

## SOLAR ENERGY CABLE



### APPLICATION

Standard solar cable intended for the connection of solar panel arrays and similar equipment. Suitable for internal and external installations, Fixed, or within conduit. Our solar cable is manufactured in accordance to BS EN 50618 and meets harmonised code of H1Z2Z2-K.

### CONSTRUCTION

**Conductor:** Electrolytic annealed flexible tinned copper conductor (class 5)

**Insulation:** Cross Linked Halogen Free compound

**Sheath:** Cross Linked Halogen Free compound

**Sheath Colour:** **Black** or **Red**

### CABLE STANDARDS

BS EN 50618  
EN 50288-3-7  
EN 60068-2-78  
EN 50395  
Halogen free to EN 50267 / IEC 60754  
Smoke Density: light transmittance according to EN 50267 / IEC 61034  
Flame retardant to IEC/EN 60332-1-2  
Ozone and UV Resistant to EN 60811-403  
EN 50396 and EN ISO 4892-1/3  
AD7 & AD8 water resistance available.

### CHARACTERISTICS

**Nominal Voltage:** 600V-1000V AC  
1800V DC

**HCl Content:** <0.5%

**pH:** > 4.3

**Conductivity:** <10 IS/mm

**Smoke Density:** light transmittance: >60%

**Test Voltage:** 6.5kV AC

#### Temperature Limits

**Ambient Temperature:** -40 to 90°C

**Maximum conductor temp:** 120°C

**Maximum short circuit temp:** 250°C (max 5s)

**Short Circuit temp:** 250°C

#### Minimum Bending Radius:

As per cable manufacturer datasheet

Should not be installed at temperatures below 0°C

## SOLAR ENERGY CABLE - DIMENSIONS

CCC CODE	CONDUCTOR SIZE (MM <sup>2</sup> )	STRANDING (MM)	NO. OF CORES	WEIGHT (Kg/Km)	APPROX OVERALL DIAMETER (MM)
SOLAR1X1/5BK	1.5	30/0.25	1	40	4.90
SOLAR1X2/5BK	2.5	50/0.25	1	49	5.35
SOLAR1X4BK	4	56/0.30	1	66	6.00
SOLAR1X6BK	6	84/0.30	1	86	6.55
SOLAR1X10BK	10	80/0.40	1	132	7.60
SOLAR1X16BK	16	126/0.40	1	188	8.60
SOLAR1X25BK	25	196/0.40	1	294	10.80
SOLAR1X35BK	35	276/0.40	1	390	11.90
SOLAR1X50BK	50	396/0.40	1	540	14.00
SOLAR1X70BK	70	360/0.50	1	740	16.10
SOLAR1X95BK	95	475/0.50	1	965	17.50
SOLAR1X120BK	120	608/0.50	1	1210	19.50
SOLAR1X150BK	150	756/0.50	1	1495	21.80
SOLAR1X185BK	185	925/0.50	1	1885	25.00
SOLAR1X240BK	240	1221/0.50	1	2395	27.60

## SOLAR ENERGY CABLE - CURRENT CARRYING CAPACITY / RESISTANCE

NOMINAL CROSS SECTIONAL AREA (MM <sup>2</sup> )	ONE SINGLE CORE CABLE			MAXIMUM DC RESISTANCE AT 20°C	MAXIMUM DC RESISTANCE AT 90°C
	SINGLE CABLE IN FREE AIR	SINGLE CABLE FREE ON A SURFACE	TWO CABLES ADJACENT ON A SURFACE		
1.5	30	29	24	13.70	17.468
2.5	41	39	33	8.21	10.469
4	55	52	44	5.09	6.490
6	70	67	57	3.39	4.322
10	98	93	79	1.95	2.486
16	132	125	107	1.24	1.581
25	176	167	142	0.795	1.013
35	218	207	176	0.565	0.720
50	276	262	221	0.393	0.501
70	347	330	278	0.277	0.353
95	416	395	333	0.210	0.267
120	488	464	390	0.164	0.209
150	566	538	453	0.132	0.168
185	644	612	515	0.108	0.137
240	775	736	620	0.0817	0.104

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