POWERSCOUT®

Transparency for your electrical distribution systems

POWERSCOUT®

Time = money and both are resources that are generally in short supply. Staff shortages, ever **stricter conditions and deadlines** and the constant need to optimise are the counterparts to this simple equation.

Responsible electrically skilled persons experience this more and more. They are specialists, but are perceived as all-rounders and are to a large extent responsible for the smooth functioning of operational processes. According to the motto "Just do this as well", **the actual tasks are increasingly being neglected**.

The **solution** is to **automate** routine and recurring mandatory tasks.

POWERSCOUT® helps you to achieve the following goals:

- Avoiding unwanted shutdowns
- Avoiding shutdowns as part of the periodic verification
- Fulfilling documentation obligation
- Visualising leakage and residual currents
- Minimising effort and costs
- Iso, RCMS and ATICS® report
- Automation of your reporting

POWERSCOUT® features

Automated reports

Reports can be generated from the dashboards. A dashboard can always be sent and saved as a report. There is also an option for managing these reports. In the report management, the publishing intervals as well as the storage in POWERSCOUT® can be set.

- Automated report generation
- Freely configurable time periods
- Storing 250 reports in a history
- Sending reports via e-mail
- Insulation report, residual current report (German Social Accident Insurance Regulation 3 (DGUV V3)) and ATICS® report
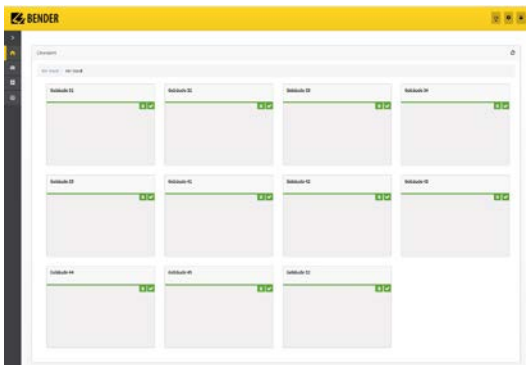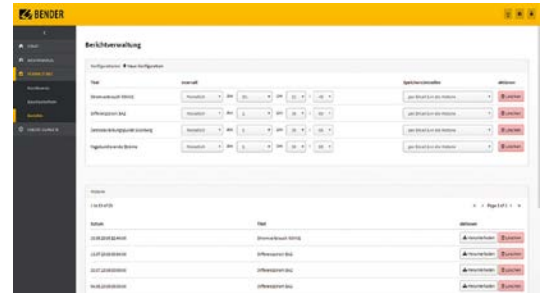
Building and system overview

The installation/system can be displayed by means of freely configurable tiles. As soon as a warning or an alarm (residual current exceeded, insulation fault, upcoming test) occurs in one of the configured parts, it automatically appears on the screen.

- Individual design of buildings, floors and rooms or entire plants
- Navigation to the fault source
- Link to detailed view (dashboard) is possible
- Number of events of the last 28 days can be displayed
- Events and incidents in the system can be counted
- Identification of problematic system parts

Individual appearance

- Logo freely selectable
- Colour setting to match your corporate design (CD)
- Login page can be integrated in your homepage
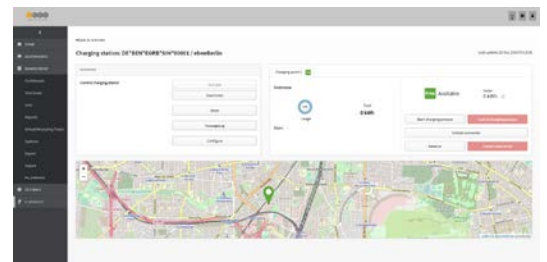
Configurable dashboards

Dashboards can be used to visualise stored measured values and events. The contents can be structured using configurable widgets.
Among other things, time periods and different statistical values can be set. The dashboard can be easily and individually configured using drag and drop.

Additional settings are available in the dashboard management, e.g. publishing for other users.

