

# LEADER TECHNOLOGY SHENZHEN CO.,LIMITED

Halogen free cable for photovoltaic equipment



## 1 Structure



**Type:** EN50618:2014 H1Z2Z2-K 1×\*\*mm<sup>2</sup> DC 1500V

**Product Standard:** EN50618:2014

All in accordance with the LEADER standard.

Cross Section (mm <sup>2</sup> )	Construction (No./mm±0.008) Tinned copper wire	DIA. (mm)	Insulation Material	Insulation Thickness (mm)		Insulation Od. (mm)	Cover material	Jacket Thickness (mm)		Cable Od. (mm±0.2)
				Avg.	Min.			Avg.	Min.	
1×2.5	49/0,25	2,02	XLPO	0,7	0,53	3.6±0.15	XLPO	0,8	0,58	5.4±0.15
1×4	56/0,285	2,46		0,7	0,53	3.9±0.15		0,8	0,58	5.6±0.15
1×6	84/0,285	3,02		0,7	0,53	4.6±0.15		0,8	0,58	6.3±0.20
1×10	142/0,285	4,00		0,7	0,53	5.8±0.20		0,8	0,58	7.8±0.20
1×16	228/0,285	5,00		0,7	0,53	7.0±0.20		0,9	0,67	9.3±0.25
1×25	361/0,285	6,50		0,9	0,71	8.6±0.25		1,0	0,75	11±0.30
1×35	266/0,40	8,00		0,9	0,71	10.1±0.30		1,1	0,84	12.5±0.30
1×50	396/0,40	9,60		1,0	0,80	12.0±0.30		1,2	0,92	15.0±0.40
1×70	551/0,40	11,80		1,1	0,89	14.0±0.30		1,2	0,92	17.0±0.40

Marking LEADER CABLE E TÜV CE 62930 IEC131/EN50618 H1Z2Z2-K \*\*mm<sup>2</sup> 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 <sup>2</sup> )	1×2.5	1×4	1×6	1×10	1×16	1×25	1×35	1×50	1×70
Conductor Max. Resistance AT 20°C (Ω/km)	8,21	5,09	3,39	1,95	1,24	0,795	0,565	0,393	0,277
Insulation Min. Resistance AT 20°C (MΩ·km)	862	709	610	489	393	395	335	314	291
Insulation Min. Resistance AT 90°C (MΩ·km)	0,862	0,709	0,610	0,489	0,393	0,395	0,335	0,314	0,291

## 3 Current Rating Ambient Temperature

Installation Method Conductor (mm <sup>2</sup> )	Single cable Free in air	Single cable Free on a surface	Two loaded cables touching, on a surface
1×2,5	42	40	33
1×4	57	54	45
1×6	72	69	58
1×10	98	96	80
1×16	132	130	107
1×25	183	174	138
1×35	227	215	171
1×50	287	273	209
1×70	361	344	269

Ambient temperature: 30°C Max.conductor temperature: 90°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 IEC62930
Thermal endurance Test			EN60216-1, EN60216-2, T1120

## Application

Application	Suited for connecting photovoltaic system components inside and outside
Approval	EN 50618:2014 & IEC62930:2017
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

**NOTE:** The cable cannot be used directly in the ground. No anti-rodent coating