



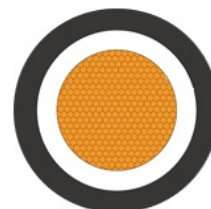
# PHOTOVOLTAIC CABLES

solar power system solutions

## Technical Data

### Applications

suited for connecting photovoltaic system components and outdoor applications with European standards



### Structure

- Soft stranded tinned copper conductor
- XLPE insulation
- XLPE Outer Sheath

### Standards

- 2Pfg 1169/08.2007
- XLPE insulation
- IEC60332-1-2

### Characteristics

- Ambient Temp. (°C): -40 ~ 90
- Max Rated Conductor Temp. (°C): 120 (for maximum 20,000 hours)
- Rated Voltage (V): AC 0.6/1kV  
DC 1800V

### Construction

- Conductor
  - Material: Tinned copper Conductor
  - Maximum diameter of wires in conductor: see Table 1
  - Reference conductor diameter: see Table 1
- Insulation
  - Material: XLPE
  - Insulation Minimum Thickness: see Table 1
- Outer Sheath
  - Material: XLPE
  - Outer Sheath Minimum Thickness: see Table 1
  - Reference O.D of Cable: see Table 1

### Color

Insulation Color: white or black

Outer Sheath Color: Red and Black





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## Characteristics

Table 1

Construction n × sqmm	Max Wire Ø mm	Conductor Ø mm	Max Resistance at 20°C Ω/km	Insulation/Sheath Thickness mm	Cable O.D. mm
1 × 1.5	0.26	1.6	13.7	0.56/0.61	4.3
1 × 2.5	0.26	2.0	8.21	0.56/0.61	4.8
1 × 4	0.31	2.5	5.09	0.56/0.61	5.4
1 × 6	0.31	3.0	3.39	0.60/0.65	6.1
1 × 10	0.41	4.5	1.95	0.70/0.65	7.7
1 × 16	0.41	5.7	1.24	0.80/0.70	9.3
1 × 25	0.41	7.2	0.795	0.92/0.79	11.0
1 × 35	0.41	8.5	0.565	0.95/0.85	12.8

## Characteristics

### ■ Electrical Characteristics:

Max Conductor DC Resistance at 20°C (Ω/kM)	See Table 1
Min Insulation Volume Resistivity at 20°C (mΩ/kM)	10 <sup>14</sup>
Min Insulation Volume Resistivity at 90°C (mΩ/kM)	10 <sup>11</sup>
Dielectric Strength (AC 6.5kV/5min)	No Breakdown

### ■ Mechanical Characteristics:

Test Object	Insulation	Outer Sheath
Material	XLPE	XLPE
Tensile Strength-median (N/mm <sup>2</sup> )	6.5	8.0
Elongation at break-median Min (%)	125	125
Ageing Condition	(150±2)°C × 168h	(150±2)°C × 168h
After tensile strength-variation Max (%)	-30	-30
After elongation at break-variation Max (%)	-30	-30
Flame Test (IEC60332-1-2)	passed	passed