Electrical distribution maintenance and diagnostic services

Enhance your installation safety, reliability, and lifetime with our comprehensive solutions

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Why maintaining your electrical distribution equipment is vital
Maximized productivity and greater peace of mind

Electrical distribution equipment powers your machines, systems, and processes. It lies at the heart of your business.

With continuity of your operations depending on uninterrupted power supply, it is crucial to keep your electrical distribution network in top condition. Regularly performed maintenance helps ensure reliability of your electrical installation, increases its safety, and prolongs its life. A well-developed maintenance strategy can minimize the risk of unexpected shutdowns, optimize the cost of electrical network operation, and thus improve the overall performance of your business.

Why maintenance is vital

The main causes of equipment breakdown

- 34% Contacts or faulty parts
- 17% Poor workmanship
- 9% Faulty equipment
- 9% Humidity
- 8% Environment
- 23% Other

* Source: Hartford Steam Boiler Insurance and Schneider Electric
How to best maintain your electrical distribution equipment
Comprehensive maintenance approach

More than 30 years of experience in servicing electrical distribution equipment has enabled us to develop a comprehensive on-demand maintenance offer, including:

> On-site condition maintenance with advanced diagnostics
> Preventive maintenance
> Corrective maintenance
On-site condition maintenance

On-site condition maintenance is the best practice that combines preventive maintenance (as per manufacturer protocols) with proprietary diagnostics. It delivers the highest level of equipment safety and reliability.

Regular diagnostics give a complete picture of equipment condition and identify symptoms of component malfunction or degradation before a fault happens, while comprehensive customer reports provide an assessment of the equipment condition and its conformity/non-conformity.

The on-site condition maintenance keeps your equipment as close to its optimum performance level as possible, improving continuity of your operations and prolonging the life of your electrical distribution installation.
Advanced diagnostic solutions: ProDiag™

The implementation of diagnostic solutions across your electrical distribution network enables the early discovery of component wear and tear and mitigates the risk of unexpected outages. Our on-site condition maintenance offer includes ProDiag, which provides comprehensive diagnostic services.

Diagnostics performed on energized equipment:

> ProDiag Corona assesses the condition of MV devices to detect partial discharges, both superficial and internal (insulating parts).

> IR Thermography helps mitigate the risk of thermal malfunction (overheating) of LV equipment and systems.

See how ProDiag helps prevent your equipment failure. Watch the video!

### Why maintenance is vital

**How to maintain ED equipment**

Benefits of ED maintenance

Why Schneider Electric
Diagnostics performed on de-energized equipment:

> ProDiag Breaker assesses kinematic and electrical parameters of a device, related to opening, closing, and charging functions.
> ProDiag Cluster tests the connections to chassis (LV) and busbars/cables (MV) in clusters (surface/contact pressure).
> ProDiag MV Relay examines the MV protection chain between the relay tripping order and the opening of breaker main contacts.
> ProDiag Fuse evaluates the external condition of the fuse, its internal resistance, and the condition of MV switchgear compartment.
> ProDiag Oil examines the oil dielectric characteristics to assess the transformer’s condition.
> ProDiag Transfo Relay performs the diagnostics of transformer relay control systems.
> ProDiag Trip Unit analyzes the condition of the trip unit based on protection settings, discrimination, breaking capacity, and historical data.
Preventive maintenance is conducted during scheduled power outages to limit the impact on business operations. Our Field Service representatives have access to a comprehensive proprietary database of maintenance protocols for all the Schneider Electric MV and LV electrical distribution equipment ranges, including information on:

> Safety measures
> Inspection, verification, checklists, and tests
> Access to genuine spare parts

Supported by the proprietary Installed Base Services software, our representatives achieve consistency, harmonization, and excellence across all maintenance operations.

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<th>Maintenance level</th>
<th>Minimal frequency</th>
<th>Who</th>
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<tr>
<td>Exclusive</td>
<td>every 4 years</td>
<td>Schneider Electric</td>
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<tr>
<td>Advanced</td>
<td>every 2 years</td>
<td>Schneider Electric Services Partner</td>
</tr>
<tr>
<td>Basic</td>
<td>every year</td>
<td>End user</td>
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Explore our Technical Training website
Corrective maintenance

Corrective maintenance is performed in case of equipment failures or functional drifts. The aim of the intervention is to restore normal operating conditions through fast troubleshooting with the shortest restart time possible.

Our technicians achieve the highest first-time fix rate thanks to:
- Expert competency in ED equipment diagnosis and repair
- The fastest access to genuine spare parts

Our corrective maintenance offer includes three types of services:
- Emergency palliative service: temporary troubleshooting until curative work is performed
- Planned curative service: definitive troubleshooting or repair
- Refurbishment service: reconditioning of equipment in our service centers

Discover why prevention is better than cure, read the blog post!

Learn how to manage aging equipment with our retrofit solutions.

Equipment life cycle

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<tr>
<td>Active</td>
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<td>End of commercialization</td>
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<td>Limited maintenance</td>
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<td>Advantage Service Plans</td>
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<td>Maintenance &amp; diagnosis</td>
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<td>Genuine spare parts</td>
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Renew ECOFIT™
How your business benefits from maintenance
Increased personnel safety and equipment protection

Performing regular on-site condition maintenance or preventive maintenance on your electrical distribution equipment minimizes the risk of unwanted events that can cause the loss of assets and put plant operators’ health or lives in danger.

An appropriate maintenance strategy also increases the reliability of safety devices, such as circuit breakers, protection relays, fuses, or trip units, responsible for preventing accidents and process breakdowns.
Improved continuity of operations

On-site condition maintenance and preventive maintenance performed during scheduled outage periods, cause less disruption to your business operations than an unexpected equipment failure. It takes less time to perform regular service work and mitigate the risk of an emergency shutdown than to carry out an emergency procedure in case of a breakdown. Scheduled electrical distribution maintenance is also more cost effective than ad hoc repairs.

Benefits of ED maintenance

- Increased equipment uptime and reliability
- Greater cost-effectiveness compared with reactive repairs

Why maintenance is vital  How to maintain ED equipment  Benefits of ED maintenance  Why Schneider Electric
Optimized total cost of ownership

A well-designed maintenance strategy keeps your electrical distribution equipment and your business running as smoothly as possible, at optimum costs. The early identification of malfunctions enables you to avoid the significant capital expenditures connected with the acquisition of electrical distribution equipment and the operational expenditures caused by a process shutdown, which results in a lower total cost of ownership as the equipment lifetime is extended.

Equipment maintenance also helps optimize energy costs. The early detection of component wear and tear prevents the diminishing energy efficiency of devices. As a result, the energy waste is reduced and your business benefits from energy savings.
Why Schneider Electric?
Support from an expert in electrical distribution maintenance

As the global specialist in energy management and industrial automation, as well as a manufacturer of electrical equipment, Schneider Electric has extensive knowledge and experience in electrical distribution maintenance. To help keep your equipment in the best shape possible our Field Service representatives provide you with advanced technical support and high-quality customer service:

> Technicians with the unique know-how
> Rigorous maintenance proprietary procedures
> Quick identification and delivery of genuine spare parts
> Proprietary tools (software and hardware) for the world-class delivery

Worldwide maintenance support enabling consistency and excellence across global operations

70+
countries where our comprehensive maintenance offer is available

6,200+
Field Service representatives worldwide

250,000+
Field Service interventions performed in 2015
For more information about electrical distribution equipment maintenance, visit schneider-electric.com/electricaldistributionservices and www.schneider-electric.com/b2b