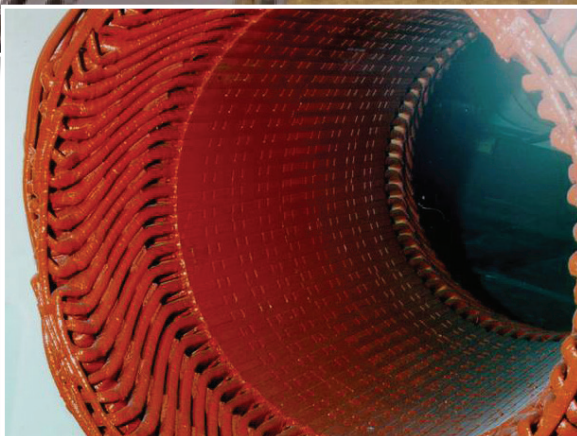
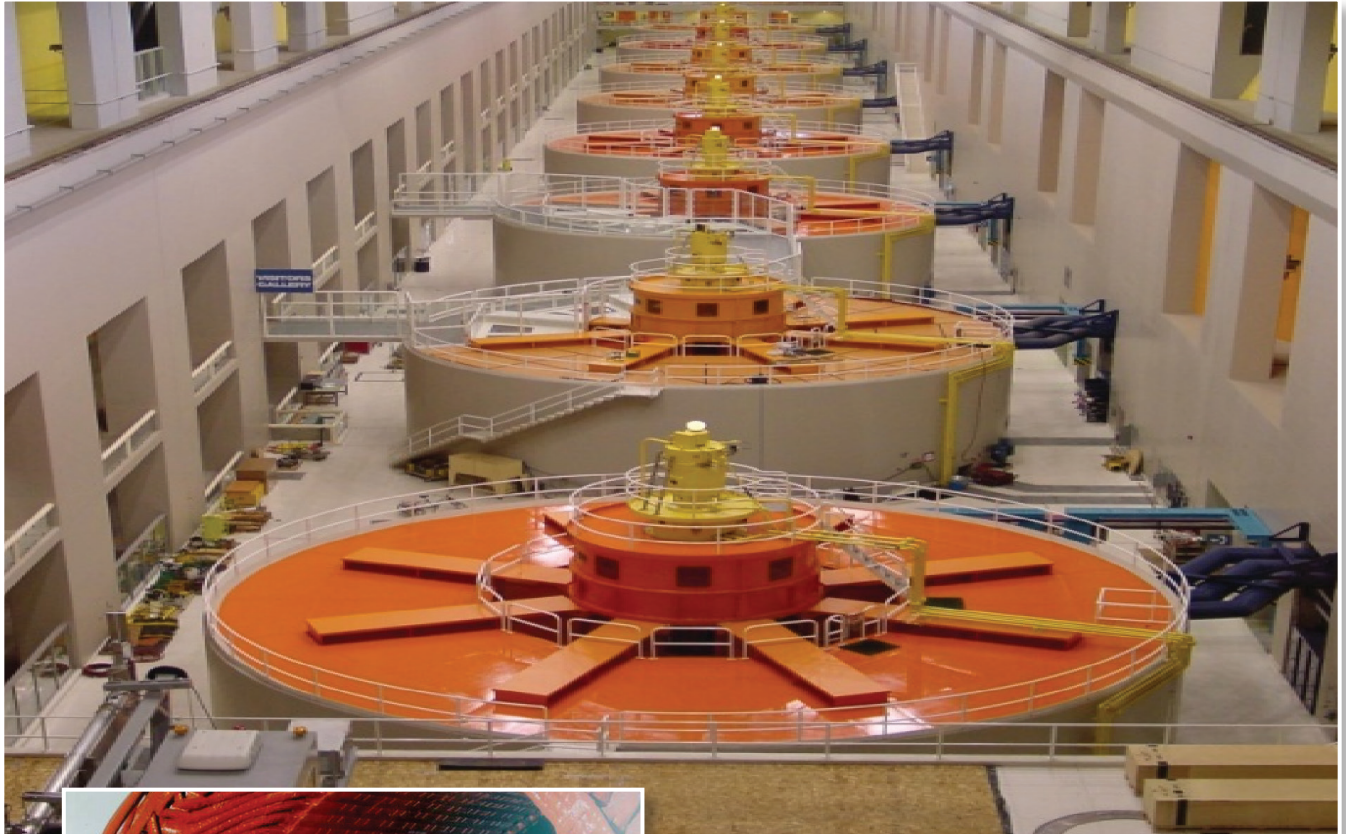


