

1023650	DATA SHEET	
Valid from: 16.01.2020	ÖLFLEX® SOLAR XLR-E	

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.

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.

The cable should be installed according to VDE 0100 - part 520, IEC 60364-5-52, EN 50174-1 or comparable standards.

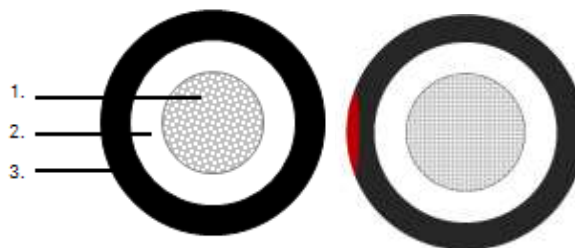
Long-term, permanent storage or constant use of the cables in or underwater is not permitted.

ÖLFLEX® SOLAR XLR-E cables can only be routed underground in protective tubing suitable for burial. 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

Design according to EN 50618

Certification code designation H1Z2Z2-K,
certified according to EN 50618 - TÜV Rheinland certificate no. R50345247



(1.): Conductor fine-wire, non-porous, tinned copper strands,
according to IEC 60228, conductor class 5

(2.): Core insulation electron-beam cross-linked polyolefin copolymer,
colour: white

(3.): Outer sheath electron-beam cross-linked polyolefin copolymer,
outer sheath colour: black, or black with single-coloured longitudinal stripe

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Electrical properties

Nominal voltage U ₀ /U (AC RMS)	1000/1000 V
Nominal voltage U ₀ /U (DC)	1500/1500 V
Max. permissible system voltage (DC), according to DIN EN 50618	1800 V
Test voltage (AC)	6500 V
Current rating	according to DIN EN 50618, table A.3 & A.4

Mechanical and thermal properties

Min. conductor temperature, fixed installation (according to IEC 60216-2)	-40 °C
Max. conductor temperature, fixed installation (according to IEC 60216-2)	120 °C
Min. ambient temperature, fixed installation (according to EN 50618)	-40 °C
Min. ambient temperature, during laying (according to EN 50618)	-25 °C
Max. ambient temperature, fixed installation (according to EN 50618)	90 °C
Min. bend radius, occasionally moved	15 x outer cable diameter
Min. bend radius, fixed installation	4 x outer cable diameter for OD ≤ 8mm 5 x outer cable diameter for OD > 8 mm
Weather/UV resistance	according to DIN EN 50618 - Appendix E
Ozone resistance	according to EN 50396
Freedom from halogens	according to IEC 60754-1, IEC 60754-2
Smoke density	according to IEC 61034-2, EN 61034-2
Fire behaviour	flame retardant according to IEC 60332-1-2
Acid and alkali resistance	according to EN 60811-404 (oxalic acid and sodium hydroxide solution)
EU Directive	cable conforms to EU Directive 2014/35/EU (EU Low-Voltage Directive)

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Versions with black outer sheath...

Stripe-free

Part. no.	Core insulation colour	Outer jacket colour	Nominal conductor cross section [mm ²]	Nominal outer diameter [mm]
1023650	white	black	1.5	4.6
1023651	white	black	2.5	5.0
1023652	white	black	4	5.4
1023653	white	black	6	6
1023654	white	black	10	7.2
1023655	white	black	16	8.7
1023656	white	black	25	10.6
1023657	white	black	35	12.2
1023658	white	black	50	14.4
1023659	white	black	70	16.4
1023660	white	black	95	18.4
1023661	white	black	120	20.2
1023662	white	black	150	22.4
1023663	white	black	185	25.2
1023664	white	black	240	28.6
1023665	white	black	300	32.0

Striped

Part. no.	Core insulation colour	Outer jacket colour	Outer stripe colour	Nominal conductor cross section [mm ²]	Nominal outer diameter [mm]
1023666	white	black	red	2.5	5.0
1023667	white	black	red	4	5.4
1023668	white	black	red	6	6
1023669	white	black	red	10	7.2
1023670	white	black	red	16	8.7
1023671	white	black	blue	2.5	5.0
1023672	white	black	blue	4	5.4
1023673	white	black	blue	6	6
1023674	white	black	blue	10	7.2
1023675	white	black	blue	16	8.7