

Solarmax Flex AL Cable 0,6/1kVCA - 1,8kVCC

UL 4703

120 °C



Conductor

Made of aluminum wire, soft temper, flexible stranding

Insulation

LSHF - Thermosetting, non-halogenated polyolefin compound, natural color, 120 °C, with special characteristics of nonspreading, self-extinguishing fire and low smoke emission, free of heavy metals, complying with RoHS directives 2000/53 EC and 2002/95 EC, with UV protection, natural color.

Coverage

LSHF - Thermosetting, non-halogenated, polyolefin compound with special non-spreading, self-extinguishing characteristics. fire and low smoke emission, heavy metal free, meeting RoHS directives 2000/53 EC and 2002/95 EC, with UV protection for all cable colors.

Identification

Black, red and green / yellow

Maximum temperatures at the conductor

- Ambient temperatures: -40 to 90 °C
- Maximum conductor temperature: 120 °C (20,000 hours)
- Short circuit temperature: 250 °C (5 sec.)

Working voltage

AC (U_o/U) – 600/1.000 V

DC (U) – 1.800 V

Complementary Features

- Cost reduction compared to tinned copper conductor
- Excellent thermal properties (120 °C on conductor - 20,000 hours)
- Excellent weathering and UV resistance
- Excellent flexibility
- Flame retardant
- Low smoke emission
- Halogen-free
- Resistance to acid and alkaline solutions
- Resistance to low temperatures (-40 °C)
- Heavy metal free (RoHS)

Standards

- UI 4703 - ul standard for safety photovoltaic wire
- Astm b800 - standard specification for 8000 series aluminum alloy wire for electrical purposes - annealed and intermediate tempers

Dimensional Data

Section (mm ²)	Conductor Diameter (mm)	Insulation Thickness (mm)	Cover Thickness (mm)	Outer Diameter (mm)	Approx mass (kg/km)
6,00	3,4	0,7	0,8	6,4	44
10,00	4,2	0,7	0,8	7,3	59
16,00	5,3	0,8	0,8	8,5	81

Current Conduction Capacity

Section in Al (mm ²)	Outdoor Facility Protected from the Sun (A) *	Outdoor Facility Exposed to the Sun (A) *	Directly Buried Installation (A) **
6,00	48	42	42
10,00	61	53	53
16,00	85	74	71

* Considerations:

Ambient temperature: 40 °C;

Conductor temperature: 90 °C;

Two single-core cables, spaced $\geq 0,75 \times$ the outer diameter, horizontally.

** Considerations:

Ambient temperature: 30 °C;

Conductor temperature: 90 °C;

Depth: 0,5 m;

Two unipolar cables, laid horizontally against each other; Thermal resistivity of the soil: 2,5 K.m/W.