

ACTIVE

Make Active Safety
your new standard

Active Safety System



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Life Is On

Schneider
Electric

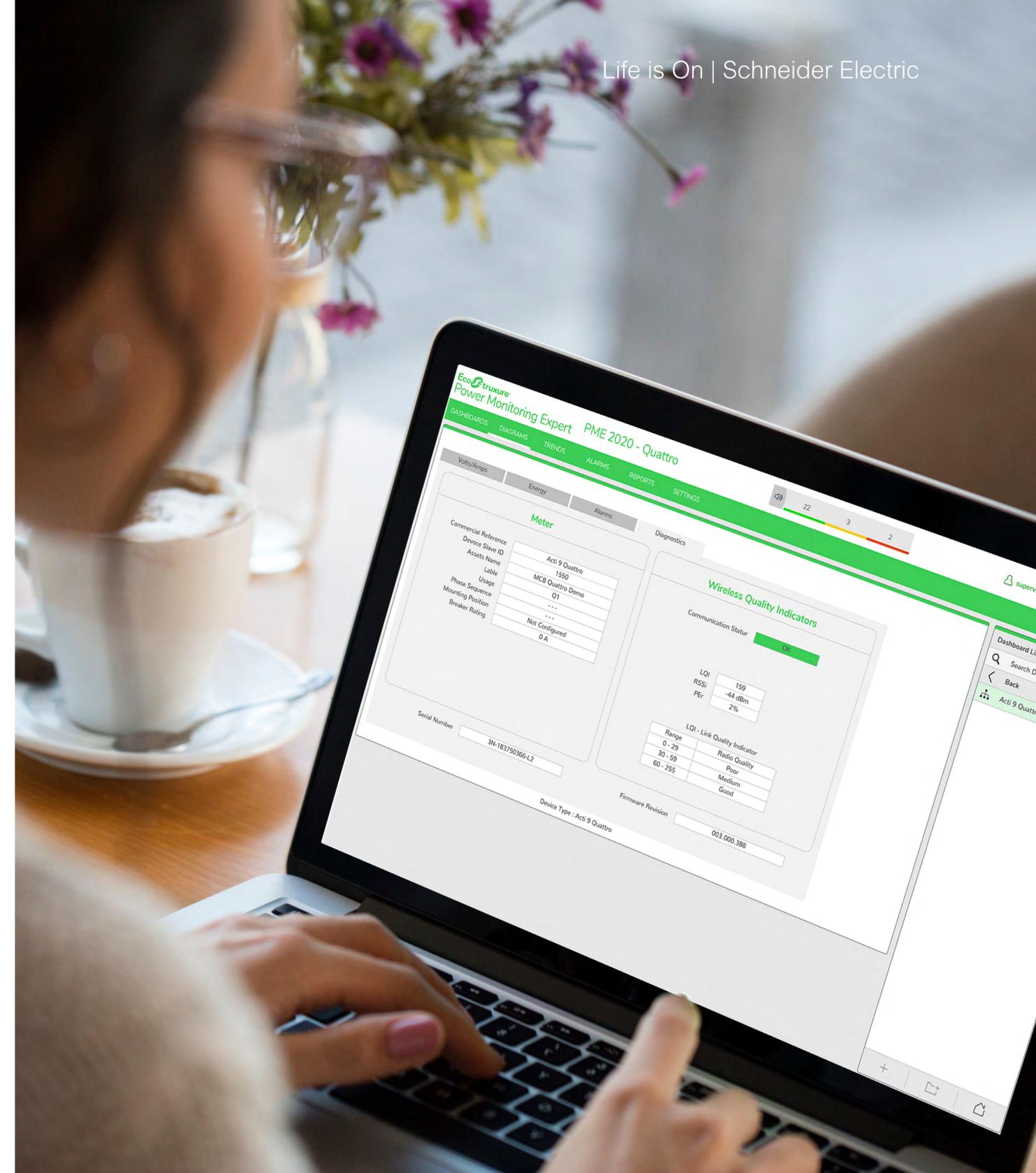
Make active safety your new standard for resilient businesses

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 maximise 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.

