

# DC Cables for Photovoltaic Systems, rated 1.5kV

Circular Cl. 5, Tinned Copper Conductor, XL Insulation and XL Sheath




1 - Conductor 2 - Insulation 3 - Sheath

## Application

Cables applied for use in Photovoltaic Systems, in particular for installation of connecting solar panels at Direct Current section

## Construction

|   |  |
|---|--|
| <b>Conductor</b>                              | : Circular, Class 5 stranding, Tinned copper   |
| <b>Insulation sheath</b>                      | : XL insulation<br>: XL sheath   |
| <b>Marking text</b>                           | :  TÜV EN 50618 H1Z2Z2-K DC 1.5kV 1×** mm <sup>2</sup> LUCE<br>2023 ****m |
| <b>Rated voltage (U<sub>0</sub>)</b>          | : DC1.5kV; AC 1.0/1.0kV  |
| <b>Highest system voltage (U<sub>m</sub>)</b> | : 1.8kV  |
| <b>Working temperature</b>                    | : -40 °C, +90 °C (120 °C, 20 000 h).   |

## Core Identification

**Insulation** : Black

## Outer Sheath Colors

**Available colors** : Black/Red

\*others available upon request

## Installation recommendations

|  |                                |
|--|--------------------------------|
| <b>Min. Bending Radius during Installation</b> | : 8xD (D is diameter of cable) |
| <b>Min. Bending Radius Fix Installed</b>       | : 6xD (D is diameter of cable) |
| <b>Max. Conductor Operating Temperature</b>    | : 90°C                         |

## Certificate No.

R 50424541 0001

## Standards applied

EN 50618  
EN 60228  
EN 60332-1-2

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## Structural Dimensions

| 1                       | 2                                    | 3                                | 4                             | 5                      |
|-------------------------|--------------------------------------|----------------------------------|-------------------------------|------------------------|
| Size (mm <sup>2</sup> ) | Nominal thickness of Insulation (mm) | Nominal thickness of sheath (mm) | Approx. Overall Diameter (mm) | Approx. Weight (kg/km) |
| 2.5                     | 0.7                                  | 0.8                              | 5.0                           | 46                     |
| 4                       | 0.7                                  | 0.8                              | 5.6                           | 61                     |
| 6                       | 0.7                                  | 0.8                              | 6.2                           | 80                     |
| 10                      | 0.7                                  | 0.8                              | 7.2                           | 125                    |

## Electrical Properties

| 1                       | 2  | 3   | 4   | Current Carrying Capacity<br>In varies conditions of installation |                           |  |
|-------------------------|--|---|---|---|---------------------------|--|
|                         |  |   |   | Single cable free in air  | Single cable on a surface | Two loaded cables touching, on a surface |
| Size (mm <sup>2</sup> ) | Max. Conductor DC resistance at 20°C<br>Ω/km | Min. Insulation resistance at 20°C<br>MΩ·km | Min. Insulation resistance at 90°C<br>MΩ·km | A   | A                         | A  |
| 2.5                     | 8.21   | 690   | 0.69  | 41  | 39                        | 33                                       |
| 4                       | 5.09   | 580   | 0.58  | 55  | 52                        | 44                                       |
| 6                       | 3.39   | 500   | 0.5   | 70  | 67                        | 57                                       |
| 10                      | 1.95   | 420   | 0.42  | 98  | 93                        | 79                                       |

## Wholesale Pricing:

4mmsq - R 9.90 Excl VAT, per meter.

6mmsq - R 13.96 Excl VAT, per meter.

10mmsq - R 23.95 Excl VAT, per meter.

Pricing is Valid till May 2023