

ACTIVE

Set a new standard
for electrical safety

Active Safety System

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Life Is On

Schneider
Electric



Monitoring critical loads to protect power availability

Electrical safety is one of the most important considerations in any building. But, as the name implies, in critical buildings it's even more vital... and could even be a case of life and death. With modern buildings, such as hospitals, requiring multiple electrical loads the chance of an overload or power disruption is increased.

In most cases, the only way for a facility manager to spot circuit overload in advance is to regularly, physically inspect all installation areas. An **Active Safety System** makes it much easier to monitor and predict faults. With Acti9 Active at the core of the system, a pre-alarm is sent when electrical faults such as an overload are detected. The alarm thresholds can be individually customized, for example at 70% installation capacity, so there is enough time to take preventive actions.





Detecting an arc fault to help avoid electrical fire risk

AFDD alarm

An **Active Safety System** is essential in buildings where visitors and guests bring in electrical devices of their own. This equipment, such as mobile and laptop chargers, could already have faults, or an improper installation or wiring could also cause an issue.

This could result in an electrical fire due to an arc fault. An **Active Safety System** can prevent this from happening. Acti9 Active has an integrated arc fault detection device (AFDD), which will trip as soon as it detects the fault and can immediately send an email or a text message to the facility manager. The alert provides the exact reason for tripping, so the facility manager can take appropriate corrective measures.



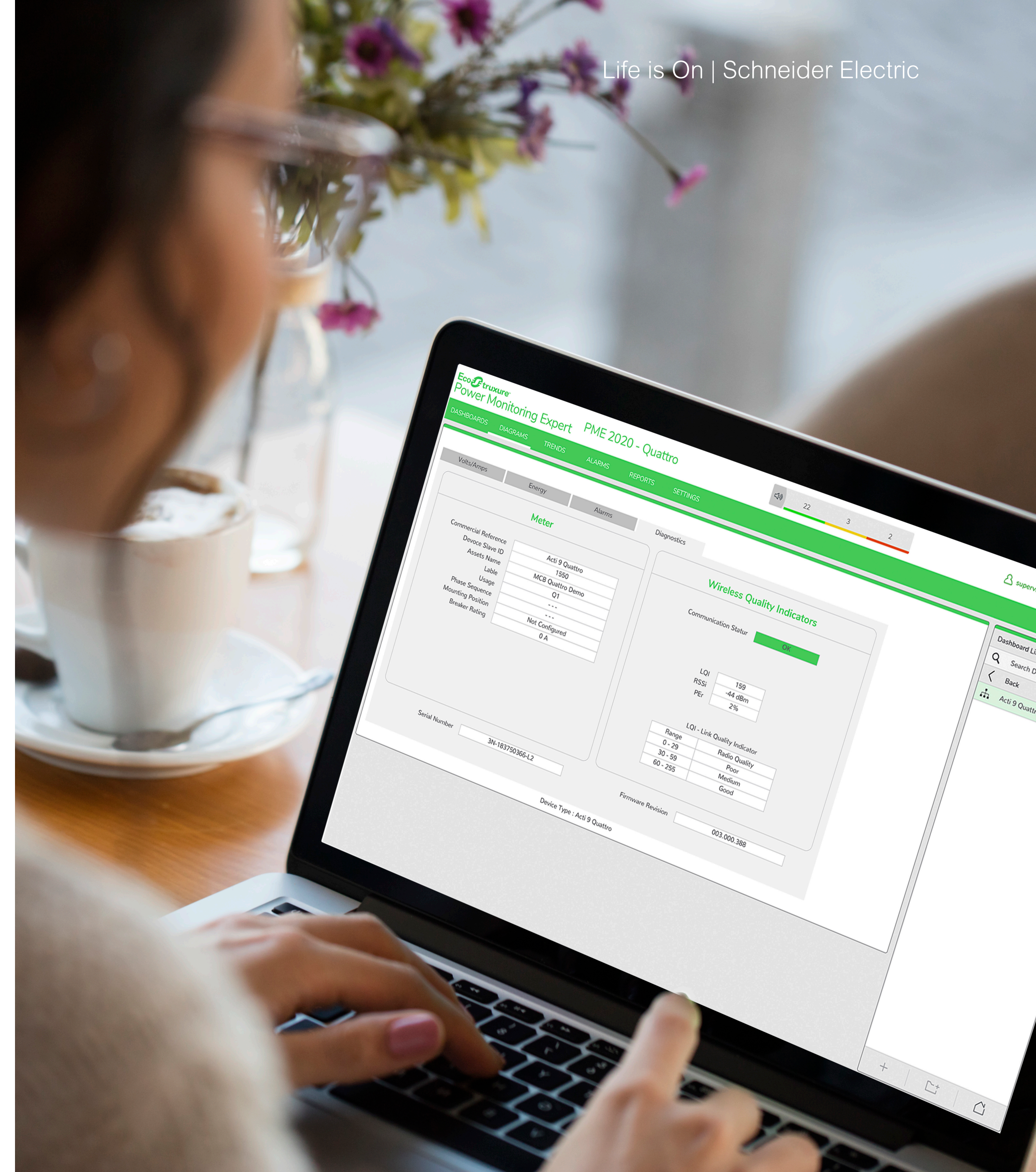
Make active safety your new standard for resilient businesses

In today's world, electrical system health is critical to ensuring the continuity of services. A malfunction can cause huge financial losses or, in some cases, even threaten human life.

To help you maximize the protection of your customers' operations, Schneider Electric has developed a new proactive approach to electrical safety. It helps enhance power reliability and availability through monitoring and anticipating threats rather than waiting for them to occur.

An **Active Safety System** is an all-in-one solution combining the safety features of miniature circuit breakers, residual current devices, and arc-fault detection devices along with monitoring, pre-alarming, alarming, and diagnostic capabilities. This combination enables early detection of installation issues and electrical faults to help avoid or mitigate their consequences.