- Configurable dashboards
  · Display of:
    – Charging current
    – Residual currents (DC/RMS)
    – Utilisation
    – …
  · Comprehensive view by means of configurable widgets
  · Sharing dashboards with other users
  · Regular generation of PDF files + forwarding by e-mail
  · Long-term archiving of the data

POWERSCOUT® features

User management
• Management of users
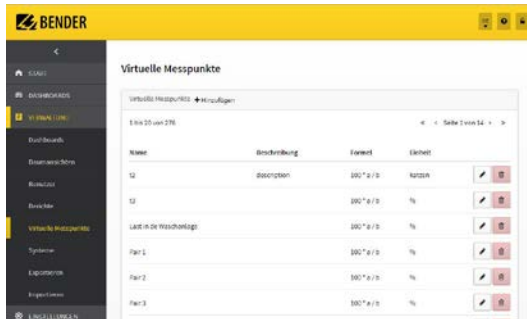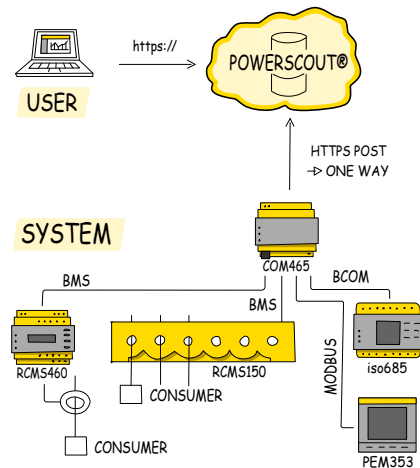• Different user rights
• Restricted views
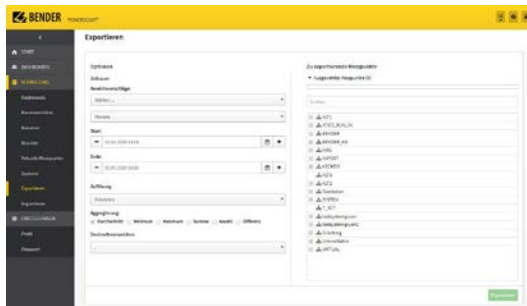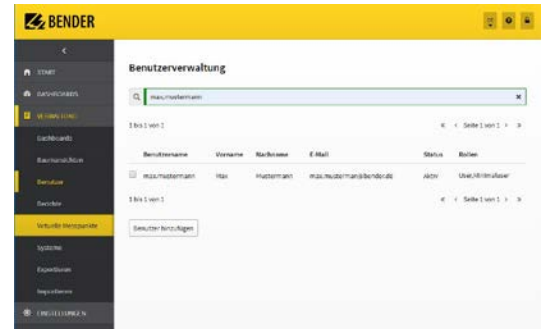
Data import and export

Data access from anywhere
Web-based application

• You can get started immediately after receiving the login details. Your gateway (COM465, CP9xx) sends the measured values to our data centre in encrypted form.

• You will receive automatic updates (security and features).

• We take care of the backups.

Calculation of key figures
POWERSCOUT® collects data and information across locations. This data can be compiled for fault analysis or calculation of key figures.

• Calculation of data points/measuring points
• Display of virtual measuring points on the dashboard
• Individual naming of virtual measuring points

Bender support
POWERSCOUT® continuously collects measurements and generates user-specific reports. This well-founded database allows representing real trend curves and finding the causes of malfunctions.

Bender supports you in setting up your system. Please do not hesitate to contact us.
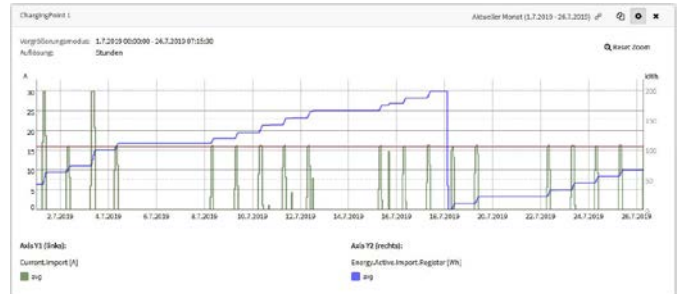
POWERSCOUT® widgets – Configuration options

Widgets are graphical components that allow individual adjustment of the content displayed in POWERSCOUT®. The widgets can be displayed in individual sizes and positions on a dashboard.

