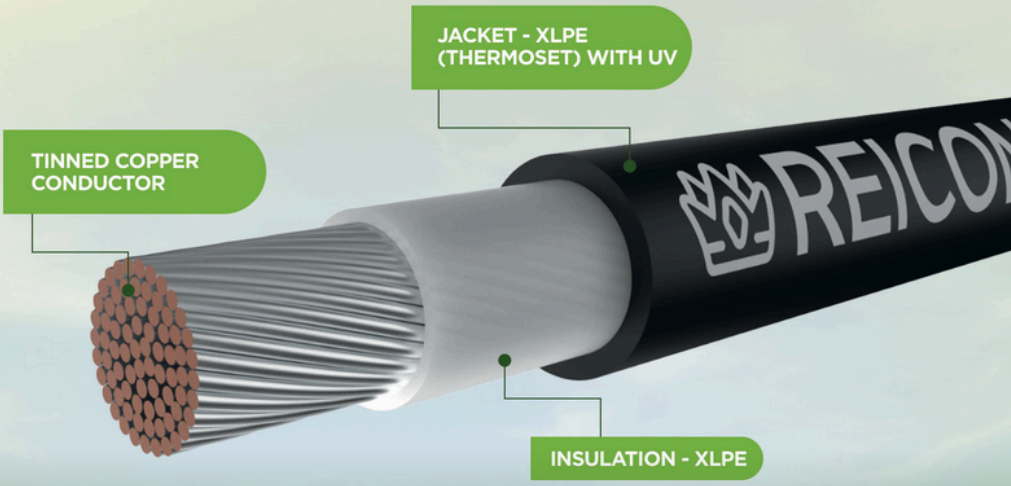
# Main Features

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




**Resistant to weather conditions, UV solar radiation, ozone, acids, and alkalis,** ensuring high durability in outdoor environments.

**Can withstand ambient temperatures between -40°C and 90°C,** allowing use in various climatic conditions.

**Can withstand internal conductor temperatures of up to 120°C** for up to 20,000 hours in continuous operation.

**Contains flame-retardant components,** preventing the spread of fire.

Main Features


**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, and green. 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.

# Standards Used

- 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) | **Maximum outer diameter** (mm) | **Nominal cable weight** (kg/km) |
|---|---|---|---|---|---|
| 1x4 $mm^2$ | 2,37 | 0,7 | 0,8 | 6,6 | 58 |
| 1x6 $mm^2$ | 2,91 | 0,7 | 0,8 | 7,4 | 77 |
| 1x10 $mm^2$ | 3,88 | 0,7 | 0,8 | 8,8 | 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).