

BENEFITS

Identify Potentially Damaging Electrical Degradation

Infrared (IR) testing is a practical tool for identifying conditions that could result in a fire or electrical breakdown, such as deterioration of electrical connections due to vibrations, improper torque, corrosion, and other problems.

Typically, traditional maintenance activities do not uncover these types of problems and most go undetected until there is an operating failure.

With the predictive technology used to provide infrared services, you can avoid these failures that can cause extensive damage resulting in significant business interruption and financial losses.

Benefits

- Reduced unplanned downtime through early detection of problems
- Improved safety and compliance with applicable standards
- Fewer emergency repairs and maintenance costs
- Better overall system reliability



Detect trouble spots while equipment remains energized, and take action before damage or an unplanned outage occurs

Annual IR scans are part of the National Fire Protection Association's Recommended Practice for Electrical Equipment Maintenance (NFPA 70B) and are recommended by most insurance companies. They allow you to easily detect hot spots in your critical infrastructure.

However, not all infrared scans are the same. The electrical infrastructure experts from Vertiv™ use state-of-the-art cameras to clearly understand where electrical connections and components have degraded. Information gathered helps you determine how to best address these hot spots before they result in serious problems that can lead to unplanned downtime.

Our infrared services include:

- Online, non-intrusive testing
- Expert analysis and advanced testing equipment
- Comprehensive report of findings

Online, Non-Intrusive Testing

Infrared inspections are performed while equipment is energized and operating, avoiding any disruption to business. Unlike many predictive maintenance tests, infrared inspections do not require physical contact with the equipment.

Two simple requirements are necessary for testing. Enclosures must be open, allowing equipment to be in a direct line of sight (if infrared window/port is unavailable) and equipment must carry a load current during inspection.

Expert Analysis & Advanced Testing Equipment

Two factors can significantly alter the accuracy of an infrared inspection: the testing equipment and the thermographer performing the test.

For these reasons, it is important to choose a reputable company with the necessary qualifications, equipment, and experience to perform an accurate infrared inspection. Vertiv™ has more than 40 years of testing experience. Combining the best technicians with the most up-to-date, well-maintained equipment allows us to detect even the smallest temperature differential quickly and efficiently.

Our experts routinely use infrared inspection to test the following types of equipment and components:

- Substation transformers
- Capacitors banks
- Switches
- Fuses
- Circuit breakers
- Busbars

- Cable splicing
- Motors
- Motor control centers (MCC)

Comprehensive Report of Findings

As a critical part of a complete predictive or condition-based maintenance program, infrared inspection findings are carefully documented in a comprehensive electronic and/or paper report that includes the following:

- High-resolution, color-digitized photographs and thermograms
- Recommendations for correction or repair
- Timely delivery of results prior to scheduled maintenance

Summary

Most electrical equipment generates heat during normal operation. Usually, this heat is safely dissipated on its own. However, problems can develop when excessive heat is generated due to corrosion, loose connections, or overload. IR services identify these abnormal hot spots in electrical and mechanical equipment before they cause an unplanned outage.

Ordering Information

To learn more about this service and other Vertiv solutions, please contact your local sales representative office for Vertiv's Electrical Reliability Services or visit VertivCo.com. In the United States, call 1-877-468-6384.