ENERGYFLEX PV H1Z2Z2-K (1.5kV DC)

ENERGYFLEX - TÜV zertifiziert

Reference: 10191044
EAN 13: 3427640020712

FIRE PERFORMANCE CLASS

D_{ca}

D_{ca}-s2,d2,a1

CONTACT

Market information
industryprojects.business@lynxeogroup.com

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

Produkt 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 lynxeo 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.

Leiterflexibilität	Halogenfrei	Nennspannung Uo/U	Mechanische Festigkeit gegen Schläge	Betriebstemp.	Korrosivität der (Brand-)Gase	Rauchdichte	Witterungsbeständig
KL.5 = feindrähtig	**IEC 60754-1; IEC 60754-2**	**1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC**	**Condition AG 2 (medium severity) acc.to HD 60364-5-52**	**-40 ... 90 °C**	**niedrig, gem. IEC 60754-2**	**IEC 61034-1-2**	**Excellent**

ENERGYFLEX PV H1Z2Z2-K (1.5kV DC)

ENERGYFLEX - TÜV zertifiziert

CHARACTERISTICS

Konstruktionsmerkmale	
Leitermaterial	Tin Coated Copper Class 5 acc. To EN 60228
Leiterflexibilität	KL.5 = feindrähtig
Isolierung	Cross-linked halogen free rubber
Außenmantel	Cross-linked halogen free rubber
Mantelfarbe	Black (blue or red stripe on request)
Farbe	Schwarz
Halogenfrei	IEC 60754-1; IEC 60754-2
Leiterform	Rund
Abmessungsmerkmale	
Aderanzahl	1
Außendurchmesser, nom.	7,1 mm
Leiterquerschnitt	10 mm²
Nettogewicht, ca	122 kg/km
Außendurchmesser Mindestwert	6,8 mm
Maximaler Außendurchmesser	7,8 mm
Aussendurchmesser	- mm
Leiterdurchmesser	4,0 mm
Nettogewicht ca.	127 kg/km
Nominal conductor diameter	4 mm
Wanddicke Außenmantel, Nennwert	0,8 mm
Wanddicke Isolierung, Nennwert	0,7 mm
Elektrische Eigenschaften	
Maximal zulässiger Nennstrom	70 A
Nennspannung Uo/U	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Max. Gleichstromwiderstand des Leiters bei 20° C	1,95 Ohm/km
Kurzschlussstrom Leiter 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
Zulässige Stromstärke in Luft 30°C	- A
Mechanische Eigenschaften	
Biegen	100 000 cycles in reverse bending
Frequent torsion	100 000 cycles
Mechanische Festigkeit gegen Schläge	Condition AG 2 (medium severity) acc.to HD 60364-5-52
Reißfestigkeit	150 N
Anwendungsmerkmale	
Betriebstemperatur	-40 ... 90 °C
Verpackung	Spule
Max. Kurzschlusstemperatur am Leiter	250 °C
Korrosivität der (Brand-)Gase	niedrig, gem. IEC 60754-2
Rauchdichte	IEC 61034-1-2
Ozonbeständigkeit	EN 50396

Anwendungsmerkmale	
Witterungsbeständig	Excellent
Flammwidrig	IEC 60332-1
Corrosive or Polluting Substances	Condition AF 3 (intermittent accidential) acc. to HD 60364-5-52
Flammwidrig	EN 50575
Länge	- m
Max. Betriebstemperatur	120 °C
Minimaler Biegerradius - Installiert	23,4 mm
Outdoor Use	Condition AN 3 (high solar radiation), permanent according to EN 50565-1:2014
RoHS conform	RoHS 2011/65/EU
Schwingungsfest	Condition AH 3 (sever industrial conditions) acc. to HD 60364-5-52
Thermal endurance	IEC 60216-1-2
UV Beständigkeit	EN 50289-4-17 method A, for 720h. Nexans prestige test 4000h
Wasserdicht	AD8

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