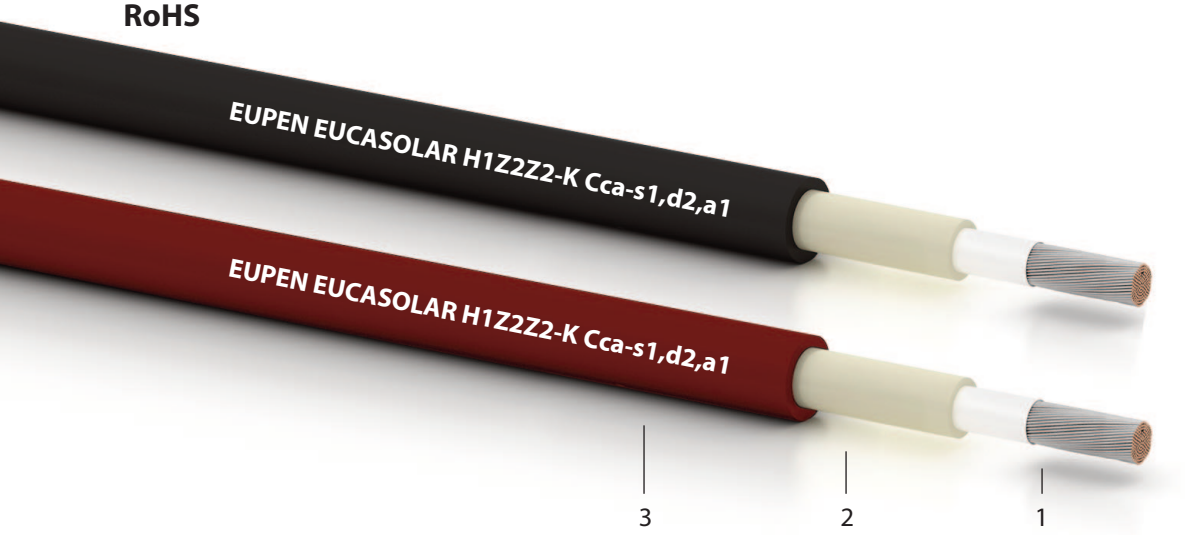
EUCASOLAR H1Z2Z2-K C_{ca}-s1,d2,a1

according to
EN 50618
EN 50575 CE
RoHS



Construction

1. Conductor: tinned copper, flexible acc. to IEC/EN 60228 class 5
2. Insulation: halogen free, crosslinked polyolefin-compound
3. Outer sheath: special halogen free, crosslinked compound, flame retardant
   Colour: black or red

Applications

Flexible, weather resistant power cable.
Our premium product, especially designed for the demanding applications in photovoltaic systems. The optimal cable link between solar modules and between modules and the inverter. Suitable for rooftop and ground mounted systems. Suitable for laying outdoor, indoor and in cable ducts. Direct burial permissible, see conditions below.
Double insulated and therefore suitable for use in installations of safety class II.

Properties

- Ambient temperature: -40 °C up to +90 °C
- Max. conductor temperature: 120 °C (20000h) acc. to IEC/EN 60216-1+2
- Max. short circuit temperature: 250 °C/5s
- Rated voltage U_0/U: DC 1,5/1,5 kV
- Max. voltage U_0/U: DC 1,8/1,8 kV
- Test voltage: AC 6,5 kV acc. to EN 50395
- Min. bending radius: 3 x Ø
- Expected lifetime > 25 years acc. to IEC/EN 60216-1

Special Properties

- Outstanding UV-resistance acc. to EN 50289-4-17/A
- Outstanding ozone and weather resistance acc. to EN 50396
- Outstanding acid and alkaline resistance acc. to IEC/EN 60811-404
- Outstanding cold resistance acc. to IEC/EN 60811-505/506
- Outstanding microbe resistance
- Outstanding ammoniac resistance
- Outstanding oil- and grease resistance
- Hydrolysis resistance
- Very low water absorption AD7
- High wear and abrasion resistance
- Easy cable stripping
- Easy feeding
- Tinned conductors prevent corrosion at junction and connection points

Properties in case of fire

- Low smoke emission acc. to IEC/EN 61034
- Flame retardant acc .to EN 60332-1-2 / IEC 60332-1-2
  EN 50399 C_{ca}-s1,d2
- Halogen free acc. to EN 50525-1 Annex B
  IEC/EN 60754-2

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Cross-section mm²	Outer diameter mm	Weight kg/km	Conductor resistance at 20 °C Ω/km
4	5,6	62	5,09
6	6,2	84	3,39
10	7,3	130	1,95
16	8,4	191	1,24

Current carrying capacity

Cross-section	Current carrying capacity acc. to the method of installation		
	single cable free in air	single cable on a surface	2 cables in contact on a surface
mm²	A	A	A
4	55	52	44
6	70	67	57
10	98	93	79
16	132	125	107

Conversion factor for higher temperature

Ambient temperature	Conversion factor
up to 60 °C	1,00
70 °C	0,92
80 °C	0,84
90 °C	0,75

Groups rating factors
Refer to HD 60364-5-52 Table B.52-17

Conditions for direct burial

- To avoid mechanical damages to the cable during laying and assembly, handling must be done with extreme care.
- The trench bottom must be smooth, stone-free and covered with a sand layer.
- The contact with aggressive active substances must be avoided.
- Rodent damages must be avoided.
- The cable must be protected from unauthorized access by third parties.
- The maximum admissible pulling force is: P= 15N/mm² x conductor cross-section.
- In addition, we recommend to respect customary laying instructions.