At the core of the system, **Acti9 Active** enables detection and alarming thanks to its integrated earth leakage protection, overload, over-voltage, and arc-fault protection capabilities, as well as in-built connectivity. All this in one compact breaker of just 36 mm.



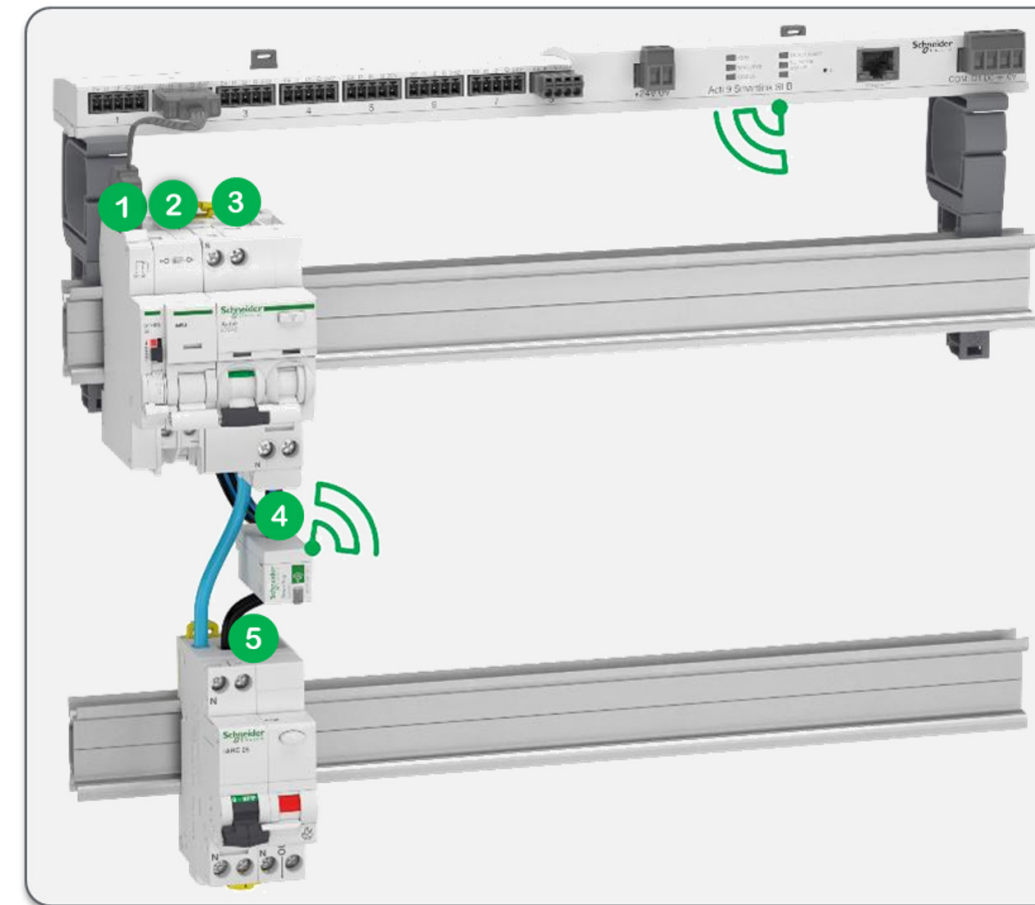
Advanced visibility and protection in a simple compact system

An **Active Safety System** doesn't only give you advanced protection and control, it also makes everyday life simpler for you and your customers.

For you, it's a simple offer giving you all types of protection. At its core, Acti9 Active replaces the need to have separate devices or add-ons for connectivity. With one device instead of five, it achieves an even wider range of protection and visibility.

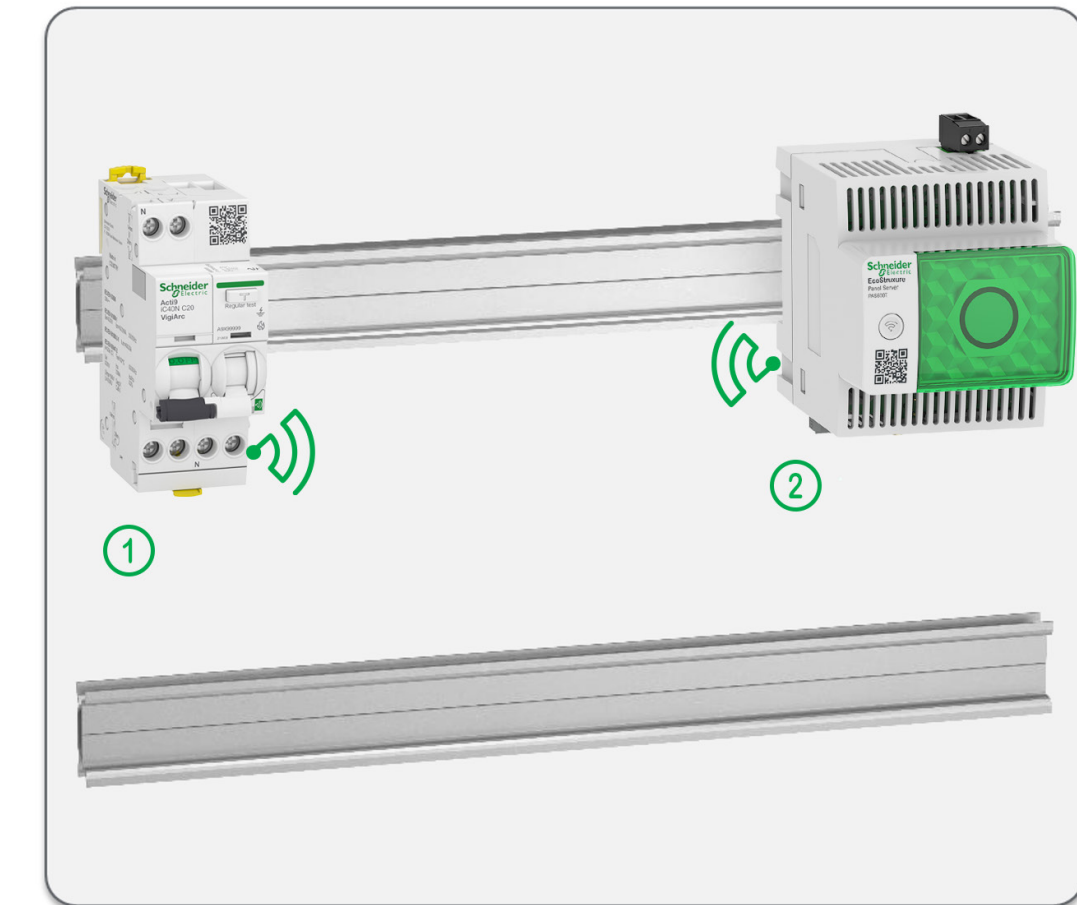
As a result, you also save your customers space in the electrical panel without making any compromises to the overall system.

