

HIKRA®

solar cables
part of HIS CONNECT™

HIKRA® TECH 1500V

EN50618 (H1Z2Z2-K)

IEC62930 (131)

DATA SHEET

IN FOCUS IS THE PLANT REVENUE
IN OPERATION OUR SOLAR CABLES

- Direct burial
- CPR compliant EN50575
- Higher mechanical stability
- 25 years lifetime expectancy
- 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... mm² TÜV R 60154895 Dca DoP 9093 CE Lot number with meter marking
Standards	EN50618 (H1Z2Z2-K) TÜV R 60154895

Technical characteristics	
Nominal voltage	1,5kV 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		Cross-section mm²	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

www.his-solar.com

Headquarter Germany

HIS Renewables GmbH
Siemensstraße 4D
64760 Oberzent
T +49 60689314400
E info@his-solar.de

France

HIS Renewables SARL
48 rue Claude Balbastre
34070 Montpellier
T +33 467276820
E info.fr@his-solar.com

Spain

HIS Soluciones de Sistemas Solares S.L.
Avenida de Brasil 17
Madrid 28020
T +34 916320493
E info.es@his-solar.com

Turkey

HIS Solar Sistemleri A.S.
Alsancak Mah. 1479 Sk. No.: 22/7
35220 Konak - Izmir
T +90 2324220931
E info.tr@his-solar.com