

ABB Motors and Generators PG Service

Base Service

Installation and commissioning:

Getting it completely right from very start for ABB High Voltage motors and Generators. We provide commissioning engineers with extensive experience in motors and generators. Their know-how, backed by the expertise of our design team, makes commissioning fast and smooth and lays the foundation for high reliability and efficiency.

Key benefits:

- Work carried out by skilled personnel only
- Safe, controlled start-up methodology
- Clearly defined procedures (eg, alignment protocol)
- Standard reporting and recording of parameters
- Faster installation and commissioning
- Improved process operation for optimized cost of ownership
- Increased reliability, efficiency and safety



More info: <https://new.abb.com/motors-generators/service/installation-and-commissioning>

For more information visit baldor.com or new.abb.com/motors-generators

ABB Motors and Generators PG Service

Preventive Maintenance

Unplanned stoppages always seem to occur at the worst possible moment. The preventive maintenance program for ABB Motors and Generators cuts the risk of unscheduled downtime.

The program takes a step-by-step approach with procedures undertaken at intervals over the lifetime of the equipment. The exact timetable will be based on the operating profile and methods as well as ambient conditions. Preventive maintenance is an investment in the avoidance of failures – the program can eliminate disruptions to production and customers to secure their long-term competitiveness.

Key benefits:

- Maintenance planned around production and plant schedules
- Minimize unplanned downtime
- Reduce or eliminate loss of production
- Reduce overall cost of maintenance
- Warranty protection



More info: <https://new.abb.com/motors-generators/service/maintenance/preventive-maintenance>

Air Gap Inspection

Carries out internal inspection of large Synchronous motors and generators without taking the rotor out to plan and support maintenance optimization.

The robotic crawler moves in the air gap between the stator and rotor, traversing the stator core laminations using modular, magnetic tracks. It can be used in all motors and generators with air gaps of 10 mm and upwards. Unlike conventional inspection devices, which are restricted to turbo/hydro generators with very large air gaps, ABB Air Gap Inspector can be used on all large synchronous motors and generators with air gaps of 10 mm or more.

Key benefits:

- Reduces costs. Inspections can be carried out without removing the rotor, reducing outage costs. Faults can be localized, and their position and severity identified and recorded without removal of the rotor.
- Optimizes maintenance planning and increases availability of motors and generators by reducing the number of outage days where rotor removal is required.



More info: <https://new.abb.com/motors-generators/service/advanced-services/abb-air-gap-inspector>

For more information visit baldor.com or new.abb.com/motors-generators

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Spares and Consumables

ABB's motors and generators often play a critical role in the plants in which they operate.

In many cases the complete process would be brought to a halt if the motor or generator stopped working. Downtime may result in considerable costs in terms of lost production, waste and damage, so the availability of this equipment is a top priority.

We supply genuine spare parts, spare part packages and maintenance kits for all ABB motors and generators. We can also provide exchange units for wind power generators. As we are the original equipment manufacturer, you can rely on us

to supply the correct part. Where technology has advanced, we may be able to provide a part that is even better than the original. We can also help you to rationalize your on-site spare part stocks.

Key benefits:

- All necessary parts available from a single source
- Access to original parts
- Expert support in identifying parts based on equipment condition and criticality
- Increased availability and minimized downtime



More info: <https://new.abb.com/motors-generators/service/spares-and-consumables>

Replacements

Replacing existing equipment with a new ABB product is a great investment: the new unit's superior efficiency and performance can ensure a very short payback time. Whether you select a new motor or generator from our wide range of standard items or choose a tailor-made unit, we can generally optimize it to replace your existing equipment.

In most cases we will be able to adapt the electrical designs to make the replacement fully interchangeable with the original. Utilizing our know-how and experience, we can easily provide replacements for third party products.

For the plant operator this helps to minimize the downtime, required site work and risks. An added benefit of a tailor made, fully interchangeable replacement is that you may be able to keep your existing machine as a spare.

Key benefits:

- Expert support in selecting replacement units
- Option of choosing from standard products, tailor made units and replicas
- Access to original drawings and specifications for ABB products
- Replacement programs for third-party products
- Option to select based on energy calculations
- Access to latest technology
- Reduced life cycle costs
- Increased reliability, availability and safety

More info: <https://new.abb.com/motors-generators/service/replacements>

ABB Ability™ Advanced Services

ABB Ability™ Condition Monitoring for LV Motors

ABB Smart Sensor converts motor into a smart device to let you know when it is time for service. The Smart Sensor can be easily attached to motors without the need for wiring. It collects operational data and health information of the motor.

