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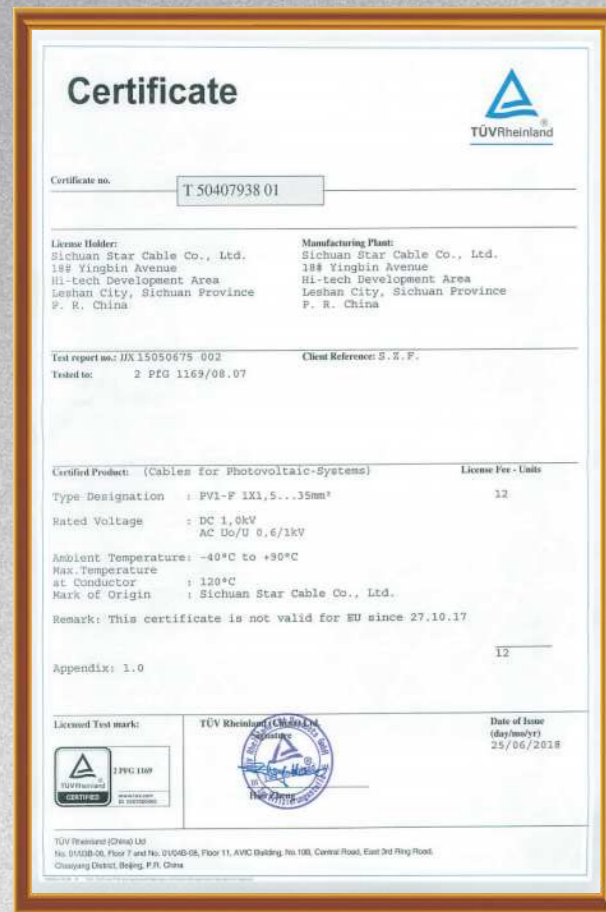
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Cables for Solar Energy Photovoltaic Power Generation

太阳能光伏发电用电缆

Cables for Solar Energy Lighting Power Generation



太阳能光伏发电用电缆



太阳能光伏发电用电缆TUV认证证书 (PV1-F)
TUV Certificate of Cable for Solar Photovoltaic Power Generation (PV1-F)



太阳能光伏发电用电缆TUV认证证书 (H1Z2Z2-K 单芯)
TUV Certificate of Cable for Solar Photovoltaic Power Generation (H1Z2Z2-K single core)

太阳能光伏发电用电缆



太阳能光伏发电用电缆TUV认证证书 (H1Z2Z2-K 双芯)
TUV Certificate of Cable for Solar Photovoltaic Power Generation (H1Z2Z2-K twin-core)



太阳能光伏发电用电缆TUV认证测试报告、国家电线电缆检验中心检验报告
Test Report of Cable for Solar Photovoltaic Power Generation from TUV Certification and China National Center for Quality Supervision and Test of Electrical Wire and Cable

太阳能光伏发电用电缆

太阳能光伏发电用电缆 (PV光伏系统电缆)

Cables for Solar Energy Lighting Power Generation (Cables for PV-lighting System)

执行标准 Executive Standard

本产品可按照EN50618:2014、2Pfg1169/08:2007、CEEIA B218-2012和Q/75230256-2.12-2014标准生产制造。产品通过TUV国际认证。

The product is manufactured as per EN50618:2014, 2Pfg1169/08:2007, CEEIA B218-2012 and Q/75230256-2.12-2014 standard. It has passed TUV international certification.

适用范围 Applicable Scope

适用于 II 类安全等级下，最高允许额定电压1.8kV（导体对导体，非接地系统）或1.5kV（导体对导体，导体对地）直流电压PV系统中DC侧使用，也可适用于PV系统中工频额定电压0.6/1kV交流电压系统中使用。

The product is applied to the safety grade II category, max. permissible rated voltage 1.8kV(conductor to conductor, non-earthing systems) or 1.5kV (conductor to conductor, core to earth), D.C voltage, D.C side application in PV systems, and applied in A.C voltage systems at power frequency rated voltage of 0.6/1kV in PV systems as well.