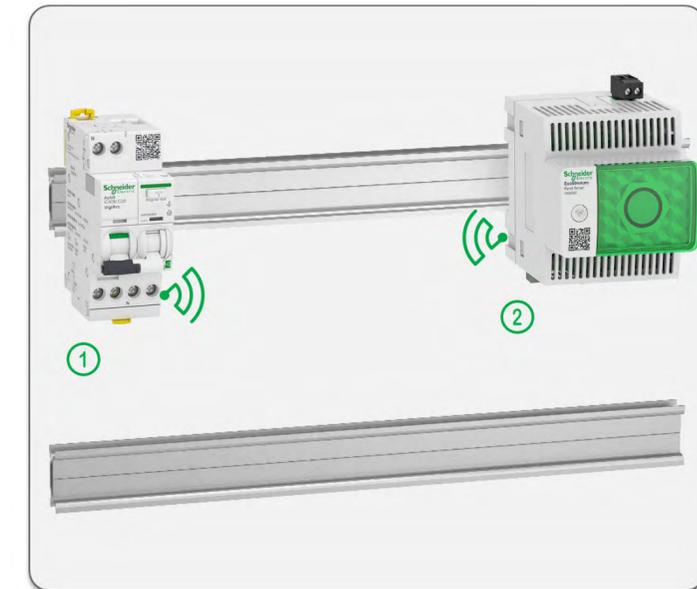
As a result, you also save your customers space in the electrical panel without making any compromises to the overall system.

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
- 3 PowerTag (power measurement) for more accuracy



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.



Energy measurement



MCB



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



Integrated RCD for greater protection of people

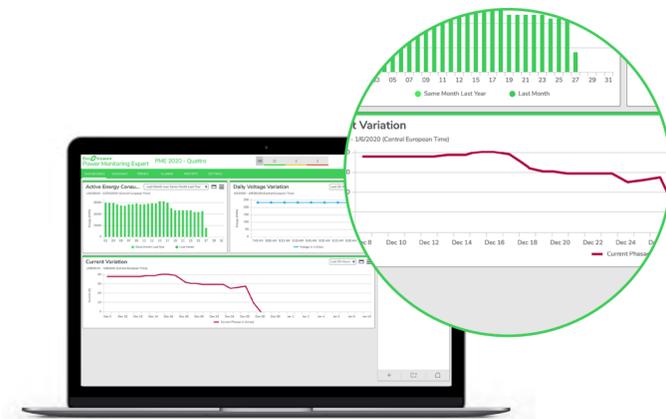


Integrated AFDD for greater protection from arc-fault related fires

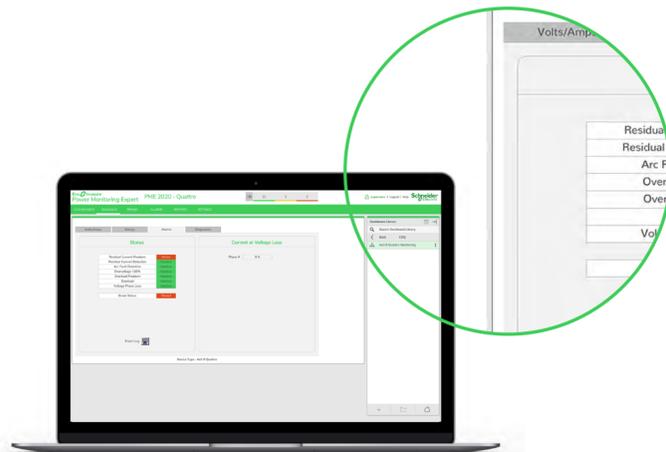


Adding layers of visibility on top of advanced protection

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:

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

Measuring & remote monitoring:

- U, I and P measuring
- Energy measurement
- Load monitoring



Diagnostics & analytics:

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

Advanced protection:

