



Reference: 10189494  
EAN 13: 3427640020200

### FIRE PERFORMANCE CLASS



D<sub>ca</sub>-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.

### 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 mm<sup>2</sup> 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.



导线柔软度  
柔软等级5



无卤  
IEC 60754-1; IEC 60754-2



额定电压U<sub>0</sub>/U  
1.0/1.0 (1.2) kV  
AC 1.5/1.5 (1.8)  
kV DC



机械耐冲击性能  
Condition AG 2  
(medium severity)  
acc. to HD  
60364-5-52



操作温度  
-40 ... 90 ° C



气体腐蚀性  
低 IEC 60754-2



烟密度  
IEC 61034-1-2



耐气候性  
优异

## CHARACTERISTICS

## 结构特性

导体材料	Tin Coated Copper Class 5 acc. To EN 60228
导线柔软度	柔软等级5
绝缘	Cross-linked halogen free rubber
外护套	Cross-linked halogen free rubber
护套颜色	Black (blue or red stripe on request)
颜色	黑
无卤	IEC 60754-1; IEC 60754-2
导体形状	圆形

## 尺寸特性

芯线数	1
导线截面	4 mm <sup>2</sup>
标称外径	5.6 mm
近似净重量	61 kg/km
外径最小值	5.3 mm
Maximum outer diameter	5.9 mm
Nominal outer sheath thickness	0.8 mm
典型导体直径	2.5 mm
外径	- mm
导线直径	2.5 mm
标称绝缘厚度	0.7 mm
近似重量	62 kg/km

## 电气特性

允许通过的最大额定电流	39 A
额定电压U <sub>0</sub> /U	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
20° C时导体的最大直流电阻	5.09 Ohm/km
90° C时导体的最大直流电阻	5.880 Ohm/km
Perm current rating in air 30° C	- A
Permissible current rating in air 60° C	55 A
Permissible current rating on a tray 60° C	52 A
Permissible short circuit current conductor 1s	0.5 kA

## 机械特性

Bending	100 000 cycles in reverse bending
Frequent torsion	100 000 cycles
抗拉强度	60 N
机械耐冲击性能	Condition AG 2 (medium severity) acc. to HD 60364-5-52

## 使用特性

操作温度范围	-40 ... 90 ° C
包装	电缆盘
短路最高线芯温度	250 ° C
气体腐蚀性	低 IEC 60754-2
烟密度	IEC 61034-1-2

## 使用特性

Ozone resistance		EN 50396
耐气候性		优异
阻燃 - 火焰		IEC 60332-1
Corrosive or Polluting Substances	Condition AF 3 (intermittent accidental)	acc. to HD 60364-5-52
Thermal endurance		IEC 60216-1-2
户外应用	Condition AN 3 (high solar radiation), permanent	according to EN 50565-1:2014
抗UV	EN 50289-4-17 method A, for 720h. Nexans prestige test	4000h
抗振	Condition AH 3 (sever industrial conditions)	acc. to HD 60364-5-52
最小弯曲半径 - 工作		17.7 mm
最高工作温度		120 ° C
符合RoHS		RoHS 2011/65/EU
长度		- m
防水		优异
阻燃		EN 50575

## 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

## SELLING AND DELIVERY INFORMATION

"Want to know more about the environmental impact of the product during its life cycle ?  
Please contact: [sustainable.development@nexans.com](mailto:sustainable.development@nexans.com) and discover the PEPecopassport® declaration available with all the details"