IRIS POWER EL CID EVOLUTION™

The next generation in EL CID technology for detecting stator core problems



IRIS POWER OFF-LINE PRODUCTS

IRIS POWER EL CID EVOLUTION

EL CID TESTING VS. RING FLUX TESTING

The only alternative to the Iris Power EL CID Evolution test is the Ring Flux (full flux) test. The Ring Flux test requires large power supplies, considerable manpower, and expensive infrared viewing cameras. The EL CID test has the following advantages compared to the Ring Flux test:

- EL CID test provides rapid testing of the machine, often less than one work shift for turbogenerators and motors. The Ring Flux test typically takes 3 work shifts.
- Only one technician is needed to perform the test.
- Typical labor is reduced from 144 to 360 man-hours for a major turbogenerator Ring Flux test* to just 8 to 10 manhours for EL CID test.
- Rapid setup to retest after any repair ensures quick turnaround.
- Minimize intrusive repairs by instantly verifying the results.
- Safe for core and operator, unlike Ring Flux test which is potentially damaging to the uncooled core.

**Source—Westinghouse*



Testing a motor

NEW AND IMPROVED FEATURES WITH THE IRIS POWER EL CID EVOLUTION

- Faster test scanning (up to 120 mm/sec at 60 Hz)
- Easier excitation calculations
- Simpler testing with dual Chattocks (detection coils)
- User-friendly LCD display to guide user operation
- Can combine step-iron data with main core traces
- Easily identifies "hot spots" via color map display
- Fully compatible with data from earlier versions

ADVANTAGES

- Tests are repeatable
- Immediate test results are available for local analysis and email
- Determines if defects are on the surface, sub-surface, or under conductors
- Tests with or without windings
- More sensitive in detecting buried faults
- Partial retests of core are possible with ability to merge results to obtain a complete picture of the core condition
- Trending of previous results
- Excellent quality assurance test

