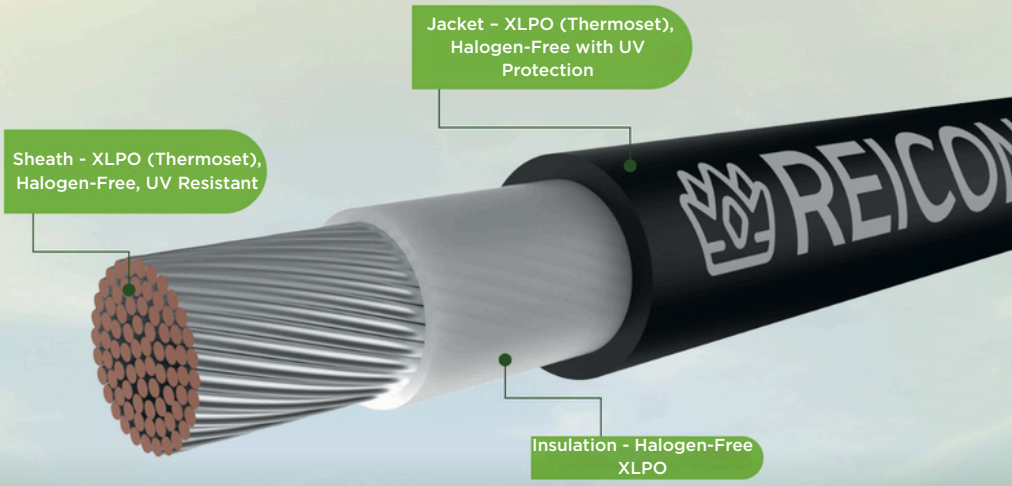
REISOLAR Photovoltaic Cable 0.6/1 kV AC - 1.8 kV DC



Thermal Characteristics

In continuous (ambient) operating conditions from -40°C to 90°C;

Under overload conditions: 120°C (20,000 h);

Under short-circuit conditions: 250°C (5 s).

Chemical Characteristics

Highly flexible, facilitating installation.

Operates in direct current with a maximum electrical voltage of 1.8 kV or in alternating current with a voltage of 0.6/1 kV.

Our cables are available in black, red, green and green/yellow. We also offer customized packaging with reels, spools, and coils in various sizes, tailored to your needs.

Emits low smoke and is halogen-free, preventing the release of toxic gases when exposed to extreme temperatures.

Offers excellent mechanical resistance, withstanding oscillatory movements caused by wind.

Application

REISOLAR CABLES

REISOLAR cables are designed **for use in installations between photovoltaic modules and the DC terminals of the inverter.** They meet national and international standards and follow the strictest quality controls.

CONDUCTORS

The conductors are **made of electrolytic copper wires with 99.9% purity, tinned, and with class 5 stranding.**

These characteristics guarantee a **25-year warranty** when installed and operated according to the standards.

Applicable Standards

- STANDARD NBR NM-280 — **Insulated cable conductors**
- STANDARD NBR 16690 — **Electrical installations for photovoltaic arrays**
- STANDARD NBR 16612 — **Power cables for photovoltaic systems**
- STANDARD IEC 60228 — **Insulated cable conductors**
- STANDARD NBR 5410 — **Low-voltage electrical installations**
- STANDARD EN 50618 — **Electrical cables for photovoltaic systems**

Technical Data

Dimensional Data

Section (mm^2)	**Conductor diameter** (mm)	**Insulation thickness** (mm)	Jacket thickness **(mm)**	**Nominal diameter** (mm)	**Nominal cable weight** (kg/km)
1x4 mm^2	2,37	0,7	0,8	5,7	58
1x6 mm^2	2,91	0,7	0,8	6,2	77
1x10 mm^2	3,88	0,7	0,8	7,0	115

Electrical Data

Section (mm^2)	Max DC conductor resistance at 20°C	Voltage drop in DC at the max op. temp. of 120°C	**Current** carrying capacity (A)			
mm2	Ω /km	V/A,KM	(1)	(2)	(3)	(4)
1x4 mm^2	5,09	14,8	41	35	28	39
1x6 mm^2	3,39	9,445	51	44	36	49
1x10 mm^2	1,95	5,433	71	61	49	68

(1) Reference: ABNT NBR 16612:2020 - Annex C - Table C.2 - Outdoor installation exposed to sunlight - installation method 1 (2) Reference: ABNT NBR 16612:2020 - Annex C - Table C.3 - Outdoor installation exposed to sunlight - installation method 1 (3) Reference: ABNT NBR 16612:2020 - Annex C - Table C.4 - Outdoor installation exposed to sunlight - installation method 1 (4) Reference: ABNT NBR 16612:2020 - Annex C - Table C.5 - Outdoor installation exposed to sunlight - installation method 1

Current Carrying Capacity

Section (mm^2)	**Ambient Temp. 20º C**	**Ambient Temp. 30º C**	**Ambient Temp. 40º C**
mm2	A	A	A
1x4 mm^2	37	34	31
1x6 mm^2	46	42	39
1x10 mm^2	62	58	53

Values according to ABNT NBR 16612:2020 Table C.9 (refer to the standard for other conditions).