

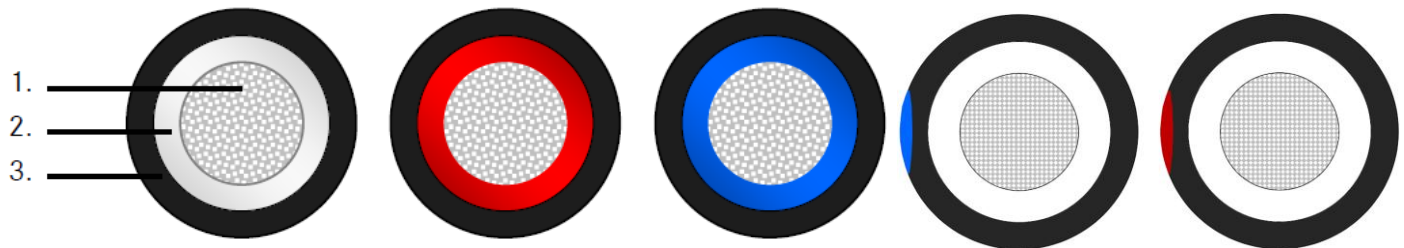
## ÖLFLEX® SOLAR XLS-R

DB 0023 100EN  
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<br>Colour: white, red or blue  |
| 3. Outer sheath:    | Flame retardant, weather resistant and halogen free polyolefin co-polymer, electron beam cross-linked,<br>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<br>DC 900/1500 V                      |
| Max. permissible operating voltage | DC 1800 V (conductor/conductor, non earthed system) |
| Test voltage                       | AC 6,5 kV   |

## 4. Thermal properties

|                                      |   |
|--------------------------------------|---|
| Temperature range                    | fixed installation: -40 °C up to +100 °C<br>(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<br>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                                    |
| 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) |

AbN  
automation

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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 [mm²] | 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                         |