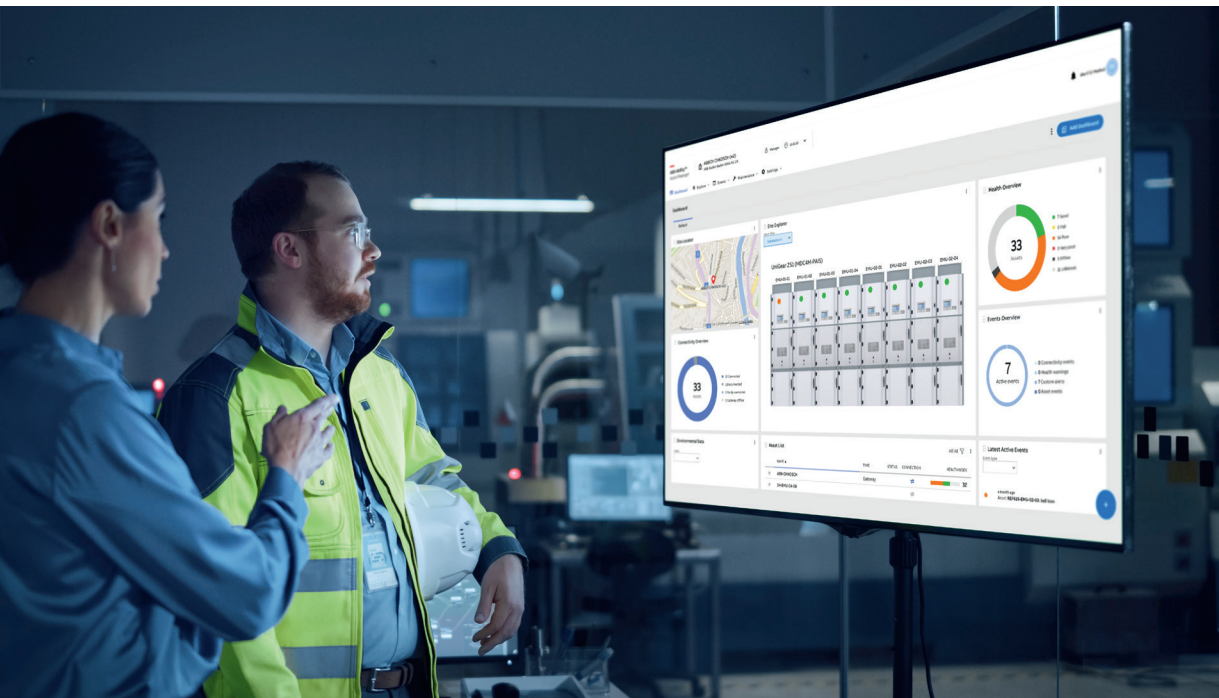


DISTRIBUTION SOLUTIONS

Monitoring and Diagnostics

UniGear IEC product portfolio up to 24 kV



Medium-voltage primary air insulated switchgear is an important component of power distribution systems, and condition monitoring systems are essential to ensure the reliable and safe operation of the switchgear. By using partial discharge monitoring, temperature monitoring, and circuit breaker monitoring or environmental monitoring, end users can improve the reliability and longevity of their switchgear, reduce maintenance costs, and increase overall system performance.

UniGear takes full advantage of new technologies such as online condition monitoring and diagnostics to provide a new way of working for the electrical system.

The condition monitoring system provides secure access to many customizable widgets that help you monitor your assets, apply data analysis, subscribe to alerts, plan maintenance schedules, generate custom reports and more.



Make better, data-driven decisions

Real-time operational data from equipment, predictive analytics and insights that help customers make timely decisions.



Maximize Up-time

Reduce potential unplanned downtime to a minimum, that directly impacts revenue generation.



