



**LYNISUN PV1-F**  
**Solar wires**

## Low voltage

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

## LYNISUN PV1-F

### Standards/Approbation

### Design

- > 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 mm<sup>2</sup> 0,6/1 kV VDE-Reg.-Nr. 8334 TÜV-ZERT.R. 60025558

### Parameter

- > **Tensile load**  
15 N/mm<sup>2</sup> in operation, 50 N/mm<sup>2</sup> 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

### Properties and Use

- > 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 and 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.



Maximum permissible temperature at conductor by normal operation



Maximum short-circuit temperature at conductor max. 5 s



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



Smoking density in accordance with DIN VDE 0482 part 268-2



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

## Lowest temperature



Lowest ambient air temperature -40°C

June 2010

**LYNISUN PV1-F**
**Design and electric properties**

Rated cross-section and colours	Diameter of the conductor	Outer Diameter		Net Weight	Minimum bending radii	Maximum allowed tensible load	Current-carrying capacity in air, surrounding temperature 60°C	Short-circuit current (1s)
		minimum mm	maximum mm					
mm <sup>2</sup>	mm			approximate kg/km	mm	N	A	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
25 black	6.4	10.0	10.7	273	43	375	176	3.15
35 black	7.5	11.1	11.8	364	47	525	218	4.41