



CONTACT

Market information
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Speed Up your Operations

Choose the ENERGYFLEX® BE-FAST option and cut installation time by up to 60%. Delivered in twisted pairs, featuring pre-stripped conductors that can be easily separated without tools, the product ensures quick polarity identification and simplifies installation at every step.

STANDARDS

Product EN 50618; IEC 60228; IEC 62930

DESIGN

Double cores 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® USE < HAR > H1Z2Z2-K 62930 IEC 131 1 x S mm² 1.5/1.5 (1,8) kV DC NEXANS 269 MADE IN FRANCE Dca

FEATURES

ENERGYFLEX® 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® cables have a suitable behaviour in water : tests of Annexes D and E of H07RN8F AD8 cables (100 days at 50 °C under 1 kV AC without breakdown), and additional test of 1,5 year in hot water (85°C) under 1 kV DC without breakdown. They are suitable for submerged installations with a maximum cumulated immersion period of 6 months / year.



Halogen free
IEC 60754-1



Rated Voltage U₀/U_m
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

Number of cables	2
Nominal insulation thickness	0.7 mm
Nominal outer sheath thickness	0.8 mm

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
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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
Water proof	AD8

DIMENSIONAL CHARACTERISTICS

Cross section [mm ²]	Nom. cond. diam. [mm]	Nom. insulation thick. [mm]	Nom. outer sheath thick. [mm]	Nom. outer diam. [mm]	Approx. diam. bunched cable [mm]	Approx. weight [kg/km]
4	2.5	0.7	0.8	5.7	11.8	128
6	2.9	0.7	0.8	6.2	12.8	165
10	4	0.7	0.8	7.3	15.0	260

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	40	38	0.5
6	3.39	51	49	0.8
10	1.95	70	68	1.4

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: Dca-s2,d2,a1