Joints for High-Voltage Cables

Permanent and Pluggable Connections for every Cable

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First and foremost, a cable connection must be reliable. The joints in the IXOSIL and CONNEX product ranges from PFISTERER offer the right solution for every cable connection requirement. Economical and easy to use, they have proven their value worldwide over many years in the installation of substations, offshore applications and HV underground cables in cities and urban areas, as well as in regions with extreme weather conditions, such as deserts or when buried directly in the ground where there is a high salt water table.

Joints for HV Power Cables

The IXOSIL product range of joints for HV power cables includes slip-on joints for the entire spectrum of voltages from 72.5 kV to 550 kV – in each case with different shielding designs, with or without bonding or grounding cable. The joints consist predominantly of premanufactured and routine tested silicone components, are water-resistant and optionally available with permanent metal, plastic or shrink-fit enclosures. The well proven slip-on technology permits fast installation and the secure connection of cables with extruded insulation with copper or aluminum conductors. The electrical conductors are permanently connected using advanced SICON bolted connectors or conventional compression connector. Combinations of cables with different conductors and shielding systems are also possible.

IXOSIL joints for permanent cable connections
- Voltage range from 72.5 to 550 kV
- Simple slip-on technology, proven in many years of service
- Water-resistant housing
- Combination of different conductor materials (aluminum, copper)
- Main insulation: Silicone
Quickly installed: Pluggable Joints for Offshore Applications, Temporary Installations and Test Centers

CONNEX joints permit pluggable cable connections for voltages of up to 550 kV, for example for temporary use in test centers for transformers and switchgear (GIS), for interim solutions in cable and power plant construction, as well as for continuous use in time-critical installations. The high degree of preassembly allows considerably shorter installation times, e.g. in the offshore assembly of wind farms and ocean platforms. The range includes pluggable joints of different sizes that are also suitable for combining various types of cable (aluminum, copper) with different cross-sections. Apart from straight connection joints, CONNEX also offers angled and tap-off joints (T-joints) for connecting three cables.

Cast Resin or SF₆

The pluggable CONNEX joints are available with different insulation media. For more than ten years, cast resin joints have permitted simplified gas-free use, a significantly more compact design and a net weight reduced by as much as two thirds in comparison with conventional SF₆ joints. The offering comprises versions in type-tested sizes up to 170 kV.

SF₆ gas-insulated joints extend the voltage range to 550 kV. They are maintenance-free, 100 percent vacuum chamber tested and have an integrated gas density monitor – if necessary, also with alarm sensor for remote monitoring.

**CONNEX joints for dry, pluggable cable connections**

- For temporary or permanent use
- Voltage range from 72.5 to 550 kV
  - Gas-free connection joints made of cast resin for voltages from 36 up to 170 kV
  - Also available as SF₆ elbow joint up to 362 kV and SF₆ tap-off joint (T-joint) up to 245 kV
- Fast installation thanks to preassembly, e.g. for offshore applications
- Combination of different conductor materials (aluminum, copper, rigid or flexible) is possible
- Connects a vast range of cable cross-sections
- Insulating media: Cast resin or SF₆-gas
The PFISTERER Group is amongst the world’s leading specialist equipment and system suppliers in the energy infrastructure industry. Around 2,100 employees develop, produce and distribute components and complete solutions for the particularly sensitive interfaces in modern energy networks. With a complete range of products and services, the PFISTERER Group provides customised solutions for the complete transmission chain from low and medium to high and ultra-high voltage. Everything from a single source. Worldwide.