

Case Study

Data Center Implements Infrared Inspection of Critical Switchgear



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Overview:

One of the most common metrics for measuring efficiency in facilities that host data centers for financial, insurance and telecommunications facilities is a power usage effectiveness (PUE). Electrical distribution system losses account for 12% of the total energy consumed by the data center. In addition, unscheduled downtime in a data center is now estimated to cost over \$8,000 per minute – not to mention the reputational damage to the data center company. One method for increasing reliability is to implement Electrical Maintenance Safety Devices (EMSDs) such as infrared windows, ultrasound ports, voltage detection ports and online monitoring to allow energized electrical maintenance tasks to be completed safely and efficiently.



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IRISS' channel partner, Intercept PDM, LLC, recently completed the supply of IR windows to the main Data Center for a National discount clothing and home goods retailer. With some initial advice and assistance from Intercept PDM Owner, Jeff Kershaw, the Data Center personnel were able to select, site and install the IR windows to allow them to see the critical wire terminations in multiple sections from the rear of their 2000Amp, 480 Volt Main Switchgear. IRISS 12" Rectangular CAP-CT-12 IR windows were chosen for this application due to their large viewing area and installation flexibility.



Figure 1 Field Installation of IR windows using provided Templates and a Jigsaw

Installation of all IRISS IR windows is simple using provided cut-out templates and cutting tools. The installation was completed in less than 3 hours.



Figure 2 First Panel fitted with an IR Window



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With the IR windows now installed, the Data Center has increased their IR inspection frequency and inspections can be done without the need for any special PPE while keeping the equipment in a closed and guarded condition at all times. As part of a broader Condition Based Maintenance program, this Data Center is on track to drive their electrical reliability to industry leading levels.



Figure 3 Finished Installation of CAP-CT-12 Infrared Windows