

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

- Higher water resistance and increased mechanical stability
- UV-stable and high resistance to external influences
- Direct burial
- CPR compliant EN50575
- Higher mechanical stability
- 25 years lifetime expectancy
- Continuous meter marking



HIS
the power behind re:energy

HIKRA® TECH 1500V

TECHNICAL DATA



Type Approved
Safety
Regular Production
Surveillance



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ID 1111236431

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... mm² TÜV R 60154895 Dca DoP 9093 CE Lot number with meter marking
Standards	EN50618 (H1Z2Z2-K) TÜV R 60154895

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

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	72 h, 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 2 h at +90 °C and 2 h at 20 °C (Limit values acc. EN 50618 Table 1)
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)
Dynamic penetration test	Spring-steel-needle through insulation or sheath (EN50618 Annex D)
Sheath resistance against acid and alkaline	168 h at 23 °C in N-Oxal acid and N-Sodium hydroxide (EN 60811-404); ammoniac-resistant
Behavior 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 bei -40 °C
Cold bending test	-40±2 °C, 16 h (EN 60811-505)
Damp heat test	Duration 1000 h 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.		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
black	red						
746410	746411	1 x 4.0	50 x 0.31	5.09	5,6	38.4	61.0
746412	746413	1 x 6.0	75 x 0.31	3.39	6,0	57.6	82.0
746414	746415	1 x 10.0	77 x 0.41	1.95	7,1	96.0	124.0
746416	-	1 x 16.0	120 x 0,41	1.24	9,4	153.6	200.0



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