KIT CONTENTS

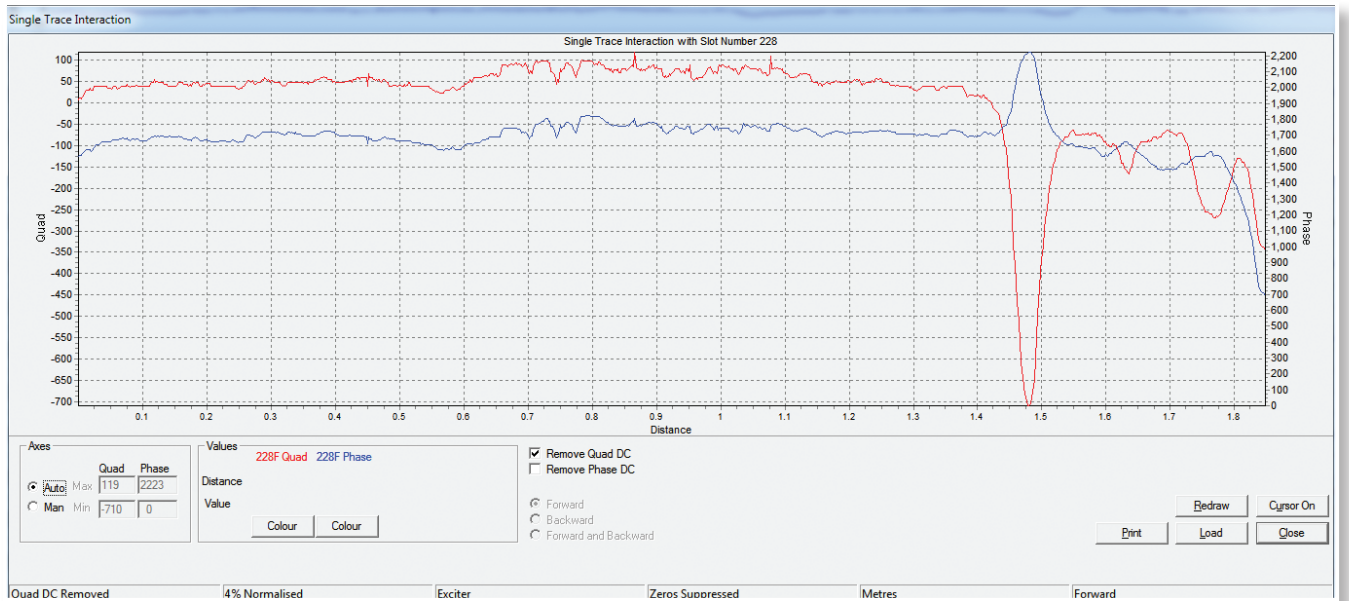
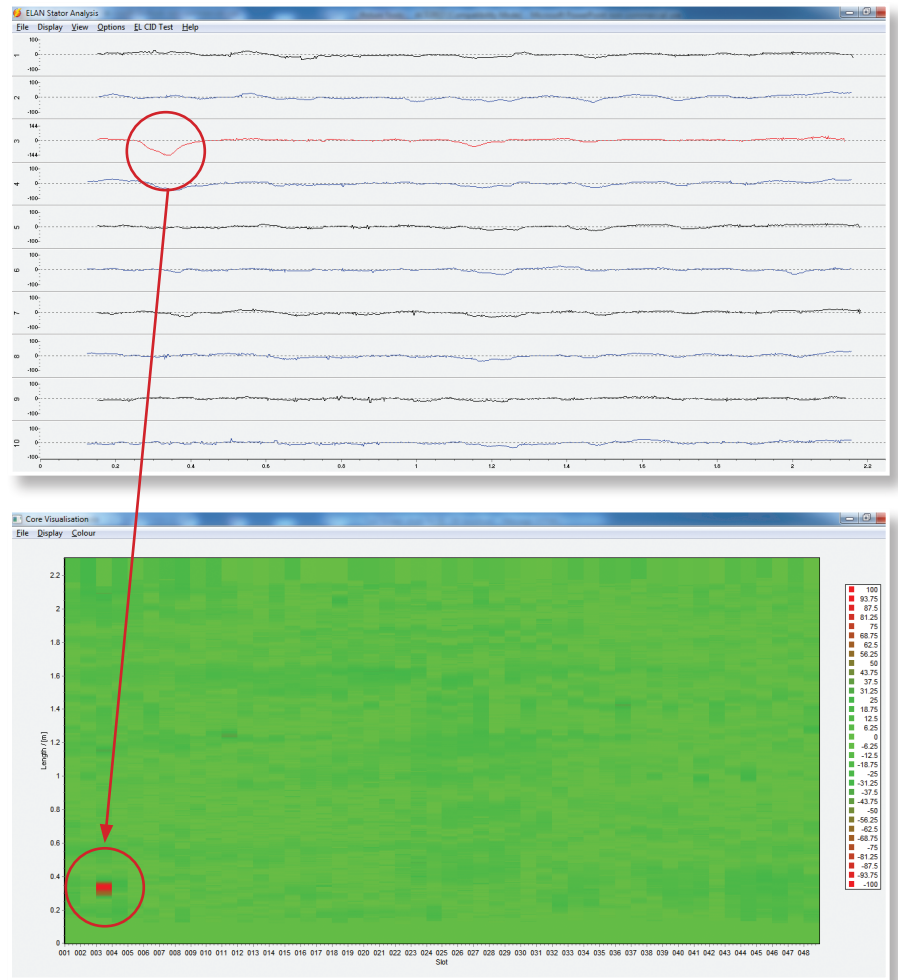
- Iris Power EL CID Evolution
- Chattock Sensors (10, 20, 25 and 30 cm)
- Reference Sensor
- Magnetic Manual Trolley
- Step Iron Trolley
- Calibration Unit
- Switched Turbo Excitation System
- Volt Meter and Clamp-on Ammeter
- ELAN CD with Software Licence
- Handbook
- Kit is delivered in two Wheeled Transit Cases

IRIS POWER EL CID EVOLUTION

Electromagnetic Core Imperfection Detection (EL CID) testing is accepted world-wide for reliable and safe detection of stator core inter-laminar insulation faults.

