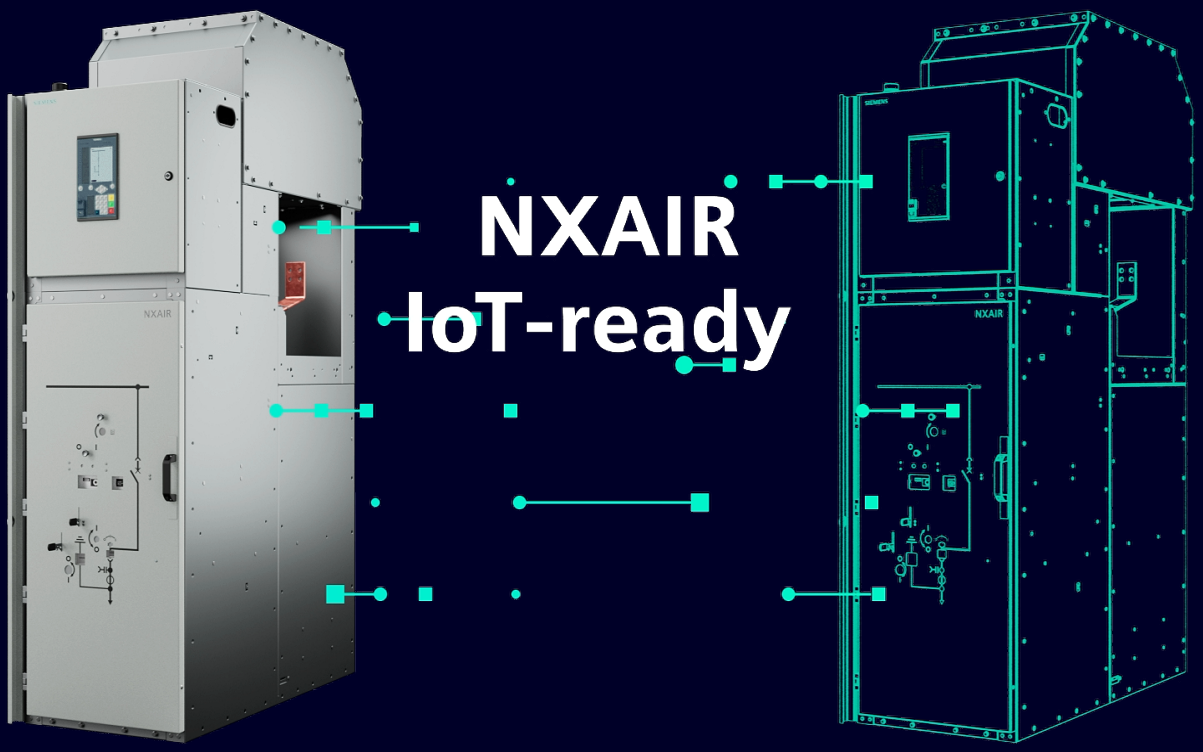


PREPARED TODAY – CONNECTED TOMORROW

NXAIR

IoT-ready

Siemens provides a practical foundation for condition monitoring
siemens.com/nxair

SIEMENS

Prepared today – Connected tomorrow

Medium-voltage switchgear is expected to do more than reliably distribute power. It must support high availability, smarter maintenance strategies, and increasing transparency across electrical assets.

With **NXAIR IoT-ready switchgear**, Siemens provides a practical foundation for condition monitoring — already prepared at delivery.



