H1Z2Z2-K TÜV SOLAR

DESIGN

Conductor
Class 5 (flexible tinned copper, based on EN 60228 and IEC 60228.

Insulation
Low smoke zero halogen (LSZH) rubber.

Outer Sheath
Low smoke zero halogen (LSZH) rubber, red or black.

APPLICATIONS

The H1Z2Z2-K cable, which is TÜV certified according to IEC 62930 and EN 50618, is suitable for both fixed and mobile solar installations (solar farms, rooftop solar installations and floating plants).

CHARACTERISTICS

Electrical Performance	Low voltage 1,5/1,5 1kV (1,8)kV DC
CPR	Cca-s1,d2,a1, according to EN 50575
Thermal Performance	Maximum service temperature: 120°C
	Maximum short-circuit temperature: 250°C (max. 5 s).
	Minimum service temperature: -40°C
Fire Performance	Flame non-propagation: EN 60332-1 and IEC 60332-1
	LSZH: UNE-EN 6054-1 and IEC 60754-1
	Low smoke emission based on EN 61034 and IEC 61034: Light transmittance > 60%
	Low corrosive gases emission bases on UNE-EN 60754-2 and IEC 60754-2
Mechanical Performance	Minimum bending radius: 3 x cable diameter
	Impact resistance: AG2 Medium Severity
Chemical Performance	Chemical performance: Excellent
	Grease & mineral oils resistance: Excellent
	UV Resistant according to EN 50618
	Ozone resistant based on EN 50618
Water performance	Water presence: AD8 submerged
Standards	EN 50618, IEC 62930, UTE C 32-502

Installation conditions:

- **Open Air**
- **Buried**

  Conduit.

Approvals	TÜV, RETIE, CE, RoHS
Other	Estimated lifetime: 30 years based on UNE-EN 60216-2

Current-carrying capacities, in amperes, are according to EN 50618 (ambient temperature of 60 °C). In all cases it is supposed a direct current circuit. Voltage drop is calculated with conductor temperature of 120 °C.

CORRECTION FACTORS FOR AIR TEMPERATURE

Air Temp. (ºC)	Up to 60	70	80	90
Factor	1	0,92	0,84	0,75

For groups reduction factors according to IEC 60364-5-52, Table A.52-17 shall apply.

DIMENSIONS

Cross Section (mm²)	Diameter (mm)	Open Air (A)	Int. on Surface (A)	Int. Adjoining to Surface (A)	Voltage Drop (V/A-km)	Weight (Kg/Km)
1x4.0	5.4	55	52	44	14.3	60
1x6.0	6.0	70	67	57	9.49	80
1x10	7.0	98	93	79	5.46	120
1x16	8.2	132	125	107	3.47	180
1x25	10.2	176	167	142	2.23	280
1x35	11.5	218	207	176	1.58	375
1x50	13.3	276	262	221	1.10	525
1x70	15.0	347	330	278	0.772	720
1x95	17.0	416	395	333	0.585	930
1x120	18.7	488	464	390	0.457	1.175

** The tolerances on the nominal outer diameters are:

Cables with outer diameter ≤ 7mm.: -0.1mm - +0.2mm

Cables with outer diameter 7mm < d < 10mm.: -0.1mm - +0.3mm

Cables with outer diameter d ≥ 10mm.: -0.2mm - +0.4mm

** The product and information presented in this document are for calculation only and subject to technical progress. Outer diameters are approximately **