

Photovoltaic Solar H1Z2Z2-K Cable



Eland Product Group: E6S

APPLICATION

Updated harmonised (H1Z2Z2-K) European standard solar cable intended for the interconnection within photovoltaic systems such as solar panel arrays. Suitable for fixed installations, internal and external, within conduit or systems. Impact tested - Suitable for direct burial. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment. Water resistant to AD8.

CHARACTERISTICS

Voltage Rating U_o/U

AC: 1000/1000V
DC: 1500/1500V

Maximum Voltage (U_{max})

1800V

Test Voltage

6.5kV AC

Temperature Rating

Fixed: -40°C to +90°C

Minimum Bending Radius

5 x overall diameter

Maximum Conductor Temperature

+120°C (for 20000h)

CONSTRUCTION

Conductor

Class 5 flexible tinned copper conductor

Insulation

Halogen-free cross-linked compound

Sheath

Halogen-free cross-linked, flame retardant compound

Sheath Colour

● Black
Other colours available on request

STANDARDS

EN 50618, TÜV 2 PFG 1169/08.2007, EN 50288-3-7,
EN 60068-2-78, EN 50395

Flame retardant to IEC/EN 60332-1-2

Low Smoke Zero Halogen to IEC/EN 60754-1/2,
IEC/EN 61034-1/2, EN 50267-2-2

Ozone and UV Resistant to EN 60811-403, EN 50396,
EN ISO 4892-1/3,

Water Resistant to AD8

ISO/IEC 17025 LABORATORY TESTED

This product is subject to the Quality Assurance protocols of The Cable Lab®, an ISO/IEC 17025 accredited cable testing laboratory. Testing includes vertical flame, conductor resistance, tensile & elongation, and dimensional consistency, verified to published standards and approved product drawings.



REGULATORY COMPLIANCE

This cable is compliant with European Regulation EN 50575, the Construction Products Regulation.



This cable meets the requirements of the Low Voltage Directive 2014/35/EU and the RoHS Directive 2011/65/EU. RoHS compliance has been tested and confirmed by The Cable Lab® as meeting the requirements of the BSI RoHS Trusted Kitemark™.





DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm ²	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	TENSILE STRENGTH IN OPERATION N
E6S10015BK000	1	1.5	4.6	36	22
E6S10025BK000	1	2.5	5.0	46	37
E6S10040BK000	1	4	5.6	62	60
E6S10060BK000	1	6	6.1	82	90
E6S10100BK000	1	10	7.1	125	150
E6S10160BK000	1	16	8.5	190	240
E6S10250BK000	1	25	10.4	285	375
E6S10350BK000	1	35	11.5	385	525
E6S10500BK000	1	50	13.7	540	750
E6S10700BK000	1	70	15.8	740	1050
E6S10950BK000	1	95	17.3	965	1350
E6S11200BK000	1	120	19.1	1210	1800
E6S11500BK000	1	150	21.4	1495	2250
E6S11850BK000	1	185	24.9	1885	2775
E6S12400BK000	1	240	27.3	2395	3600

ELECTRICAL CHARACTERISTICS

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		
			Single Cable In Air	Single Cable On Surface	Two Cables Adjacent On Surface
1.5	13.70	17.468	30	29	24
2.5	8.21	10.468	41	39	33
4	5.09	6.490	55	52	44
6	3.39	4.322	70	67	57
10	1.95	2.486	98	93	79
16	1.24	1.581	132	125	107
25	0.795	1.013	176	167	142
35	0.565	0.720	218	207	176
50	0.393	0.501	276	262	221
70	0.277	0.353	347	330	278
95	0.21	0.267	416	395	333
120	0.164	0.209	488	464	390
150	0.132	0.168	566	538	453
185	0.108	0.137	644	612	515
240	0.0817	0.104	775	736	620

DE-RATING FACTORS

AIR TEMPERATURE	UP TO 60°C	70°C	80°C	90°C	100°C	110°C
DE-RATING FACTOR	1.00	0.91	0.82	0.71	0.58	0.41

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.