Every NXAIR is delivered with wireless, battery-free, energy-harvesting NXZTS temperature sensors installed at critical points such as busbar connections and cable terminations. Even if condition monitoring is not activated immediately, your switchgear is ready whenever you decide to take the next step.
Activation is simple: by installing the SICAM A8000 - Siemens modular remote terminal unit/substation automation device in the low-voltage compartment, the installed sensors can be connected without the need to de-energize the switchgear. From there, temperature data can be used flexibly:

- with Siemens Electrification X - Asset Management for cloud-based asset transparency
- with SIMARIS Control for on-premise asset monitoring and management
- with your SCADA / local automation environment for integration into existing automation systems

NXAIR IoT-ready

gives you the freedom to start digitalization when the time is right – without compromising future possibilities



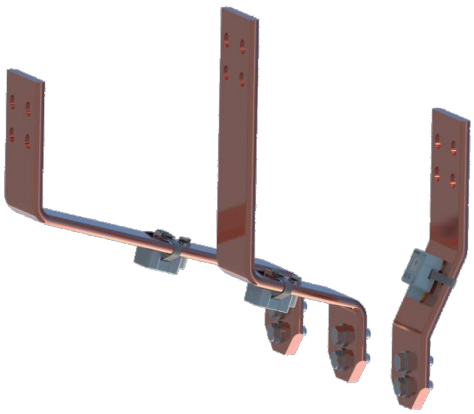
Ready for condition monitoring– without shutdown

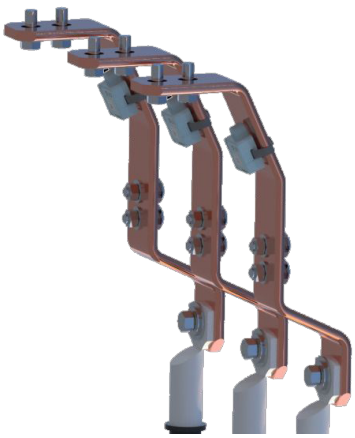
Temperature is one of the most important indicators for the condition of electrical connections. Abnormal temperature development at busbar or cable termination points can indicate increased resistance, loose connections, overload, or other potential issues.
With wireless, battery-free, energy-harvesting NXZTS temperature sensors installed on busbar and cable terminations, NXAIR provides the basis for continuous temperature transparency at relevant points inside the switchgear.



The wireless sensors use energy harvesting technology and operate without batteries, reducing the need for auxiliary power wiring and eliminating battery replacement effort. Once you decide to activate condition monitoring, SICAM A8000 can be added to the low-voltage compartment to collect and forward the sensor data. It serves as the local data-collection and communication gateway within the low-voltage compartment. It receives the wireless temperature sensor data and makes it available for cloud-based asset management, on-premise asset management, or local automation systems.
Most importantly, this activation can be performed without de-energizing the switchgear.

Installed at delivery – Activated on demand – Operated with confidence







One switchgear – Multiple digitalization paths

Every operation has a different digitalization strategy. Some sites prefer cloud-based asset management with remote access and centralized transparency. Others require on-premise asset management or direct integration into existing automation and control systems. NXAIR IoT-ready supports all three paths.

Cloud-based asset management with Electrification X – Your digital caretaker for electrical assets



Managing electrical assets through preventive maintenance cycles can be demanding – especially in plants with round-the-clock operation, multiple locations, and limited maintenance resources. Electrification X - Asset Management from the Siemens Xcelerator portfolio helps simplify this task.
It provides comprehensive asset transparency for energy distribution, automation systems, and networks at medium- and low-voltage levels. Whether you operate a single location or multiple sites worldwide, you can monitor asset status, prioritize resources, and access key information when and where it is needed.
Vital KPIs such as uptime, energy consumption, CO_2 emissions, energy budget, asset utilization, and availability can be made visible to support better operational decisions.
When connected to Siemens Electrification X - Asset Management, NXAIR becomes part of a digital asset management environment for medium- and low-voltage electrical distribution.
Your asset and maintenance teams gain improved transparency of asset condition, can monitor relevant values, receive alarms, and use digital insights to support maintenance planning and risk management.

