Talk Talk Invests in Electrical Failure Prevention

By: New River, Press Company

Overview:

The telecommunications company, the TalkTalk Group, has appreciated the value of thermal imaging for many years. The technology is used to detect electrical faults that could disrupt its network operation, although historically, thermal surveys were only conducted during maintenance shutdowns.

As a result, five years ago, IRISS industrial grade VPFR (viewing pane fixed reinforced) polymer infrared windows were fitted to the intake cabinets in the majority of the company's data centres. This made it possible for much more valuable measurement data to be acquired as thermal imaging could be conducted on live systems.

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It also meant that this vital preventative maintenance work could be undertaken without compromising the safety of the electricians and thermographers. Elevated levels of PPE required for invasive surveys were no longer necessary, which in turn reduced survey time and associated costs.

The introduction of IRISS infrared windows has proved so valuable that this year a second wave of investment was authorised. Accordingly, IRISS re-surveyed all of the company's data centres and its recommendation was to fit custom, rectangular CAP-CT 24 windows in the main electrical cabinets and smaller CAP-CT 12 windows to the busbars at the base.

The IRISS CAP Series infrared windows are latest generation products that provide many technical and performance advantages. In common with all IRISS windows, the CAP Series is made from a durable and fully impact resistant, grill-reinforced polymer that provides fixed and stable infrared transmission. Importantly, the window maintains an IP65 seal on the enclosure so inspection becomes a non-invasive task, eliminating the risk of arc flash.

The special polymer that IRISS uses in its infrared windows is also clear which means it provides TalkTalk engineers with the largest viewing area available. This allows assets to be monitored completely undisturbed in the visual, ultraviolet and all infrared spectrums.

Having decided on the product that met all criteria for performance, durability and safety the next hurdle was to establish the protocol for the installation of windows. Not only did the work need to be undertaken with the system fully operational, it also had to be completed during off-peak hours, between midnight and 6:00 AM. For IRISS however, this simply meant repeating the measures it adopted for another client, Stansted Airport.

Proven Protocol

At Stansted, there were identical restrictions and a conversation between the Airport's Engineering Compliance Manager and TalkTalk's Regional Data Centre Engineer, Gary Lyons, gave the telecommunications company every confidence in IRISS's capabilities. As with Stansted, IRISS used a fire-retardant covering board rated for 1000V to fold across exposed panel when the cover was removed. This allowed IRISS engineers to install the infrared windows at speed and in safety. A vertical installation format was also agreed to minimise panel cutting time.

This formula has been successfully applied at the first of the TalkTalk data centres and will be repeated at a second site in the coming weeks. Ultimately, it is the company's intention to fit IRISS Electrical Maintenance Safety Devices (EMSDs) in all of its data centres, either by retrofitting them to existing switchgear or specifying them as part of any new build.

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"These excellent IRISS Electrical Maintenance Safety Devices will now help to prevent any future failures as regular thermographic images can be taken and recorded," confirmed TalkTalk's Gary Lyons. "Their installation was carried out in a very professional and efficient way with no disruption to the electrical infrastructure within the data centre."

Ongoing investment in preventative maintenance is considered vital as TalkTalk cements its position as one of the UK's largest broadband and voice communications companies. Indeed it is central to the company's commitment to building a Next Generation Network on which it will expand coverage and develop innovative new products and services for its customers.