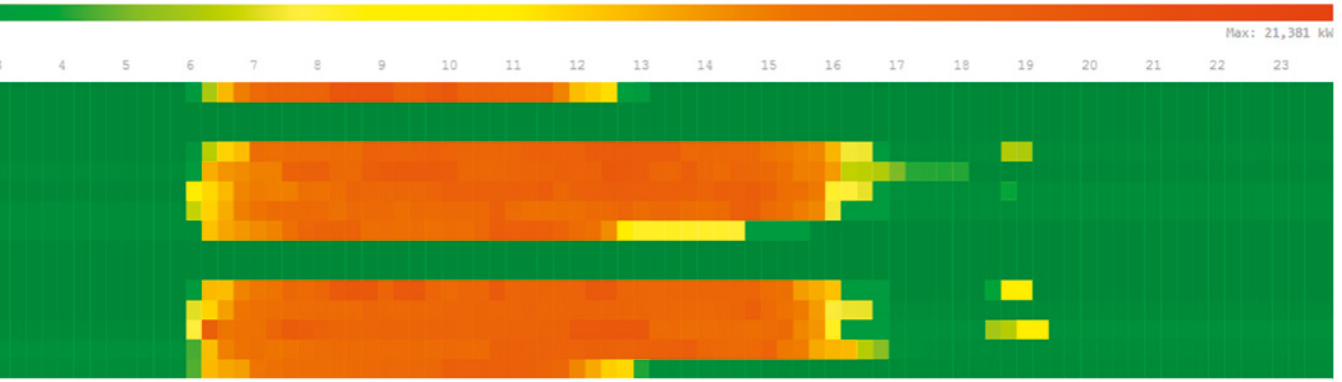
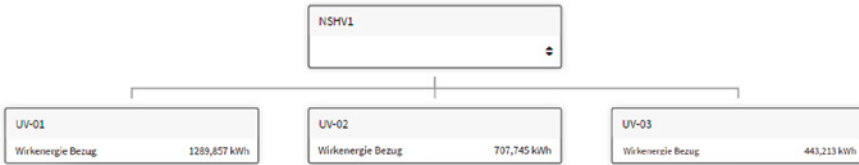
POWERSCOUT® sends you graphically processed reports at specified intervals. It only takes into account relevant data. Thereby, the condition of your installation becomes evident at a glance. These reports are saved in POWERSCOUT®.

## Basis for periodic verification as per IEC 60364-6

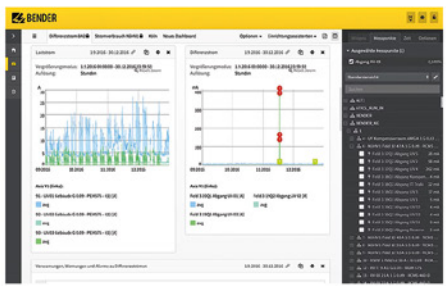
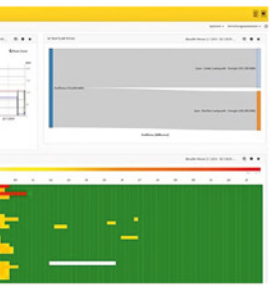
The automated report on residual currents forms the basis for measuring without switch-off by means of periodic verification. Reliable operation of all electrical installations and equipment is only possible if proper condition can be permanently ensured. The IEC 60364-6 determines test intervals and types. The requirement of continuous monitoring of stationary electrical installations and equipment can be complied with if measures for continuous measurement of the insulation resistance or the residual current have been taken. POWERSCOUT® generates and saves the test protocols of the residual currents.







system-1-122-P(sum) [kW] [Min.]



