Mitigate electrical failure risk in your critical assets

EcoStruxure™ Asset Advisor for Electrical Distribution

Electrical motors link electrical systems with industrial processes. Motors account for 60% of total energy consumption, and up to 90% in heavy process industries, making motor downtime a major risk to profitable operations.

EcoStruxure Asset Advisor for Electrical Distribution integrates seamlessly with our technological partners, to provide end-to-end solution from the grid to your final application of power, and addresses your needs on:

- High failure rates of rotating equipment leading to costly downtime and unwanted repairs during operating hours
- Central monitoring of complex motor fleets from diverse manufacturers with the highest level of detection accuracy
- Monitor rotating equipment located in hard-to-reach or areas of harsh conditions including ATEX zones, where other sensor technologies cannot be installed

Bringing innovative features for condition-based monitoring for critical rotating equipment, we help you to mitigate the risks of motor failure.

Benefits

- Predictive maintenance effectiveness
  » Reduce electrical motor maintenance costs and extend motor lifecycle with earlier issue diagnoses
- Improve uptime and site capacity
  » Detect potential failures weeks in advance and avoid downtime during site operating hours
- Improve total cost of ownership and ROI
  » Higher detection rates drive to better financial efficiency in the midterm, with average payback of less than one year
- Expertise at your fingertips
  » Deploy innovative technology with seamless IoT integration from the field to the cloud, driven by machine learning modelling, to monitor the health of your entire electrical system

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How it works

Motor Current Signature Analysis (MCSA)
Conventional electric motors that drive loads act as transducers. The motor senses mechanical load variations and converts them into electric current variations, transmitted along power cables. These variations are processed by our solution, which analyzes waveform frequencies and indicates machine conditions, an early warning of deterioration or on-load process alteration.

Highest reliability for analysis
Rather than analyze vibrations, temperature or oil, our MCSA system analyzes AC current and voltage variations with machine learning models. This improves sensitivity and accuracy of failure mode identification and their causes, both mechanical and electrical. For example:
- Bearing, rotor, or coupling degradation
- Mechanical imbalance, pump cavitation, axis misalignments
- Winding degradation, harmonic disturbances

Easy and scalable installation
Current transformers and voltage taps are installed in the MCC (Motor Control Center). Motor proximity is not required, which avoids exposure to the application environment. Once installed, a baseline learning phase creates normal operations models with machine learning.

Make data-driven decisions with our CSH
OT/IT convergence enables data transfer from sensors to Schneider Electric cloud via dedicated data acquisition device and gateway. Architecture-enabling services and operations strictly follow cybersecurity guidelines. Our experts at Connected Services Hub (CSH) are continuously monitoring your equipment’s condition and ensuring the full architecture operate as planned.

Learn more about our Connected Services Hub!
Be informed at right time about your next equipment service, with 24/7 dashboard accessibility and our remote experts.