

# Test Capabilities

Bespoke testing of all types of rotating machines to both national and international recognised standards

The newly developed Quartzelec test facility, installed following a significant financial investment, has been specifically designed to achieve the greatest possibility capability for testing AC and DC machines.

Quartzelec has both the engineering expertise and dedicated workshop facilities to ensure the testing requirements of your motors and generators as well as associated plant are delivered and performance maximised. With an overhead crane capacity enabling machines of up to 50 tonnes (100 tonnes combined) to be tested and a new viewing platform ensures that clients can witness first hand their machines on test from the comfort and safety of a dedicated control room complete with all the latest data acquisition computer driven protocols.

## Key Capabilities

- Extensive range of capabilities for testing a wide variety of machines
- Sound proofed control room with a state of the art control system
- Extensive machine room fed from a 500Vdc 12-pulse rectifier on an 11kV grid supply
- Continuous Data Logging – Max 300 points, 32 readings / sec

24 Hr Support  
+44 (0) 8705 002 003

Tel: +44 (0) 1788 512512  
Fax: +44 (0) 1788 537475  
info.uk@quartzelec.com  
www.quartzelec.com

## Equipment Capability

### Induction Motors

- No load test on all machines up to 13.2kV
- Full load motor testing up to 1100kW, up to 6.6kV max and 40-72 Hz
- Simulated testing for machines up to 7MW

### Synchronous Motors & Generators

- No load, open and short circuit load tests up to 2.5 MVA and 13.2kV, 50-60 Hz

### DC Machines

- All ratings up to 2000kW load and 750V for pairs of machines at any speed operating back-to-back
- Limited to 1100kW, 750V up to 3600rpm for a single motor

## Test Types

### Gearbox Testing

- Varying torques and speeds available for testing gearboxes and associated equipment
- Light run and load tests up to 1100kW

### Transformer Testing

- Transformer testing, short circuit impedance and losses, no load losses and voltage ratios

### Static Testing

- Stator winding - HV 'flash' tests up to 100kV, stator coil impulse up to 60kV, Partial Discharge, Tan Delta and Wet Testing to API standards
- Core Assessment - ring flux test (500A, 370V) and digital EL-CID evolution
- Rotor/Armature Windings - salient pole volt drop testing, high frequency interturn testing, wound rotor high current thermal test and commutator profile monitoring and drop testing

### Panel Testing

- High current testing
- Large test area allowing testing and commissioning of LV panels with 50 & 60 Hz supplies available

### PD, Noise and Vibration Testing

### Instrumentation

- Calibrations traceable to National Standards
- Instrument transformers to class AL accuracy



Quartzelec has the engineering expertise to ensure that the testing requirements of your rotating and associated plant are delivered. Contact us to discuss your next project or to find out more about our range of services.

