

ÖLFLEX® SOLAR XLWP

DB 1023600EN
valid from: 05.12.2016

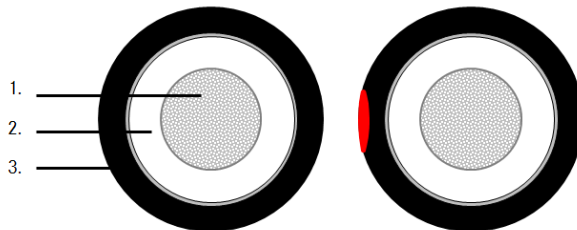
1. Application

ÖLFLEX® SOLAR XLWP cables are weather-, abrasion- and UV-resistant photovoltaic cables. Due to optimized cable design, a constant high volume resistivity can be ensured even after long-term period in not contaminated water. The cable is suitable for direct burial considering the common VDE installation guide lines; see also to the conditions mentioned in chapter 5 of this data sheet.

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

Design	according to EN 50618
Certification	Code designation H1Z2Z2-K, certified according to EN 50618 TÜV Rheinland certificate No. R50345247



1. Conductor:	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. Outer sheath:	Electron beam cross-linked polyolefin co-polymer Outer sheath colour: black or black with red or blue coloured stripe

3. Electrical properties

Rated voltage U_0/U acc. IEC	AC 1000/1000 V DC 1500/1500 V
Max. permissible operating voltage	DC 1800 V (according to EN 50618)
Test voltage	AC 6,5 kV
Current carrying capacity	according to EN 50618, Table A.3 & A.4

4. Mechanical and thermal properties

Temperature range	fixed installation: -40°C up to +120°C (according to IEC 60216-2)
Temperature range according	fixed installation: -40°C up to +90°C ambient temperature (according to DIN EN 50618)
Minimum temperature for installation	-25°C (according to EN 50618)
Minimum bending radius	occasional flexing: 15 x cable diameter fixed installation: 5 x cable diameter
Weathering/UV-resistance	according to EN 50618 Annex E

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Ozone resistance	according to EN 50396
Halogen free	according to IEC 60754-1, IEC 60754-2
Smoke density	according to IEC 61034-2, EN 61034-2
Flame retardant	according to IEC 60332-1-2
Acid and alkaline resistance	according to EN 60811-404 (Oxal-acid and Sodium hydroxide)
Direct burial	according to UL 1277 chapter 19 (Crushing Test), UL 854 chapter 23 (Impact-Resistance-Test) and UL 854 chapter 24 (Crushing-Resistance Test)

EU directives This cable is conform to the EU-Directive 2014/35/EU (Low Voltage Directive)

5. Underground installation

According to EN 50618, Table A.2:

Intended for use in PV installations e.g. acc. to HD 60364-7-712.

They are intended for permanent use outdoor and indoor, for free movable, free hanging and fixed installation. Installation also in conduits and trunkings on, in or under plaster as well as in appliances.

Suitable for the application in/at equipment with protective insulation (protection class II).

They are inherently short-circuit and earth fault proof acc. to HD 60364-5-52.

ÖLFLEX® SOLAR XLWP cables are suitable for the installation underground if the cable is laid in a cable trench according to VDE 0100, part 520 or comparable standards.

Storage or use in standing waters or running waters is not permitted acc. to relevant standards. For direct burial installation, installation in conduits or for open wiring even in water, where the cables can be / are exposed to not contaminated water (salt or fresh water), the use is only permitted with the following conditions:

Water temperature:	+45°C (maximum)
Water pressure:	0.08 bar; 8kPa (maximum)

Additional tractive forces or shear conditions during installation and operation have to be ruled out.

6. Versions

Part. No.	Colour insulation	Colour outer sheath	Conductor cross section [mm ²]	Outer diameter approx. [mm]
1023600	white	black	1 x 2.5	5.4
1023601	white	black	1 x 4	5.8
1023602	white	black	1 x 6	6.4
1023603	white	black	1 x 10	7.6
1023604	white	black	1 x 16	9.1
1023605	white	black	1 x 25	11.2
1023606	white	black	1 x 35	12.8
1023620	white	black + red stripe	1 x 2.5	5.4
1023621	white	black + red stripe	1 x 4	5.8
1023622	white	black + red stripe	1 x 6	6.4
1023623	white	black + red stripe	1 x 10	7.6
1023624	white	black + red stripe	1 x 16	9.1
1023626	white	black + red stripe	1 x 25	11.2
1023627	white	black + red stripe	1 x 35	12.8