



## **ABB motors and generators life-cycle services**

Maximize performance, uptime  
and efficiency



**We take the time to understand your applications and their service needs. Based on 130 years of experience in building and servicing motors and generators, we provide support to maximize performance, uptime and efficiency over the lifetime of your assets.**

## **Table of contents**

<b>4</b>	<b>Services to match your needs</b>
<b>6</b>	<b>Service agreements</b>
<b>7</b>	<b>Installation and commissioning</b>
<b>8</b>	<b>Preventive maintenance</b>
<b>10</b>	<b>Predictive maintenance and condition monitoring – ABB Ability™ digital services</b>
<b>12</b>	<b>Technical support and repairs</b>
<b>14</b>	<b>Extension, upgrades and retrofits</b>
<b>15</b>	<b>Replacements</b>
<b>16</b>	<b>Spares and consumables</b>
<b>17</b>	<b>Training</b>
<b>18</b>	<b>You choose, we respond. Globally.</b>
<b>20</b>	<b>Contact us</b>

# Services to match your needs

We take the time to understand your applications and their service priorities. Some need fast repairs to keep an application up and running. Other applications benefit from preventive maintenance to minimize downtime. And others benefit from focusing on maximum efficiency through optimization.

Whatever your applications' needs, we offer a full range of services to keep your equipment running at top performance.

Our network of service centers and certified partners spans the world and our Global Technical Support Centers are closely integrated with our manufacturing facilities. This enables us to deliver local support no matter where you are, and ensures that we always provide the optimum, most cost-effective solution.

**Service agreements**  
Bundling of relevant services into one contract to suit your needs.



ABB Ability™ digital services



## Service agreements

A fully tailored service agreement ensures the highest availability and reliability of your assets while increasing the predictability of your maintenance budget. Our experts will collaborate with you to design the ideal agreement.



An ABB service agreement can be designed specifically for your business, to help optimize the performance of your investments and maximize your competitiveness. The service modules can be freely combined to include the options that best suit your needs.

With an ABB service agreement, we bundle individual services into one contract. The service contract can cover a single service, support for the life cycle of a product or you can hand over the entire maintenance responsibilities to our experts.

We will analyze your service requirements – carefully reviewing the condition of your assets and their criticality in your facility – and recommend the most appropriate service agreement.

### Key benefits

- Customized agreement for an exact match with your needs and maintenance strategy
- Efficient and cost effective
- Single agreement for easy management

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We help you stay cost-effective and give you peace of mind by avoiding unexpected repair costs.

## Installation and commissioning

### Getting it right from the start

Installation and commissioning are the first steps to ensure that your motors and generators deliver their best possible performance.



With ABB installation and commissioning services, you are making an investment in the long-term trouble-free operation of your equipment.

ABB's installation and commissioning services are carried out by certified engineers. Their know-how and experience, backed by the expertise of our design team, makes installation and commissioning fast and smooth, laying the foundations for high reliability and efficiency.

### Key benefits

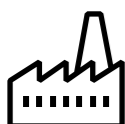
- Optimized cost of ownership
- Increased reliability, efficiency and safety
- Experienced and qualified personnel
- Serviced in accordance with local and international standards





## Preventive maintenance

Unplanned outages always seem to occur at the worst possible time. Our preventive maintenance program cuts the risk of unscheduled downtime.



ABB's preventive maintenance programs define maintenance work and the required spare parts for different stages. The programs ensure the best possible availability and performance of the equipment.

Preventive maintenance keeps costs down and lifetime performance optimal. It is an investment in the avoidance of failures – the program can eliminate disruptions to your production and help you secure your long-term competitiveness.

### ABB Air Gap Inspector

ABB offers in-situ visual inspections of the stator and rotor of large synchronous motors and generators without the need to remove the rotor.

The slim robotic crawler is equipped with five cameras and moves in the air gap between the rotor and stator, covering the entire length of the core. Moving across the stator core laminations using magnetic tracks, it provides a 360-degree high definition video that is displayed live and recorded for possible later use, offering valuable insight into the condition of the stator and rotor. It can be used in all motors and generators with air gaps of 10 mm and upwards.

Preventive maintenance allows you to plan maintenance around production and plant schedules, thus minimizing unplanned downtime.

