# Service note Spare parts for motors and generators

ABB's spare part services are based on more than 100 years of experience in manufacturing motors and generators. Spare parts play a key role in maintaining availability and minimizing downtime.



## The need for spare parts

Availability is a matter of top priority, and a lot of effort goes into maximizing uptime. Nevertheless, it is inevitable that at some stage a part will fail and a stoppage will occur.

To recover from a stoppage as soon as possible, the right spare part should be available on site. If the necessary spare part is not available it will have to be ordered, which can lead to extended downtime.

The delivery time for some spare parts may be several weeks or even months. Spare parts represent a small investment that can have a significant effect on availability.

#### Benefits of stocking spare parts on site

Keeping essential spare parts on site is a good investment with a number of benefits:

- Improved availability of the motor or generator
- Effective preparation for unexpected situations
- Minimized downtime in case of failure
- Minimized production loss in case of failure

#### Benefits of sourcing spare parts from the OEM

Only the OEM can guarantee that parts are based on the original documentation and are 100% correct.

Constant design improvements mean that the original manufacturer can supply spare parts that are superior to the existing components in terms of design and functionality.

## Spare part categories

Spare parts can be divided into three different categories:

#### **Operational spare parts**

- Spare parts covering basic needs during commissioning and the first few years of operation
- Consumables and wear and tear parts

#### Recommended spare parts

- Cover spare part needs throughout the life of the motor or generator to ensure high availability
- An extension of the operational spare part category
- The additional items are parts with a long delivery time and significant operational impact
- The recommended spare part package is always tailored to application specific requirements
- Recommended spare parts are chosen to optimize the availability of the motor or generator

#### Capital spares

- Large components with a long delivery time
- Significant impact on downtime
- For maximized availability and reduced downtime in critical applications

ABB's consulting services can also provide support for plant owners seeking to optimize their on-site spare part stock.



#### Spare parts for all ABB motors and generators

Although ABB's motors and generators range from small standard products to large tailor made units, we are able to offer spare parts and support for all motors and generators throughout the product life cycle.

Spare part policies differ between the different types of motor and generator.

For small standard type motors we carry an extensive spare part stock, but for large tailor made motors and generators spare parts may be subject to a long delivery time. It is therefore essential to have spare parts ready on site to maintain high availability.

# Spare part packages

- Spare parts are available either as separate components or in packages
- Package contents are tailored to the motor or generator design
- Packages are planned based on the manufacturer's experience
- Logistic costs are minimized
- Parts can be packed for long-term storage

#### **Business risk analysis**

The key element in managing risks and minimizing production disturbances is to take a proactive approach and fully prepare for failures.

A thorough risk analysis should be undertaken to gain a clear overview of the situation and determine which preparatory actions need to be taken. ABB offers consulting services which help plant owners to optimize their spare part management. The following factors should be considered:

- Are we prepared for a failure?
- How long could the downtime last?
- What would be the total downtime cost?
- Will there be delivery problems?
- Do we have or can we easily obtain spare parts when needed?
- Could we use the same capital spares for several motors or generators?
- Will our insurance costs be lower if we keep spares on site?





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