A dashboard can show a time period. The widgets displayed on the dashboard can differ from the set dashboard time and show individual time periods.

Graph
- Linear and logarithmic representation
  - Insulation values can be displayed more clearly
- Scrolling and zooming with the mouse wheel is possible
- Display of events
- Minimum and maximum of the Y axis adjustable
- Two Y axes
- Line colour selection
- Adjustable line width
- Guides can be displayed

Event statistics
- Documentation of events
- State display of channels
- Start and end of events
- Tabular view
- Targeted search for events

Event log
- Documentation of events
- State display of channels
- Start and end of events
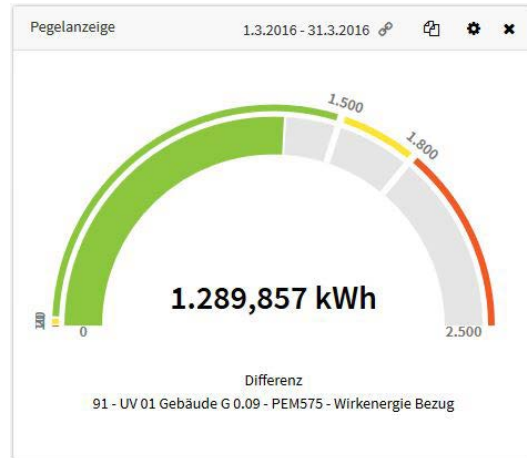- Tabular view
- Targeted search for events

Alarm state
- Display of alarm states
- Fault detection at a glance
- Monitoring of the service state of your system
- Easy detection of residual currents across system parts

POWERSCOUT® widgets – Configuration options

Gauge
- Lower and upper limit values flexibly adjustable
- Monitoring of measured values

Bar graph
- Display of cumulative meter values in a bar graph
- Grouping of data in ascending order
- Aggregation by days, weeks, months, quarters and years
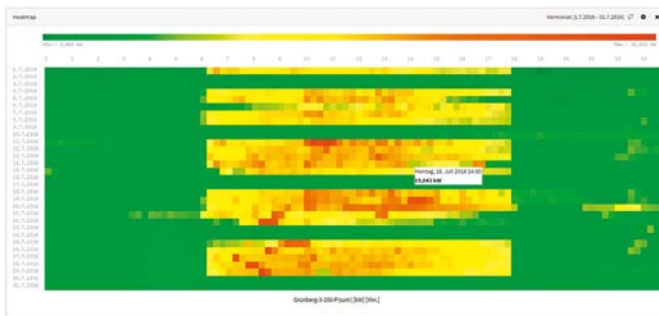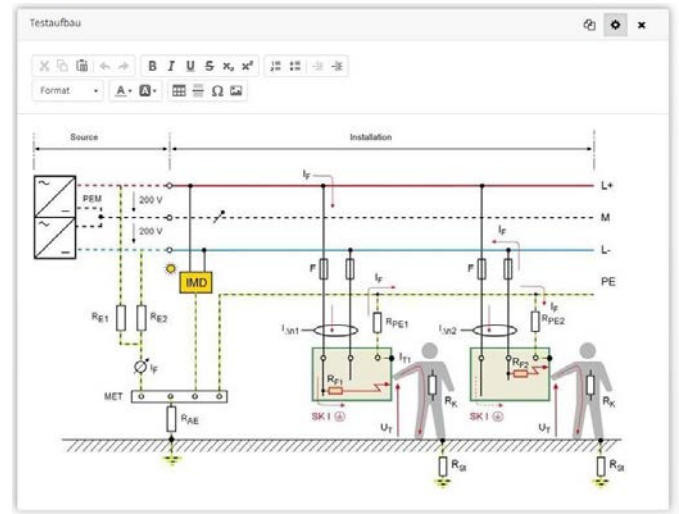- Guides can be displayed

Table view
- Display of measured values in a table
- Minimum, maximum and average values can be displayed
- Complete overview of minimum, maximum and average values of several measured values

