

# Smart DCTR transformers

- DCTR — provides fire and system protection
- seven DC frequency ranges up to 100 kHz
- two configurable notification thresholds per frequency range
- displays residual currents in the software via an Ethernet interface
- detects residual current up to 30 A
- monitoring instead of insulation testing



# Signalling before switching

## – DCTR B-X Hz PoE

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*The smart DCTR residual current transformer provides fire and system protection by monitoring using individually adjustable parameters. PoE (Power over Ethernet) connects the Ethernet port (network) to the transformer's power supply via Ethernet.*

The frequency-selective DCTR B-X Hz PoE detects and evaluates residual currents at frequencies from 0 to 100 kHz with full reliability and displays them via the PoE interface in the DCTR Manager software. Constant monitoring of residual currents by the DCTR B-X Hz PoE in accordance with DIN EN 62020 provides information on insulation and system status. As per DIN VDE 0105-100/A1, this can be used to avoid repeat insulation tests, which can often be expensive. If several devices are on a network, individual machines or systems can be monitored even over longer periods of time.

The DCTR B-X Hz PoE is a Type-B residual current monitor and is therefore AC-DC sensitive. The transformers are able to detect residual currents from 0 to 100 kHz. The protection concept can be configured for the system, depending on the application. There are also two signal contacts that can be freely configured to react as required: For certain individually adjustable residual currents, you can, for example, trigger a visual or acoustic alarm or switch off the system.

The DCTR B-X Hz PoE and the DCTR Manager are easy to implement. For precise, error-free measurement results, Doepke offers the DCTR residual current transformer with various internal diameters depending on the system's rated current.

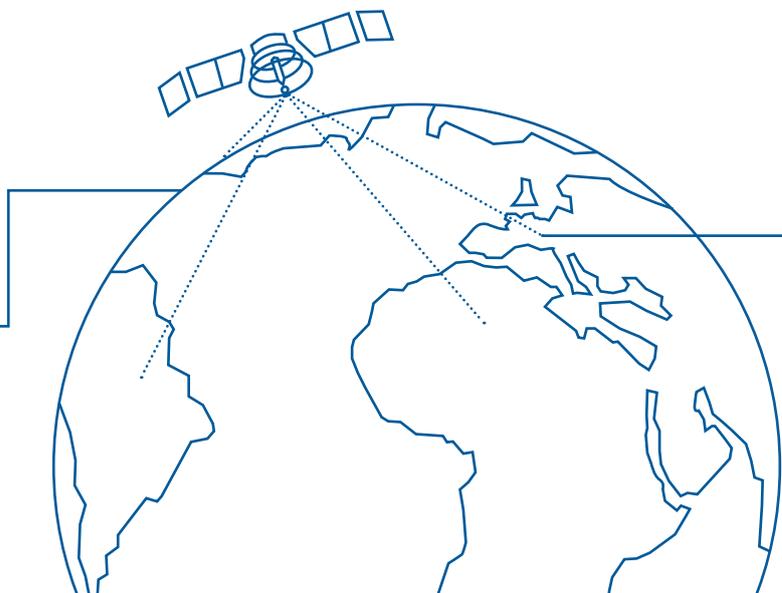
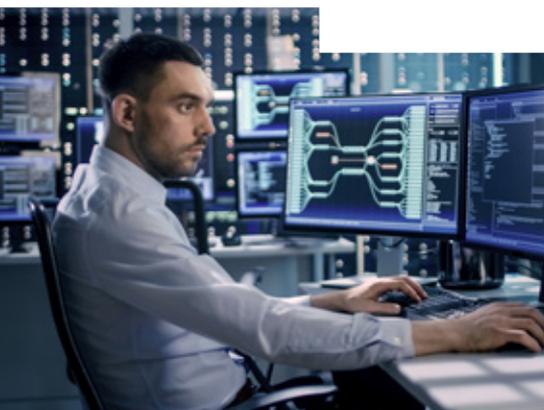




## Why monitoring?

When traditional residual current devices (RCDs) are used for system protection, the electrical system is shut down immediately when the RCD is tripped. For manufacturing companies, this type of failure is a financial risk, because the downtime and resulting batch failures could lead to unforeseeable costs.