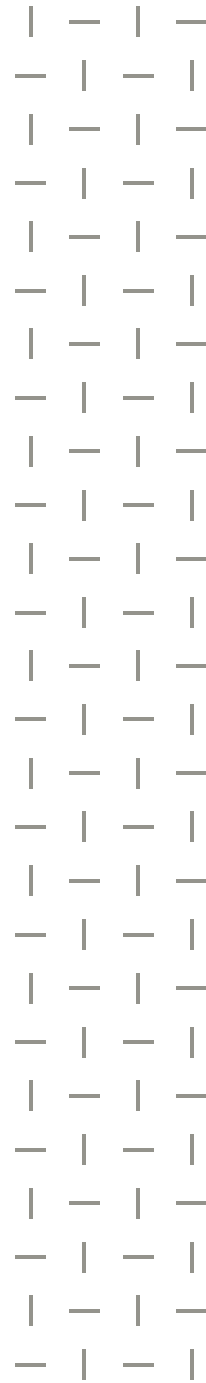
# Bender monitoring systems at a glance

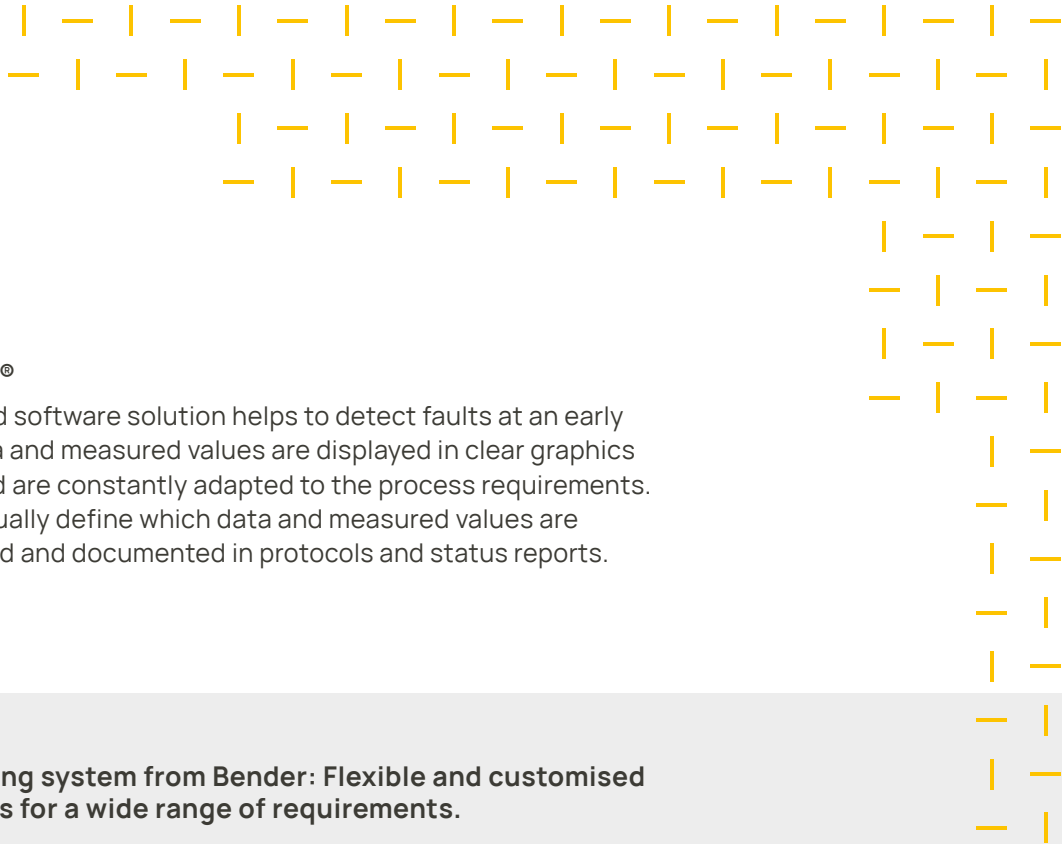
## ISOMETER® insulation monitoring devices

Insulation monitoring devices continuously monitor the insulation resistance of IT systems (unearthed systems) and immediately report any values that fall below the response values. For the measurement, the device is connected between the active conductors and the protective earth conductor (PE) and a measuring current is superimposed onto the system, which is detected and evaluated by a measuring circuit. Insulation monitoring devices detect deterioration of the insulation level in IT systems at an early stage and in a reliable manner.