Key benefits:

- By monitoring and analyzing data on motor operating parameters

- maintenance and operation can be optimized
- unexpected downtime avoided
- efficiency optimized
- motor lifetime extended
- Improved safety – enables easy access to motors in locations that are difficult or dangerous to access



More info: <https://new.abb.com/motors-generators/service/advanced-services/smart-sensor>

ABB Ability™ Condition Monitoring for Pumps

Remote monitoring of pumps is enabled through ABB Smart Sensors making predictive maintenance possible. It monitors the vital operating parameters of the pump, such as vibration and temperature, to calculate pump health indicators. These indicators provide valuable information on the pump's condition and performance.

Key benefits:

- Early identification of pump inefficiencies
- Prevention of unexpected downtime
- Reduced maintenance costs
- Longer equipment lifetime
- Improved safety – enables easy access to pumps in locations that are difficult or dangerous to access



More info: <https://new.abb.com/motors-generators/service/advanced-services/smart-sensor>

For more information visit baldor.com or new.abb.com/motors-generators

ABB Ability™ Advanced Services

ABB Ability™ Condition Monitoring for HV Motors

Remote condition monitoring service that delivers on-line assessment of HV motor health and performance to maximize uptime and productivity. Web access to live data and status information of electrical and mechanical parameters.

Key benefits:

- Increased reliability and availability
- Minimizes the number of unexpected failures
- Reduces downtime by transitioning from reactive to proactive maintenance
- Reduced maintenance costs
- Saves maintenance time and effort with early warnings



More info: <https://new.abb.com/motors-generators/service/advanced-services/remote-condition-monitoring>

ABB Ability™ Condition Monitoring for Shaft Lines

Periodic on-site condition monitoring for induction motors, generators, gearboxes and any driven object in order to find potential mechanical and electrical problems in an early stage.

- Quick maintenance oriented reports
- Automated analysis and summary report delivered on site
- Reduction in unplanned downtime
- Early warning system provides adequate time for maintenance planning
- ABB motor service network
- High success rate of fault detection

Key benefits:

- Integrated analysis and reporting
- Current, voltage and vibration in one analysis and reporting system



More info: <https://new.abb.com/motors-generators/service/advanced-services/on-site-condition-monitoring>

ABB Ability™ Advanced Services

ABB Ability™ LEAP for HV Motors and Generators

ABB Ability™ LEAP (Life Expectancy Analysis Program) analyzes the condition and expected lifetime of stator winding insulation – the most uptime critical component in high voltage motors and generators.

ABB Ability™ LEAP is a set of unique analytical tools that identify, characterize and quantify defects in the insulation system. Testing and analysis are performed with one site visit and can be combined with normal maintenance activities. This is a big improvement on conventional methods that require trending data from a range of measurements before they can provide useful output.

Key benefits:

- Minimized unplanned downtime - early warnings provide adequate time for maintenance planning
- Optimized maintenance planning – enables you to move from time-based to condition-based maintenance
- Reduced cost of ownership (COO) – supports efforts to extend lifetime and thereby increase return on investment (ROI)

More info:

<https://new.abb.com/motors-generators/service/advanced-services/abb-ability-leap-for-hv-motors-and-generators>

- Better decision-making – facilitates decision-making on short and long-term maintenance and run/repair/retrofit/replace options
- Service is available for all motors and generators regardless of manufacturer



ABB Ability™ Condition Assessment for Motors and Generators

Condition assessment of stator winding insulation in motors and generators up to 4 kV. The results are used to optimize the maintenance routine and predict when the system's condition will become vulnerable or critical. Based on this, specific service actions can be planned well in advance to avoid premature failure and increase the lifetime of motors and generators.

Key benefits:

- High uptime – early detection of potential problems before they can cause costly unplanned downtime
- Accurate information on equipment condition to be able to make informed run/repair/replace decisions
- Maintenance activities can be prioritized and optimized



More info:

<https://new.abb.com/motors-generators/service/advanced-services/abb-ability-leap-for-hv-motors-and-generators>

ABB Ability™ Advanced Services

ABB Ability™ Predictive Maintenance for Generators

- Higher uptime with optimized maintenance planning.
- ABB Ability™ Predictive Maintenance for generators optimizes the maintenance of diesel and gas engine generators. Taking a condition-based approach, it combines customer input with advanced analytical techniques to create the optimal condition monitoring and surveillance program. This ensures that the right actions are taken at the right time and for the right reasons.
- ABB Ability™ Predictive Maintenance brings together ABB's condition monitoring, in-situ visual inspection and life expectancy analysis program to make maintenance planning easy.

Key benefits

- Higher uptime
- Minimized unplanned outages
- Longer intervals between rotor removals
- Avoidance of secondary damages
- Alignment of maintenance tasks with planned plant stoppages
- Reduced maintenance costs
- Maintenance is only done when necessary
- Parts are only replaced when needed
- Visual inspection of stator core, rotor core and windings is done without the need to remove the rotor



More info:

<https://new.abb.com/motors-generators/service/advanced-services/abb-ability-predictive-maintenance-for-generators>

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