



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 U₀/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

DIMENSIONS

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

ELECTRICAL CHARACTERISTICS

NOMINAL SECTIONAL AREA mm ²	CROSS AREA	MAXIMUM RESISTANCE OF CONDUCTOR 20°C ohms/km	DC OF AT	MAXIMUM RESISTANCE OF CONDUCTOR 90°C ohms/km	DC OF AT	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