- Protection from people, appliances and arc fault-related fires
- Circuit Protection from transient network overvoltage (by MSU)



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

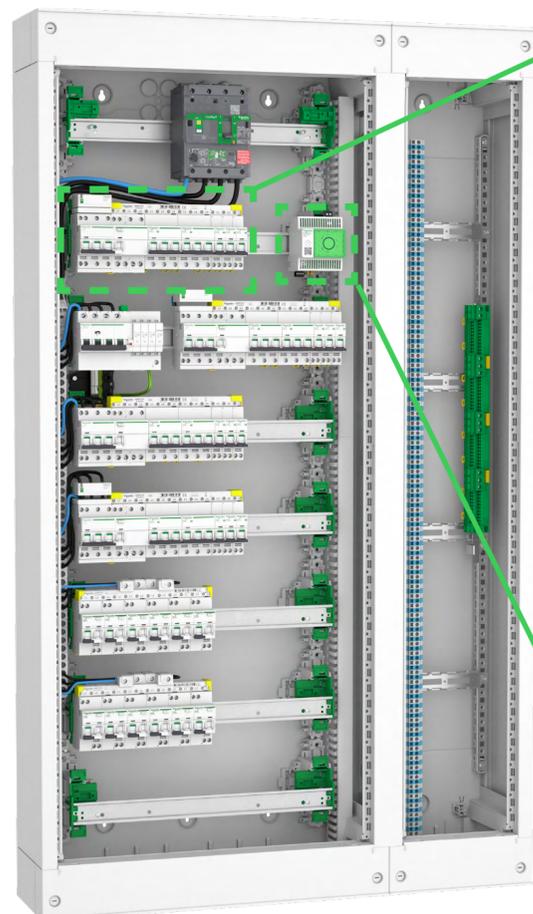
Simplified installation and wireless connectivity

-  **Simple installation and upgrade:** integrated devices and wireless connectivity to the gateway, making 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 realise the full potential of visibility and advanced protection, the Active Safety System brings together a connected device, a gateway, and power monitoring software.



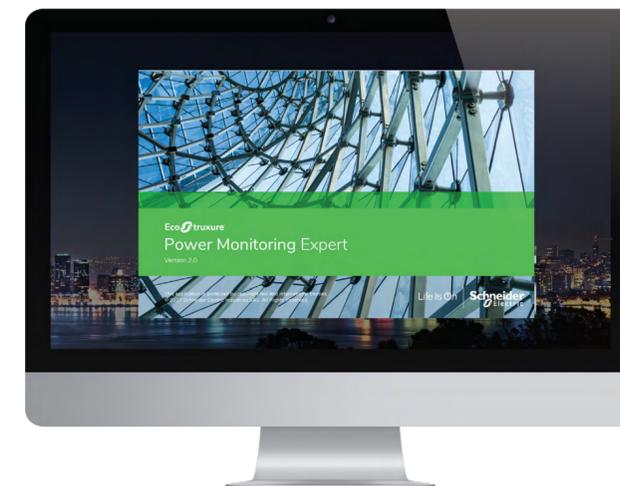
Acti9 Active

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



Breakers for the new connected world:

The all-in-one protection with the option of in-built connectivity, Acti9 iC40 system

Acti9 Active iCV40N ARC



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

Acti9 Active VigiARC iC40



Add-on device with integrated connectivity and AFD, RCD and MSU

Acti9 Active iC40N ARC



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

Acti9 Active ARC iC40



Add-on device with integrated connectivity and AFD and MSU

Acti9 Active Vigi iC40



Add-on device with integrated connectivity and RCD and MSU



Breakers for the new connected world:

The all-in-one protection with the option of in-built connectivity, Acti9 iC60 system