## LINETRAXX® residual current monitors

Residual current monitors monitor earthed systems (TN and TT systems) for fault currents and residual currents. The sum of the currents of all conductors except the protective conductor is measured by means of a measuring current transformer. Typically, residual current monitors (RCM) are used to notify the user even before the switch-off threshold of an RCD (residual current device) is reached. Insulation monitoring devices detect deterioration of the insulation level in IT systems at an early stage and in a reliable manner.

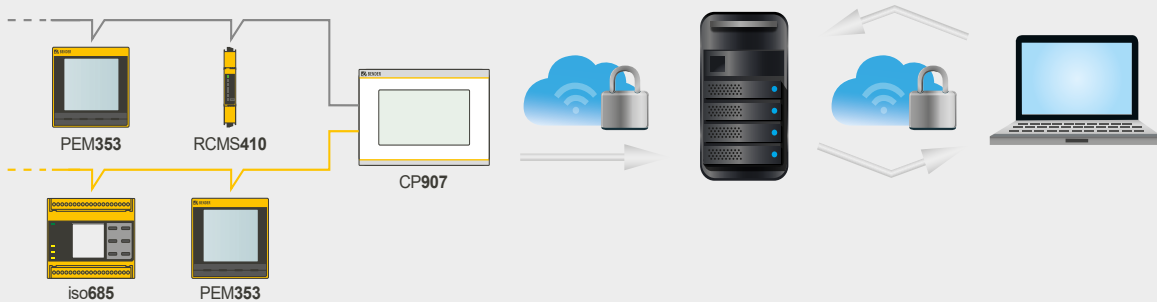


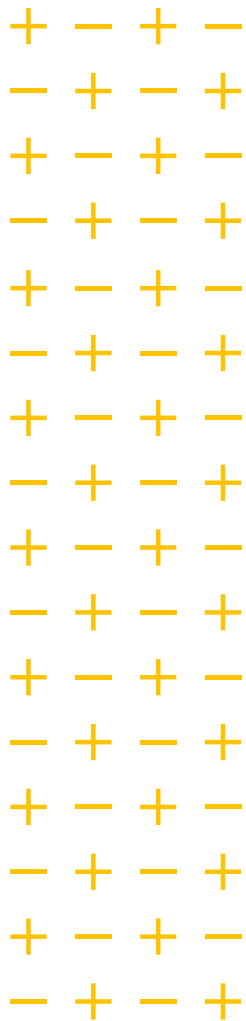


## POWERSCOUT®

This web-based software solution helps to detect faults at an early stage. The data and measured values are displayed in clear graphics and reports and are constantly adapted to the process requirements. You can individually define which data and measured values are displayed, saved and documented in protocols and status reports.

**Monitoring system from Bender: Flexible and customised solutions for a wide range of requirements.**





With its residual current devices and insulation monitoring devices, Bender offers flexible and customised solutions for monitoring systems. These are suitable for unearthed systems (IT systems) as well as for earthed systems (TN and TT systems) and ensure their reliable operation.

