

Product & Service Datasheet

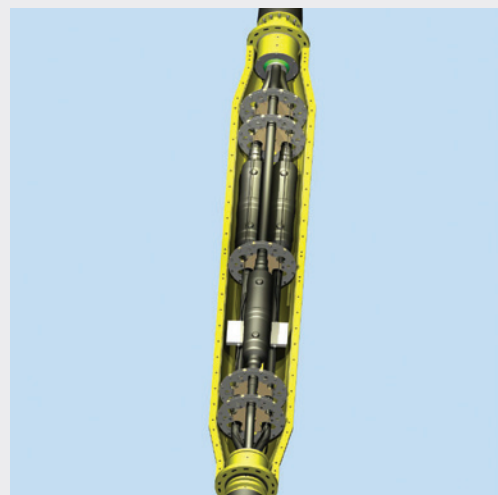
High Voltage (to 170kV)
Subsea Power Cable
Repair Joint



For the offshore repair of high voltage subsea cables damaged during installation or in operation Power CSL offers its innovative repair joint.

Applications

- Repair of offshore windfarm high voltage array cables (66kV)
- Repair of offshore windfarm high voltage (AC) export cables (to 170kV)
- Repair of high voltage island link cables



The joint which is designed for the repair of subsea power cables up to a voltage level of 170kV, utilises cold-shrink insulation reinstatement technology and has been the subject of extensive electrical, mechanical and thermal analysis. It has been successfully tested to CIGRE 490, Electra 171 and 623 regimes (mechanical / electrical / hyperbaric) with the test programme fully witnessed by DNV GL.

The design is modular in nature allowing jointing of different cable types and sizes. The product can be configured to include optical fibre and low voltage control jointing components. The product is rapid to install with assembly time in the order of 48-60 hours thereby reducing weather window waiting period and repair vessel time on station.



The joint uses high tensile strength compression conductor connections. The insulation system is comprised of a one piece cold-shrink moulding with internal stress control features, developed by 3M, and selected by PCSL for subsea application following close technical collaboration.

All mouldings are fully electrically tested (HV and PD) during manufacture. The combination of single-piece construction and shrink down technique removes the potential for assembly problems during installation that may arise with some multi-component insulation moulding systems.

Power CSL offers trained offshore certified technicians for installation of the joint, or alternatively a training service for Client's technicians.



Key features of the Power CSL high voltage subsea cable joint:

- Fully tested to CIGRE recommendations TB 490, Electra 171 and TB623
- Test programme witnessed by DNV GL
- Range taking design
- Rapid installation (48 - 60 hours)
- High tensile load capability (>300kN)
- Employs proven one piece cold-shrink moulding insulation reinstatement
- Incorporates optical fibre splice enclosure
- Joint casing incorporates cathodic protection
- No special tools required
- Minimum design life 25 years

The HV repair joint forms part of the wider range of subsea cable accessories provided by Power CSL. This includes medium voltage repair joints, pulling heads and hang-offs for all cable types, and bespoke accessories to fulfil special project requirements.



POWER CSL

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