POWERSCOUT® widgets – Configuration options

Text editor
- Description of dashboards
- Adding custom images

Heat map
- Display particularly striking values in an easily recognisable way
- Colour inversion to allow insulation faults to be displayed as well
- Adjustable limit values

Sankey diagram
- Graphic representation of quantity flows
- Preferably used for energy monitoring
- System view freely configurable
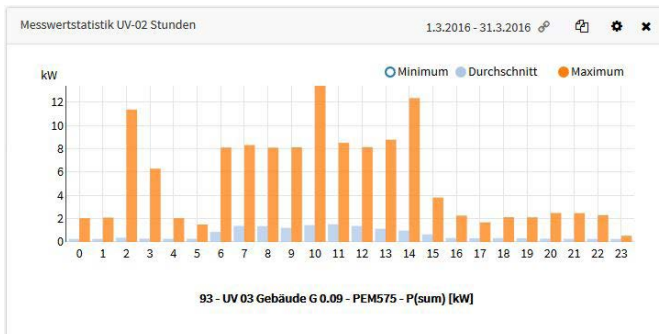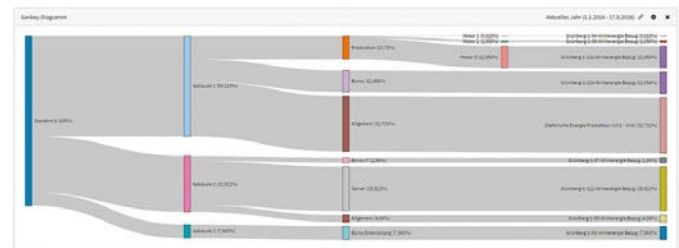
Measurement statistics
- Display of a measured value as statistics
- Minimum, maximum and average values can be displayed
- Colour differentiation individually adjustable
- Guides can be displayed

