

Rotating Machines Condition Assessment Services



Our Rotating Machines Condition Assessment services provide a comprehensive range of insulation diagnostic tests that are critical in identifying machines at risk of catastrophic in-service failure

www.eatechnology.com

Our Rotating Machines Condition Assessment services consist of insulation diagnostic tests to assess the condition of motors and generators using state of the art equipment

What our **Rotating Machines Condition Assessment** services offers you:

EA Technology's Rotating Machines Condition Assessment can provide a comprehensive range of insulation diagnostic tests to assess the condition of motors and generators.

Rotating electrical machines (motors and generators) are often regarded as the most critical components in power generation and industrial production facilities where unplanned downtimes due to in-service faults can be very expensive. EA Technology's full suite of state-of-the-art test equipment can provide a comprehensive range of insulation diagnostic tests to assess the condition of motors and generators. Results can be used to identify machines at risk of catastrophic in-service failure, to improve performance and to extend reliable service life.

The equipment is very portable and can be easily transported to most remote locations requiring only 110-230V 50/60Hz mains supply.

Benefits of **Rotating Machines Condition Assessment** services:

- A full suite of state-of-the-art off-line tests on stator and rotor winding insulation
- Helps to avoid expensive in-service failures and downtime
- Provides essential data for cost effective asset management
- Rotating machines condition assessment service is carried out by highly trained personnel who are expert at assessing the condition of stator insulation
- All stator insulation diagnostics tests are carried out at 50/60Hz power frequency and in accordance to industry recognized standards
- Highly portable equipment requiring only 110-230V 50/60Hz mains supply

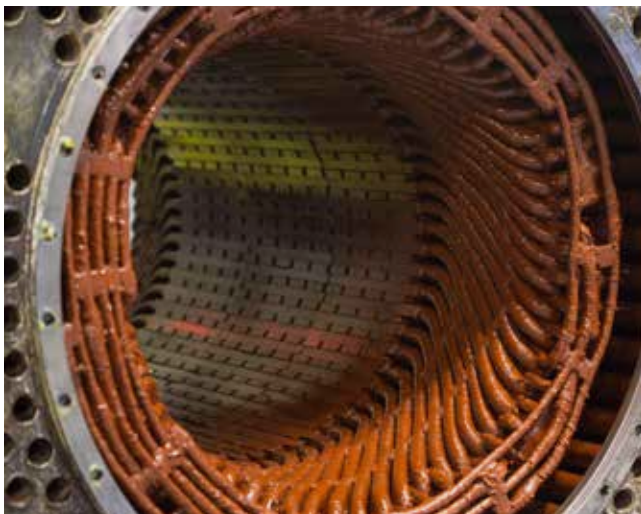


As well as being an essential part of condition-based asset management, Rotating Machine Condition Testing should also be undertaken when a new motor or generator is commissioned as a fingerprint data collection for later comparison, following repairs and to diagnose faults.

Regular Rotating Machine Testing, to identify faults early, will minimise expensive replacement costs as well as help to extend reliable service life of the rotating machine

Rotating Machines Condition Assessment Testing

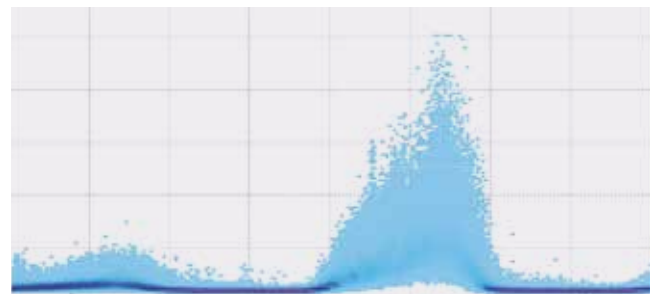
EA Technology knows that 85% of power failures can be attributed to PD in electrical assets. Our unique service gives companies and networks the peace of mind to trust their assets are being thoroughly monitored around the clock.