Constant monitoring provides information about the system's insulation resistance. This not only offers the possibility of avoiding regular insulation tests as per DIN VDE 0105-100/A1, but also allows for intervention before a failure occurs. System faults and even only slight deviations can be detected at an early stage and the necessary measures can be planned and implemented in a targeted manner. This enables unforeseeable production downtimes and large losses to be prevented in good time.



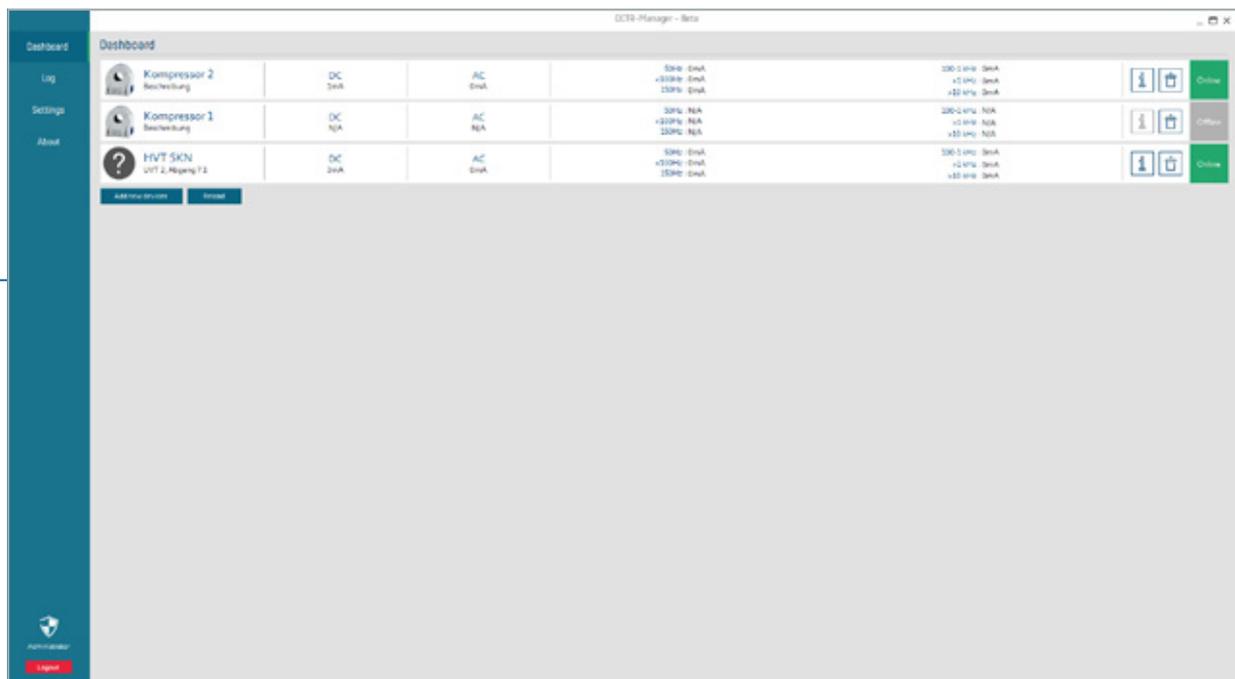
# DCTR Manager

The smart transformer includes DCTR Manager. The software provides an overview of all transformers on the network and also makes it easy for you to manage and check residual currents. Other transformers on the network can easily be added via IP address assignment.