Existing connected system



- ① OF/SD (open/closed status)
- ② MSU (transient network over-voltage protection)
- ③ RCBO (MCB + RCD)
- ④ PowerTag (power measurement) for connectivity
- ⑤ iARC (arc-fault protection)

New Active Safety System



- ① Acti9 Active
- ② EcoStruxure Panel Server

All-in-one protection in a single 36 mm device

A core part of the **Active Safety System**, the Acti9 Active with integrated residual current device (RCD), miniature circuit breaker (MCB), AFDD, and over-voltage protection delivers an exceptional level of protection for people, appliances, circuits, from fire risks – enabled by a compact all-in-one device. Available in both connected and non-connected versions, Acti9 Active supports a variety of safety and connectivity requirements.



MCB



MSU



MCB



RCD



MSU



MCB



PowerTag



AFDD



RCD



MSU



MCB



Integrated MCB for appliance protection and MSU circuit protection from transient network over-voltage



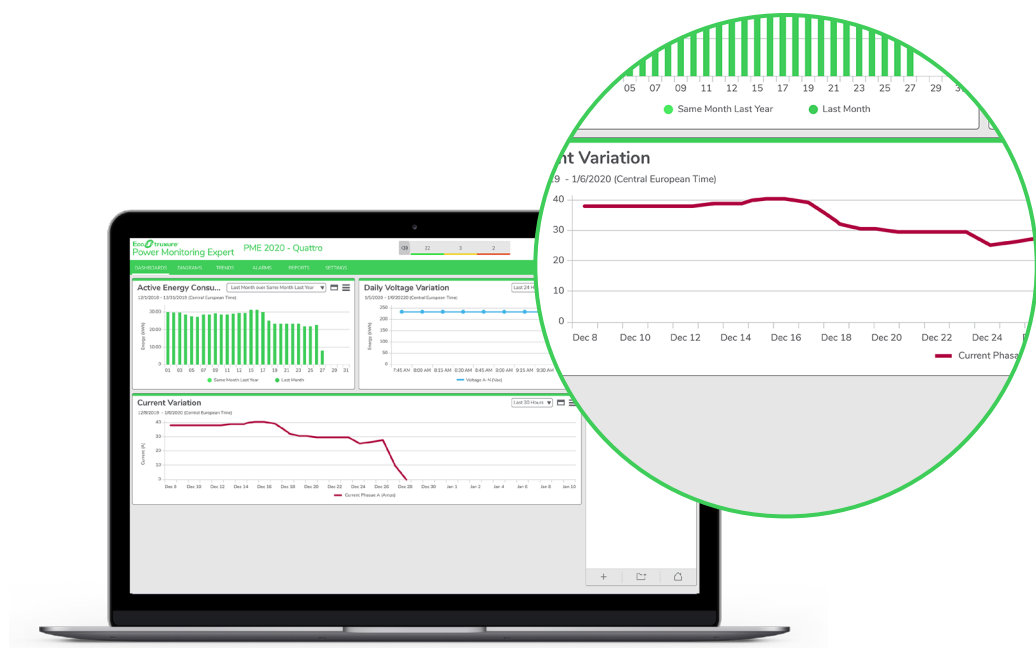
Integrated RCD for greater protection of people



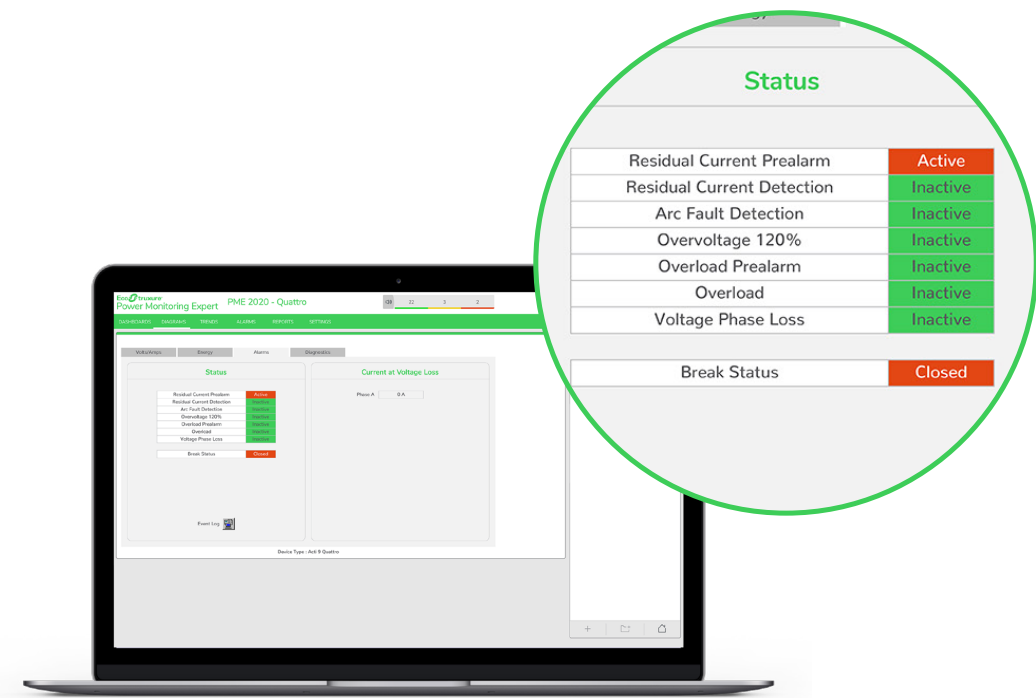
Integrated AFDD for greater protection from arc-fault related fires

Adding layers of visibility on top of advanced protection

Our innovative EcoStruxure™ software puts you in control of your electrical panel and how you respond to any potential issue.