On-premise asset management with SIMARIS Control

For operations that prefer local asset management, NXAIR IoT-ready can also be connected to SIMARIS Control. SIMARIS Control is Siemens' diagnostics station for electrical power distribution assets, covering assets such as medium-voltage switchgear, low-voltage switchboards, transformers, and peripheral devices. It integrates field devices and sensors into a single system and supports functions such as asset monitoring and control, simple temperature monitoring, condition-based health status monitoring, energy monitoring, digital documentation, remote visualization, and cloud gateway functionality.
With SIMARIS Control, temperature values from critical areas can be continuously measured, and abnormal changes can trigger alerts, helping teams take corrective action before an incident occurs. It also supports on-premise analytics based on condition monitoring, trend analysis using current and historical data, and transfer of data to higher-level systems.

Visualize



Analyze



Record



Manage



Transfer



Integration into SCADA system, PLC, or local automation environment

If your strategy requires direct integration into existing automation systems, temperature information can also be transferred to your SCADA system or local automation environment. This enables monitoring within your established operational environment.



Cloud, on-premise asset management, or existing automation integration – NXAIR IoT-ready keeps your options open

From asset data to better decisions

The combination of NXAIR IoT-ready, SICAM A8000, and your preferred monitoring environment creates a clear path from installed switchgear hardware to actionable operational insight.
Temperature information from busbar and cable termination points can become part of a wider asset health picture. This helps you improve transparency, support preventive maintenance, and prioritize resources based on actual asset condition.
The result is a smarter way to manage medium-voltage infrastructure.

NXAIR IoT-ready helps you to:

Increase availability
Supporting early detection of abnormal temperature development helps reduce the risk of unexpected interruptions

Improve maintenance planning
By moving from fixed maintenance intervals toward more condition-based decision-making.

Enhance asset transparency
By making critical temperature data available for cloud-based monitoring, on-premise asset management, or local automation systems

Extend asset lifetime
By supporting preventive action before potential issues lead to accelerated aging or failures

Reduce operational effort
By enabling remote or local access to relevant asset data, simplifying workflows for maintenance teams, and avoiding sensor battery replacement routines

Protect future investment
By preparing your switchgear for digitalization from day one, even if monitoring is activated later

Simple architecture, scalable value

1. Sensors installed in every NXAIR

Wireless, battery-free, energy-harvesting NXZTS temperature sensors are installed at critical points such as busbar and cable terminations.

2. Switchgear delivered IoT-ready

Your NXAIR is delivered prepared for future condition monitoring, even if the monitoring system is not activated immediately.

3. SICAM A8000 added when needed

When you decide to activate monitoring, the SICAM A8000 will be installed in the low-voltage compartment.

4. Data and indications made available

Temperature data is collected, processed, and forwarded together with indications for further use.

5. You choose the monitoring concept

The data can be connected to:

- Electrification X - Asset Management for cloud-based asset management
- SIMARIS Control for on-premise asset monitoring and management
- SCADA / local PLC for integration into existing automation systems

This architecture enables you to start with a prepared switchgear platform and scale your digital monitoring concept according to your operational needs.

6. Easily scalable with

- Partial Discharge - Humidity and Dew point - Circuit breaker monitoring

Your benefits at a glance

IoT-ready from day one

Every NXAIR is delivered with the sensing infrastructure already installed, preparing your switchgear for future condition monitoring.

Activation without de-energization

Condition monitoring can be enabled later without switching off the medium-voltage switchgear.

Wireless and battery-free

The NXZTS temperature sensors use energy harvesting technology and operate without batteries, helping reduce wiring complexity, avoid battery replacement effort, and support long-term monitoring readiness.

Monitoring of critical connection points

Sensors are installed at busbars and cable terminations to provide temperature information from critical areas inside the switchgear.

Cloud-based asset transparency

With Electrification X - Asset Management, NXAIR can become part of a cloud-based digital asset management environment.

On-premise asset management

With SIMARIS Control, NXAIR can be integrated into a local diagnostics and asset management environment for electrical power distribution.

Flexible automation integration

Temperature data can also be transferred to SCADA or a local PLC for use in existing operational systems.

