HIKRA®

solar cables
part of HIS CONNECT®

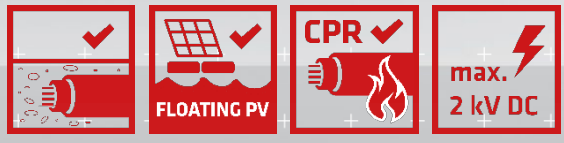
HIKRA® SOL

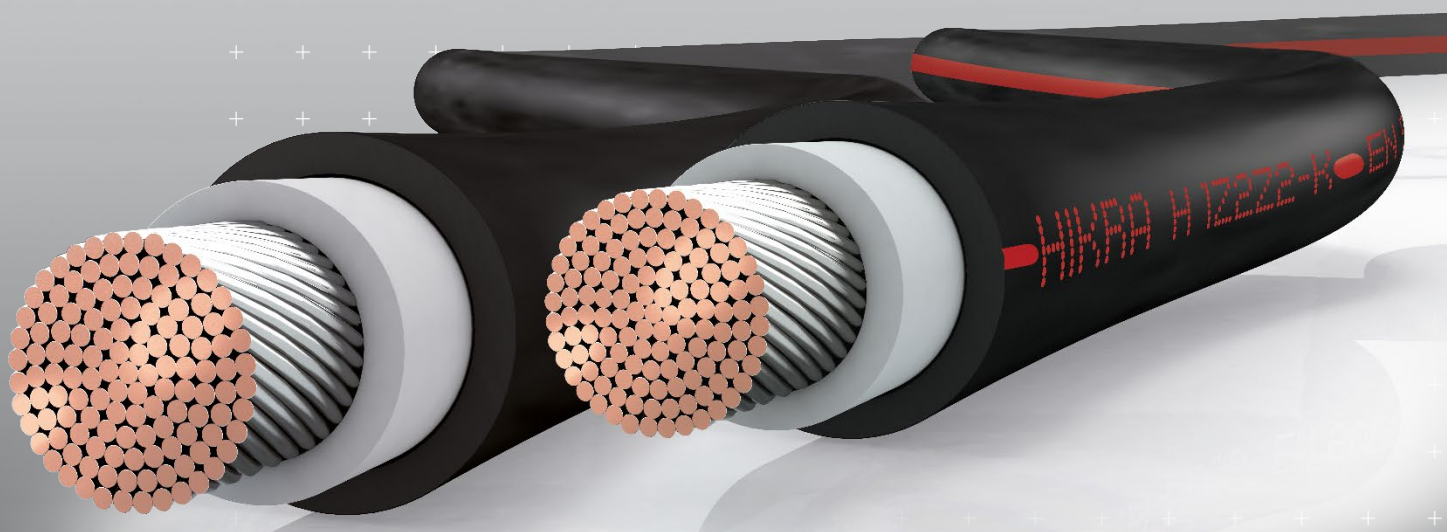
EN50618 (H1Z2Z2-K) IEC62930 (IEC 131)
TÜV 2 PfG 2750 (PV 1500-WR)

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
- Additionally certified for floating PV according to TÜV 2 Pfg 2750 (PV 1500-WR)
- 25 years expected service life
- Continuous meter marking





HIS
the power behind re:energy

HIKRA® SOL

TECHNICAL DATA

Type Approved
Safety
Regular Production
Surveillance
TÜVRheinland®
CERTIFIED
www.tuv.com
ID 1419041513

Construction	
Strand construction	Tin-plated copper strand (electrolytic copper), fine wire acc. IEC 60228 Class 5
Insulation	Electron-beam cross-linked Polyolefin; Shore hardness D 32
Outer Sheath	Electron-beam cross-linked special compound XLPO; Shore hardness D 36
Colour	Sheath: black, red; Insulation: clear – naturally colored
Marking	HIKRA SOL1500V H1Z2Z2-K IEC62930 1x6,0 mm² R 50408873 CE *with meter marking*
Standards	EN50618 (H1Z2Z2-K) TÜV R50363076; IEC62930 131 TÜV 50408873

Technical characteristics	
Nominal voltage	1,5kV DC and 1,0kV AC
Maximum permitted operating voltage:	1,8kV DC (2,0 kV DC internal examination)
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" October 2020
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)
DC direct voltage test	Water bath, at +85 °C +-5 °C, 240h, test voltage 1.8kV DC
Advanced DC dc voltage test	Water bath, at +85 °C +-5 °C, 240h, test voltage 3.6kV DC (Floating PV TÜV 2 Pfg 2750)
Capacity measurement water storage	14 days water storage at +90+-5 °C; capacitance measurement after 1 day. After 14 days capacity measurement max. 10 %, resp. after 7 days 4 % higher than compared to capacity measurement after day 1 (Floating PV TÜV 2 Pfg 2750).
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 (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
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 at -40 °C
Cold elongation test	Max. 30% elongation at -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 stripes	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
739065	739066	1 x 1.5	29 x 0.25	13.7	4.6	14.0	32.0
738609	738610	1 x 2.5	47 x 0.25	8.21	5.0	24.0	41.0
738613	738614	1 x 4.0	52 x 0.3	5.09	5.4	38.4	54.0
738615	738616	1 x 6.0	78 x 0.3	3.39	6.0	57.6	73.0
738617	738618	1 x 10.0	77 x 0.4	1.95	7.2	96.0	120.0
738619	-	1 x 16.0	126 x 0.4	1.24	8.7	153.6	189.0
739061	-	1 x 25.0	190 x 0.4	0.795	10.4	240.0	277.0

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