See trends and historical data



Get alerts and see the exact nature of the fault

Alarms & pre-alarms:

- Customizable thresholds for pre-alarms
- Overload
- Earth leakage
- Overvoltage

Measuring & remote monitoring:

- U, I & P measuring
- Load monitoring



Diagnostics & analytics:

- Indication for nature of electrical fault
- Historical data
- Protection logs

Advanced protection:

- Protection for people, appliances, circuit, and against fire
MCB+MSU+RCD+AFDD

Achieving greater resiliency and reliability through active safety

Through advanced notifications, diagnostics, analytics, and a compact integrated device, an **Active Safety System** gives business owners and maintenance personnel greater control over their building's electrical health and, in turn, enhances service continuity.

Enhanced protection, power availability, and reliability



Increased service continuity: fewer breakdowns with pre-alarms and alarms

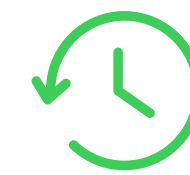


Advanced safety: all-in-one solutions covering a wide-range of faults, with in-built MCB, MSU, RCD, and AFDD



Enhanced efficiency: easy remote monitoring, diagnostics, and analytics mean fewer disruptions and more efficiency gains

Simplified installation and wireless connectivity



Simple installation and upgrade: integrated devices and wireless connectivity to the gateway make the system easy to install and upgrade



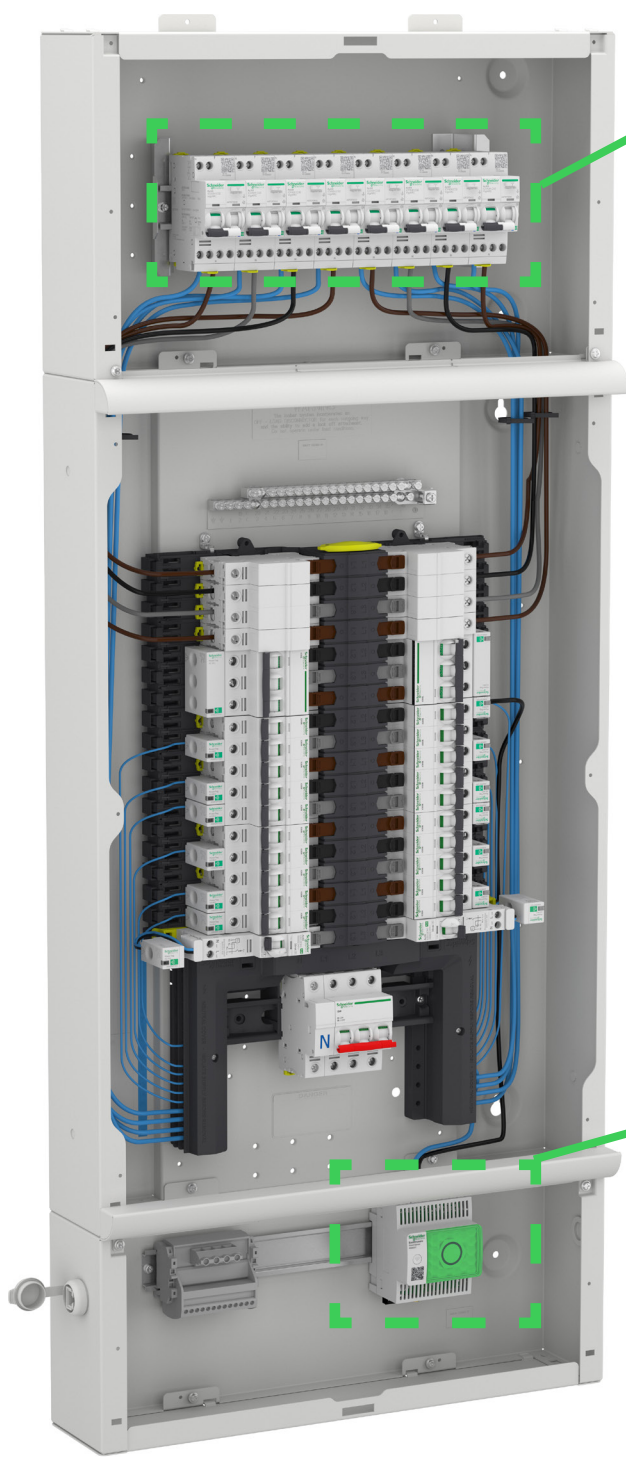
Compact, requiring no extra space: an integrated device in 36 mm makes it suitable for even small spaces



Easy maintenance: with diagnostics, analytics, and reminders for health checking, it's simple to stay on top of the panel's condition and maintain it

Best-in-class connectivity in a simplified form

To realize the full potential of visibility and advanced protection, the Active Safety System brings together a connected device, a gateway, and power monitoring software.



