

ÖLFLEX® SOLAR XLR-E

DB 1023650

valid from: 13.07.2016

1. Application

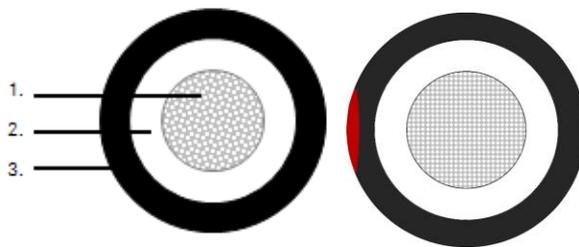
ÖLFLEX® SOLAR XLR-E cables are weather-, abrasion- and UV-resistant photovoltaic cables. These cross-linked, halogen free and double insulated solar cables are suitable for permanent outdoor use and especially for the interconnection of grounded and ungrounded photovoltaic power systems. They are applicable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

According to EN 50618 applies:

The expected period of use under normal usage conditions as specified in EN 50618 is at least 25 years.

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 non-porous tinned copper wires according to IEC 60228, Class 5
2. Core insulation:	Electron beam cross-linked polyolefin co-polymer Color: white
3. Outer sheath:	Electron beam cross-linked polyolefin co-polymer Outer sheath color: black or black with red colored 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, conductor temperature	fixed installation: -40°C up to +120°C conductor temperature (according to IEC 60216-2)
Temperature range, ambient temperature	fixed installation: -40°C up to +90°C ambient temperature (according to 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
Ozone resistance	according to EN 50396

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

5. Installation

H1Z2Z2-K cables are not suitable for the installation underground.

The cable should be installed according to VDE 0100, part 520, IEC 60364-5-52, EN 50174-1 or comparable standards. Long-term, permanent storage or constant use of the cables in or underwater is not permitted.

According to EN 50618 applies:

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.

6. Versions

Part. No.	Color insulation	Color outer sheath	Conductor cross section [mm ²]	Outer diameter approx. [mm]
1023651	white	black	1 x 2,5	5.0
1023652	white	black	1 x 4	5.4
1023653	white	black	1 x 6	6.0
1023654	white	black	1 x 10	7.2
1023655	white	black	1 x 16	8.7
1023656	white	black	1 x 25	10.6
1023657	white	black	1 x 35	12.2
1023658	white	black	1 x 50	14.4
1023659	white	black	1 x 70	16.4
1023660	white	black	1 x 95	18.4
1023661	white	black	1 x 120	20.2
1023662	white	black	1 x 150	22.4
1023663	white	black	1 x 185	25.2
1023664	white	black	1 x 240	28.6
1023665	white	black	1 x 300	32.0
1023666	white	black with red stripe	1 x 2,5	5.0
1023667	white	black with red stripe	1 x 4	5.4
1023668	white	black with red stripe	1 x 6	6.0
1023669	white	black with red stripe	1 x 10	7.2
1023670	white	black with red stripe	1 x 16	8.7
on request	white	black with red stripe	1 x 25	10.6
on request	white	black with red stripe	1 x 35	12.2
on request	white	black with red stripe	1 x 50	14.4
on request	white	black with red stripe	1 x 70	16.4
on request	white	black with red stripe	1 x 95	18.4
on request	white	black with red stripe	1 x 120	20.2
on request	white	black with red stripe	1 x 150	22.4
on request	white	black with red stripe	1 x 185	25.2
on request	white	black with red stripe	1 x 240	28.6
on request	white	black with red stripe	1 x 300	32.0

Note: Only the cables with conductor cross section 2,5mm² up to 70mm² are certified according to EN 50618.

The cables with conductor cross section 95mm² up to 300mm² are designed based on EN 50618.

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