

HIKRA®

solar cables
part of HIS CONNECT™

HIKRA® TECH 1500V EN50618 (H1Z2Z2-K)

DATA SHEET

IN FOCUS IS THE PLANT REVENUE
IN OPERATION OUR SOLAR CABLES

- Direct burial
- CPR compliant EN50575
- Higher mechanical stability
- Meter Marking



HIKRA® TECH 1500V

TECHNICAL DATA

Construction	
Strand construction	Tin-plated copper strand (electrolytic copper), fine wire acc. IEC 60228 Class 5
Insulation	Cross-linked Polyolefin; Shore hardness A ≥ 85; Minimum wall thickness acc. EN 50618 table 1
Outer Sheath	Cross-linked special compound XLPO; Shore hardness A ≥ 90; Minimum wall thickness acc. EN 50618 table 1
Colour	Sheath: black, red; Insulation: white
Marking	HIKRA TECH 1500V H1Z2Z2-K 1x... mm ² TÜV R 60154895 Dca DoP 9093 CE <i>Lot number with meter marking</i>
Standards	EN50618 (H1Z2Z2-K) TÜV R 60154895

Technical characteristics	
Nominal voltage	1,5kV DC and 1,1kV AC
Maximum permitted operating voltage:	1,8kV DC (additional internal examination 2,0kV DC)
Voltage test on complete cable	6,5kV AC / 15kV DC (5 minutes water bath, 20±5°C)
Current carrying capacity	See document „Current rating – HIKRA® Solar Cable“
Short-circuit-temperature	250° C/5s

Material properties	
UV stability	Tensile strength and ultimate-elongation after 720 h (360 cycles) ≥ 70% of initial values; EN 50289-4-17 acc. Method A; EN ISO 4892-1 (2000) and EN ISO 4892-2 (2006)
Ozone resistance	72h, relative humidity 55±5%, Temperature 40±2°C (EN 50396 Method B; Ozone concentration (200±50)x10 ⁻⁶)
Insulation resistance	Insulation resistance in water bath, each 2h at +90°C and 2h at 20°C (Limit values acc. EN 50618 Table 1)
Dynamic penetration test	Spring-steel-needle through insulation or sheath (EN50618 Annex D)
Direct burial	Long-term water immersion at 90°C, duration 12 weeks; Insulation resistance ≥ 3GΩ (additional internal examination acc. UL44 cl. 5.4 & UL2556 6.4.4.2.1)
Crushing- and impact-resistance	Impact-Resistance UL 854.23 and Crushing-Resistance UL 854.24 (internal examination)
Sheath resistance against acid and alkaline	168h at 23°C in N-Oxal acid and N-Sodium hydroxide (EN 60811-404); ammoniac-resistant
Behaviour in case of fire	Flame-retardant acc. EN 60332-1-2 Annex A, low smoke emission (EN 61034,-2)
CPR-Performance	Dca; burning behavior acc. EN 50575:2014
Halogen-free	EN 50525-1, Annex B
Cold impact test	EN 60811-506, EN 50618 Annex C.1 at -40°C
Cold bending test	-40±2°C, 16h (EN 60811-505)
Damp heat test	Duration 1000h at 90°C and min. 85% relative humidity (EN 60068-2-78)
Minimum bending radius flexible / fixed	10x cable diameter 4x cable diameter

Temperature Range	
Temperature	Ambient temperature: -40° C to +90°C; Maximum conductor temperature: +120° C
Maximum storage temperature	+40°C
Minimum temperature for installation	-25°C

Order No black	Order No red	Cross-section mm ²	Construction n x max.-Ø (mm)	Max. Resistance (Ω/km)	External diameter (+/- 0,2 mm)	Copper index kg/km	Approx. Weight kg/km
746410	746411	1 x 4.0	48 x 0.31	5.09	5,6	38.4	61.0
746412	746413	1 x 6.0	72 x 0.31	3.39	6,0	57.6	82.0
746414	746415	1 x 10.0	74 x 0.39	1.95	7,1	96.0	124.0
746416	-	1 x 16.0	120 x 0,39	1.24	9,4	153.6	200.0

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