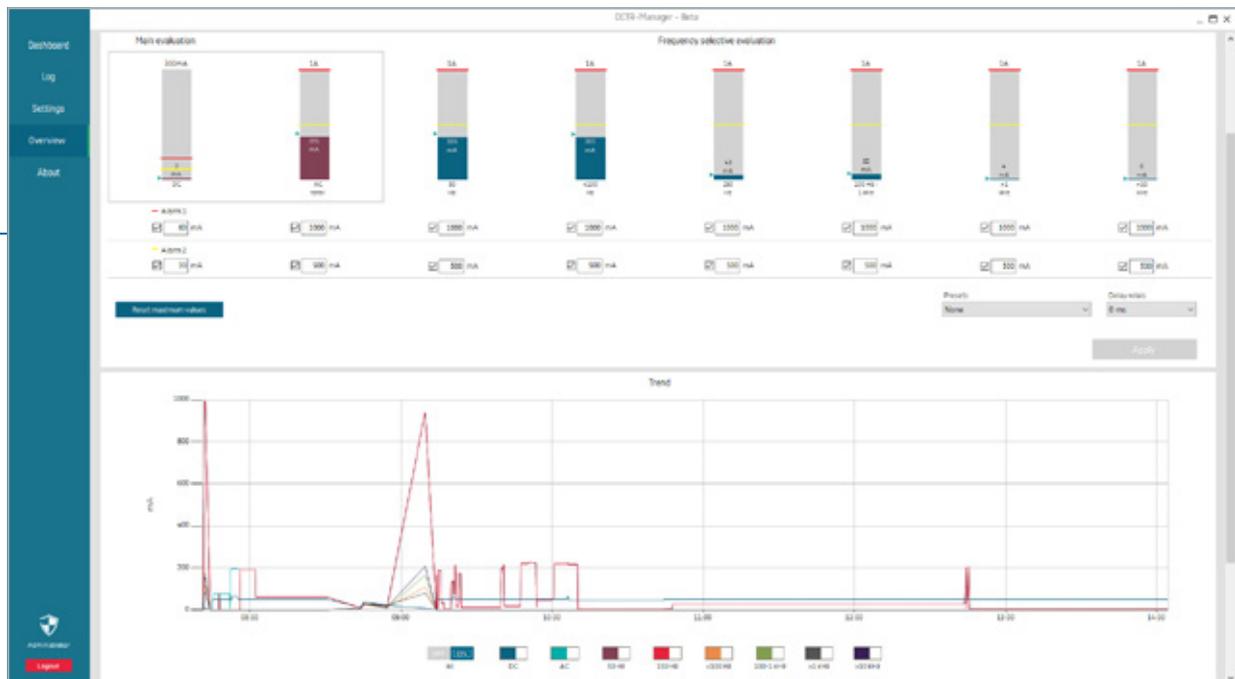
The system's protection concept can also be freely configured in the software. The threshold values for this can be set however you like and the two signal contacts can be evaluated individually.

All residual current monitors on the network are listed on the dashboard. Here, online or offline mode is displayed.

- transformers that are connected to the network can be added easily via IP address assignment
- user data and access management
- transformer names can be changed for clear and easy assignment



Gives  
you all the  
information  
you need at a  
glance



Individual transformers can be selected in the software and various settings can be adjusted. Two alarm thresholds for the individual frequency ranges can be set independently.

software for the management and visualisation of series DCTR B-X Hz PoE residual current monitors

response thresholds can be set, adjusted and parameterised directly from the software

