



## Residual current monitoring for IT computing centres



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# Highest possible system availability and safety

## with BlueNet RESIDUAL CURRENT MONITORING (RCM)

Residual current monitoring allows changes in the insulation level of the power supply system to be recognised at an early stage before a high fault current, regarded as a fire hazard, trips the protective devices. The time gained in this way can be used to plan appropriate countermeasures and it contributes to long-term availability of the power supply and thus the electrical system. By means of the Bachmann BlueNet PDU the fault current measurements are not only carried out at central measuring points but also at the socket-outlet of each load. Besides offering high physical granularity, this residual current technology jointly developed with Bender also offers a high level of safety and availability. This AC/DC sensitive measurement technique monitors all types of fault currents in modern power supply systems with switched-mode power supplies. That is why the new BlueNet residual current PDU is particularly suitable for applications in the IT area.

Continuous monitoring is a must in modern information technology. Continuous monitoring equipment reduces the time and expense of statutory periodic testing. According to accident prevention regulations, in particular DGUV regulation 3, formerly BGV A3) the test intervals for insulation measurement can be adapted in cooperation with the user by continuous residual current monitoring. In addition, a legally compliant application of the standard: DIN VDE 0100-410 (Protection for safety – Protection against electric shock) for final circuits up to 20 A is allowed without using an RCD (residual current protective device), which can lead to an unwanted disconnection.

The BlueNet residual current monitoring is capable of detecting residual currents exceeding 5 mA. The BlueNet software allows the setting of residual current response values. Values exceeding these response values are reliably signalled by the BlueNet software. All measured values are transferred to higher-level monitoring systems via the Ethernet interface. A local display on the PDU provides additional information about all essential measured values. This ensures that the availability of the power supply has priority and that an unwanted disconnection is prevented in the event of a fault.

In addition, the BlueNet technology offers the possibility to install a master-slave interconnection, which not only keeps installation costs low but also reduces the administration effort to a minimum.

### Your benefits at a glance

#### Personnel safety and system safety:

- Early detection of data loss and failure of networks
- Legally compliant application of DIN VDE 0100-410 for final circuits up to 20 A without using RCDs
- Detection of fault currents directly at the load
- Malfunctions and unexpected operational interruptions are minimised
- Insulation faults in newly installed systems and devices are recognised immediately
- Continuous monitoring of the electrical installation and electrical equipment
- TN-S systems are additionally monitored for unwanted N-PE connections

#### Economic efficiency

- According to §5 of the accident prevention regulation DGUV regulation 3 (formerly BGV A3), the test intervals for insulation measurement can be adapted in cooperation with the user by continuous residual current monitoring.
- Expensive and unscheduled stoppages and service visits are avoided

#### Fire protection

- Fault currents regarded as fire hazards are recognised even in the development phase

