

HIKRA®

solar cables
part of HIS CONNECT™

HIKRA® PLUS DB

EN50618 (H1Z2Z2-K)

IEC62930

DATA SHEET

IN FOCUS IS THE PLANT REVENUE
IN OPERATION OUR SOLAR CABLES

- Higher water resistance; Direct burial
- CPR compliant EN50575
- Higher mechanical stability
- 25 Years expected lifetime
- Meter Marking



HIKRA® PLUS DB

TECHNICAL DATA



Type Approved
Safety
Regular Production
Surveillance



www.tuv.com
ID 1111221037

Construction	
Strand construction	Tin-plated copper strand (electrolytic copper), fine wire acc. IEC 60228 Class 5
Insulation	Cross-linked Polyolefin; Shore hardness D 32; Minimum wall thickness acc. EN 50618 table 1
Outer Sheath	Cross-linked special compound XLPO; Shore hardness D 36; Minimum wall thickness acc. EN 50618 table 1
Colour	Sheath: black, red, blue; Insulation: clear – naturally colored
Marking	HIKRA® PLUS DB cross-section EN 50618 H1Z2Z2-K 62930 IEC 131 CE R601480037 Chargen No Meter marking
Standards	EN50618 (H1Z2Z2-K) TÜV R60148037; IEC62930 131

Technical characteristics	
Nominal voltage	1,5kV DC and 1,0kV 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“ November 2013
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
Crushing- and impact-resistance	(additional internal examination acc. UL44 cl. 5.4 & UL2556 6.4.4.2.1)
Sheath resistance against acid and alkaline	Impact-Resistance UL 854.23 and Crushing-Resistance UL 854.24 (internal examination)
Behaviour in case of fire	168h at 23 °C in N-Oxal acid and N-Sodium hydroxide (EN 60811-404); ammoniac-resistant
CPR-Performance	Flame-retardant acc. EN 60332-1-2 Annex A, low smoke emission (EN 61034,-2)
Halogen-free	Dca; Fire behavior EN50575
Cold impact test	EN 50525-1, Annex B
Cold bending test	EN 60811-506, EN 50618 Annex C.1 at -40 °C
Damp heat test	-40±2 °C, 16h (EN 60811-505)
Minimum bending radius flexible / fixed	Duration 1000h at 90 °C and min. 85 % relative humidity (EN 60068-2-78)

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						
747455	747456	1 x 4.0	56 x 0.31	5.09	5.5	38.4	56.0
747457	747458	1 x 6.0	80 x 0.31	3.39	6.0	57.6	75.0
747459	747460	1 x 10.0	80 x 0.41	1.95	7.1	96.0	115.0

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