

**ÖLFLEX® SOLAR XLR-CR11-1 1x6/6 BK/BK**
**DB 1023539EN**  
 valid from: 29.01.2015

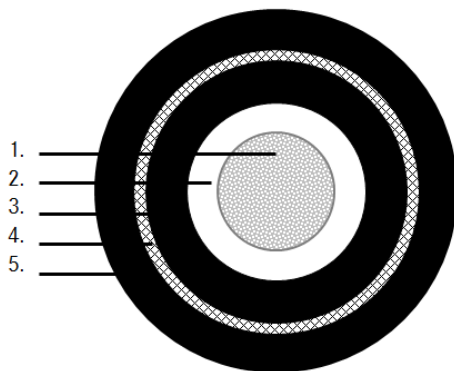
## 1. Application

ÖLFLEX® SOLAR XLR-CR11-1 1x6/6 BK/BK is a double insulated, electron beam cross-linked Solar cable with a copper screening which fulfils the requirements of OVE directive R 11-1, edition 2013-03-01.

ÖLFLEX® SOLAR XLR-CR11-1 1x6/6 BK/BK cables are weather-, abrasion- and UV-resistant photovoltaic cables. These cross-linked, halogen free and double insulated solar cables are suitable for permanent outdoor use and especially for the interconnection of grounded and ungrounded photovoltaic power systems. They are applicable for the connection of solar panels among themselves and as extension cable between the individual module strings or the DC/AC inverter.

The cable is according to TÜV Rheinland specification 2 Pfg 1169/08.07 (PV1-F).

## 2. Cable design



1. Conductor:	6mm <sup>2</sup> , fine wire strands of tinned copper according to IEC 60228, Class 5
2. Core insulation:	Electron beam cross-linked polyolefin co-polymer Colour: white
3. Inner sheath:	Electron beam cross-linked polyolefin co-polymer Colour: black
4. Screen:	Tinned copper braiding (conductivity screen ≥ conductivity conductor)
5. Outer sheath:	Electron beam cross-linked polyolefin co-polymer Outer sheath colour: black Outer diameter: 10,2 mm

Copper index:	123 kg/km
Copper index conductor:	58 kg/km
Copper index screen:	65 kg/km
Total weight:	ca. 200 kg/km

## 3. Electrical properties

Rated voltage U <sub>0</sub> /U acc. IEC	AC 600/1000 V DC 900/1500 V
Max. permissible operating voltage	DC 1800 V (conductor/conductor, non earthed system) according to 2 PFG 1169/08.07
Test voltage	AC 6,5 kV

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#### 4. Mechanical and thermal properties

Temperature range	fixed installation: -40 °C up to +120 °C (max. conductor temperature according to EN 60216-2)
Temperature range according	fixed installation: -40 °C up to +90 °C ambient temperature (according to TÜV 2 PFG 1169/08.2007)
Installation temperature	flexible: max. -25 °C
High temperature pressure resistance	according EN 60811-3-1
Damp heat resistance	according EN 60068-2-78 at 85% humidity
Minimum bending radius	occasional flexing: 15 x cable diameter fixed installation: 5 x cable diameter
UV and ozone resistance	according to HD 605/A1
Ozone resistance	EN 50396
Halogen free	according to EN 50267
Flame retardant	according to IEC 60332-1-2
Acid and alkaline resistance	according to EN 60811-2-1 (Oxal acid and sodium hydroxid)

#### 5. EU Directives

This cable is conform to the EU-Directives 2014/35/EU (Low Voltage Directive) and 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

#### 6. Underground installation

Solar cables can only be routed underground in protective tubing suitable for burial once it has been ensured that no long-term contact with water will occur and that any waterlogging is sure to be drawn away. The underground installation of cables and the correct carrying out of the burial must comply with VDE 0100 Section 520 or comparable standards, in order to prevent damage to the protective tubing and the constant exposure of the cables to penetrating water. Long-term, permanent storage or constant use of the cables in or underwater is not permitted.

#### 7. Note

ÖLFLEX® SOLAR XLR-CR11-1 1x6/6 BK/BK is not suitable or stable against partial lightning currents. For this purpose, the appropriate standards must be applied to ensure that the cable cross-sections can be taken into account for the lightning-protection equipotential bonding.