


1023550	DATA SHEET	
Valid from: 05.06.2020	H1Z2Z2-K	

1. Application

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

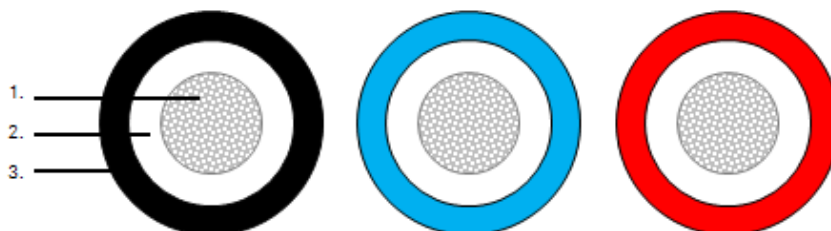
These cross-linked, halogen free and double insulated solar cables are suitable for permanent outdoor use and especially for the interconnection of grounded and ungrounded photovoltaic power systems. They are applicable for the connection of solar panels among themselves and as extension cable between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

Acc. 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	Double-insulated single core acc. to EN 50618
Certification	Code designation H1Z2Z2-K, certified acc. to EN 50618 TÜV Rheinland certificate No. R 60109128



1. Conductor:	Fine wire strands of non-porous tinned copper wires acc. to IEC 60228 resp. EN 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. to IEC	AC 1000/1000 V DC 1500/1500 V
Max. permissible operating DC voltage	DC 1800 V (acc. to DIN EN 50618)
AC Test voltage	AC 6500 V
Current carrying capacity	acc. to EN 50618

4. Mechanical and thermal properties

Temperature range	fixed installation: -40°C up to +120°C (acc. to IEC 60216-2)
Temperature range acc.	fixed installation: -40°C up to +90°C ambient temperature (acc. to EN 50618)
Minimum temperature for installation	-25°C (acc. to EN 50618)

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Minimum bending radius	occasional flexing: 15 x cable diameter fixed installation: 5 x cable diameter
Weathering/UV-resistance	acc. to EN 50618 Annex E
Ozone resistance	acc. to EN 50396
Halogen-free	acc. to IEC 60754-1 resp. EN 60754-1, acc. to IEC 60754-2 resp. EN 60754-2
Smoke density	acc. to IEC 61034-2 resp. EN, EN 61034-2
Flame retardance	acc. to IEC 60332-1-2 resp. EN 60332-1-2
Acid and alkaline resistance	acc. to EN 60811-404 (Oxal-acid and Sodium hydroxide)
EU directives	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).

5. Installation

Acc. to 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, 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. For the burial of the protective tube/ conduit/ duct, professionally built cable trench shall be used, with ≥ 50 cm of back-fill soil (70 cm underneath roads), above indicating tape, above covering plastic slab, above ≥ 10 cm sand layer, above conduit/ duct/ tube laid on ≥ 10 cm sand bed layer.

6. Versions

Part. no.	Insulation colour	Outer sheath colour	Nominal conductor cross section [mm ²]	Outer diameter, approx. [mm]
1023552	white	black	4	5.4
1023553	white	black	6	5.9
1023554	white	black	10	7.0
1023555	white	black	16	8.1
1023590	white	black	25	10.4
1023591	white	black	35	11.9
1023572	white	red	4	5.4
1023573	white	red	6	5.9
1023574	white	red	10	7.0
1023575	white	red	16	8.1
1023582	white	blue	4	5.4
1023583	white	blue	6	5.9
1023584	white	blue	10	7.0
1023585	white	blue	16	8.1

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