1



Insulation monitoring devices

2



Insulation fault location systems

3



Residual current monitoring devices

4



Power quality and energy measurement

5

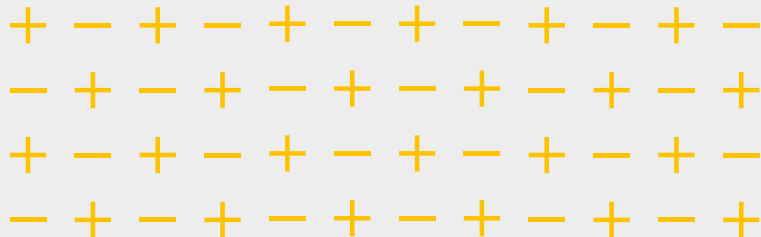
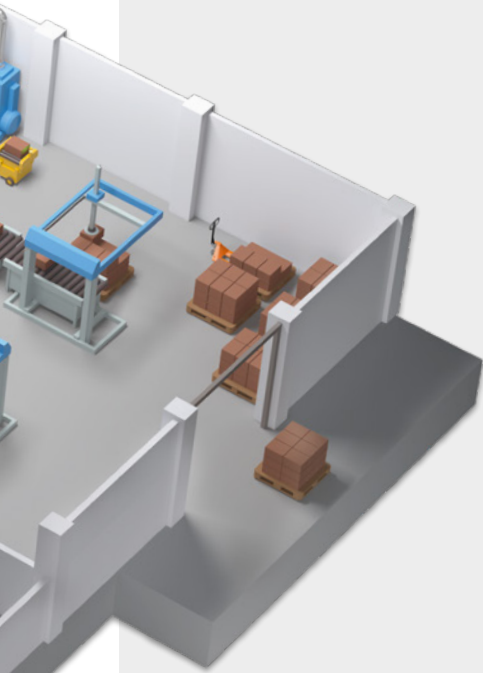


Measuring and monitoring relays

6

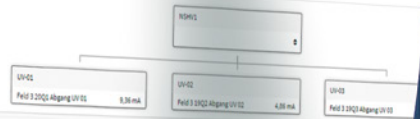


Communication solutions

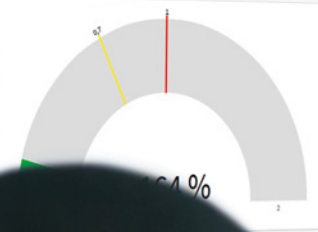


Differenzstrom B42 | Stromverbrauch NS402

Übersicht



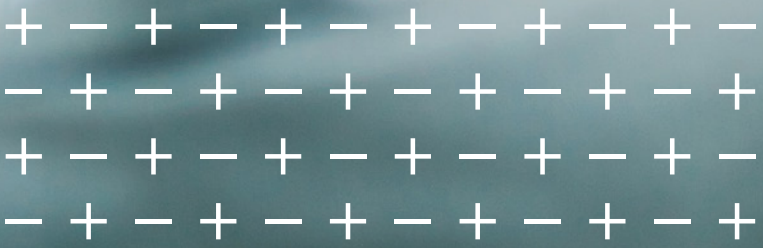
Abgang UV-01



Abgang UV-02



Differenzstrom



# POWERSCOUT®

## easy and fast setup

POWERSCOUT® assists you in the process of generating an installation report. Whether it is residual currents, neutral conductor monitoring or stray currents, you can generate your visualisations with just a small amount of data. You can also specify at which intervals you would like to receive automated reports.



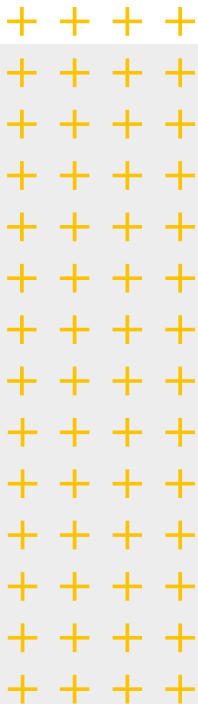
### Is the residual current too high?

POWERSCOUT® calculates the ratio of residual and load current based on your data and generates an easily understandable visualisation. Critical residual currents are clearly shown on the dashboard.



### Fire protection by means of neutral conductor monitoring

Define neutral conductor currents and load currents at POWERSCOUT® "Neutral conductors" using drag and drop. Nothing else is necessary to visualise this monitoring task. Critical installation conditions can be detected at a glance. Thereby, you reduce the fire hazard and prevent installation downtime.



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