

Lapp Application Report

Sunny prospects with Lapp



Solar park leverages cross-linked ÖLFLEX® SOLAR cables



The client

Headquartered in Sulzemoos near Munich, Phoenix Solar AG Germany has evolved into one of the world's leading international PV integrators since it was founded in 1999. The group is a specialist wholesaler in solar inverters, modules, mounting systems and other products via its sales partners. The company also designs, plans, develops and installs ready-to-use roof-based and free-standing solar power plants, and operates and maintains them. Thanks to this combination of products and services, Phoenix Solar can meet the requirements of systems of all sizes:

from one-kilowatt roof-based systems for private use to multi-megawatt projects. Phoenix Solar has subsidiaries in Europe, Australia, Asia and the USA.

www.phoenixsolar.com

The requirements and benefits

Free-standing solar plants are subject to high thermal and mechanical stresses. In order for investment in such a facility to be worthwhile and to ensure a smooth production of solar power, it is essential that all components are coordinated exactly to what is required and the type of conditions. Should a component fail,

this will mean losses and considerable maintenance efforts.

Today, Lapp is offering its own series of products specifically for the photovoltaic industry under the name ÖLFLEX® SOLAR. All products are UV, weather and temperature-resistant, and guarantee the long-term function of PV systems at any time of the year.

The product

ÖLFLEX® SOLAR XLR cables

The background

Completed in late 2010 in Niederlausitz, in south Brandenburg, and with a peak output of more than 10 megawatts (MWp), Preschen solar park is one of the largest solar plants in Germany and one of the 150 biggest solar parks worldwide. Almost 130,000 solar modules have been installed on an area of approximately 31 hectares. The solar energy it generates is fed into the local power grid (Neiße-Maixetal) and operators of the plant are expecting more than 9,600,000 kilowatt hours (kWh) of energy to be generated annually.

The Lapp cabling solution

For the Preschen solar park, Phoenix Solar used around 147 km of ÖLFLEX® SOLAR XLR 6mm² cabling, primarily for the string cabling. The ÖLFLEX® SOLAR XLR cables with cross-linked cable sheath that were used represent the latest generation of solar cables according to the PV1-F design. Cross-linking, a technology also used in the aerospace industry, involves the interlinking of copolymer molecules to give the material a particularly high level of thermal and mechanical resistance. The TÜV-approved ÖLFLEX® SOLAR XLR

cables thus offer excellent thermal resistance (-40 to +120°C) and a long service life under any weather conditions. Furthermore, the cables reduce the spread of fire and prevent the build-up of toxic flue gases.