

CONNECTOR & HIGH TEMPERATURE CONDUCTOR TESTING SERVICES

FACILITIES & EXPERTISE TO ENHANCE SYSTEM RELIABILITY



Qualification for critical components

To meet ever-increasing load growth, existing and future overhead line components, including connectors and conductors, will be required to operate at higher and higher temperatures. Confidence in the reliable performance of these components is critical, because their failure can lead to a downed line. Operation at elevated temperatures also accelerates the aging process, making the issue of lifetime performance even more critical. Kinectrics provides reliable, confidential performance testing services for clients worldwide, to assess the lifetime performance of these components.



Connector testing

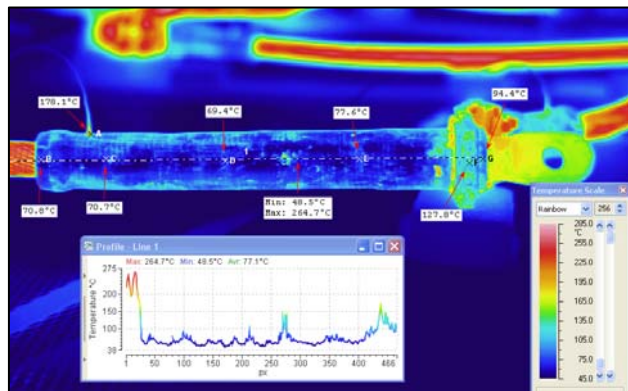
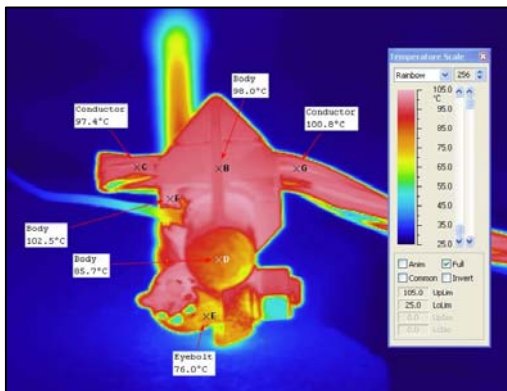
Kinectrics conducts qualification and performance tests for the thermal, mechanical, environmental and electrical performance of transmission, distribution and substation connectors according to industry standards and manufacturers' specifications. Other studies are also conducted to confirm the failure mode of overhead connectors, and to determine the most cost-effective measures to prevent future failures.

High temperature conductor testing

Kinectrics performs a wide range of tests on high temperature conductors. One example is the thermo-mechanical cycling test, which evaluates the aging performance of the conductor. Sag-tension and current temperature are examples of other tests that can be performed to provide data for computational tools.

Infrared testing capability

Kinectrics is equipped to offer in-depth analysis using infrared camera and state-of-the-art research software, which provide detailed information on temperature distribution on connector surfaces.



life cycle management solutions

Proven expertise

Kinectrics is an internationally-recognized company with a reputation for technical excellence in engineering and long-established experience in providing testing services to the electric utility industry. We are uniquely positioned to provide superior services in connector and high-temperature conductor testing, as well as related specialized support for transmission and distribution systems.

One-stop testing facility

Kinectrics offers one-stop, fully-equipped laboratories, managed by highly-qualified staff, to provide a wide range of mechanical, electrical and environmental testing services for the electric utility industry. Kinectrics has the broad-based capabilities and state-of-the-art equipment available in-house to provide fast, efficient and comprehensive testing. We handle everything from new product and aged component testing to custom projects and special studies—all from one location.

We test and analyze:

- Transmission and Distribution Connectors
- Electric Power Connections for Substations
- Ground Grid Connectors
- High Temperature Conductors
- High Temperature Connectors
- Substation Multiport Connectors
- Implosive and Exothermic Connections

We test to:

- Industry Standards
 - IEEE 837
 - IEC 61284, IEC 61238-1
 - ANSI C119
 - NEMA CC-1
 - CSA C57-98
- Manufacturers Specifications
- Custom Specifications
- Other required standards

Examples of connector tests:

- Current Cycle
- Heat Rise
- Pullout Strength
- Torque Strength
- Corrosion Tests: Salt Fog, Acid Bath
- Freeze-Thaw
- Vibration
- Conductor Damage
- Failure Analysis
- Other tests as requested

Examples of high temperature conductor tests:

- Thermo-Mechanical Endurance
- High Temperature Creep
- High Temperature Sag-Tension
- Current Temperature
- Thermal-Resistant Property
- Aeolian Vibration, Galloping
- Other tests as requested

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