



SWITCHGEAR CONNECTORS IN A HARSH ENVIRONMENT

SEPARABLE CONNECTORS FOR MEDIUM VOLTAGE
NETWORKS WEATHERING ANY CHALLENGES

TE Connectivity (TE) meets the unique technical and environmental challenges of one of the world's largest offshore wind farms by providing a complete switchgear connect solution.

The Challenge

A consortium of three world-leading renewable energy companies initiated the construction of one of the world's largest offshore wind farms. With an area of approximately 100 km², the wind farm would supply power for nearly half a million of homes a year and decrease significantly the CO₂ emissions in the region.

For this project, the engineers in charge of the energy supply structure requested screened separable connectors that would enable them to connect large cross-section cables in their unique and very compact switchgears. Due to the challenging environmental conditions of the offshore wind farm, they were looking for connectors that could withstand extreme temperatures in an environment characterized by its high humidity and salinity.

A customized approach was needed to address this technical challenge and ensure the reliable electrical performance of the offshore wind farm.

Region:

Europe

Industry:

Energy

Products:

Raychem screened separable connectors RSTI

Key figures:

- 1.500 screened separable connectors delivered
- 170 switchgears provided with TE's connectors
- 460.000 homes supplied with electricity by this wind farm each year

A SOLUTION CUSTOMIZED FOR EXTREME ENVIRONMENTS

The Solution

Based on more than 60 years of experience, TE's experts offered a complete package of customized switchgear connect solutions that meets the unique technical requirements of the wind farm.

- **RSTI Screened Separable Connectors and Coupling Connectors**

Raychem screened separable connectors RSTI adapted easily to the customer's cable type and size. The RSTI connector's compact design and the flexibility of its silicone components facilitated the installation of the connectors, reducing installation time and errors.

- **RSTI Screened Separable Connectors with Surge Arrestors**

In order to protect the electrical equipment from costly outages caused by overvoltage, TE's engineers provided RSTI connectors with surge arrestors. The excellent short circuit performance and margin protection of these connectors prevent the wind farm from failure.

- **RSTI Dead End Plugs**

Customized dead end plugs were specially developed for the unique and very compact wind farm's switchgears, allowing the reliable connection of large cross-section cables.

- **Installation Training**

To reduce failure risks caused by incorrect installation, TE's local team offered a detailed product training which contributed to the smooth installation process of the separable connectors.



TE's portfolio of Raychem screened separable connectors RSTI and accessories installed in the wind farm.

THE SINGLE PARTNER ADVANTAGE



The Outcome

With a broad portfolio of screened separable connectors and decades of experience in cable accessories engineering, TE Connectivity was able to offer a complete switchgear connect solution. The smart design of the Raychem screened separable connectors RSTI portfolio, enabled the fast and easy installation of the products in the compact switchgears.

TE not only developed the right solution but reduced project management time with end-to-end customer service, including local language support and installation training. By relying on one single partner for medium voltage separable connectors, the project became more cost-effective and the challenge was solved efficiently.

“THE CONNECTIVITY NEEDS OF THE WIND FARM WERE VERY CHALLENGING. IN ADDITION TO THE HARSH ENVIRONMENTAL CONDITIONS WE HAD TO COPE WITH, WE WERE FACING PROBLEMS TO FIND THE RIGHT CONNECTORS FOR OUR COMPACT SWITCHGEARS. TE CONNECTIVITY OFFERED A COMPLETE SOLUTION TO SOLVE OUR ENGINEERING DILEMMA. TE’S LOCAL TEAM COMBINED CUSTOMIZED SWITCHGEAR CONNECTORS WITH TECHNICAL SUPPORT AND TRAINING TO MEET OUR UNIQUE CONNECTION NEEDS.”

By successfully completing another project in offshore environments, TE Connectivity reinforced its role as a provider of switchgear connect solutions for the renewable energy market. Shortly after this project, TE became the electrical partner of one of Europe’s largest solar farms demonstrating its capability to design and supply special solutions for crucial applications.

With more than 6 million of TE’s separable connectors in use worldwide, TE showcases its presence as a key partner for switchgear connectors in medium voltage networks.

TE Connectivity (NYSE: TEL) is a \$12 billion global technology leader. Our commitment to innovation enables advancements in transportation, industrial applications, medical technology, energy, data communications, and the home. TE's unmatched breadth of connectivity and sensor solutions, proven in the harshest of environments, helps build a safer, greener, smarter and more connected world. With 75,000 people – including more than 7,000 engineers – working alongside customers in nearly 150 countries, we help ensure that EVERY CONNECTION COUNTS – www.TE.com.

Generation

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- Nuclear Power
- Wind/Solar
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- Overhead
- Street Lighting

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WHEREVER ELECTRICITY FLOWS, YOU'LL FIND TE ENERGY



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