### Maintenance kits

ABB maintenance kits help to cut maintenance times. The kits contain the components that are changed during specific maintenance procedures. They contain genuine spare parts and typically represent the most economical way of buying the required parts.

### Key benefits

- Maintenance is planned around production and plant schedules
- Minimized unplanned downtime
- Reduced or eliminated loss of production
- Lower overall cost of maintenance
- Warranty protection





# Predictive maintenance and condition monitoring

## ABB Ability™ digital services

ABB Ability™ services for motors, generators and mechanical power transmission products offer a unique digital advantage by combining connectivity and data analytics with industrial expertise. The data collected from your equipment can be analyzed, providing deeper insight into the health of your assets for effective life-cycle management and maintenance planning.

ABB Ability™ digital services for motors, generators and mechanical power transmission products:



### ABB Ability™ Condition Monitoring for motors, pumps and mechanical power transmission products

Our remote condition monitoring solutions convert traditional motors, mounted bearings, gearing and pumps into smart, wirelessly connected devices.



They measure vital parameters from the surface of the equipment, which can be used to gain meaningful information on its condition and performance. Users can identify inefficiencies within their system and reduce risks related to operation and maintenance.



Maintenance can be planned according to actual needs rather than generic schedules. This extends the lifetime of equipment, cuts maintenance costs and reduces or prevents unplanned downtime.



### ABB Ability™ Condition Monitoring for shaftlines

This on-site condition monitoring service addresses the reliability of the complete shaftline, including motor, gearbox and driven load. It identifies electrical and mechanical issues related to the rotor, bearings, gearbox and other components.

### ABB Ability™ Condition Assessment

Efficient service to analyze the condition of the stator winding insulation in motors and generators up to 5 kV. Potential problems can be detected at an early stage, ensuring high uptime.

### ABB Ability™ LEAP - Life Expectancy Analysis

The Life Expectancy Analysis Program (LEAP) is an advanced solution for analyzing the condition and expected lifetime of the stator winding insulation – the most uptime critical component in high voltage motors and generators.

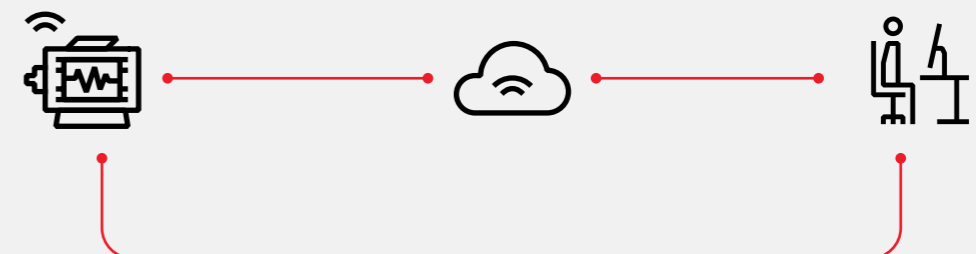
### ABB Ability™ Predictive Maintenance

This service optimizes the maintenance of selected high voltage motors and generators by taking a condition-based approach. It combines customer input with advanced analytical techniques to create the optimal condition monitoring and maintenance program. It combines ABB's condition monitoring, in-situ visual inspection and life expectancy analysis program to create a detailed long-term maintenance plan.

### ABB Ability™ Life Cycle Assessment

The assessment provides a comprehensive overview of the life cycle and operating conditions of all the motors and generators throughout a facility. Maintenance for an entire motor and generator fleet can be planned, optimizing the service schedule and budget, and increasing production uptime.

Our digital services enable you to utilize your equipment's data to optimize performance and predict maintenance needs.





## Technical support and repairs

With one of the market's most extensive service networks globally, and certified service engineers standing by to carry out repairs on-site or in authorized workshops, ABB offers different repair options to match your needs.



### On-site repairs for the fastest turnaround

Downtime can be expensive. We have trained service engineers ready to help when failures occur. Our global scale means that we can get a team to your site quickly to analyze the problem's root cause, determine the corrective actions and carry out repair work. On-site repairs avoid the need to ship the damaged equipment to a workshop, eliminating transportation risks and saving time. Select the guaranteed on-site response time that suits your needs, and you know that if something goes wrong our team will be there to help. Disruptions to production are minimized.

