



LYNISUN PV1-F
Solar wires

Solar Wires

LYNISUN PV1-F

Low voltage

AC $U_0/U = 0,6/1$ (1,2) kV,
highest allowance operating voltage
DC max. 0,9/1,8 kV

Standards/ Approbation

Design

Parameter

Properties and Use



- > VDE- Reg. Nr.:8334
- > **Conductor**
Tinned copper, class 5 according DIN EN 60228 (VDE 0295)
- > **Insulation**
Halogen free insulation
- > **Colours of cores**
Natural coloured - bright
- > **Sheath**
Halogen free sheath
Insulation and sheath are firmly connected to each other
Colours of sheath: black
Marking (as an example):
LYNISUN PV1-F 4 mm² 0,6/1 kV VDE-Reg.-Nr. 8334 TUV-ZERT.R.6002558
- > **Tensible load**
15 N/mm² in operation, 50N/mm² during installation
- > **Shrinking test**
In accordance with EN 60811-1-3
- > **Heat pressure test**
In accordance with EN 60811-3-1
- > **Dynamic diffusion test**
In accordance with requirement profile for cables for PV - Systems DKE/VDE AK 411.2.3
- > **Ozone resistance**
In accordance with DIN EN 50396 test mode B, HD 22.2 test mode B
- > **Resistance to acids and bases**
In accordance with EN 60811-2-1, 7 days, 23°C (N-Oxalic, N-Sodium-hydroxide)
- > **Maximum environmental Temperature**
+90°C
- > PRYSMIAN solar wires like LYNISUN PV1-F are designed for freely movable and freely suspended purposes, for fixed installation and laying in ground in structural secured photovoltaic power generation systems. They can be used indoors, outdoors, in explosive areas, or in industrial, commercial and agricultural sites. These cables are suitable on and in insulated devices constructions (protection class II). They are considered as safe in case of short-circuit and ground-leak. Furthermore apply the definitions of IEC 61215 and 61646, IEC 60364-7-712 and DIN VDE 0100-520.

CABLE CHARACTERISTICS

120°C

Maximum permissible temperature at conductor by normal operation

250°C

Maximum short-circuit temperature at conductor max. 5 s



Flame retardant in accordance with DIN 0482 part 332-1-2



Smoking Density in accordance with DIN VDE 0482 part268-2



UV-retardant in accordance with HD 605/A1-2.4.20



Lowest ambient air temperature -40°C

LYNISUN PV1-F

Features & Benefits

- > Good Weather resistance with >20 years Life-span acc. IEC 60216
- > Temperature range from -40°C up to +120°C
- > The cables can be used indoor, outdoor, in industrial and agricultural plants and in explosion-hazard area.
- > Can be installed on cable trays, in conduit, on - and in-wall and in equipment
- > Can be directly buried into ground
- > Very good fire performance through use of Halogen-free, cross-linked compounds (in terms of flame propagation, smoke emissions, corrosiveness and toxicity)
- > They are suitable for applications in/at equipment with protective insulation (protective class II)

Design & Electric Properties

Rated cross section and colours	Diameter of the conductor	Outer Diameter	Outer Diameter	Net Weight	Minimum bending radii	Maximum allowed tensile load	Current-carrying capacity in air, surrounding temperature 60°C	Short-circuit current	
mm ²	mm	minimum mm	maximum mm	approximate kg/km	mm	N	A	(1s) kA	
1.5	black	1.6	4.4	4.8	29	14	23	30	0.19
2.5	black	1.9	4.7	5.1	43	15	38	41	0.32
4	black	2.4	5.2	5.6	58	17	60	55	0.50
6	black	2.9	5.7	6.1	77	18	90	70	0.76
10	black	4.0	6.8	7.2	120	22	150	98	1.26
16	black	5.5	8.3	9.0	178	36	240	132	2.01

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