



### CONTACT

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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

## KEY CHARACTERISTICS

Electrical characteristics	
Rated Voltage U <sub>0</sub> /U (U <sub>m</sub> )	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Max. DC resistance of the conductor at 20° C	5.09 Ohm/km
Permissible current rating in air 60°C	40 A
Permissible current rating on a tray 60°C	38 A
Permissible short circuit current conductor 1s	0.5 kA

## 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

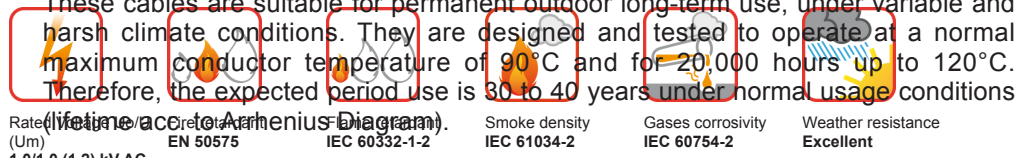
Example of marking: ENERGYFLEX® USE < HAR > H1Z2Z2-K 62930 IEC 131 1 x S mm<sup>2</sup> 1.5/1.5 (1,8) kV DC NEXANS 269 MADE IN FRANCE Dca

## 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 according 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 periods of 50 years.



Conductor flexibility  
 Flexible class 5



Halogen free  
 IEC 60754-1

Rated voltage U<sub>0</sub>/U (U<sub>m</sub>)  
 1.0/1.0 (1.2) kV AC  
 1.5/1.5 (1.8) kV DC

Conductor class  
 EN 50575

Smoke density  
 IEC 60332-1-2

Gases corrosivity  
 IEC 61034-2

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**

Number of cables	2
Conductor cross-section	4 mm <sup>2</sup>
Nominal conductor diameter	2.5 mm
Nominal insulation thickness	0.7 mm
Nominal outer sheath thickness	0.8 mm
Minimum outer diameter	- mm
Nominal outer diameter	5.7 mm
Maximum outer diameter	- mm
Approximate diameter of the bunched cable	11.8 mm
Approximate weight	128 kg/km

**Electrical characteristics**

Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> )	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Operating Voltage V <sub>o</sub> DC	1500 V
Max. DC resistance of the conductor at 20°C	5.09 Ohm/km
Permissible current rating in air 60°C	40 A
Permissible current rating on a tray 60°C	38 A
Permissible short circuit current conductor 1s	0.5 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
Water proof	-

### 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