



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

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 U_o/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 |
|--------------|-------------|

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 |
|---|---|

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