HIKRA®

solar cables
part of **HIS** CONNECT®

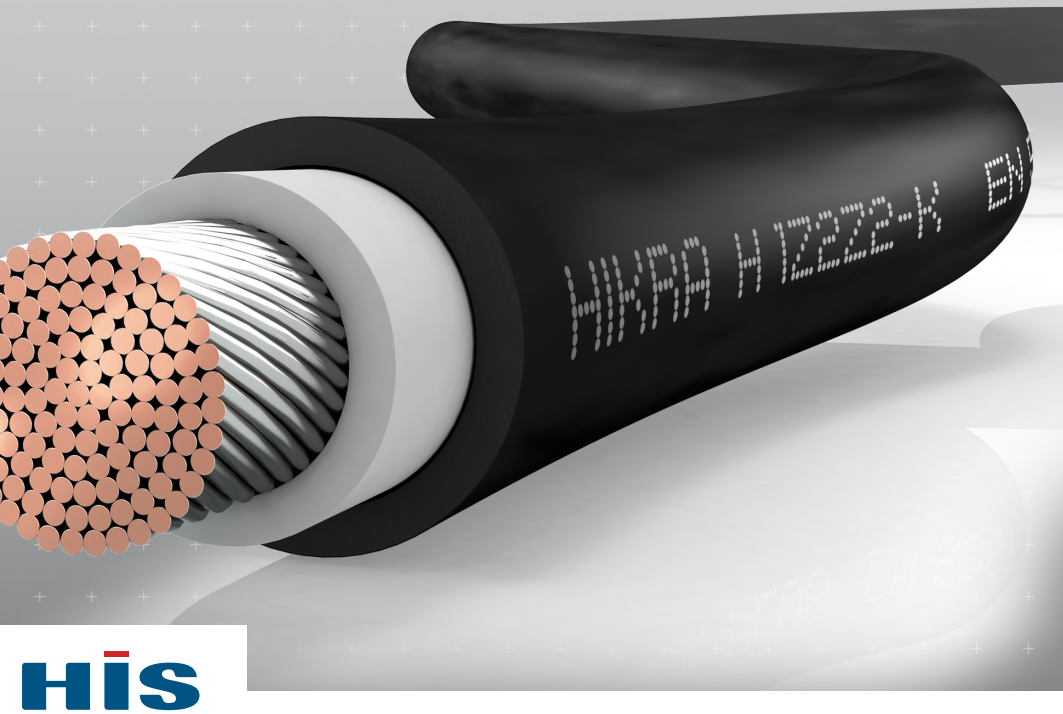
HIKRA® SOL

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

DATASHEET

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)
- CPR tested according to BauPVO
- Global availability
- 25 years expected service life
- Continuous meter marking



HIS
we connect solar energy

HIKRA® SOL

TECHNICAL DATA

TÜVRheinland® CERTIFIED

Type Approved
Safety
Regular Production
Surveillance

www tuv com

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 SOL 1500V H1Z2Z2-K PV1500-WR IEC 62930 IEC 131 1x6,0mm²; R 50408873 CE; Metermarkierung
Standards	EN50618 (H1Z2Z2-K) TÜV R 50363076; IEC62930 131 TÜV R 50408873, 2 PfG 2750/09.20 TÜV R 50533129

Technical characteristics	
Nominal voltage	1,5 kV DC and 1,0 kV AC
Maximum permitted operating voltage	1,8 kV DC (2,0 kV internal examination)
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“ October 2020
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)
DC direct voltage test	Water bath, at +85 °C +-5 °C, 240 h, test voltage 1.8 kV DC
Advanced DC dc voltage test	Water bath, at +85 °C +-5 °C, 240 h, test voltage 3.6 kV 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).
Increased water-repellent properties	Long-term insulation resistance test in a water bath at 90 °C >3GΩ*m (additional internal test according to UL44 cl. 5.4 & UL2566 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 elongation test	Max. 30 % elongation at -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 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 stripes						
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

www.his-solar.com

Headquarter Germany
HIS Renewables GmbH
Siemensstraße 4
64760 Oberzent
T +49 606 8931 4430
E sales@his-solar.com

France
HIS Renouvelables SARL
48, rue Claude Balbastre
34070 Montpellier
T +33 467 276 820
E info.fr@his-solar.com

Spain
HIS Soluciones de Sistemas Solares S.L.
Avenida de Brasil 17
28020 Madrid
T +34 916 620 493
E info.es@his-solar.com

Turkey
HIS Solar Sistemleri A.S.
Alsancak Mah. 1479 Sk. N15
K3 D12 35220 Konak Izmir
T +90 232 422 0931
E info.tr@his-solar.com

Poland
T +48 576 030 900
E info.pl@his-solar.com
BeNeLux
T +31 641 248 141
E info.nl@his-solar.com