visualisation of transformer data and long-term monitoring

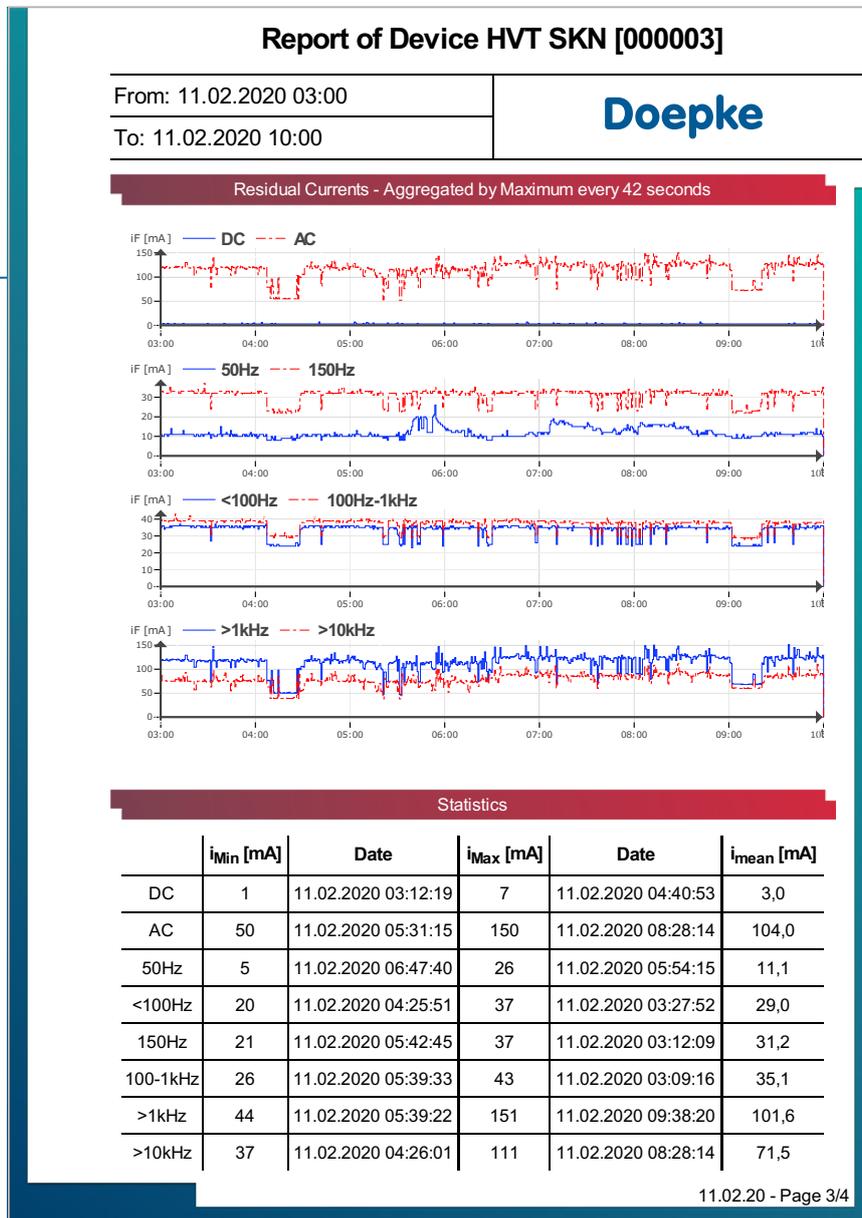
automatic and manual 'Reports' for all or individual transformers

set values are stored in the transformer

# DCTR report

Reports on all or individual transformers can be called up automatically or manually for individual periods of time or as per a specific rota using the software.

- monthly monitoring report via email which contains the most important information and specifies which transformers have exceeded the alarm thresholds
- automatic documentation of the transformer's technical inspection when test button is pressed
- long-term evaluation of transformer data and csv. export function for evaluation in MS Excel
- integrated log book records changes to transformer settings
- smart and clear storage of reports in folders
- statistical evaluation of residual currents



Our quality objective is to supply customised special solutions that are tailored to meet individual customer requirements.

Jann Eilers, Head of Technical Design



## DCTR overview

transformers type	DCTR A type A	DCTR B NK type B	DCTR B-X Hz PoE type B
interface		4–20 mA	ethernet
personal protection, protection through automatic switch-off			
AC-DC sensitive up to 100 kHz, smooth DC residual currents		■	■
fire protection at 50 Hz	■	■	■
fire protection up to 100 kHz		■	■
one potential-free contact	■	■	■
two potential-free contacts			■
DCTR Manager			■
system can be switched off with an additional switch-off device	■	■	■
meets product standard EN 62020	■	■	■
test button on the device	■	■	■
remote testing	■	■	■

The DCTR B-X Hz PoE residual current monitor is available with an internal diameter of 35 mm or 70 mm and detects residual current up to 30 A.



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