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EN 50618: 2014

Solar PV Cable · H1Z2Z2-K



Solar PV Cable H1Z2Z2-K

TC / XLPO / XLPO (LSZH)



01 | APPLICATION:

KUKA Cable® Solar PV Cable is specified cables for use in Photovoltaic (PV) Systems, in particular for installation at the Direct Current (d.c.) side. These cables are suitable for permanent outdoor use for more than 25 years under variable demanding climate conditions. Relatively stringent requirements are set for these products in line with the expected harsh usage conditions.

02 | CONSTRUCTION:

Conductor: Class 5 Flexible Annealed Stranded Tinned Copper Acc. to EN-IEC 60228
Insulation: Low-Smoke Zero-Halogen (LSZH)
 E-beam Cross-linked Compound (XLPO)
Color: ● Black ○ White
Jacket: Low-Smoke Zero-Halogen (LSZH) Flame Resistance
 E-beam Cross-linked Compound (XLPO)
Color: ● Black ● Red ● Blue

03 | CHARACTERISTICS:

ELECTRICAL PERFORMANCE

Rated Voltage: DC (U0/U) 1.5/1.5kV
 AC (U0/U) 1.0/1.0 kV
Max. Permitted Operating Voltage: DC (U0/U) 1.8/1.8kV
Spark Test (Under Production): 10 kV AC
Test Voltage (Finished Cable): 6.5 kV AC 5 Min

MECHANICAL PERFORMANCE

Minimum Bending Radius: Fixed 5x Outer Ø
Ambient Temperature: -40 °C to +90 °C
Max. Temperature at Conductor: +120 °C (20,000 H)
Max. Short-circuit Temperature: +250 °C (5 Sec)
Tensile Strength Before Aging: ≥8 N/mm²
Elongation Strength Before Aging: ≥125%
Expected Service Life: 30 Years

04 | STANDARDS:

EN 50618: 2014
 62930 IEC 131

05 | TESTS:

Low Smoke: EN 61034-2: Table 2
Halogen Free: EN 50525:1 2011 Annex B
Ozone Resistance: EN 50396: 2005
UV Resistance/Weathering: EN 50298-4-7
Vertical Flame Propagation: EN 60332-1-2: 2004 Annex A
Vertically-mounted Bunched Flame Propagation: EN 60332-3-25: 2018
Water Resistance: AD7 Immersion acc. to IEC 60364-5-52

06 | HIGH PERFORMANCE ON REQUEST:

Reaction to Fire - CPR: EN 50575: 2014
 EN 50399: 2011
Option 01 : Dca (s2,d2,a1)
Option 02 : Cca (s1a,d2,a1)
Water Resistance: EN 50525-2-21
Option : AD8 Submersion
 (For more detailed information, please consult your Sales Manager.)

07 | PRINTING:

SHANGHAI KUKA CABLE (TÜV LOGO) TÜV EN50618 IEC 131 H1Z2Z2-K [NNXMM2]1500V DC (IEC62930/EN50618) HALOGEN FREE LOW SMOKE CE [Order No.] SOLAR CABLE [Meter Marking]

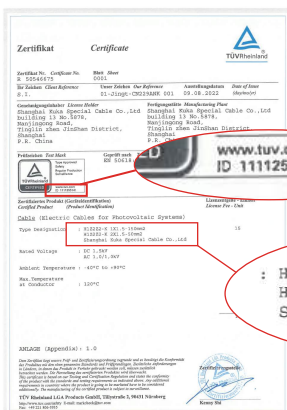


DIMENSIONS

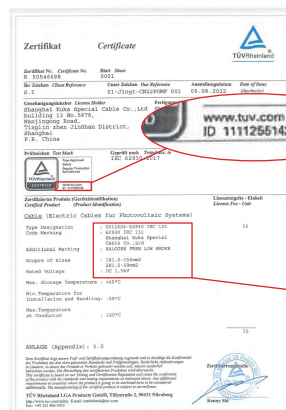
NOMINAL CROSS SECTIONAL AREA mm ²	CONDUCTOR CONSTRUCTION N x Max- Ø [mm]	THICKNESS OF INSULATION SPECIFIED VALUE mm	THICKNESS OF SHEATH SPECIFIED VALUE mm	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT g/m
1.5	39 x 0.25	0.7	0.8	4.6	34
2.5	49 x 0.25	0.7	0.8	5.0	45
4	56 x 0.29	0.7	0.8	5.5	56
6	84 x 0.29	0.7	0.8	6.0	77
10	142 x 0.29	0.7	0.8	7.5	127
16	238 x 0.29	0.7	0.9	8.8	190
25	375 x 0.29	0.9	1.0	11.0	292
35	520 x 0.29	0.9	1.1	12.3	390
50	760 x 0.29	1.0	1.2	14.6	558
70	1085 x 0.29	1.1	1.2	16.5	770
95	760 x 0.39	1.1	1.3	18.0	960
120	950 x 0.39	1.2	1.3	19.7	1185
150	1216 x 0.39	1.4	1.4	21.0	1470
185	1460 x 0.39	1.6	1.6	24.7	1845
240	1968 x 0.39	1.7	1.7	27.0	2350

NOMINAL CROSS SECTIONAL AREA mm ²	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 20°C ohms/km	MAXIMUM DC RESISTANCE OF CONDUCTOR AT 90°C ohms/km	CURRENT CARRYING CAPACITY Amps			KUKA PART NO		
			Single Cable In Air	Single Cable On Surface	Two Cables Adjacent On Surface	● BK	● RD	● BL
1.5	13.70	17.468	30	29	24	KKSC88015BK	KKSC88015RD	KKSC88015BL
2.5	8.21	10.468	41	39	33	KKSC88025BK	KKSC88025RD	KKSC88025BL
4	5.09	6.490	55	52	44	KKSC88040BK	KKSC88040RD	KKSC88040BL
6	3.39	4.322	70	67	57	KKSC88060BK	KKSC88060RD	KKSC88060BL
10	1.95	2.486	98	93	79	KKSC88100BK	KKSC88100RD	KKSC88100BL
16	1.24	1.581	132	125	107	KKSC88160BK	KKSC88160RD	KKSC88160BL
25	0.795	1.013	176	167	142	KKSC88250BK	KKSC88250RD	KKSC88250BL
35	0.565	0.720	218	207	176	KKSC88350BK	KKSC88350RD	KKSC88350BL
50	0.393	0.501	276	262	221	KKSC88500BK	KKSC88500RD	KKSC88500BL
70	0.277	0.353	347	330	278	KKSC88700BK	KKSC88700RD	KKSC88700BL
95	0.21	0.267	416	395	333	KKSC88950BK	KKSC88950RD	KKSC88950BL
120	0.164	0.209	488	464	390	KKSC881200BK	KKSC881200RD	KKSC881200BL
150	0.132	0.168	566	538	453	KKSC881500BK	KKSC881500RD	KKSC881500BL
185	0.108	0.137	644	612	515	KKSC881850BK	KKSC881850RD	KKSC881850BL
240	0.0817	0.104	775	736	620	KKSC882400BK	KKSC882400RD	KKSC882400BL

KUKA CABLE® reserves the right to change specifications without prior notice.



EN 50618



IEC 62930

Pallet Package Quantity

Package Unit Cable	100m/Cardboard	500m/Drum
4mm ²	17,500m	13,500m
6mm ²	17,500m	13,500m

Cable	Main View	Top View
4mm ² 6mm ² 100m/Cardboard		
4mm ² 6mm ² 500m/Drum		
Container Loading Perspective		





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