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| 1023714                   | <b>DATA SHEET</b>                |  |
| Valid from:<br>06.04.2020 | <b>ÖLFLEX® SOLAR XLR-E [I+E]</b> |  |

## Application

ÖLFLEX® SOLAR XLR-E [I+E] cables are weather- 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.

Recommended use of cables for PV systems acc. to IEC 62930 and EN 50618:

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

They are intended for permanent use outdoor and indoor, for free movable, free hanging and fixed installation.

It is also permitted to install the cables in conduit or trunking systems.

They are not intended for direct burial.

Halogen free low smoke cables are intended to reduce the risks for people and goods in the event of fire, for example in buildings.

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

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

The expected period of use under normal usage conditions as specified in IEC 62930 and EN 50618 is at least 25 years.

The cable should be installed acc. to VDE 0100 - 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.

It has to be ensured that no long-term contact with water will occur and that any waterlogging is sure to be drawn away.

## Design


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| Design   | Sheathed single core cable acc. to IEC62930 and EN 50618  |
| Code Designation<br>1x1.5 mm <sup>2</sup> to 1x70mm <sup>2</sup> | 62930 IEC 131<br>H1Z2Z2-K   |
| Certification  | TÜV Rheinland certificate with No. R 50462071 (62930 IEC 131)<br>TÜV Rheinland certificate with No. R 50345247 (H1Z2Z2-K) |
| Conductor  | Fine wire strands of tinned copper acc. to IEC 60228, conductor class 5   |
| Core insulation  | Electron beam cross-linked polymer compound acc. to IEC 62930 and EN 50618,<br>halogen free<br>Colour: White              |
| Outer sheath   | Electron beam cross-linked Co-Polymer acc. to IEC 62930 and EN 50618,<br>halogen free<br>Colour: black or blue            |



## Electrical properties

|                                    |  |
|------------------------------------|--|
| Rated voltage U <sub>0</sub> /U    | 1.0/1.0 kV AC RMS acc. to IEC 62930 and EN 50618<br>1.5/1.5 kV DC acc. to IEC 62930 and EN 50618 |
| Max. permissible operating voltage | 1.8 kV DC acc. to IEC 62930 and EN 50618   |
| Test voltage                       | 6.5 kV AC acc. to IEC 62930 and EN 50618   |
| Current carrying rating            | IEC 62930, Table A.3 & A.4 and EN 50618 , Table A.3 & A.4  |

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### Mechanical and thermal properties

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| Minimum ambient temperature<br>fixed installation        | -40 °C   |
| Conductor temperature,<br>fixed installation             | up to +90 °C acc. to IEC 62930 and EN 50618  |
| Conductor temperature,<br>fixed installation             | up to +120 °C (20.000 hours acc. to IEC 60216-2) acc. to IEC 62930 and EN 50618                    |
| Minimum temperature,<br>during installation and handling | -25 °C acc. to IEC 62930 and EN 50618  |
| Max. storage temperature                                 | +45° C acc. to IEC 62930<br>+40° C acc. to EN 50618  |
| Max. short circuit temperature                           | +250° C (5s) acc. to IEC 62930 and EN 50618  |
| Minimum bending radius,<br>occasional flexing            | 15 x outer cable diameter  |
| Minimum bending radius,<br>stationary use                | 4 x outer cable diameter for OD ≤ 8 mm<br>5 x outer cable diameter for OD > 8 mm                   |
| Weather/UV resistance                                    | acc. to IEC 62930, Appendix E and EN 50618, Appendix E   |
| Ozone resistance   | acc. to IEC 62930 and EN 50618   |
| Halogen-free   | acc. to IEC 62930 and EN 50618<br>acc. to IEC 60754-1; IEC 60754-2                                 |
| Smoke density  | acc. to IEC 62930 and EN 50618<br>acc. to IEC 61034-2 resp. EN 61034-2                             |
| Flame retardance   | acc. to IEC 60332-1-2 resp. EN 60332-1-2   |
| Acid and alkali resistance                               | acc. to IEC 62930 and EN 50618<br>acc. to EN 60811-404 (oxalic acid and sodium hydroxide solution) |
| General requirements                                     | These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)                    |
| Environmental information                                | These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).       |

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