Photovoltaic Solar H1Z2Z2-K Cable

Eland Product Group: A6S

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, but not direct burial applications. Our solar cable is ozone-resistant according to BS EN 50396, UV resistant according to HD 605 S2 and is tested for durability according to EN 60216. For installations where fire, smoke emissions and toxic fumes create a potential risk to life and equipment.

CHARACTERISTICS

Voltage Rating Uo/U
AC: 1000/1000V
DC: 1500/1500V

Maximum Voltage (Umax)
1800V

Test Voltage
6.5kV AC according to BS EN 50395

Temperature Rating
Fixed: -40°C to +90°C

Minimum Bending Radius
Fixed: 4 x overall diameter
Flexed: 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,

Flame retardant according to IEC/EN 60332-1-2
Low Smoke Zero Halogen according to IEC/EN 60754-1/2, IEC/EN 61034-1/2
UV Resistant according to HD 605 S2

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.

UKAS ISO/IEC 17025 Accredited Testing Laboratory 8578

bsi. ISO 9001 Quality Management FS 672069 | ISO 14001 Environmental Management EMS 672067 | ISO 45001 Occupational Health and Safety Management OHS 672066

REGULATORY COMPLIANCE

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

CPR COMPLIANT EN 50575

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™.

bsi. RoHS Trusted KITEMARK™ KM 634267 | RoHS | CE

DIMENSIONS

ELAND PART NO.	NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	NOMINAL OVERALL DIAMETER mm	NOMINAL WEIGHT kg/km	TENSILE STRENGTH IN OPERATION N
E6S10025BK000	1	2.5	4.9	40	37
E6S10040BK000	1	4	5.4	56	60
E6S10060BK000	1	6	5.9	73	90
E6S10100BK000	1	10	6.9	115	150
E6S10160BK000	1	16	8.0	170	240
E6S10250BK000	1	25	10.3	270	375
E6S10350BK000	1	35	11.8	365	525
E6S10500BK000	1	50	13.5	508	750
E6S10700BK000	1	70	16.0	729	1050
E6S10950BK000	1	95	17.8	923	1350
E6S11200BK000	1	120	19.8	1178	1800
E6S11500BK000	1	150	21.1	1460	2250
E6S11850BK000	1	185	24.4	1777	2775
E6S12400BK000	1	240	27.1	2252	3600

CONDUCTORS

Class 5 Flexible Copper Conductors for Single Core and Multi-Core Cables

NOMINAL CROSS SECTIONAL AREA mm²	MAXIMUM RESISTANCE OF CONDUCTOR AT 20°C ohms/km
2.5	8.21
4	5.09
6	3.39
10	1.95
16	1.24
25	0.795
35	0.565
50	0.393
70	0.277
95	0.21
120	0.164
150	0.132
185	0.108
240	0.0817

The above table is in accordance with EN 60228

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ELECTRICAL CHARACTERISTICS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA mm²	CURRENT CARRYING CAPACITY Amps
		In Air
1	2.5	41
1	4	55
1	6	70
1	10	98
1	16	132
1	25	176
1	35	218
1	50	276
1	70	347
1	95	416
1	120	488
1	150	566
1	185	644
1	240	775

Based on a 60°C ambient temperature

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