

**H1Z2Z2-K****DB 1023550**

valid from: Dec. 20, 2017

**1. Application**

H1Z2Z2-K cables are weather-, abrasion- and UV-resistant photovoltaic cables.

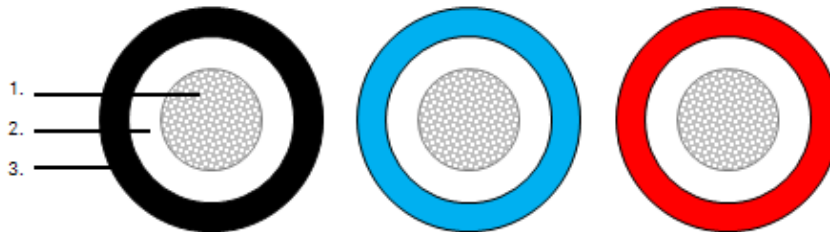
These cross-linked, halogen free and double insulated solar cables are suitable for permanent outdoor use and especially for the interconnection of grounded and ungrounded photovoltaic power systems. They are applicable for the connection of solar panels among themselves and as extension cable between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

According to DIN EN 50618 applies:

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

**2. Cable design**

<b>Design</b>	Double-insulated single core according to DIN EN 50618
<b>Certification</b>	Code designation H1Z2Z2-K, certified according to DIN EN 50618 TÜV Rheinland certificate No. R 60109128



1. Conductor:	Fine wire strands of non-porous tinned copper wires according to IEC 60228, Class 5
2. Core insulation:	Cross-linked polymer compound, halogen free Colour: white
3. Outer sheath:	Cross-linked Co-Polymer, halogen free Outer sheath colour: black or red or blue

**3. Electrical properties**

Nominal voltage $U_0/U$ acc. IEC	AC 1000/1000 V DC 1500/1500 V
Max. permissible operating DC voltage	DC 1800 V (according to DIN EN 50618)
AC Test voltage	AC 6500 V
Current carrying capacity	according to EN 50618

**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 DIN EN 50618)
Minimum bending radius	occasional flexing: 15 x cable diameter fixed installation: 5 x cable diameter

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Weathering/UV-resistance	according to DIN EN 50618 Annex 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
Flame retardance	according to IEC 60332-1-2
Acid and alkaline resistance	according to EN 60811-404 (Oxal-acid and Sodium hydroxide)
EU directives	Conform to the EU Directive 2014/35/EU (Low Voltage Directive)

**5. Installation**

According to DIN EN 50618 applies:

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

They are intended for permanent use outdoors and indoors, for freely 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 devices and systems with protective insulation (protection class II).

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

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

Where underground routing is supposed to be accomplished, burial shall be indirect and protected by means of routing inside protective tubing which, itself, shall be appropriate for direct, unprotected 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. The underground installation and the correct design of the burial must comply with VDE 0100-520 or comparable standards in order to prevent damage to the protective tubing and constant exposure of the cables to penetrating water.

For further details, please view the LAPP GROUP's ÖLFLEX® SOLAR cable installation guidelines.

**6. Versions**

Part. no.	Insulation colour	Outer sheath colour	Nominal conductor cross section [mm <sup>2</sup> ]	Outer diameter, approx. [mm]
1023552	white	black	4	5,9
1023553	white	black	6	6,4
1023554	white	black	10	7,5
1023555	white	black	16	8,1
1023590	white	black	25	10,4
1023591	white	black	35	11,9
1023572	white	red	4	5,9
1023573	white	red	6	6,4
1023574	white	red	10	7,5
1023575	white	red	16	8,1
1023582	white	blue	4	5,9
1023583	white	blue	6	6,4
1023584	white	blue	10	7,5
1023585	white	blue	16	8,1