POWER CSL

Part of the **PFISTERER** Group

Product & Service Datasheet

Offshore Wind Farm Extra High Voltage Subsea Export Cable Repair Joint (to 245kV)

For the offshore repair of extra high voltage OWF subsea export cables (to 245kV) damaged during installation or operation Power CSL offers its innovative repair joint product.

Applications

- Repair of offshore windfarm extra high voltage export cables (to 245kV)
- Repair of island link extra high voltage cables (to 245kV)

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The joint which has been designed for rapid installation has been subject to rigorous testing to IEC 62067 specification and CIGRE 490 and TB623 recommendations (mechanical / electrical / hyperbaric RWP).

The design is modular in nature allowing jointing of different cable designs and sizes. From an Operations & Maintenance perspective one range taking repair joint can be configured to cover the full range of an OFTO's or TSO's export cable assets. This allows a centralised pool of repair joints to be held (rather than multiple bespoke repair joints for each export cable), and when required enables spare export cable from one OWF to be used for repair on another OWF export cable.

Power CSL offers product familiarisation courses for its EHV export cable repair joint to suitably experienced technicians. This approach facilitates a wider pool of available offshore personnel.

The joint utilises mechanical shear bolt type conductor connectors. The insulation system is comprised of a one piece silicone rubber joint body with integrated stress control elements. The joint body designs which have been qualified for use within the PCSL repair joint have previously successfully completed a PQ test programme, and have a well-established track record of use in EHV cable systems.

All joint bodies provided with the repair joint kit are electrically tested (HV & PD) as a standard QC measure. The joint bodies are housed within individual pressure resistant resin filled metallic canisters which are sealed to the extruded core lead sheath on each side of the phase joint.

The joint includes stainless steel optical fibre splice enclosure(s) which are highly configurable to accommodate the different optical cable designs found within export cables.

All internal components are housed within a free flooding corrosion resistant overall steel casing fitted with anodes. The product utilises high tensile strength armour terminations.

The repair joint is supplied with bend restrictors to allow inline or omega deployment without the need for spreader beam.

Key features of the Power CSL subsea OWF extra high voltage export cable repair joint:

Key Features

- Voltage up to 245kV
- Type tested to IEC 62067 and CIGRE recommendations
- 500mm^2 to 2500mm^2 conductor size range in copper or aluminium
- Range taking capability
- Phase joints housed within resin filled pressure resistant metallic canisters
- Highly effective seals protect against radial ingress of water into the phase joints (200 metre water depth)
- Accommodates all optical fibre design types including appropriate electrical bonding / earthing connections
- Free flooding joint casing coated to Norsok standard with anodes for cathodic protection
- Repair joint supplied with polyurethane or cast iron bend restrictors
- Rapid install – typically 120 hours

The EHV OWF export cable repair joint forms part of the wider range of subsea cable accessories available from Power CSL. This includes repair joints for inter-island connections and oil and gas composite subsea cable types, MV & HV OWF array cable repair joints, HV repair joints for OWF export cables, and bespoke accessories to fulfil special project requirements.

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