# ENERGYFLEX PV B2ca (1.5kV DC)


**CONTACT**

Market information
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## Unmatched fire-proof safety

The ENERGYFLEX® B2ca patented solar cable is designed to have outstanding reaction to fire, allowing it to be combustible but with very little burning.

## STANDARDS

**Produit** EN 50575; EN 50618; IEC 60228; IEC 62930

## DESIGN

Single core fire resistance solar cable with low smoke, halogen free, crosslinked insulation and sheath.

**1. Conductor**
Stranded tinned copper wires class 5 acc. IEC 60228

**2. Insulation**
Cross-linked halogen-free rubber
Colour: white

**3. Sheath**
Cross-linked halogen-free fire retardant rubber
Colour: black

Example of marking: ENERGYFLEX® B2ca USE < HAR > H1Z2Z2-K 62930 IEC 131 1 x S mm² 1.5/1.5 (1,8) kV DC lynxeo 269 MADE IN FRANCE B2ca-s1,d2

## FEATURES

ENERGYFLEX® B2ca cables are dedicated to the photovoltaic system direct current (D.C.) side with a nominal D.C. voltage of 1.5 kV and a maximum D.C. voltage of 1.8 kV. Cable suitable to be used with Class II equipment.

These cables are suitable for permanent outdoor long-term use, under variable and harsh climate conditions. They are designed and tested to operate at a normal maximum conductor temperature of 90°C and for 20,000 hours up to 120°C. Therefore, the expected period use is 30 to 40 years under normal usage conditions (lifetime acc. to Arrhenius Diagram).

ENERGYFLEX® B2ca cables have CPR classification: B2ca-s1,d2,a1 according to EN 50575

- B2ca: combustible but very little burning
- s1: very low smoke production (best in class)
- d2: some flaming droplets
- a1: very low acidity of smoke (best in class)

| Sans halogène | Tension de service nominale Uo/U (Um) | Non propagateur de l incendie | Non propagateur de la flamme | Densité de fumée dégagée | Corrosivité des fumées | Résistance aux intempéries | Temp. d'utilisation |
|---|---|---|---|---|---|---|---|
| **IEC 60754-1** | **1.0/1.0 (1.2) kV AC**<br>**1.5/1.5 (1.8) kV DC** | **EN 50575** | **IEC 60332-1-2** | **IEC 61034-2** | **IEC 60754-2** | **Excellente** | **-40 ... 90 °C** |

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## CHARACTERISTICS

| | |
|---|---|
| **Caractéristiques de construction** | |
| Sans halogène | IEC 60754-1 |
| **Caractéristiques dimensionnelles** | |
| Epaisseur nominale de l'isolant | 0,7 mm |
| **Caractéristiques électriques** | |
| Tension de service nominale Uo/U (Um) | 1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC |
| **Caractéristiques d'utilisation** | |
| Non propagateur de l incendie | EN 50575 |
| Non propagateur de la flamme | IEC 60332-1-2 |
| Densité de fumée dégagée | IEC 61034-2 |
| Corrosivité des fumées | IEC 60754-2 |
| Résistance aux intempéries | Excellente |
| Tenue à l'ozone | EN 50396 |
| Thermal endurance | IEC 60216-1-2 |
| Température ambiante d'utilisation, plage | -40 ... 90 °C |
| Température de service maximale | 120 °C |

## DIMENSIONAL CHARACTERISTICS

| Section [mm²] | Diam.nom.cond [mm] | Nom. outer sheath thick. [mm] | Diam. max. externe [mm] | Masse approx. [kg/km] |
|---|---|---|---|---|
| 4 | 2,5 | 1,8 | 7,6 | 85 |
| 6 | 2,9 | 1,5 | 7,6 | 98 |

## ELECTRICAL CHARACTERISTICS

| Section [mm²] | Max. DC Resist. Cond. 20°C [Ohm/km] | Perm. current rat. air 60°C [A] | Perm. current rating tray 60°C [A] | short circuit conductor 1s [kA] |
|---|---|---|---|---|
| 4 | 5,09 | 55 | 52 | 0,5 |
| 6 | 3,39 | 70 | 67 | 0,8 |

## LIST OF CERTIFICATES

NF EN 50618: BUREAU VERITAS LCIE licence 662568
IEC 62930: BUREAU VERITAS Certificate of conformity 158416-729944
Construction Product Regulation (CPR) Performance: B2ca-s1,d2,a1