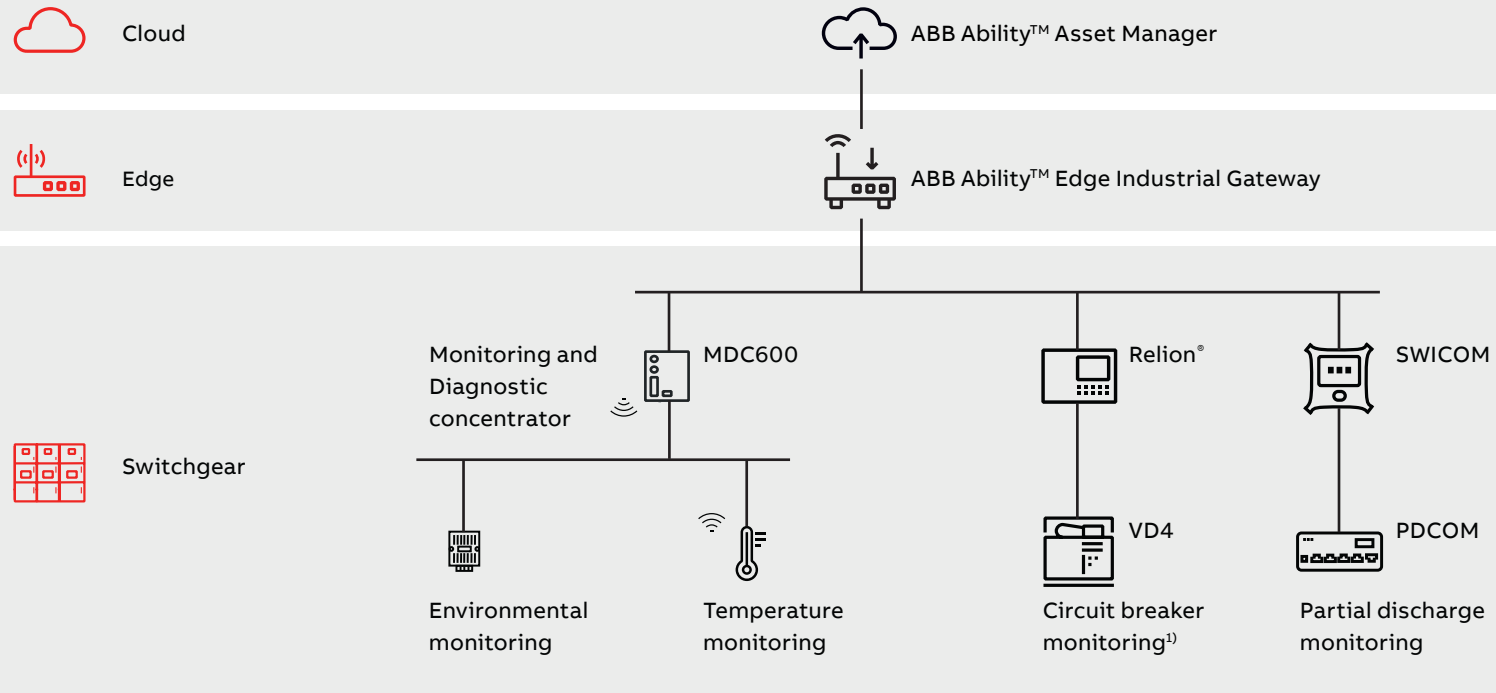
Reduce total cost of ownership

Reduce site visits, optimize maintenance schedules and increase workforce efficiency.



Increase safety and sustainability

Deploy field service engineers only when needed, optimizing resources and extending asset life while maintaining safety.



Environmental monitoring

- Monitoring of ambient temperature and humidity levels in the switchgear room, cable compartment and low-voltage compartment
- Ensures that switchgear is operating within defined conditions, notifies of deviations, and alarms when they occur

Temperature monitoring

- Up to 12 temperature measurement points at critical joints such as cable connection, busbar or circuit breaker connection
- Thresholds are applied to absolute temperatures as well as rise values

Circuit breaker monitoring

- Monitoring the mechanical condition of the VD4 circuit-breaker using the Relion® protection relay function
- Advanced monitoring of the mechanical condition of the VD4 evo¹⁾ circuit-breaker and integrated sensors

¹⁾ VD4 evo availability to be clarified with UniGear factory before ordering

Partial Discharge monitoring

- ABB's PDCOM monitors changes in partial discharge levels over time
- Partial discharge can be shown or communicated upstream via the SWICOM device

Monitoring and Diagnostic concentrator

- ABB's MDC600 series data concentrator connects to sensors in a single switchgear panel or across multiple panels
- Wireless connectivity to thermal sensors to reduce wiring effort
- Powerful data concentrator with built-in storage, analytics and local web server for data visualization

Asset Manager

- ABB Ability™ Asset Manager is a cloud solution that integrates energy and asset management into a single intuitive dashboard

Monitoring and Diagnostics portfolio for UniGear switchgear family

Product type	Temperature monitoring	Environmental monitoring	Partial discharge monitoring
UniGear ZS1 up to 12 kV	•	•	•
UniGear ZS1 up to 17.5 kV	/	•	•
UniGear ZS1 up to 24 kV	/	/	•
UniGear 550	/	/	•
UniGear 500R	/	/	•
UniGear MCC	/	/	•

• Yes / No

UniGear ZS1 web page:



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