### Workshops equipped for complex repairs, rebuilds and overhauls

Our workshops are staffed with professional service engineers, supported by the design experts in our manufacturing units and by our global service network.

### Remote troubleshooting and technical telephone support services

Peace of mind is knowing that expert help is only a phone call away. These services put you in direct contact with a team of engineers who are experienced in both your equipment and applications. An ABB expert can access ABB Ability™ Condition Monitoring solutions to remotely analyze the current situation and determine what action should be taken. Technical support specialists can help your own personnel to solve problems quickly and effectively using their extensive experience.

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We bring your equipment back on-line fast.

### Key benefits

- Personnel qualified to repair products from ABB and other vendors
- Global network of local service centers
- Problems are quickly identified, analyzed and rectified
- Direct service actions are carried out to prevent failure and minimize knock-on effects





## Extensions, upgrades and retrofits

Do you want the latest technology?  
But you don't want to change your equipment?  
No problem!



Our commitment to delivering the latest technology extends from new motors and generators to upgrades of older product lines.

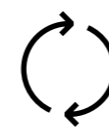
In many cases plant operators can upgrade their existing ABB equipment by retrofitting it with new technology. Contact us for advice on how to upgrade your ABB equipment.

### Key benefits

- Increased production capacity
- Lower energy and maintenance costs
- Enhanced availability
- Improved reliability

## Replacements

When a motor or generator needs replacing, do it the easy way – contact your local ABB representative.



Replacing existing equipment with a new ABB product is a sound investment: the new unit's superior efficiency and performance can ensure a short payback time. Whether you select a new product from our wide range of standard items or choose a tailor-made unit, we can optimize it to replace your existing equipment. In most cases, we can adapt the mechanical and electrical designs to make the replacement fully interchangeable with the original. We also 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.

We are here to help you evaluate the potential to increase production, reliability and availability as well as decrease energy and maintenance costs with a replacement product from ABB.

### Key benefits

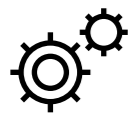
- Expert support in selecting replacement units
- Choose between standard products and tailor-made units
- Replacement programs for third-party products
- Option to select based on energy calculations
- Access to latest technology
- Reduced life-cycle costs
- Increased reliability, availability and safety





# Spares and consumables

Easy access to spare parts helps you to maintain equipment availability. ABB's logistics network makes sure you get the right part in the right place at the right time.



As the original equipment manufacturer, ABB is well positioned to supply genuine spare parts, spare part packages and maintenance kits for all ABB motors and generators.

Where technology has advanced, we may be able to supply 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 from a single source
- Access to original parts
- Expert support in identifying parts based on equipment condition and criticality
- Increased availability and minimized downtime
- Online access to detailed parts information: <https://myportal.abb.com/>

**ABB spare part packages**

Operational	For commissioning and initial years of operation
Recommended	Extended version of operational package to cover anticipated spare parts needs over the life of the equipment
Capital	For critical applications where downtime must be minimized



# Training

Our training courses are designed to give your people the specialized skills they need. We provide training to service engineers and maintenance technicians, either in-class or at your site.



Course topics cover product knowledge, operation and maintenance. Our courses ensure your employees are competent in maintenance and first-line troubleshooting, are able to interpret alarms and undertake appropriate actions to avoid failures.

**Key benefits**

- Practical approach for effective training
- Develop employee motivation and confidence
- Can be tailored to suit customer needs
- Reduced risk of downtime

We also offer eLearning courses, which are a cost-effective way for your employees to maintain their certification level and keep up-to-date with the latest information and knowledge from ABB.





## You choose, we respond. Globally.

When you make the decision to choose our expert service solutions, we are with you every step of the way. To guide and facilitate whatever service choices suit your business, for the entire lifetime of your motors and generators.

For decades we have built one of the most comprehensive global service networks. It ensures you have all the experts close at hand, locally and globally. Local ABB service units are complemented by external ABB third party channel companies in over 65 countries.

Regional service centers, training centers and authorized motors and generators service workshops form a well-structured and large service organization, making sure that our motors and generators service team is never too far from your site.







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For more information, please contact  
your local ABB representative or visit

**[new.abb.com/motors-generators/service](https://new.abb.com/motors-generators/service)**