注: Note:

DC侧: 光伏装置中从光伏电池到光伏换流器直流端子之间的部分;

DC side: The portion between lighting battery and D.C terminal of lighting current converter in lighting devices.

PV系统: 光伏系统 (太阳能系统)。

PV System: Lighting System (solar energy system)

使用特性 Operating Features

1、电缆额定电压 Rated Voltage

直流系统为: DC 1.5kV; (导体与导体之间, 导体对地之间)

或DC 1.8kV; (导体与导体之间, 系统不接地, 电路无负载)

D.C system: DC 1.5kV; (conductor to conductor, core to earth)

Or DC 1.8kV; (conductor to conductor, system is not earthed, without load on circuit)

交流系统为: AC (U0/U) 0.6/1 kV或1.0/1.0kV。

A.C system: AC (U0/U) 0.6/1 kV or 1.0/1.0 kV

2、温度范围 Temp Scope

环境温度: -40℃至+90℃;

Ambient temp: -40℃ ~ +90℃

电缆导体的长期允许工作最高温度: 120℃;

Max long-term permissible operating temp of conductor is 120℃.

3、电缆短路时导体最高温度: 200℃ (短路最长持续时间为5秒)。

Max. temp of conductor at short circuit is 200℃ (max duration is 5s)

4、电缆安装时的最小弯曲半径: Min. bending radius of cable installation:

最小弯曲半径应不小于5D;

Min. bending radius is not less than 5D

注: D—电缆直径mm

Note: D- cable dia.

5、电缆的正常运行寿命: 25年

Normal service life: 25 years

6、电缆敷设 Cable Installation

电缆安装时的环境温度不宜低于0℃; 低于0℃时, 敷设前应对电缆进行预热处理。

The ambient temp of cable installation shall not be less than 0℃, the cable shall be preheated if the temp. is less than 0℃.

电缆的型号、名称和使用环境 Type, Description and Service Environment

型号 Type	名称 Description	使用环境 Service environment
H1Z2Z2-K DC 1500V AC 1.0/1.0kV	低烟无卤阻燃辐照交联聚烯烃绝缘及护套 太阳能光伏发电用电缆 LSOH, flame-retardant irradiation XLPO insulated and sheathed cable for Solar Energy Lighting Power Generation	电缆能抗紫外线、耐温, 并且可以作为与 太阳能蓄电池的单独连接使用, 因为电缆 有很好的耐候性, 电缆同样也可以在室 外使用, 但不能直埋地下与水下敷设。 Cable has features of UV-resistant and high-temp resistant, and it could be applied to separate connection of solar energy accumulation cell. It could also be applied outdoors for its weather- resistant feature. But it could not be buried underground or in water.
PV1-F DC 1.8kV AC 0.6/1kV	低烟无卤阻燃辐照交联聚烯烃绝缘及护套 太阳能光伏发电用电缆 LSOH, flame-retardant irradiation XLPO insulated and sheathed cable for Solar Energy Lighting Power Generation	
GF-WDZCEER DC 1800V	光伏系统用辐照交联聚烯烃绝缘及护套无 卤低烟阻燃C类直流软电力电缆 Irradiation XLPO insulated and sheathed LSOH flame-retardant category C D.C flexible power cable for photovoltaic system	
GF-WDZCEESR DC 1800V	光伏系统用辐照交联聚烯烃绝缘及护套无 卤低烟阻燃C类双芯可分离型直流软电力 电缆 Irradiation XLPO insulated and sheathed LSOH flame-retardant category C twin- core separable D.C flexible power cable for photovoltaic system	

