HIGH VOLTAGE CABLE ACCESSORIES INNOVATION

TE Connectivity supports customers all over the world overcome their daily challenges. Maintaining the service of a power line is one of them.

The Challenge

An energy utility was facing an emergency: one cable was damaged and out of service, resulting in the power outage of the installation site. There was no similar cable available in stock and it was critical to urgently repair the line.

They located the cable, but it was impossible to get one on short notice. The situation was unacceptable as it would have led to an extended period of time without operation and tremendous penalties. Finding other alternatives to quickly solve this massive issue was a must.

The company reached out to TE Connectivity (TE)'s experts and asked for support. The challenge was to connect several cables with different sizes and different construction to each other in a very limited period of time.

The standard single-piece joint does not offer such possibility. An innovative alternative was needed to repair the line.

Region:
Europe

Industry:
Energy

Products:
Raychem high voltage joints

Key figures:

- Size transition: from 500 mm^2, 132 kV to 1200 mm^2, 132 kV with standard joint.
- No special training for installers necessary.
- Raychem product line stands for innovation in cable accessories for 60+ years.

The Solution

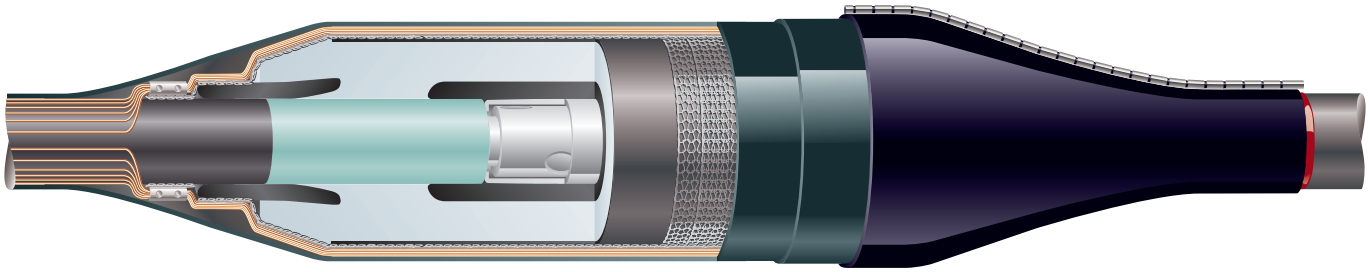
Drawing from more than 60 years of experience, TE's experts offered a three-piece joint (EHVS-145T). It connects cables of different cross sections and different constructions.

The joint is a pre-fabricated three-piece design for voltage classes up to 170 kV. Polymeric insulated cables of various designs can be adapted with respect to shielding and metal sheath. The silicone rubber joint parts with integrated geometrical stress control also has proven electrical function.

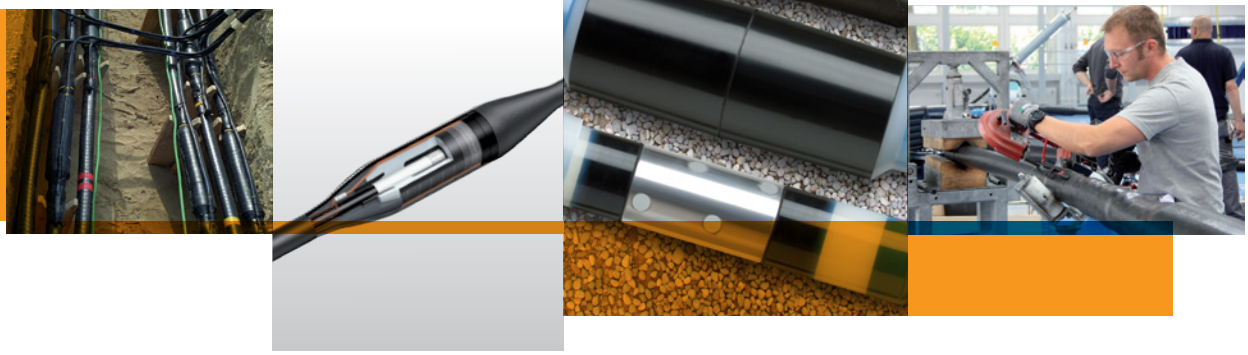
With the addition of the connector which goes into the kit, TE provides the complete solution, not only components. The special connection also does not require any additional training for the installers.

This type of joint is standard for TE, allowing delivery of the products within days. The customer connected a 500 mm^2 132 kV cable with corrugated aluminium sheath to a 1200 mm^2 132 kV cable with smooth aluminium sheath.

Thanks to this innovative solution, the utility easily and quickly installed a different type of cable into the failed line. The line went back to operation in a short period of time.



TECHNOLOGICAL ADVANTAGE



The Outcome

TE's years of experience used to develop high quality and reliable products allowed the very fast solving of the problem. It also helped the utility avoid paying huge daily penalties for outages. Each project is unique and TE is committed to deliver an extraordinary customer experience. The innovative solution and the support provided by TE's teams pleased the customer and that is essential.

Every high voltage cable connection point is critical, and demands the ultimate in fail-safe electrical contact, mechanical strength and reliability. Connectors must achieve extremes of performance while being quick and easy for crews to safely install in the field.

TE Connectivity meets the challenge with accessories to fit virtually every power cable, with solutions that are designed, developed and manufactured in a way to minimize the delivery time on site.

"WE WERE IN A VERY DIFFICULT SITUATION THAT NEEDED TO BE ADDRESSED AS QUICKLY AS POSSIBLE. TE UNDERSTOOD THE CRITICALITY AND SUPPORTED US FACING THIS ISSUE. THEIR TEAM HELPED US SOLVE THIS PROBLEM EFFICIENTLY. WE ALSO APPRECIATED THE GOOD QUALITY OF THE PRODUCTS AND TODAY, WE HAVE MADE THESE JOINTS STANDARD IN OUR NETWORK."

For the successful operation of high voltage cable accessories it is essential to understand the influence of other related components. Based on this fact we design, produce and test all these components in-house and we are capable of insuring the performance of the final product.

TE Connectivity (NYSE: TEL) is a $12 billion global technology leader. Our connectivity and sensor solutions are essential in today's increasingly connected world. We collaborate with engineers to transform their concepts into creations – redefining what's possible using intelligent, efficient and high-performing TE products and solutions proven in harsh environments. Our 72,000 people, including over 7,000 engineers, partner with customers in close to 150 countries across a wide range of industries. We believe EVERY CONNECTION COUNTS – **www.TE.com.**

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