

LEADER TECHNOLOGY SHENZHEN CO.,LIMITED

Halogen free cable for photovoltaic equipment

1 Structure



Type: CPR CCa EN50618:2014 H1Z2Z2-K 1**mm² DC 1500V

Product Standard: EN50618:2014

All in accordance with the LEADER standard.



Cross Section (mm ²)	Construction (No./mm ² ±0.008) Tinned copper wire	DIA. (mm)	Insulation Material	Insulation Thickness (mm)		Insulation Od. (mm±0.15)	Cover material	Jacket Thickness (mm)		Cable Od. (mm±0.2)
				Avg.	Min.			Avg.	Min.	
1×2.5	49/0,25	2,02	XLPE	0,7	0,53	3,60	XLPE	0,8	0,58	5,4
1×4	56/0,283	2,46		0,7	0,53	3,90		0,8	0,58	5,6
1×6	84/0,283	3,02		0,7	0,53	4,60		0,8	0,58	6,4
1×10	142/0,283	4,00		0,7	0,53	5,80		0,8	0,58	7,8
1×16	228/0,283	5,00		0,7	0,53	7,00		0,9	0,67	9,3

Marking LEADER CABLE E TÜV CE CCa 62930 IEC131/EN50618 H1Z2Z2-K **mm² 1.0KVAC 1.5KVDC halogen free low smoke PV cable.
MADE IN CHINA

The class of the conductor shall be Class 5 in accordance with IEC 60228.

2 Electrical performance

Cross Section (mm ²)	1×2,5	1×4	1×6	1×10	1×16
Conductor Max. Resistance AT 20°C (Ω/km)	7,98	5,09	3,39	1,95	1,24
Insulation Min. Resistance AT 20°C (MΩ·km)	690	579	499	419	339
Insulation Min. Resistance AT 90°C (MΩ·km)	0,690	0,579	0,499	0,419	0,339

3 Current Rating Ambient Temperature

Installation Method Conductor (mm ²)	Single cable Free in air	Single cable Free on a surface	Two loaded cables touching, on a surface
1×4	55	52	44
1×6	70	67	57
1×10	98	93	79
1×16	132	125	107

Ambient temperature: 60°C Max.conductor temperature: 120°C

Electrical performance



	-		Test method
Elongation of insulation/sheath	Test are before aging	125%↑	EN 60811-1-1
Tensile strength of insulation/sheath		8.0Mp↑	
Elongation of insulation/sheath	Test are after aging	>70% Tensil Strength before aging	EN 60811-1-2
Tensile strength of insulation/sheath		>70% Tensil Strength before aging	
Shrinkage resistant		≤2%	EN 60811-503
Acid and alkali resistant		EN 60811-2-1	
Ozone resistant		EN50396-8.1.3	
UV resistant		EN 50289-4-17	
Dynamic penetrate force		1	
(-40°C,5h) Impact at low temperature		EN 60811-1-4	
Fire performance		IEC60332-1-2	
Cland Br Content		EN 50618	
Thermal endurance Test		EN60216-1, EN60216-2, T1120	

Application

Application	Internal wiring for solar panel and photovoltaic applications
Approval	EN 50618
Rating voltage	DC1500V
Test voltage	AC 6.5KV,50Hz 5min
DC Voltage test of insulation	1800V 240h(85°C 3%NaCl) No break
Working temperature	-40~90°C
Short circuit temperature	250°C 5S
Bending radius	6×D
Life Period	≥25 years

Approved By	Checked By	Made By
ZOUZHIBING	CHENGQILIN	CHENGZHONGWU