



Reference: 10189495
EAN 13: 3427640020217

FIRE PERFORMANCE CLASS



D_{ca}-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.



导线柔软度
柔软等级5



无卤
IEC 60754-1; IEC
60754-2



额定电压U₀/U
1.0/1.0 (1.2) kV
AC 1.5/1.5 (1.8)
kV DC



机械冲击性能
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 | 6 mm ² |
| 标称外径 | 6.0 mm |
| 近似净重量 | 76 kg/km |
| 外径最小值 | 5.8 mm |
| Maximum outer diameter | 6.4 mm |
| Nominal outer sheath thickness | 0.8 mm |
| 典型导体直径 | 2.9 mm |
| 外径 | - mm |
| 导线直径 | 2.9 mm |
| 标称绝缘厚度 | 0.7 mm |
| 近似重量 | 80 kg/km |

电气特性

| | |
|--|---|
| 允许通过的最大额定电流 | 50 A |
| 额定电压U ₀ /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 | 3.39 0hm/km |
| 90° C时导体的最大直流电阻 | 3.930 0hm/km |
| Perm current rating in air 30° C | - A |
| Permissible current rating in air 60° C | 70 A |
| Permissible current rating on a tray 60° C | 67 A |
| Permissible short circuit current conductor 1s | 0.8 kA |

机械特性

| | |
|------------------|---|
| Bending | 100 000 cycles in reverse bending |
| Frequent torsion | 100 000 cycles |
| 抗拉强度 | 90 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 | 19.2 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