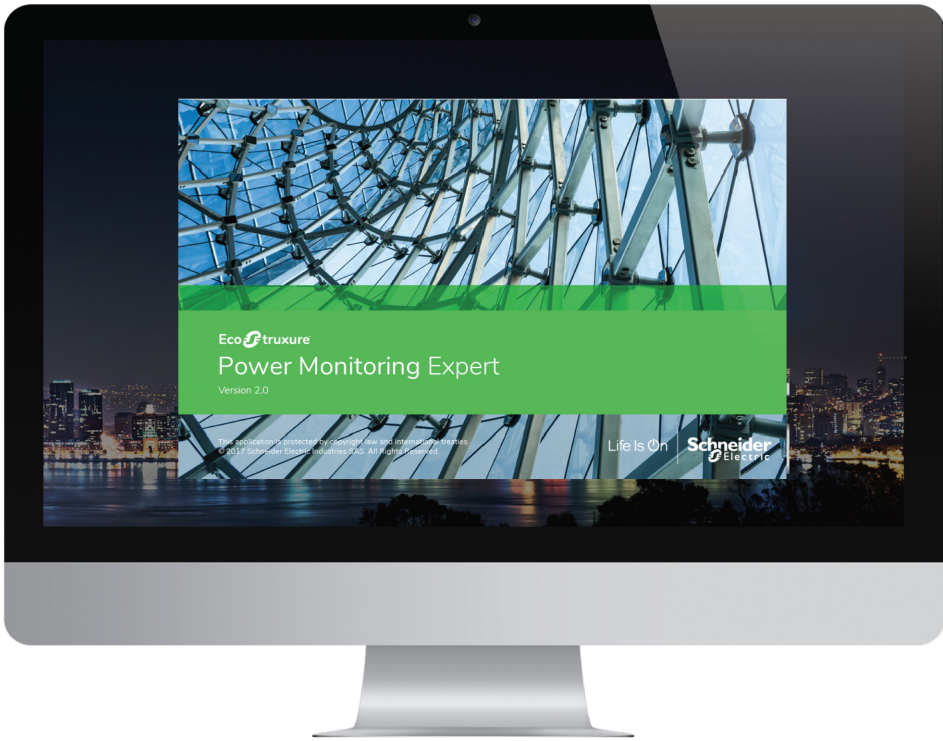
Acti9 Active

A range of devices providing advanced safety functions and in-built connectivity. They connect wirelessly to the gateway and send data to enable monitoring, diagnostics, pre-alarming, and alarming.



EcoStruxure Panel Server (the gateway)

One of the most advanced gateways for modern-day wireless systems. It's simple to commission and cost-efficient.



EcoStruxure Power Monitoring Expert

Intuitive-to-use software that aggregates installation data for greater visibility and displays actionable insights. It alerts facility managers to problems as they occur as well as to predicted issues.



Wireless connection with the gateway



No add-ons required, in-built connectivity



Fast installation



Compact size (all in 36 mm)



Easy integration with EcoStruxure Power Monitoring Expert

Discover the full range of Acti9 Active devices

Available in connected and non-connected versions, Acti9 Active devices provide advanced protection with a variety of options – something to suit any set-up. The all-in-one option integrates MCB, RCD, and AFDD, with the possibility of in-built connectivity capabilities.

Acti9 Active



An all-in-one device with integrated connectivity and AFDD, MCB, RCD, and MSU

A combination of AFDD + RCD add-on

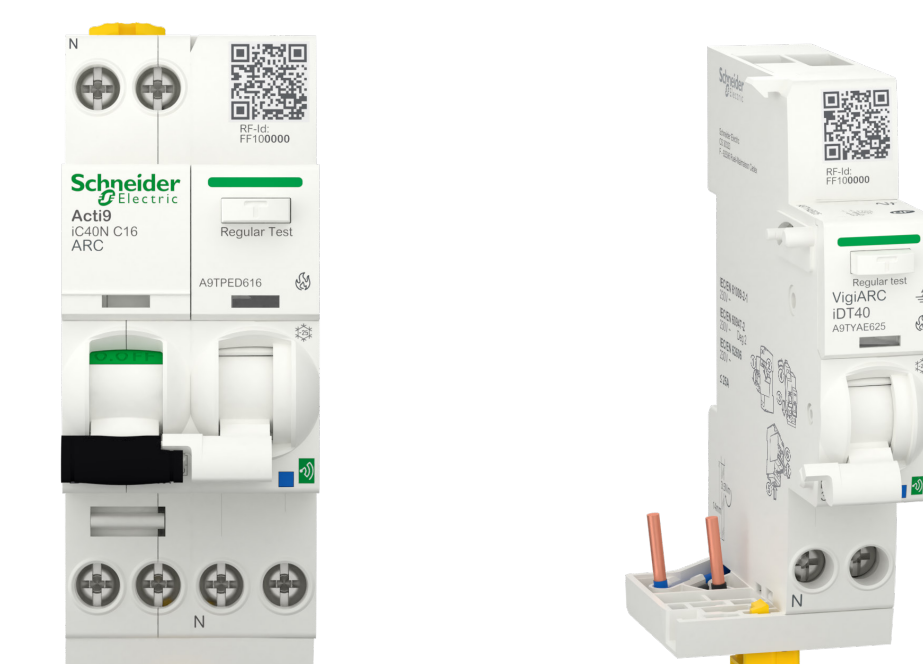
Acti9 AFDD Active



A combination of AFDD + MCB

With an AFDD add-on

Acti9 AFDD (non-connected version)



An all-in-one device with integrated AFDD, MCB, RCD, and MSU

AFDD with an RCD add-on

Acti9 AFDD (non-connected version)



A combination of AFDD + MCB

With an AFDD add-on

Acti9 Active offer specifications

Whatever your needs, our **Active Safety System** solutions offer a range of specifications, so you can find the right connected or non-connected device for you:

	Acti9 Active	Acti9 Active	Acti9 AFDD Active	Acti9 AFDD Active
	AFDD+MCB+RCD+MSU	AFDD+RCD Add-on	AFDD+MCB	AFDD Add-on
Current ratings	6 A – 40 A	25 A, 40 A	10 A – 40 A	25 A, 40 A
Breaking capacity	6,000 A, 10,000 A, 10 kA	4,500 A, 6,000 A, 6 kA, 10 kA compliance	6,000 A, 10 kA	4,500 A, 6,000 A, 6 kA, 10 kA compliance
Poles	1P + N	1P + N, 2P	1P + N	1P + N, 2P
Curve	B, C	B, C	B, C	B, C
RCD sensitivity & type	30 mA, A SI	30 mA, A SI	–	–

All devices are available in two options, connected and non-connected. While advanced visibility options can be realized with the full system, the all-in-one non-connected version is also capable of advanced protection.

