



Reference: 10191044
EAN 13: 3427640020712

FIRE PERFORMANCE CLASS



Dca-s2,d2,a1

CONTACT

Market information
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Energyflex® cables are designed to comply with the international standards of the solar plants.

They 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. 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).

STANDARDS

Product EN 50618; 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® USE < HAR > H1Z2Z2-K 62930 IEC 131 1 x S mm² 1.5/1.5 (1,8) kV DC lynxéo 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.



Flessibilità del conduttore
 Flessibile classe 5



Senza alogeno
 IEC 60754-1; IEC 60754-2



Tensione nominale U₀/U (Um)
 1.0/1.0 (1.2) kV AC
 1.5/1.5 (1.8) kV DC



Resistenza meccanica all'impatto
 Condition AG 2 (medium severity)
 acc.to HD 60364-5-52



Temperatura Operativa
 -40 ... 90 °C



Fumo
 IEC 60754-2



Densità fumo
 IEC 61034-1-2



Resistenza alle intemperie
 Eccellente

CHARACTERISTICS

Caratteristiche costruttive

Materiale del conduttore	Rame stagnato Classe 5 secondo EN 60228
Flessibilità del conduttore	Flessibile classe 5
Isolamento	Gomma reticolata senza alogeni
Guaina esterna	Cross-linked halogen free rubber
Colore della guaina esterna	Nero (striscia blu o rossa su richiesta)
Colore	Nero
Senza alogeno	IEC 60754-1; IEC 60754-2
Forma del conduttore	Circolare

Caratteristiche dimensionali

Numero di anime	1
Diametro esterno nominale del cavo	7,1 mm
Sezione del conduttore del cavo	10 mm ²
Peso netto approssimativo	122 kg/km
Diametro esterno min	6,8 mm
Diametro esterno max	7,8 mm
Diametro esterno	- mm
Diametro nominale del conduttore del cavo	4,0 mm
Nominal conductor diameter	4 mm
Peso approssimativo del cavo	127 kg/km
Spessore nominale dell'isolante	0,7 mm
Spessore nominale della guaina esterna	0,8 mm

Caratteristiche elettriche

Corrente nominale accessori	70 A
Tensione nominale U _o /U (Um)	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Massima resistenza el. del cond. a 20°C in c.c.	1,95 Ohm/km
Corrente di corto circuito nel conduttore 1s	1,3 kA
Maximum DC resistance of the conductor at 90°C	2,330 Ohm/km
Permissible current rating in air 60°C	98 A
Permissible current rating on a tray 60°C	93 A
Portata di corrente in aria a 30°C	- A

Caratteristiche meccaniche

Bending	100 000 cycles in reverse bending
Frequent torsion	100 000 cycles
Resistenza alla trazione	150 N
Resistenza meccanica all'impatto	Condition AG 2 (medium severity) acc.to HD 60364-5-52

Caratteristiche d'utilizzo

Temperatura Operativa	-40 ... 90 °C
Imballo	Bobine
Temperatura massima di cortocircuito del conduttore	250 °C
Fumo	IEC 60754-2
Densita' fumo	IEC 61034-1-2

Caratteristiche d'utilizzo

Resistenza all'ozono		EN 50396
Resistenza alle intemperie		Eccellente
Ritardante la fiamma		IEC 60332-1
Corrosive or Polluting Substances	Condition AF 3 (intermittent accidental) acc. to HD 60364-5-52	
Fuoco ritardante		EN 50575
Impermeabilita'		Eccellente
Lunghezza		- m
Outdoor Use	Condition AN 3 (high solar radiation), permanent according to EN 50565-1:2014	
Raggio di curvatura minimo - installato		23,4 mm
Resistenza U.V.	EN 50289-4-17 method A, for 720h. Nexans prestige test 4000h	
Resistenza alle vibrazioni	Condition AH 3 (sever industrial conditions) acc. to HD 60364-5-52	
RoHS conform		RoHS 2011/65/EU
Temperatura operativa massima		120 °C
Thermal endurance		IEC 60216-1-2

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