

**Electric cables for photovoltaic systems**

**DESCRIPTION**

Cables manufactured with cross linked elastomer insulation and outer sheath. Suitable for photovoltaic installations. Construction is according to EN 50618 / IEC 62930

**APPLICATIONS**

Indoor, outdoor, industrial, agricultural, fixed or mobile photovoltaic solar installations with trackers. It can be installed in trays, ducts and equipment. Suitable for direct burial. Suitable for use with class II equipment.

**CONSTRUCTION**

- 1 - Conductor: Tinned copper, flexible class 5 a/EN 60228
- 2 - Insulation: Cross linked compound, type Z2 a/EN 50618
- 3 - Outer sheath: Cross linked compound, type Z2 a/EN 50618
- Exterior colour: red, black or blue



**TECHNICAL SPECIFICATIONS**

- Rated voltage: 1.000/1.000 V ac o 1.500/1.500 V dc
- Max voltage: 1.200/1.200 V ac o 1.800/1.800 V dc
- Test voltage: 6.500 V ac
- Operating temperature: -40 to +120 °C
- Maximum short-circuit temperature: 250 °C (max. 5 s)
- Bending radius: 5 Ø
- Water resistance: AD8 a/IEC 60364-3
- Contamination resistance: AF3 a/IEC 60364-3
- UV and ozone resistance: Complies a/EN 50618
- Service life: 20.000 h at 120 °C operating temperature a/IEC 60216  
 25 years at 90 °C operating temperature

**FIRE BEHAVIOUR SPECIFICATIONS**

- CPR classification (class): Dca-s2, d2, a1 a/EN 50575

TEST	STANDARDS	VALUES
Flame retardant	EN 60332-1-2, IEC 60332-1-2	O.K.
Low Smoke emission:	EN 61034-2, IEC 61034-2	O.K., transmittance > 60%
Halogen free (HCl)	EN 60754-1, IEC 60754-1	< 0,5, O.K.
Determination of degree of acidity of gases	EN 60754-2, IEC 60754-2	pH ≥ 4,3 / Conductivity ≤ 10 µS/mm

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**DATA AND DIMENSIONS**

Dimensions and weights are approximate, subject to small variations due to the process. Other sizes are possible on request.

Cross Section mm <sup>2</sup>	Insulation thickness, mm	Outer sheath thickness, mm	Outer Ø mm	Weight Kg/km
<b>1x2,5</b>	0,7	0,8	5,0	43
<b>1x4</b>	0,7	0,8	5,6	59
<b>1x6</b>	0,7	0,8	6,4	81
<b>1x10</b>	0,7	0,8	7,1	123
<b>1x16</b>	0,7	0,9	8,7	192

Current carrying capacities have been calculated for the installations conditions provided for in the standard, for other installation conditions must be used appropriated correction factors.

Cross Section mm <sup>2</sup>	Conductor resistance Ω/km at 20 °C	Insulation resistance MΩ·km		Current carrying capacities A (T. air 60 °C – T. conductor 120 °C)		
		at 20 °C	at 90 °C	Single cable free in air	Single cable on a surface	Two cables on a surface
1x2,5	8,21	> 690	> 0,69	41	39	33
1x4	5,09	> 580	> 0,58	55	52	44
1x6	3,39	> 500	> 0,50	70	67	57
1x10	1,95	> 420	> 0,42	98	93	79
1x16	1,24	> 340	> 0,34	132	125	107