Arc-fault protection is recommended by standards to mitigate fire risks

The IEC 60364 standard for electrical installations in buildings already recommends installing arc-fault detection devices in the following environments:



Sleeping accommodation, e.g. bedrooms (in residential), hotels, nursing homes



Locations with fire risks due to the nature of processed or stored materials, e.g. barns, woodworking shops, stores of combustible materials



Locations with combustible constructional materials, e.g. wooden buildings



Fire propagating structures, e.g. high-rise buildings



Locations with endangering of irreplaceable goods, e.g. museums

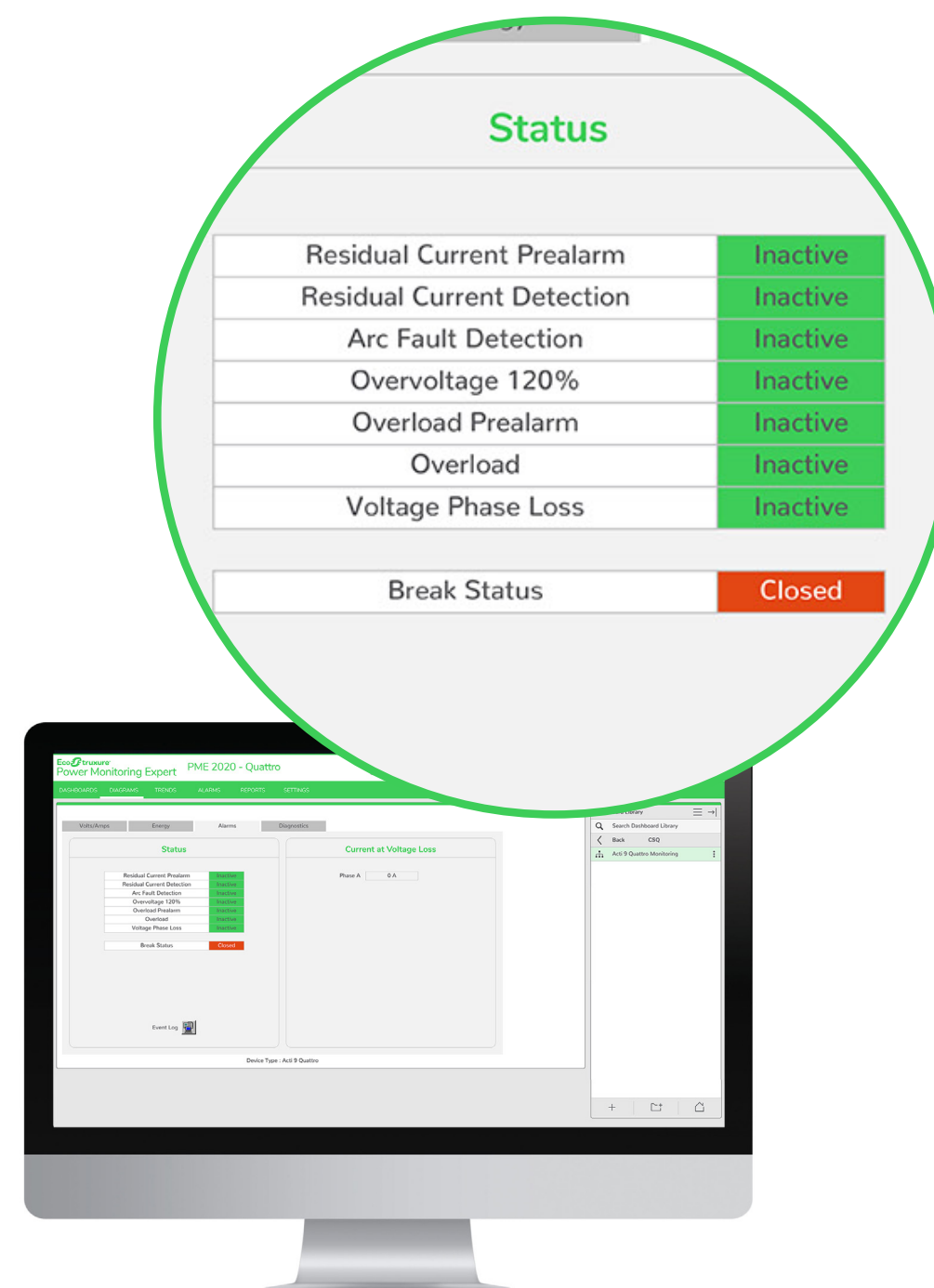


In some countries, there are ongoing discussions about making arc-fault protection mandatory. With an **Active Safety System** including Acti9 Active, your customers won't have to make any upgrades when this happens.

