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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 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)



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



Operating temp.
 -40 ... 90 °C

CHARACTERISTICS**Construction characteristics**

Halogen free	IEC 60754-1
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Dimensional characteristics

Nominal insulation thickness	0.7 mm
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Electrical characteristics

Rated Voltage U _o /U (U _m)	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
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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

DIMENSIONAL CHARACTERISTICS

Cross section [mm ²]	Nom. cond. diam. [mm]	Nom. outer sheath thick. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
4	2.5	1.8	7.6	85
6	2.9	1.5	7.6	98

ELECTRICAL CHARACTERISTICS

Cross section [mm ²]	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