



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

Product 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 lynxéo 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)



Conductor flexibility
 Flexible class 5



Halogen free
 IEC 60754-1



Rated Voltage Uo/U (Um)
 1.0/1.0 (1.2) kV AC
 1.5/1.5 (1.8) kV DC



Fire retardant
 EN 50575



Flame retardant
 IEC 60332-1-2



Smoke density
 IEC 61034-2



Gases corrosivity
 IEC 60754-2



Weather resistance
 Excellent

CHARACTERISTICS**Construction characteristics**

Construction type	
Conductor material	Tin plated copper
Conductor flexibility	Flexible class 5
Insulation	Cross-linked halogen free rubber
Outer sheath	Cross-linked halogen free rubber
Halogen free	IEC 60754-1

Dimensional characteristics

Conductor cross-section	6 mm ²
Nominal conductor diameter	2.9 mm
Nominal insulation thickness	0.7 mm
Nominal outer sheath thickness	1.5 mm
Minimum outer diameter	6.8 mm
Nominal outer diameter	- mm
Maximum outer diameter	7.6 mm
Approximate weight	98 kg/km

Electrical characteristics

Rated Voltage U ₀ /U (U _m)	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Operating Voltage V ₀ DC	1500 V
Max. DC resistance of the conductor at 20°C	3.39 Ohm/km
Permissible current rating in air 60°C	70 A
Permissible current rating on a tray 60°C	67 A
Permissible short circuit current conductor 1s	0.8 kA

Usage characteristics

Fire retardant	EN 50575
Flame retardant	IEC 60332-1-2
Smoke density	IEC 61034-2
Gases corrosivity	IEC 60754-2
Weather resistance	Excellent
Ozone resistance	EN 50396
Thermal endurance	IEC 60216-1-2
Operating temperature, range	-40 ... 90 °C
Maximum operating temperature	120 °C
Short-circuit max. conductor temperature	250 °C

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