

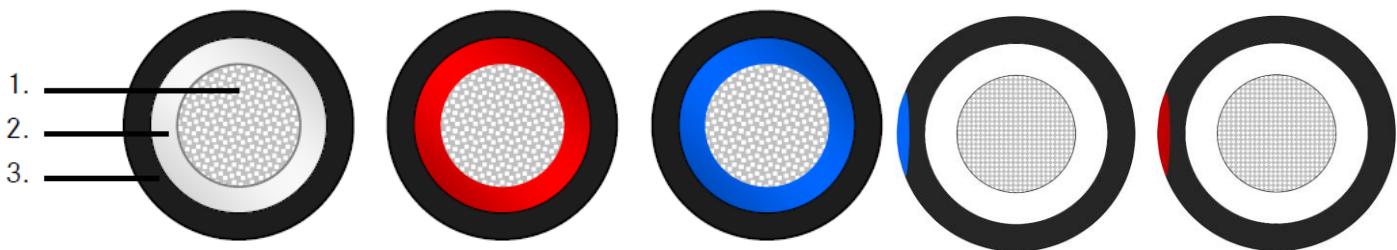
ÖLFLEX® SOLAR XLS-R

DB 0023100EN
valid from: 22.01.2014

1. Application

ÖLFLEX® SOLAR XLS-R 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.

2. Cable design



1.	Conductor:	Fine wire strands of tinned copper according to IEC 60228, Class 5
2.	Core insulation:	Temperature resistant and halogen free polyolefine co-polymer, electron beam cross-linked Colour: white, red or blue
3.	Outer sheath:	Flame retardant, weather resistant and halogen free polyolefin co-polymer, electron beam cross-linked, Outer sheath colour: black or black with red or blue coloured stripe

3. Electrical properties

Rated voltage U_0/U acc. IEC	AC 600/1000 V DC 900/1500 V
Max. permissible operating voltage Test voltage	DC 1800 V (conductor/conductor, non earthed system) AC 6,5 kV

4. Thermal properties

Temperature range	fixed installation: -40 °C up to +100 °C (max. conductor temperature according to IEC 60216)
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

5. Mechanical properties

Minimum bending radius	occasional flexing: 15 x cable diameter fixed installation: 5 x cable diameter
Dynamic penetration resistance	according DKE requirement specification PV1-F AK 411.2.3 Annex F
Notch propagation resistance	according DKE requirement specification PV1-F AK 411.2.3 Annex G
Tensile strength and elongation	according EN 60811

6. Chemical Properties

UV and sunlight resistance	according to HD 605/A1	AbN automation
Ozone resistance	according to EN 50396	
Halogen free	according to EN 50267	
Flame retardant	according IEC 60332-1-2	
Acid and alkaline resistance	according to EN 60811-2-1 (Oxal acid and sodium hydroxid)	

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7. EC Directives

This cable is conform to the EC-Directives 2006/95/EC (Low Voltage Directive) and 2002/95/EC and 2011/65/EC (RoHS, Restriction of the use of certain hazardous substances).

8. 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.

9. Versions

Part.No.	Colour insulation	Colour outer sheath	Conductor cross section [mm ²]	Outer diameter approx. [mm]
0023100	white	black	1 x 1.5	4,4
0023136	white	black	1 x 2.5	4,8
0023137	white	black	1 x 4	5,2
0023138	white	black	1 x 6	5,8
0023104	white	black	1 x 10	7,0
0023105	white	black	1 x 16	8,3
0023139	red	black	1 x 1.5	4,4
0023141	red	black	1 x 2.5	4,8
0023142	red	black	1 x 4	5,2
0023114	red	black	1 x 6	5,8
0023115	red	black	1 x 10	7,0
0023116	red	black	1 x 16	8,3
0023117	blue	black	1 x 1.5	4,4
0023118	blue	black	1 x 2.5	4,8
0023119	blue	black	1 x 4	5,2
0023120	blue	black	1 x 6	5,8
0023143	blue	black	1 x 10	7,0
0023144	blue	black	1 x 16	8,3
0023390	white	black + red stripe	1 x 2.5	4,8
0023391	white	black + red stripe	1 x 4	5,2
0023392	white	black + red stripe	1 x 6	5,8
0023393	white	black + red stripe	1 x 10	7,0
0023394	white	black + red stripe	1 x 16	8,3
0023395	white	black + blue stripe	1 x 2.5	4,8
0023396	white	black + blue stripe	1 x 4	5,2
0023397	white	black + blue stripe	1 x 6	5,8
0023398	white	black + blue stripe	1 x 10	7,0
0023399	white	black + blue stripe	1 x 16	8,3