Partial Discharge Testing for the assessment of stator insulation condition

Recommended Tests

- **Partial Discharge (PD) Testing:** PD measurement is widely regarded as one of the best methods for the assessment of the stator insulation condition. The PD allows for single weak spots in the insulation system to be clearly identified.
- **Capacitance and Tan Delta (Tan δ /DF/PF) Testing:** To assess the condition of the bulk of the insulation and degradation over time
- **Sweep Frequency Response Analysis:** Allows to detect inter turn faults in the stator and rotor windings caused by mechanical stress
- **Voltage Withstand Testing:** A simple 'Go/No Go' test to identify weak insulation unsuitable for service
- **DC Winding Resistance:** Performed to detect any possible problems with contacts soldering and loose connections in the stator and rotor windings
- **Insulation Resistance (IR) and Polarisation Index (PI):** To assess the condition of the stator and rotor insulation for contamination and moisture ingress using DC voltage
- **Pole Drop Testing:** To detect inter turn defects like short circuits in the rotor windings which could cause magnetic imbalance contributing to higher shaft vibrations and resulting stresses to the bearings
- **Dielectric Response (FDS + PDC) Measurement:** A very sensitive measurement to reliably establish moisture levels in solid stator insulation and detect levels of contamination



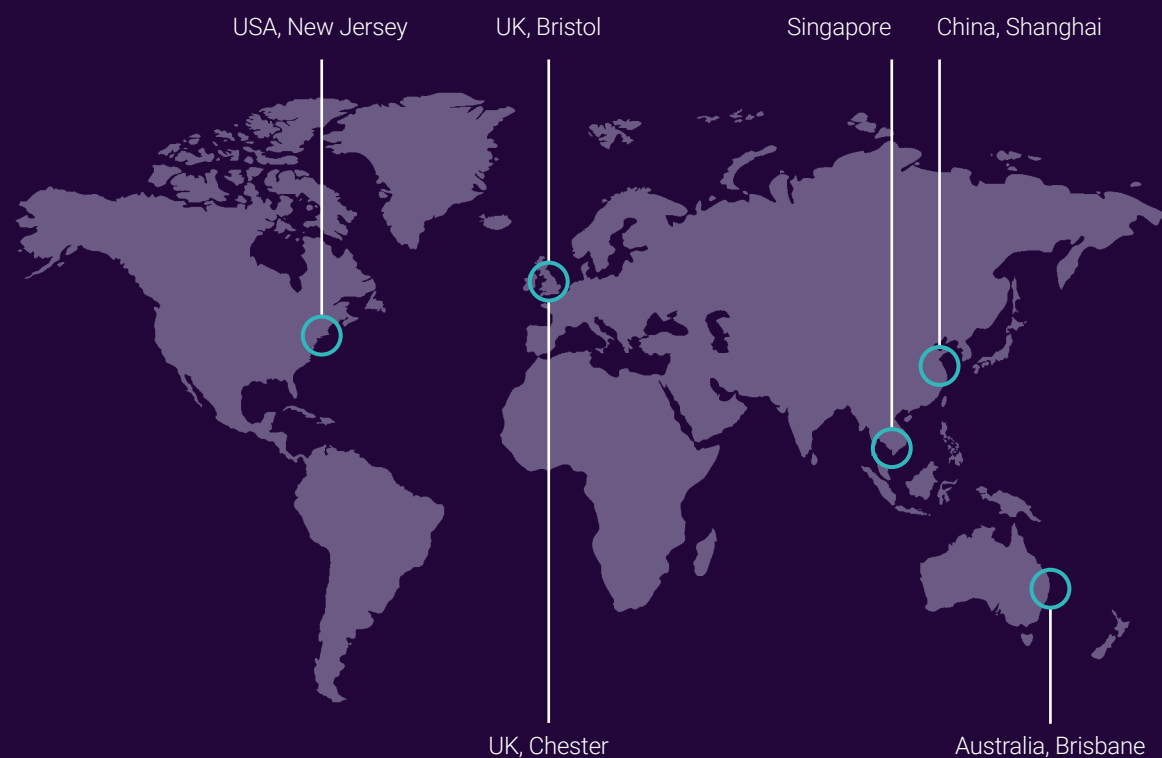
Partial Discharge Testing for the assessment of stator insulation condition

For more information please call us on +44 (0) 151 347 2376 or email us at sales@eatechnology.com



Global Footprint

At EA Technology we specialise in asset management solutions for owners and operators of power network assets.



Founded in 1966 we have over 50 years' experience in the industry and 6 regional offices around the world to support our global customer base.

We work with a lot of our clients on a long-term basis to help them safeguard their power networks.

We advise our clients on strategy and implementation of a range of technology solutions to manage power assets, delivering maximum life and minimise cost.



Safer, Stronger, Smarter Networks

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