

SERVICE NOTE

Exciter rotor upgrade

AMS 1000 - 1250 and GBA 800 - 1250



New replacement exciter rotors are introduced to boost the reliability and availability of ABB synchronous motors and generators, often used in critical production lines and power plants.

Reinforcing performance, reliability and uptime

The GLE exciter rotor replaces the GLA version for motors used in constant speed applications.

The MLE exciter rotor replaces the MLA version for motors used in variable speed applications.

Both exciter rotors improve machine performance, provide superior reliability and offer users maximum uptime.

As such, users should consider replacing the older exciter rotors if failure is predicted or if high availability is a high priority.

Ensuring machine availability

Factors like operating and ambient conditions, repeated starts and neglected maintenance can stress the machine and its components. This can lead to failure that may require major overhaul, repair or replacement of parts. Downtime can subsequently lead to considerable lost production costs, waste and damages. Component reliability is of extreme importance.

Exciter rotor product life cycle

The GLE and MLE exciter rotors have evolved from multiple installations over the past 10 years and today they are fitted as standard to new AMS 1000-1250 motors and generators.

The table shows where the GLE and MLE exciter rotors can be applied:

Exciter rotor series / Motor/generator type	GLA	GLE	MLA	MLE
GBA 800	0	Х	0	Х
GBA / AMS 1000	0	Х	0	Х
GBA / AMS 1120	0	Х	0	Х
GBA / AMS 1250	0	Х	0	Х

O = Obsolete, no longer manufactured

X = Active. available

Benefits

- Superior reliability through improved winding design
- Improved mechanical design based on FMEA analysis
- Improved cooling design
- **Simplified replacement** of rotating rectifier components for **reduced downtime** in case of failure

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The adaptation kit for replacement of GLA/MLA exciters includes a new hub and a 45 mm spacer ring for mounting the GLE or MLE exciter, see circled areas in illustration. The extent of adaptation depends on machine-specific design and accessories.

Replacement adaptation kit

Replacing GLA and MLA exciter rotors with the GLE or MLE design requires minor mechanical adjustments for the new components to be used in the existing housing.

An adaptation kit is supplied which is tailored to match the existing machine design and is included in ABB's scope.