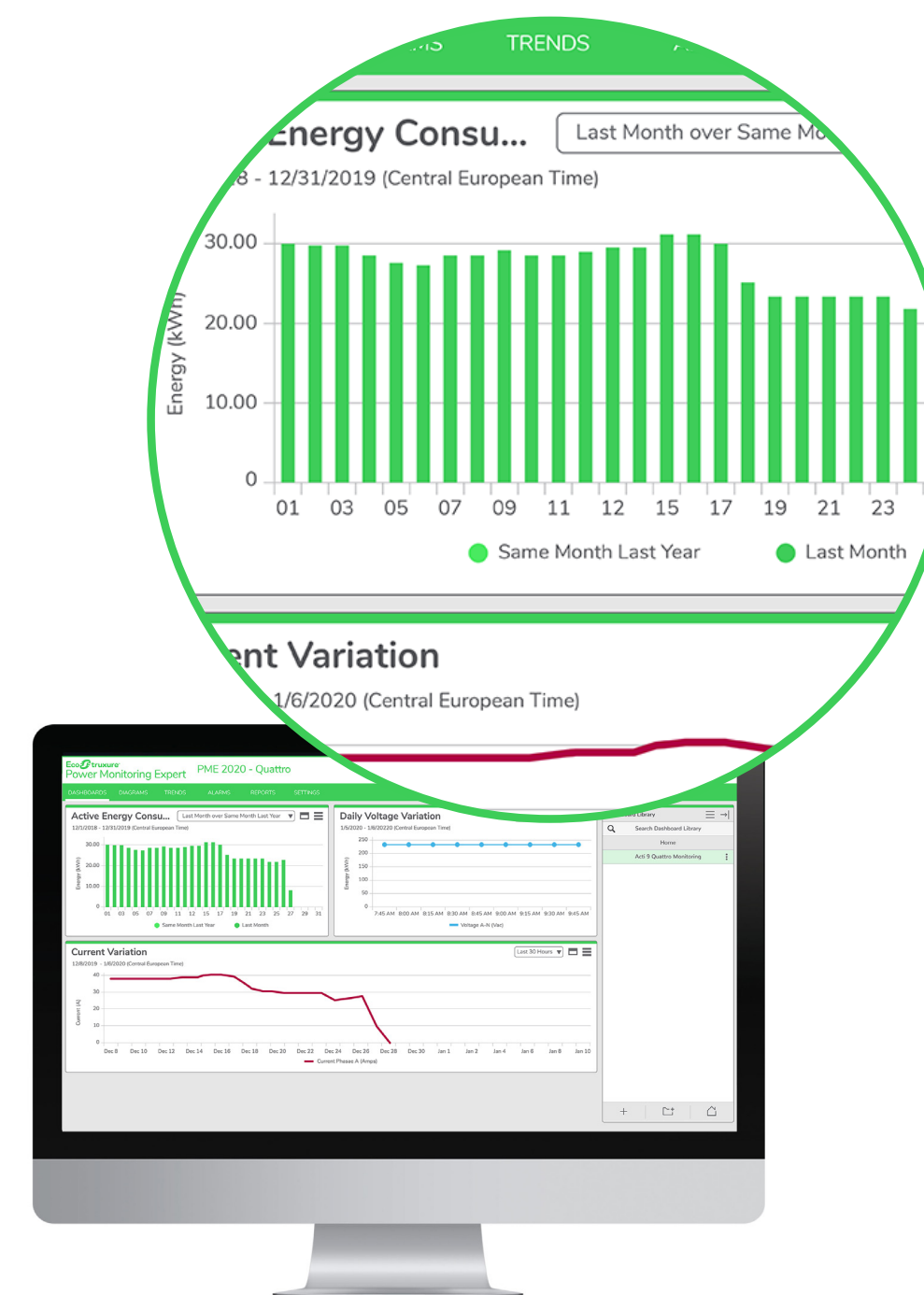
EcoStruxure Power Monitoring Expert for full visibility

EcoStruxure Power Monitoring Expert (PME) is the go-to web-app for visualizing insights, notifications, and diagnostics of an **Active Safety System**. It brings new capabilities that protect people and assets, keeps operations running, and saves time and money.

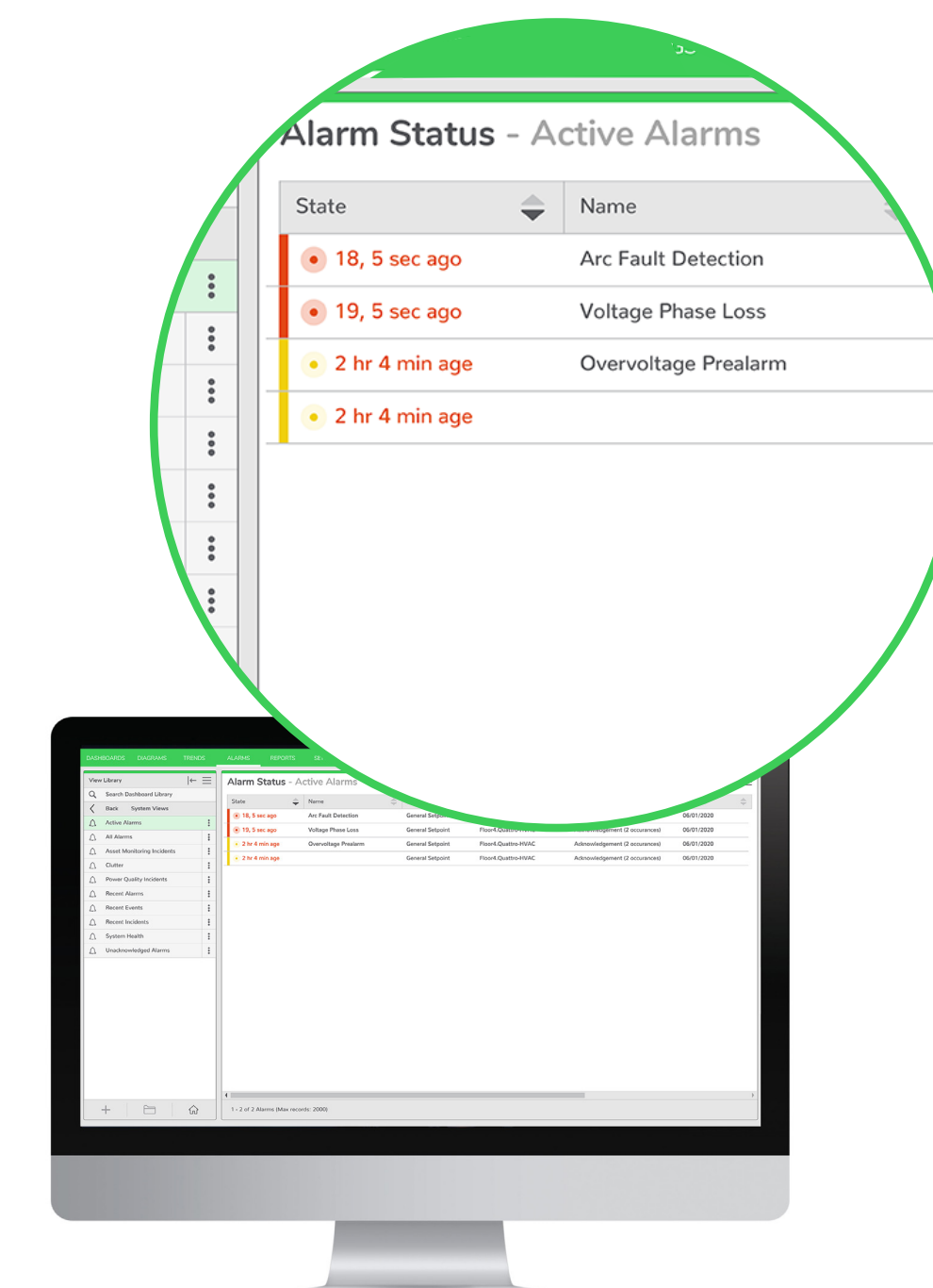
As part of EcoStruxure Power, EcoStruxure PME takes advantage of IoT connectivity and distributed intelligence to help maximize your customers' uptime, power availability, and operational efficiency. It's compliant with IEC 62443 cybersecurity standards, and provides your customers with a simple UI to see data, trends, and notifications.