Originally developed by the CEGB utility in England, the Iris Power EL CID Evolution is the third generation of this reliable, easy-to-use, stator core test. Iris Power's EL CID Evolution tests the condition of a stator core in less time and with lower costs than earlier EL CID models.

The Iris Power EL CID Evolution test can be equally applied to turbine generators, hydrogenerators, and large motors.



IRIS POWER EL CID EVOLUTION

WHY CORE TEST?

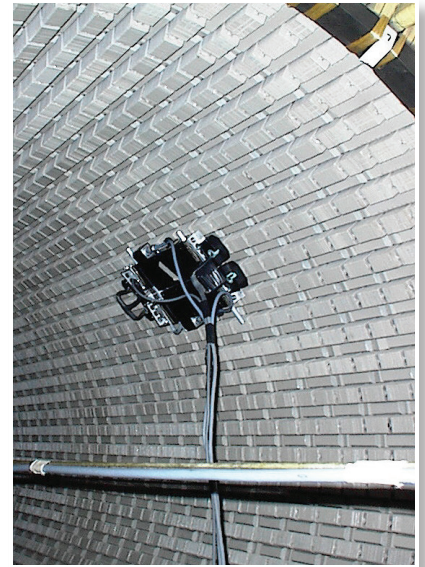
Stator cores are made of thin laminations of magnetic steel separated by insulation to prevent axial currents. If lamination shorts occur, the high temperatures that result can burn stator coil insulation and even lead to melting of stator cores.

IRIS POWER EL CID EVOLUTION TEST

Iris Power EL CID Evolution tester operates at only 4% of normal operating flux, generated by its quickly installed excitation kit. Any imperfections in the core inter-laminar insulation produce fault currents which are detected by a Chattock coil and analyzed by the Iris Power EL CID Evolution signal processing unit. Measurement results are digitally store in the PC for analysis and report generation, and faults can be precisely located in the core. Future results can be compared to past results for trend analysis.

The traditional stator core test method, known as Ring Flux test, uses near full rated operating flux, which is potentially damaging to the uncooled machine and dangerous to operators, requiring large power cables, high voltages and currents, and often auxiliary generators.

So why not reduce your test outage time and avoid the hazards of the stator core Ring Flux test with the Iris Power EL CID Evolution test?



Robotic EL CID test in progress on a turbogenerator (RIV feature is optional)

RELATED PRODUCTS



Stator Wedge Analyzer



Robotic Inspection Vehicle (RIV) with camera—offline inspection and testing of the stator core with rotor in place

Iris Power EL CID Evolution is a trademark of Qualitrol-Iris Power.

QUALITROL-IRIS POWER HAS BEEN THE WORLD LEADER IN MOTOR AND GENERATOR WINDING DIAGNOSTICS SINCE 1990, PROVIDING A FULL LINE OF ON-LINE AND OFF-LINE TOOLS, AS WELL AS COMMISSIONING AND CONSULTING SERVICES.



A **QUALITROL** Company

www.irispower.com

www.qualitrolcorp.com

Iris Power LP
3110 American Drive
Mississauga, ON, Canada L4V 1T2
Phone: +1-905-677-4824
Fax: +1-905-677-8498
Sales.iris@qualitrolcorp.com

Qualitrol Company LLC
1385 Fairport Road
Fairport, NY, USA 14450
Phone: +1-585-586-1515
Fax: +1-585-377-0220



QUALITROL
Defining Reliability

Ver 5 • 11/13