Acti9 Active VigiARC iC60



Add-on device with integrated connectivity and AFD, RCD and MSU

Acti9 Active ARC iC60



Add-on device with integrated connectivity and AFD and MSU

Acti9 Active Vigi iC60



Add-on device with integrated connectivity and RCD and MSU



Offer Specs for iC40 connected protection devices

Specifications for Acti9 Active iC40 devices



	Acti9 Active iC40N C40 A9P54640				
	MCB & AFDD+RCD+MSU	AFDD+RCD Add-on	MCB & AFDD	AFDD+RCD Add-on	RCD Add-on
Current Ratings	6A - 32A	25A, 40A	6A - 40A	25A, 40A	25A, 40A
Breaking Capacity	6000A, 10000A, 10kA	All iC40 MCB 1P+N compliance	6000A, 10kA	All iC40 MCB 1P+N compliance	All iC40 MCB 1P+N compliance
Poles	1P+N	1P+N	1P+N	1P+N	1P+N
Curve	B, C	All iC40 MCB 1P+N curves compliance	B, C	All iC40 MCB 1P+N curves compliance	All iC40 MCB 1P+N curves compliance
RCD Sensitivity & Type	30mA, A-SI	30mA, A-SI	-	-	30mA, A-SI
Active Features	Energy metering, 3 pre alarms and 6 alarms	Energy metering, 3 pre alarms and 6 alarms	Energy metering, 2 pre alarms and 5 alarms	Energy metering, 2 pre alarms and 5 alarms	Energy metering, 3 pre alarms and 4 alarms



Offer Specs for iC60 connected protection devices



Specs for Connected devices



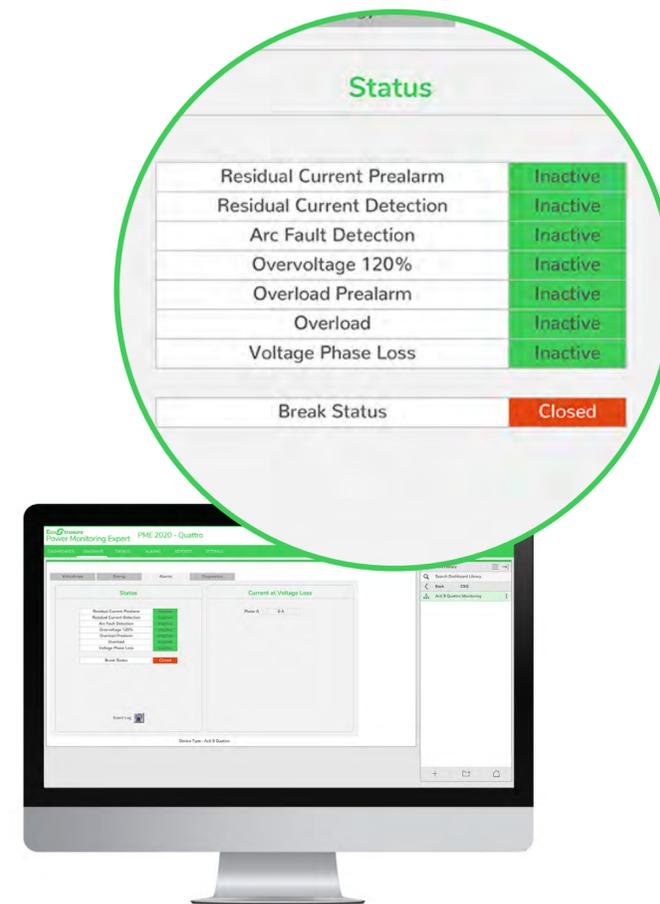
	Acti9 Active VigiARC iC60	Acti9 Active ARC iC60	Acti9 Active Vigi iC60
	AFDD+RCD+MSU	AFDD Add-on	RCD Add-on
Current Ratings	25A, 40A	25A, 40A	25A, 40A
Breaking Capacity	All iC60 MCB 1P+N compliance	All iC60 MCB 1P+N compliance	All iC60 MCB 1P+N compliance
Poles	2P	2P	2P
Curve	All iC60 MCB 1P+N curves compliance	All iC60 MCB 1P+N curves compliance	All iC60 MCB 1P+N curves compliance
RCD Sensitivity & Type	30mA, A-SI	-	30mA, A-SI
Active Features	Energy metering, 3 pre alarms and 6 alarms	Energy metering, 2 pre alarms and 5 alarms	Energy metering, 3 pre alarms and 4 alarms



