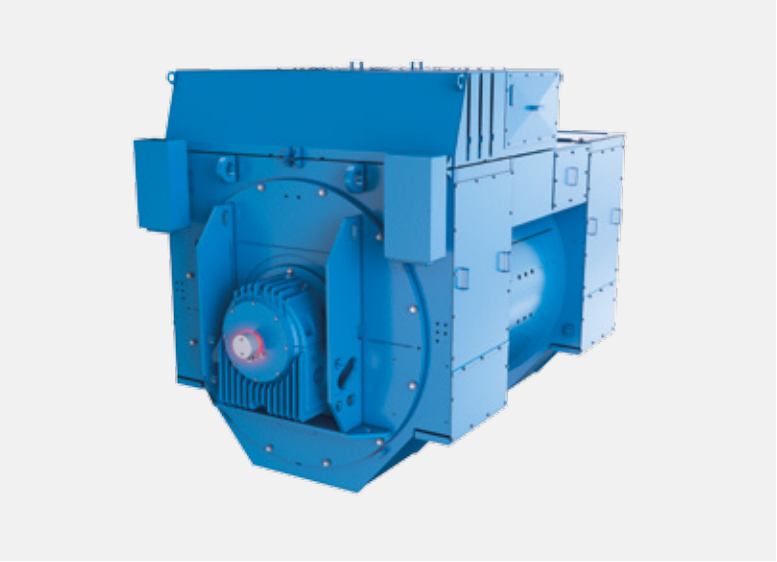
SERVICE NOTE

High voltage generators for diesel and gas engines, frame sizes 0710, 0900, 1120, 1250, 1600

Retrofit kit: Earth fault detection



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01 High voltage generator for diesel and gas engines with earth fault detection
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02 Earth fault detection assembly

Rotor earth fault detection
A generator's rotor is normally unearthed, i.e. it is isolated from the earth. Therefore, a single fault due to insulation breakdown will not trigger a fault current and does not affect the rotor. However, should a second fault occur, the generator's field winding is likely to be damaged. For large generators the field winding is protected through the rotor earth fault detection system.

Remote condition monitoring of rotor field winding
During L2 – L4 maintenance, a rotor earth fault detection assembly can be fitted to the generator's non-drive end. The upgrade enables remote condition monitoring of the rotor field winding. An alarm is triggered when a rotor earth fault occurs. With this early warning against potential damage, any problem can be rapidly resolved, increasing the generator's availability.

Modularity allows easy upgrade
The modularity of ABB motors and generators enables parts of the system to be upgraded with the latest technology, therefore improving overall equipment effectiveness (OEE) and reliability through-out operation life. Upgrades are available for AMG generators up to 1600 shaft height.

Benefits

- **Increased reliability and extended lifetime**
  If a short-circuit occurs, automatic fault detection minimizes the risk of generator damage, thus reducing possible maintenance costs and downtime.
- **Improved rotor condition monitoring**
  Rotor field winding condition can be monitored and using early warning of rotor earth fault, major damage can be avoided.

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For more information please visit:

new.abb.com/motors-generators/service

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