Smart alarm clustering for easy search, filter, and categorization



Graphic timelines to easily locate events and alarms, and advanced energy visualization to calculate, forecast, and track performance indicators (EnPIs)



Identification of fault type, enabling quick and effective fixes

An advanced gateway for simplified connectivity

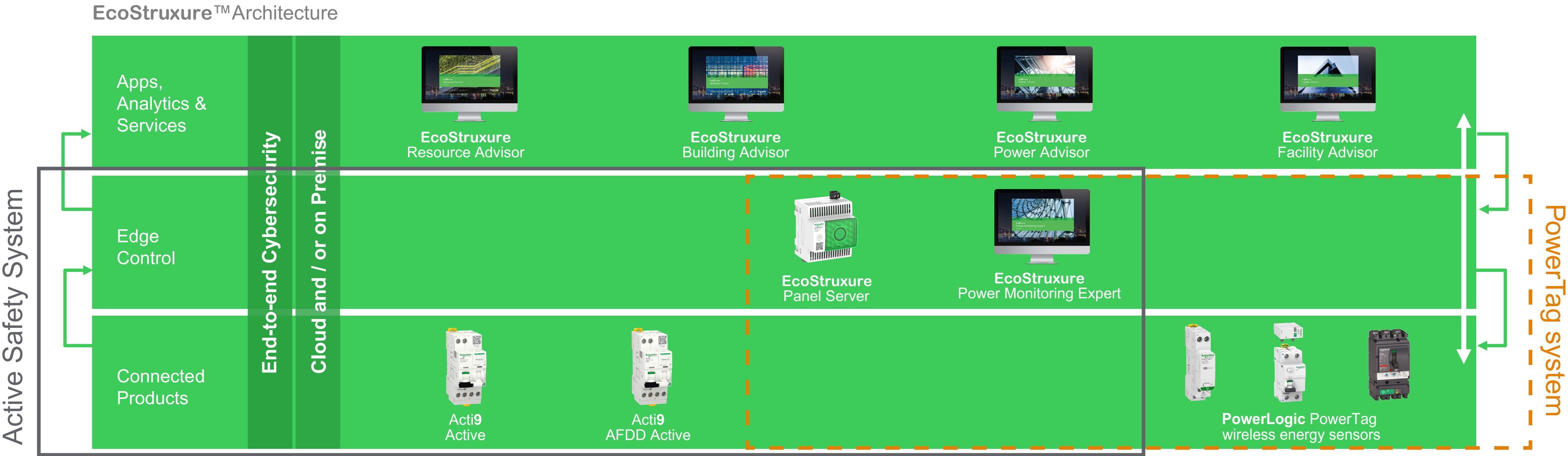
Meet EcoStruxure Panel Server, a high performance gateway that enables cloud connectivity in an **Active Safety System**.

A high-performance, future-ready gateway, EcoStruxure Panel Server provides convenient connection to edge control software programs, BMS systems, and cloud applications. It enables you to retrieve data from your wireless sensors and Modbus devices, and optimize your energy management solution, with:

- Ease of commissioning with the EcoStruxure Power Commission tool, enabling device plug & play and auto-discovery features.
- Ease of operation with user-friendly embedded webpages, and data contextualization for more relevant analytics.
- Greater security, designed through a secured development lifecycle in accordance to IEC 62443-4-1 and certified for IEC 62443 SL1.
- More connectivity, with robust communication protocols, including Ethernet, wireless communication, Bluetooth, WiFi, and optional cellular routers.



Active Safety System within EcoStruxure



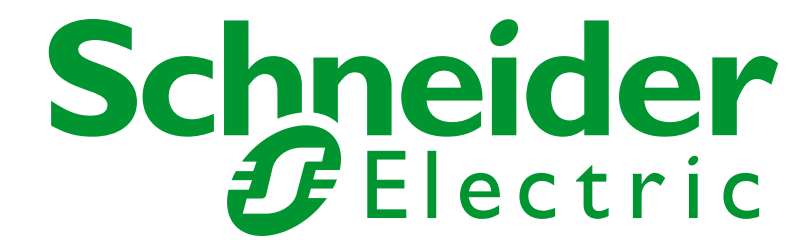
Make active safety your new standard

Give your customers greater control over their electrical installations with an **Active Safety System**. Its advanced safety and connectivity features enable condition monitoring, improve visibility, power availability, and reliability, and enhance protection, service continuity, and efficiency.

The system enables you to offer more than just a safety solution. The insights it provides, along with its remote-monitoring capabilities, support business owners' efforts to ensure the continuity and quality of services and help achieve greater peace of mind.

Innovative, yet compact and functional, an **Active Safety System** will help you differentiate as a forward-looking professional and bring you new opportunities to develop your business.

Life Is On



To learn more about our
Active Safety System, visit:

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