The Bender world in a nutshell

Bender system world

POWERSCOUT® cloud
Analysis, history
Logging
Visualisation

COMTRAXX®
Condition monitoring
Web server to COM465IP

GLT via
TCP/IP
Modbus TCP

BCOM

TCP/IP
Modbus TCP
BCOM

CP9xx
Gateway, alternative to COM465
Condition monitoring

TCP/IP
Modbus TCP

COM465IP
Gateway
Condition monitoring

TCP/IP
Modbus TCP
BCOM

Insulation measurement
IT system

only direct connection
BB bus

iso685
Ins. monitoring

Modbus RTU
RS-485

PEM
PQ

PEM353-N
Energy

Power monitoring
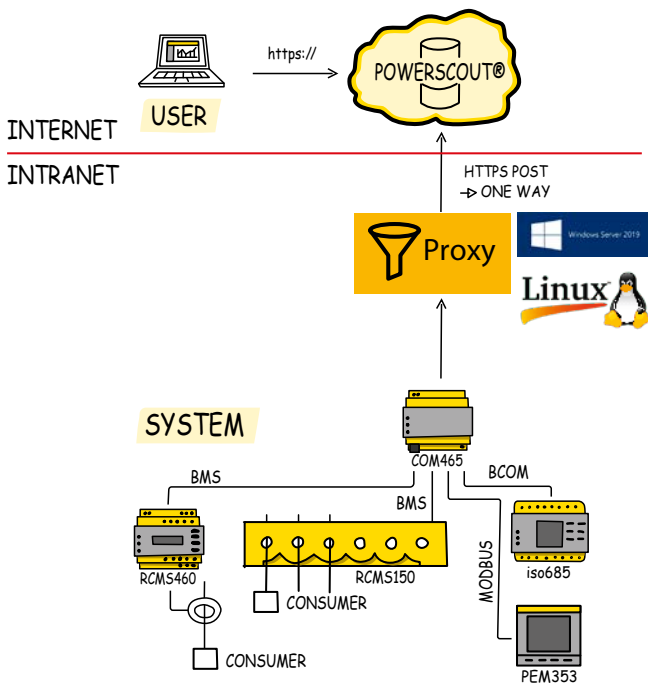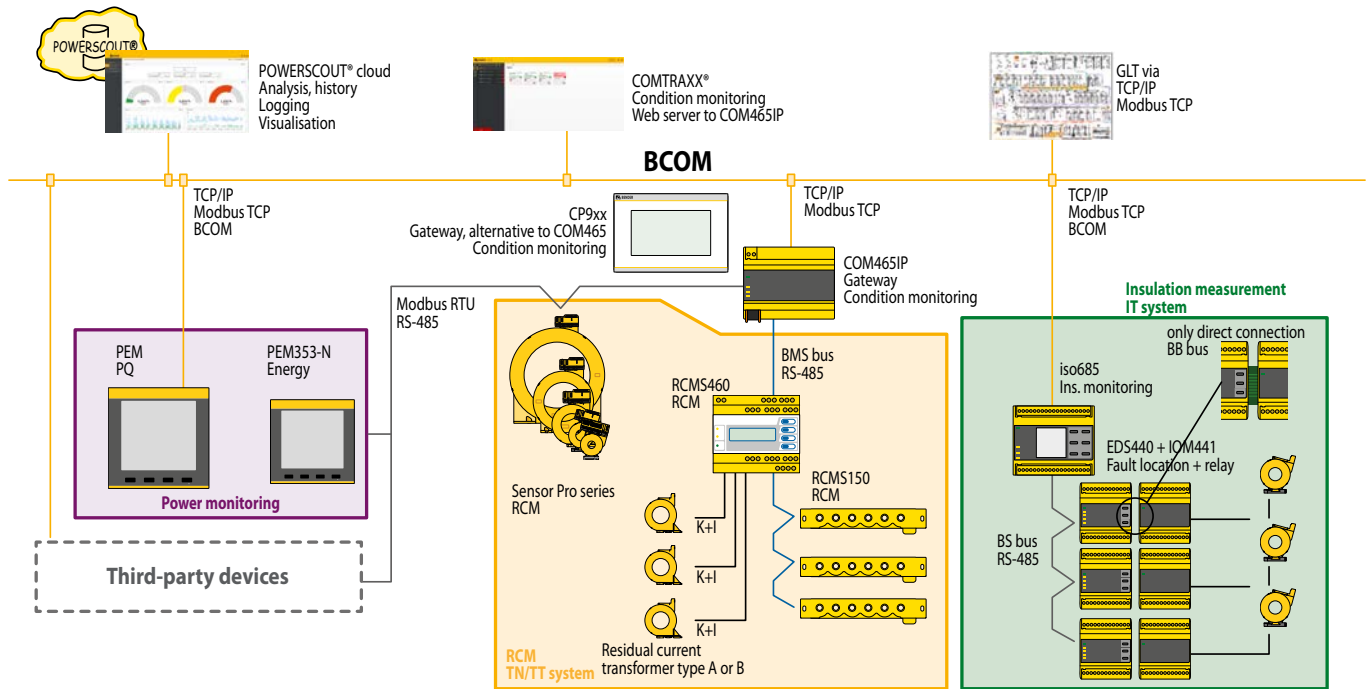
BMS bus
RS-485

RCMS460
RCM

Sensor Pro series
RCM

RCMS150
RCM

EDS440 + IOM441
Fault location + relay

BS bus
RS-485

K+I

K+I

K+I

Residual current
transformer type A or B

RCM
TN/TT system

Third-party devices

INTERNET

USER https:// → **POWERSCOUT®**

INTRANET

HTTPS POST
→ ONE WAY

Proxy Windows Server 2019 / Linux

SYSTEM

BMS

COM465

BCOM

BMS

RCMS460

RCMS150

CONSUMER

MODBUS

iso685

CONSUMER

PEM353

Considerably less effort:

- The initial and ongoing project costs caused by in-house IT infrastructure are often overlooked
- No updates at the customer's site or by the customer
- No maintenance by the customer necessary
- No database maintenance by the customer necessary
- Hardware costs, memory expansions are not relevant
- Updates and new features are incorporated on the fly
- Access from any location without VPN etc.
- One-way data flow
- On request, communication via proxy server (simple installation)
- Data protection in professional data centres is better than in some companies
- Data backup constantly guaranteed, redundancy
- Hosted by a German company, server in Frankfurt

BENDER
The Power in Electrical Safety©

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