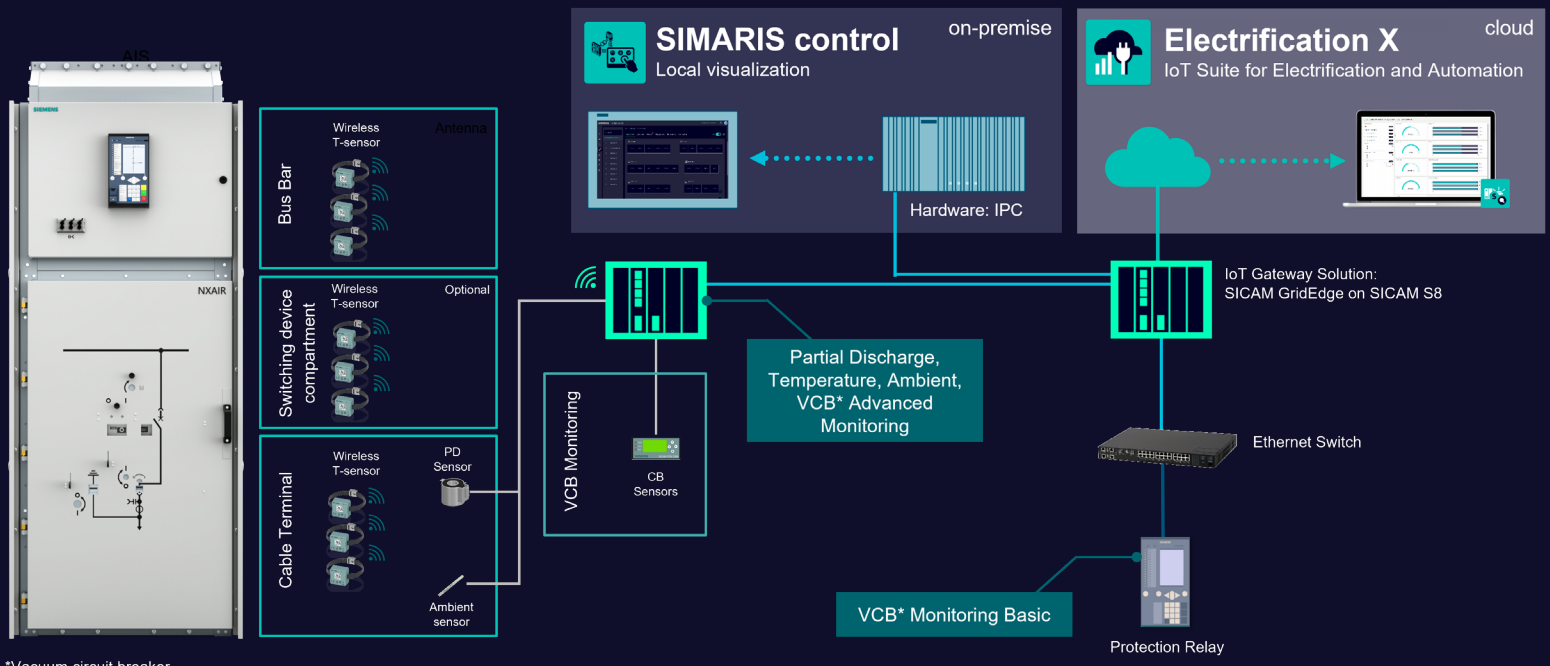
Scalable digitalization

Start with prepared hardware and activate digital services when required.

