

Rittal's VX25 Ri4Power Panels Deliver "Impressive" Solution for Renewable Energy Project

Rittal was approached by Powerfish, a Scottish-based panel builder and electrical engineering business, with a brief to design and deliver robust, flexible, and easy-to-install panels for a renewable energy customer.

All the consultations, as well as the design work on the panels, were done remotely, in accordance with COVID-19 restrictions.

The copper connections were created in-house from drawings produced by Rittal's online configurator, saving the client both time and money.

The project was turned around quickly while still maintaining Rittal's high standards across engineering and customer service.

Powerfish is a progressive electrical engineering and panel building company based in Perth, Scotland. Its engineering and manufacturing facility delivers a full range of engineering capabilities for the power generation and controls industry. The company's G99 control system provides clients with a remote monitoring and a web interface for control and automation systems; access is provided through proprietary Powerfish® monitoring and datalogging software.

Powerfish approached Rittal about building three new panels for three new hydro-turbine generators at a site in the Scottish Highlands. The panels needed to accommodate large 400mm incoming cables from below via a trench. They also needed sufficient space within the panels to house new voltage transformers and G99 control equipment.

Unfortunately, COVID-19 restrictions on movement meant that the panels had to be constructed without a site visit from a Rittal engineer, however, the VX25 Ri4Power was the obvious, ideal choice for this project. Its maxi PLS busbar system could easily contain the cable lugs and its design makes it extremely flexible and able to accommodate changes during the build (such as the compartments' size).

The ACB connections were created in-house by Powerfish from drawings produced via Rittal's online configurator. Connection clamps were used for a voltage reference, avoiding any drilling of the busbar; the clamp simply clips on the copper bar. Added to which, VX25 Ri4Power has a robust welded frame, well-suited to large power applications and (as indicated above) they are easy to install.

Powerfish provided a written specification from which a detailed design and panel layout was completed for two types of panel: the 2500 amp system and the 2000 amp system.

The PLC section contained the G99 controls as required from the local DNO company. The entire panel is automated and, of course, they can be monitored remotely through the Powerfish software. The ACB section and the outgoing section have a total of 24 x 400mm² cables, however, the VX25 Ri4Power MAXI PLS incoming busbar system meant all the connections were easy to manage.

David Kirkhope, Director of Powerfish, says: "The three systems were built, programmed and factory-acceptance tested incredibly quickly and well within our customer's timetable.

"Sourcing the copper connections for the busbar system in-house, from the drawings created by Rittal's online configurator, reduced costs and increased our control.

"This was the first time we've used the VX25 Ri4Power on a project of this complexity. The panels look impressive and they have met both our expectations and those of our customer."

Further information at www.rittal.co.uk and www.friedhelm-loh-group.com or on twitter @rittal_ltd.