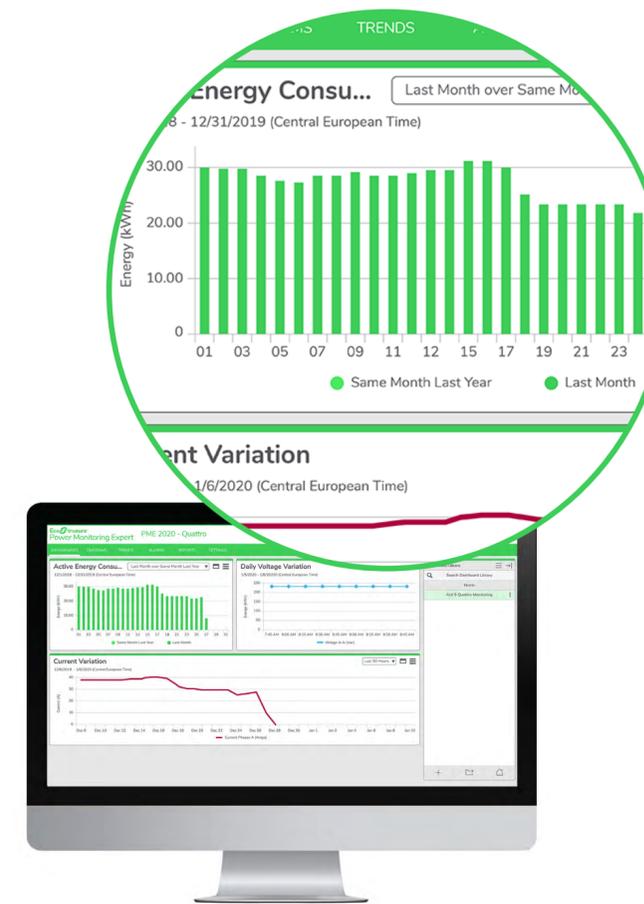
EcoStruxure Power Monitoring Expert for full visibility

EcoStruxure Power Monitoring Expert (PME) is the go-to web-app for visualisation 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.

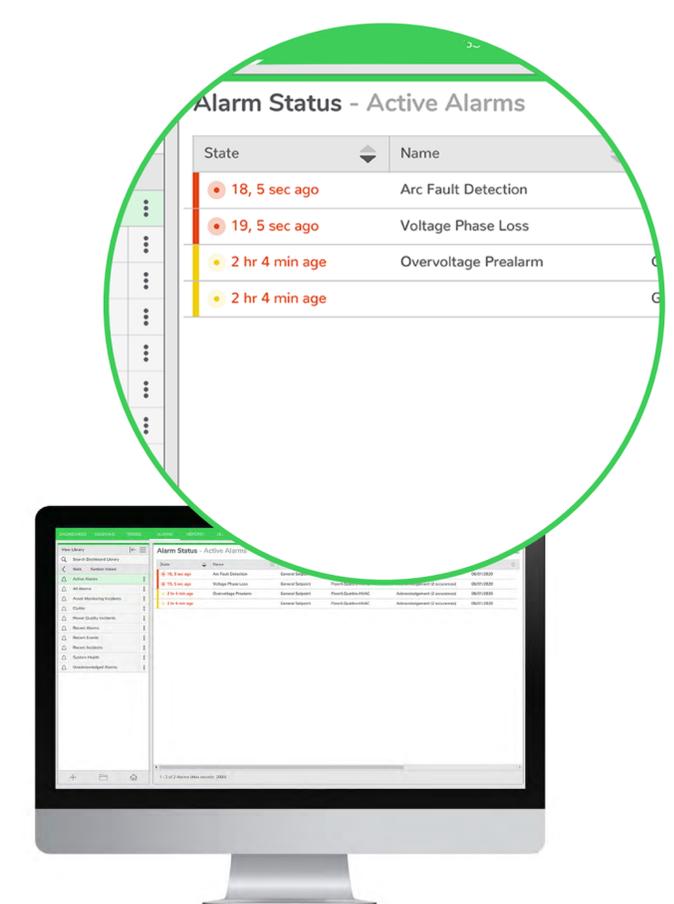
As part of EcoStruxure Power, EcoStruxure PME takes advantage of IoT connectivity and distributed intelligence to help maximise your customers' uptime, power availability, and operational efficiency. It is compliant with IEC 62443 cybersecurity standards, and provides your customers with a simple UI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



