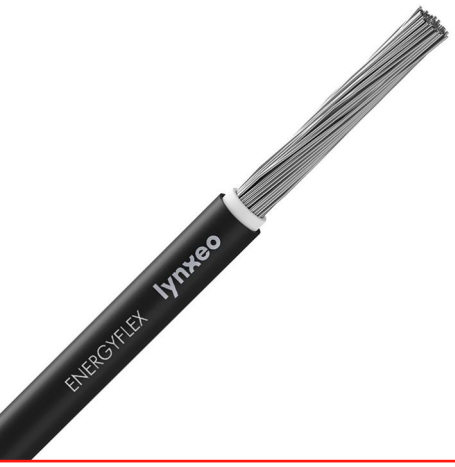
ENERGYFLEX PV WATER RESISTANT (1.5kV DC)

ENERGYFLEX WR 1x6² 1.5kV DC



Outstanding water proof performance

The ENERGYFLEX® WR patented solar cable is designed to withstand humid or immersed installations over its lifetime.

STANDARDS

Product EN 50618; IEC 60228; IEC 62930

KEY CHARACTERISTICS

Electrical characteristics	
Rated Voltage Uo/U (Um)	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Max. DC resistance of the conductor at 20° C	5.09 Ohm/km
Permissible current rating in air 60°C	50 A
Permissible current rating on a tray 60°C	67 A
Permissible short circuit current conductor 1s	0.8 kA

DESIGN

Single core water resistant 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® IWR USE < HAR > H1Z2Z2-K 62930 IEC 131 PV1500-WR 1 x S mm² 1.5/1.5 (1,8) kV DC lynxeo 269 HALOGEN FREE LOW SMOKE Dca

FEATURES

ENERGYFLEX® WR 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® WR cables have been put under testing protocol TÜV 2PfG 2750/09.20 - Requirements for cables with improved water resistance for installation in photovoltaic-systems 84 days (2,016 hours) / 90°C / 3,6 KV DC (vs 1,8 kV DC at 85°C during 240 hours for IEC 62930 / EN 50618 cables). They are suitable for installations immerged in water for 12 months / year.

Conductor flexibility	Halogen free	Rated Voltage Uo/U (Um)	Water proof	Fire retardant	Flame retardant	Smoke density	Gases corrosivity
Flexible class 5	**IEC 60754-1**	**1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC**	**AD8**	**EN 50575**	**IEC 60332-1-2**	**IEC 61034-2**	**IEC 60754-2**

CONTACT

Market information
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ENERGYFLEX PV WATER RESISTANT (1.5kV DC)

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CHARACTERISTICS

Construction characteristics	
Construction type	
Conductor material	Tin plated copper
Conductor flexibility	Flexible class 5
Insulation	Cross-linked halogen free rubber
Outer sheath	Cross-linked halogen free rubber
Halogen free	IEC 60754-1
Dimensional characteristics	
Conductor cross-section	6 mm²
Nominal conductor diameter	2.9 mm
Nominal insulation thickness	- mm
Nominal outer sheath thickness	- mm
Minimum outer diameter	6.2 mm
Nominal outer diameter	- mm
Maximum outer diameter	7.3 mm
Approximate weight	95 kg/km
Electrical characteristics	
Rated Voltage Uo/U (Um)	1.0/1.0 (1.2) kV AC 1.5/1.5 (1.8) kV DC
Operating Voltage Vo DC	1500 V
Max. DC resistance of the conductor at 20°C	5.09 Ohm/km
Permissible current rating in air 60°C	50 A
Permissible current rating on a tray 60°C	67 A
Permissible short circuit current conductor 1s	0.8 kA
Usage characteristics	
Water proof	AD8
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
Short-circuit max. conductor temperature	250 °C

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