Support for proactive maintenance

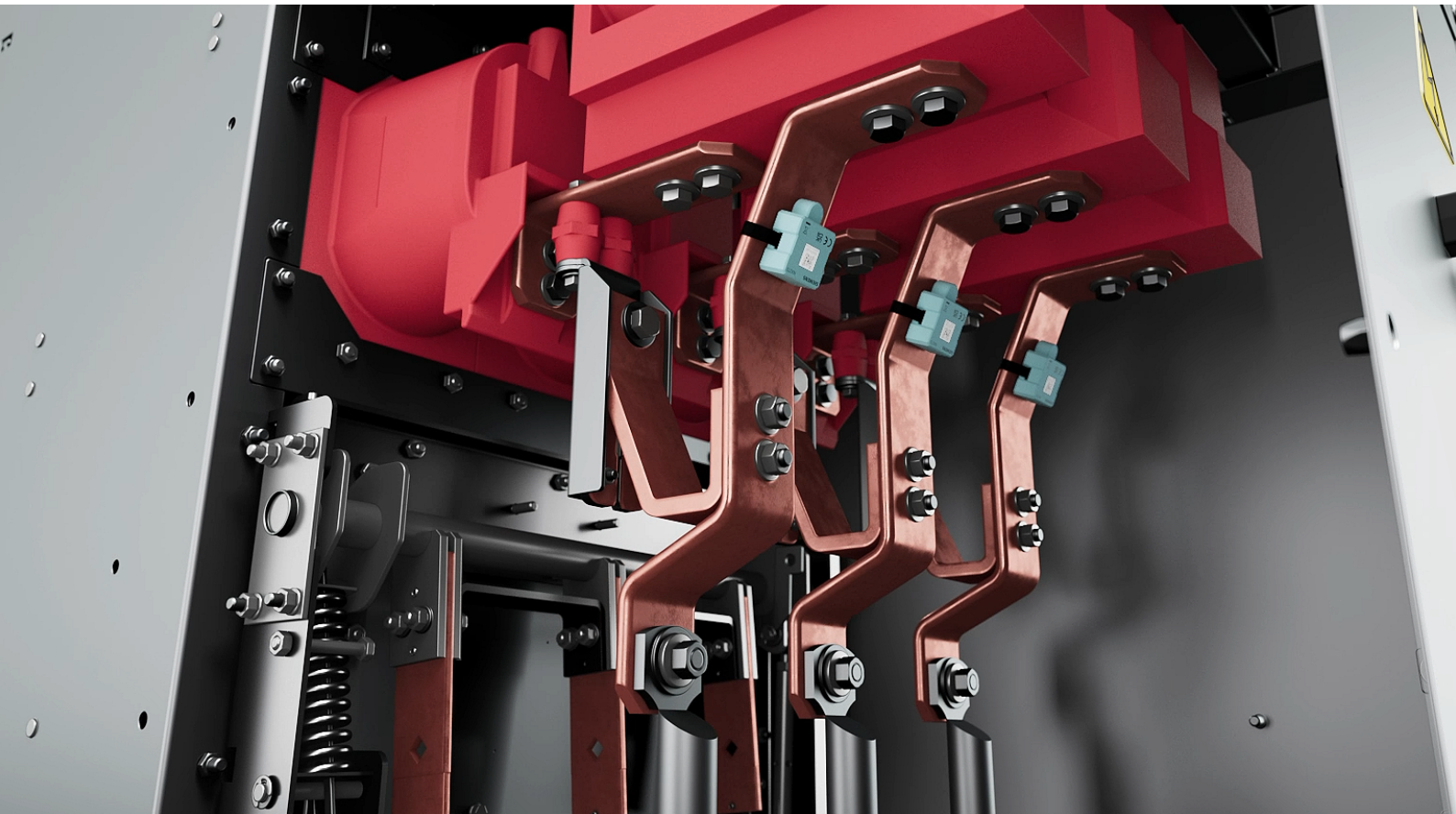
Temperature transparency helps your maintenance teams identify potential risks earlier and take action before issues escalate.

Asset Management
Condition Monitoring System architecture



*Vacuum circuit breaker

Prepared today. Connected tomorrow. And, ready for what comes next!



NXAIR IoT-ready from Siemens
Prepare your medium-voltage switchgear for future condition monitoring with wireless, battery-free temperature sensors and flexible data integration.
Connect when ready.
Monitor your way.
Operate with greater transparency.

Cloud-based with Electrification X.
On-premise with SIMARIS Control.
Or, integration into the local automation environment.

Prepared today. Connected tomorrow.

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