Smart alarm clustering for easy search, filter, and categorisation



Graphic timelines to easily locate events and alarms, and advanced energy visualisation 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 optimise your energy management solution, with:

- Ease of commissioning with the EcoStruxure Power Commission tool, enabling device plug and play and auto-discovery features.
- Ease of operation with user-friendly embedded web pages, and data contextualisation for more relevant analytics.
- Greater security, designed through a secured development life cycle 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 ecosystem

EcoStruxure™ Architecture



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.

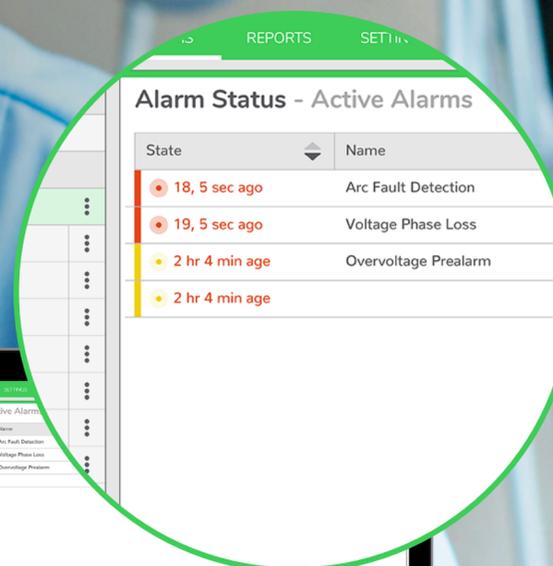




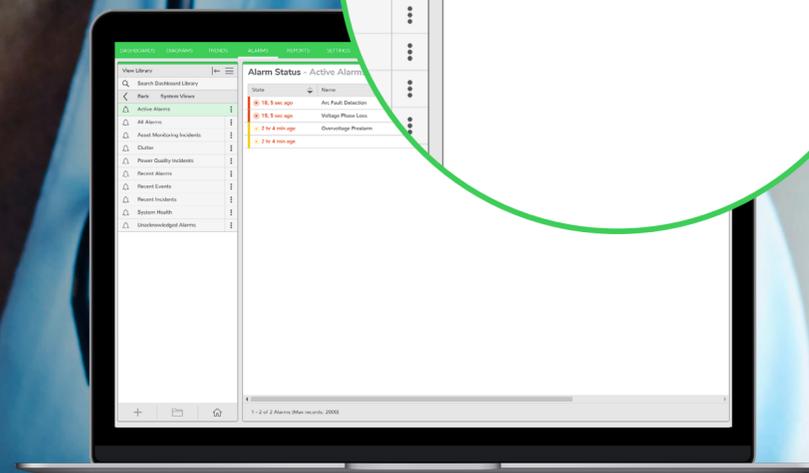
Monitoring critical loads to protect power availability

