

PHOTOVOLTAIC CABLE

Photovoltaic cables

H1Z2Z2-K



APPLICATION

Solar cables (PV) H1Z2Z2-K acc. to EN 50618, are intended for use in Photovoltaic Power Supply Systems at nominal voltage rate up to 1,5/1,5kV DC.

They are suitable for applications indoor and/or outdoor, in industrial and agriculture fields, in/at equipment with protective insulation (Protecting Class II), in explosion hazard areas. They may be installed fixed, freely suspended or free movable, in cable trays, conduits, on and in walls.

CONSTRUCTION

- Conductor : Flexible tinned copper class 5 (K) as per EN 60228
- Insulation: Halogen-free cross-linked LS0H-XL compound, Black
- Outer sheath: Halogen-free cross-linked LS0H-XL compound, Black or Red

CHARACTERISTICS

- Rated voltage
DC: 1,5/1,5 kV
AC: 1,0/1,0 kV
- Max. permissible operating voltage:
AC 1,2/1,2 kV
DC 1,8/1,8 kV
- Test voltage
AC: 6,5 kV / DC: 15 kV (5 min)
- Minimum bending radius
Fixed installation approx. 4 x outer diameters
Flexing 10 x cable diameter
- Temperature range
Operating temperature: -40°C to +90°C
Max. conductor temperature: 120°C

SPECIFICATION

EN 50618 Electric cables for photovoltaic systems

No flame propagation in single cable : IEC 60332-1-2 but According to EN 50618

Halogen free : IEC 60754-1 but According to EN 50618 (LS0H)

Non-corrosive : IEC 60754-2 but According to EN 50618

Low smoke emission : IEC 61034-1-2 but According to EN 50618 (LS0H)

Low toxicity : EN 50305

UV protection : HD 22.2 Test Type B UV Resistance per UL 1581 -Xeno-Test but According to EN 50618

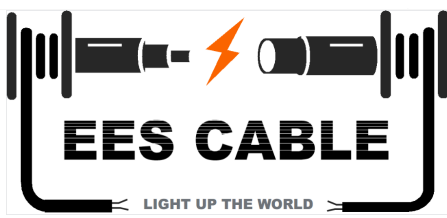
Cold bending test at -40°C : EN 60811-1-4 (According to EN 50618)

Impact test at -40°C : EN 50305 (According to EN 50618) Ozone resistance : EN 50396 (According to EN 50618)

Chemical resistance: mineral oil, acid and alkali, ammonia : Resistance

Presence of water : AD8





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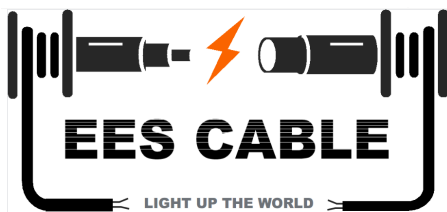
EN 50618

No. of cores and nominal cross section	Maximum diameter of copper wires	Nominal insulation thickness	Nominal sheath thickness	Approx. weight	Max. DC resistance of conductor at 20°C
No. × mm ²	mm	mm	mm	kg/km	Ω/km
1×1.5	0.26	0.7	0.8	35	13.7
1×2.5	0.26	0.7	0.8	46	8.21
1×4	0.31	0.7	0.8	59	5.09
1×6	0.31	0.7	0.8	80	3.39
1×10	0.41	0.7	0.8	129	1.95
1×16	0.41	0.7	0.9	188	1.24
1×25	0.41	0.9	1.0	291	0.795
1×35	0.41	0.9	1.1	392	0.565
1×50	0.41	1.0	1.2	543	0.393
1×70	0.51	1.1	1.2	764	0.277
1×95	0.51	1.1	1.3	1005	0.210
1×120	0.51	1.2	1.3	1310	0.164
1×150	0.51	1.4	1.4	1575	0.132
1×185	0.51	1.6	1.6	1952	0.108
1×240	0.51	1.7	1.7	2546	0.0817

Current rating conversion factors for different ambient temperatures						
Ambient temperature, °C	Up to 60	70	80	90	100	110
Conversion factor	1.00	0.91	0.82	0.71	0.58	0.41

Hangzhou Easy Electric Wire and Cable Co., LTD

Add: Room 305, Building 2, No.380 Fengxin Road, Hangzhou, China



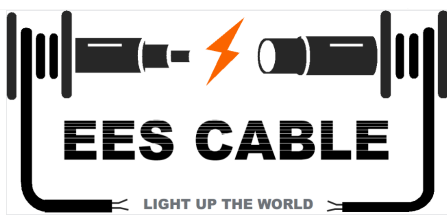
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Nominal cross section	Current Carrying Capacity		
	Single cable, in air	Single cable on a surface	Two loaded cables touching, on a surface
mm ²	A	A	A
1.5	30	29	24
2.5	41	39	33
4	55	52	44
6	70	67	57
10	98	93	79
16	132	125	107
25	176	167	142
35	218	207	176
50	276	262	221
70	347	330	278
95	416	395	333
120	488	464	390
150	566	538	453
185	644	612	515
240	775	736	620

Ambient temperature: 60°C, Maximum conductor temperature: 120°C.

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No. of cores and nominal cross section	Maximum diameter of copper wires	Nominal insulation thickness	Nominal sheath thickness	Approx. weight	Max. DC resistance of conductor at 20°C
No. × mm ²	mm	mm	mm	kg/km	Ω/km
2×2.5	0.26	0.7	0.8	100	8.21
2×4	0.31	0.7	0.8	120	5.09
2×6	0.31	0.7	0.8	160	3.39
2×10	0.41	0.7	0.8	260	1.95
2×16	0.41	0.7	0.9	400	1.24
2×25	0.41	0.9	1.0	580	0.795
2×35	0.41	0.9	1.1	800	0.565
2×50	0.41	1.0	1.2	1100	0.393

Current rating conversion factors for different ambient temperatures

Ambient temperature, °C	Up to 60	70	80	90	100	110
Conversion factor	1.00	0.91	0.82	0.71	0.58	0.41

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