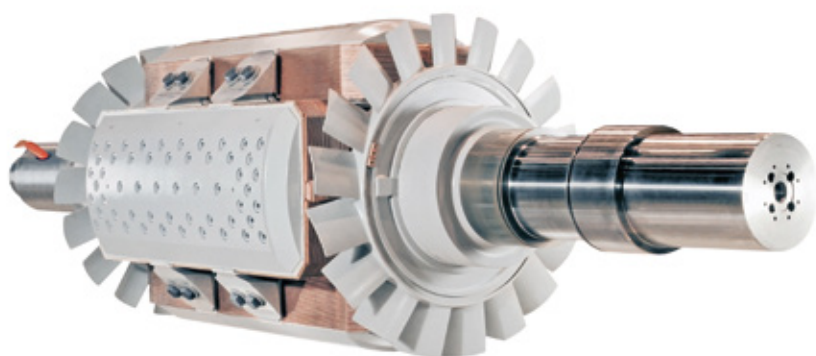


SERVICE NOTE

Rotor upgrades for GBA motors and generators

Higher power output and longer lifetime



Upgrading a motor's or generator's rotor during a L4-maintenance program is a time and cost efficient opportunity to improve an installation. The latest rotor technology features improved thermal and mechanical strength for higher reliability. Depending on the installation, it can extend rotor design life by some 15 percent and increase power output in excess of 5 percent.

Breathing new life into a motor or generator

The modular design of ABB's motors and generators means only parts of a system needs to be upgraded. Using the latest rotor technology, for instance, increases the reliability and efficiency of the machine through improved mechanical stability, dielectric strength and thermal design.

Smart maintenance

Installing a rotor upgrade during a L4-maintenance ensures that the required downtime is used efficiently while minimizing the additional time needed for the upgrades.

Same machine – but better

The operating conditions of a motor or generator are improved through updated designs for the rotor's coils and upper and lower supports and an upgrade from class F to H of the rotor coil insulation. Improved mechanical and thermal stability enable an average increased power output of more than 5 percent.

Key benefits

- **Increased reliability and lifetime** through higher thermal resistance and improved mechanical design
- **Higher power output** due to improved design
- **Reduced cost of ownership** through extended lifetime and a higher return on investment
- **Optimized use of maintenance time** by upgrading the installation during the planned maintenance slot

Rotor upgrade process for GBA motors and generators



Mapping of the installed base

Review your installed base with your local ABB representative and decide which motors and generators to analyze.



Planning maintenance activities

Plan the maintenance and upgrade of your motor or generator together with ABB: required tools and parts, workers needed and projected downtime.



Supply of tools, parts and supervision

ABB supplies the upgrade kit and required tools and organizes supervisory personnel.



Maintenance and upgrade work

The rotor is removed from the machine and transported to the local ABB workshop. The complete machine is inspected and undergoes maintenance according to ABB's L4-maintenance program. The rotor is machined to fit the upgrade parts according to ABB's design specifications, so that the specified upgrades can be properly installed.



Restarting operations

After reinstalling the rotor in your motor or generator, a local ABB technician carries out recommissioning.



Improved spare parts and service availability

GBA motors and generators are part of an older generation of ABB synchronous machines. They are no longer in the active phase and spares for the machines are limited. By upgrading the rotor, the machine receives parts that are in use in ABB's latest generation of synchronous machines, bringing service up to the same standard for a rotor that is applied to the latest machines.

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

new.abb.com/motors-generators/service

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