



Submarine Power Cables Cables for offshore platforms



HVDC Light cables for DC or...



...XLPE cables for AC

Reliable power cables and installation services from ABB

ABB is one of the world's most experienced manufacturers of large submarine power cables. The know-how that we have acquired from installing submarine transmission cable interconnections around the world is now a valuable asset for the offshore wind, gas and oil industry. ABB has proven its capability to design and install an optimal cable system for a diverse set of applications, taking into account production costs, installation costs, power losses and operational costs.

ABB has the know-how and resources to provide a complete set of services from design to commissioning.

- Cross-linked polyethylene (XLPE) cable systems for AC
- HVDC Light® cable systems for DC
- Mass-impregnated paper-insulated (MI) cable systems for DC
- Cable accessories
- Offshore cable laying, installation, burial and protection
- Project management and commissioning

Submarine power cables

Power cables from ABB are proven to be highly reliable. XLPE cables possess high chemical resistance to oil and solvents, excellent tensile strength and high abrasion resistance. The cables can withstand high short-circuit temperatures and the dimensional stability above 90°C is very good. XLPE cables also have a high AC voltage breakdown strength. ABB can also offer dynamic power cables which can accommodate the movement of floating platforms.

The HVDC Light cable system is advantageous for long distance transmission and for connections between asynchronous networks, offshore platforms, wind farms etc.

ABB experience

ABB has manufactured XLPE cables since the late 1960s and has delivered more than 3,000 km of polymeric insulated submarine cables. We performed our first submarine installation in 1953, and in 1973 we connected the Finnish island of Åland to the Swedish mainland with three 55 km long XLPE cables rated at 84 kV.

Quality & environment

There is a worldwide focus on environmental issues. Governments and power suppliers are supporting renewable energy sources such as wind power and oil/gas companies are substituting less efficient and CO₂ emitting gas-turbine generation on platforms with power supplies from the mainland. This has led to an increasing world-wide demand for submarine cable solutions with less environmental impact.

Health, safety and environmental issues are of great importance to ABB. Our cable projects are delivered and installed in a safe and orderly manner without endangering people, materials or nature. ABB is certified according to OHSAS 18001:2007 (Occupational Health and Safety Assessment Series). Our standards are fully adapted to offshore requirements and meet the requirements from the most demanding offshore oil companies such as Statoil and Saudi Aramco.

ABB has well-developed quality and environmental systems which are certified according to ISO 9001 and 14001. Our quality and environmental management systems are tools designed to successfully fulfill the requirements of customers, regulatory agencies and other government authorities, as well as the high internal requirements of the ABB Group.

Some of our references

AC cable offshore applications:

- Troll A Offshore Gas Field Platform, Norway
69 km, 30 MW, 72,5 kV shore connection power cable with Cu conductor.
Customer: Statoil
- Gudrun Oil and Gas Field, Norway
55 km, 20 MW, 52 kV power cable from the Sleipner oil field, Cu conductors and integrated optical fiber cable.
Customer: Statoil
- Goliat Floating Oil Platform, Norway
104,5 km, 75 MW, 123 kV static submarine cable with Cu conductors and 1,5 km, 75 MW, 123 kV dynamic submarine cable with Cu conductors and integrated optical fiber cable.
Customer: Eni Norway AS
- Gjøa Offshore Oil Platform, Norway
98 km, 40 MW, 115 kV shore connection power cable, including 1,5 km dynamic power cable, to floating platform.
Cu conductors integrated optical fiber cable.
Customer: Statoil
- Abu Safah Oil Field, Saudi Arabia
50 km, 52 MVA, 115 kV shore connection power cable with Cu conductors.
Customer: Saudi Aramco



DC cable offshore applications:

- Troll A Offshore Gas Field Platform, Norway
4x71 km, 2x40 MW, +/-80 kV HVDC Light submarine power cables with Cu conductors.
Customer: Statoil
- Troll A Offshore Gas Field Platform, Norway
4x68 km, 2x40 MW, +/-80 kV HVDC Light® submarine power cables with Cu conductors.
Customer: Statoil

Contact us

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