太阳能光伏发电用电缆

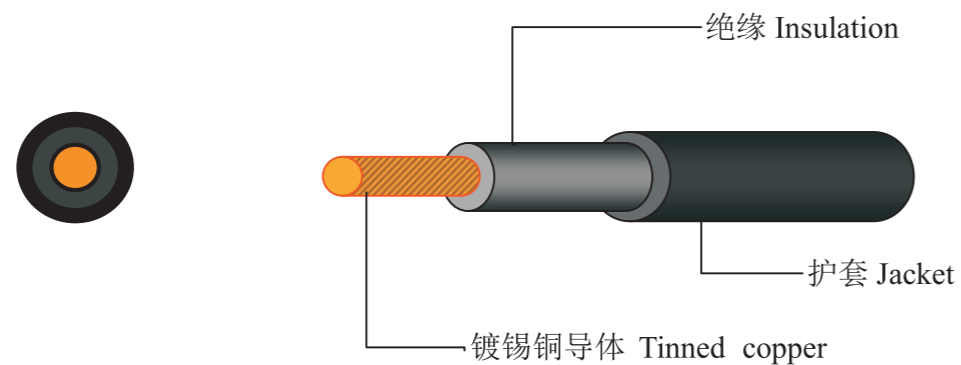
主要试验项目及指标 Main Test Items and Index

生产范围 Production Scope

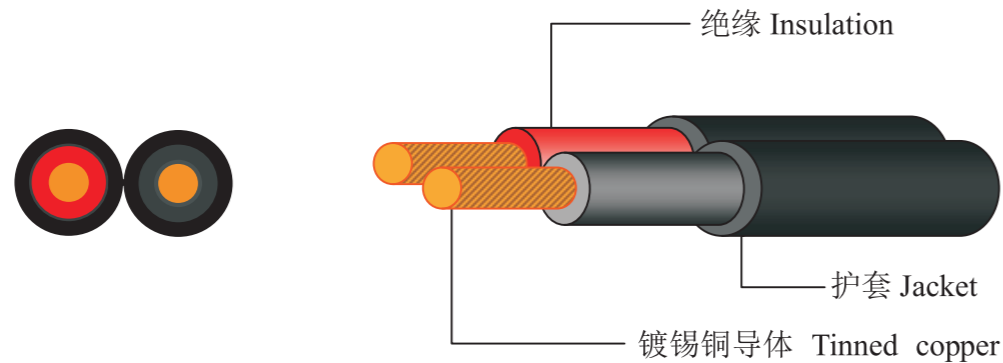
型号 Type	芯数 No. of cores	导体标称截面积 mm ² Nbm. cross section of conductor mm ²
H1Z2Z2-K DC 1500V AC 1.0/1.0kV	1	1.5 ~ 35
	2	1.5 ~ 10
PV1-F DC 1.8kV AC 0.6/1kV	1	1.5 ~ 35
GF-WDZCEER DC 1800V	1	1.5 ~ 70
GF-WDZCEESR DC 1800V	2	1.5 ~ 6

电缆结构图 Cable Drawings

单芯结构 Single-core structure



双芯可分离结构
Twin-core separable construction



1、20℃时导电线芯最大直流电阻Max. D.C Resistance of Conductor

规格 Specification	20℃时导体最大直流电阻 Max. D.C resistance of conductor at 20℃	
	第 2 种镀锡铜导体 Category 2, tinned copper conductor	第 5 种镀锡铜导体 Category 5, tinned copper conductor
mm ²	Ω/km	Ω/km
1.5	12.2	13.7
2.5	7.56	8.21
4	4.70	5.09
6	3.11	3.39
10	1.84	1.95
16	1.16	1.24
25	0.734	0.795
35	0.529	0.565
50	0.391	0.393
70	0.270	0.277

2、交流电压试验 (样品长度20米) ;

A.C voltage test (length of sample: 20m)

— AC交流耐压测试6.5kV, 5min, 绝缘不击穿;

6.5kV, A.C withstand voltage test, 5min, no breakdown on insulation

— DC直流耐压测试15kV, 5min, 绝缘不击穿;

15kV, D.C withstand voltage test, 5min, no breakdown on insulation

3、成品电缆的火花试验 —AC交流试验电压10 kV, 绝缘不击穿;

Spark test for completed cable, 10kV A.C test voltage is applied, no breakdown on insulation

4、成品电缆能通过低温性能试验、耐湿热试验、耐酸碱试验、耐气候/耐紫外线周期性试验、耐臭氧试验、动态切穿试验以及燃烧试验和无卤特性试验。

Completed cable passed the draw test at low temperature, damp and heat-resistance test, acid and alkali-resistance test, anti-UV ageing test, ozone-resistance test, climate periodicity resistance test, dynamic penetration test and combustion test and halogen-free feature test.