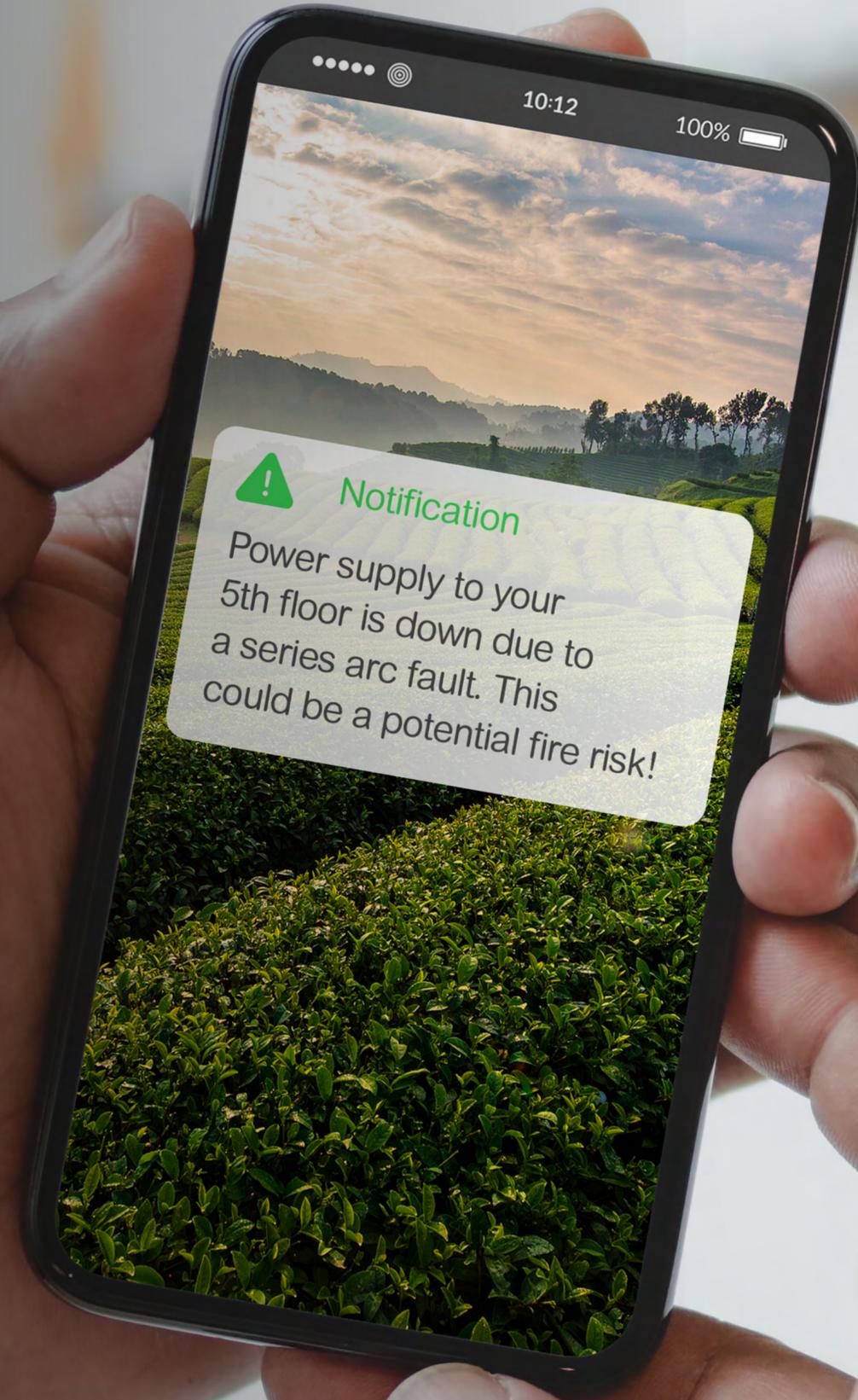
Electrical safety is one of the most important considerations in any building. But, as the name implies, in critical buildings it's even more vital... and could even be a case of life and death. With modern buildings, such as hospitals, requiring multiple electrical loads the chance of an overload or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



State	Name
18, 5 sec ago	Arc Fault Detection
19, 5 sec ago	Voltage Phase Loss
2 hr 4 min ago	Oversoltage Prealarm
2 hr 4 min ago	





Detecting an arc fault to help avoid electrical fire risk

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.



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.



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To learn more about our
Active Safety System, visit:

se.com/url



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