

Technical Specification of Solar Cable

光伏电缆参数

Referenced Standard 参考标准

EN 50618

Type Designation: 型号规格

H1Z2Z2-K DC 1.5kV 1×6 mm²

Rated Voltage: 额定电压

AC U₀/U 1.0/1.0kV

DC 1.5kV (Conductor-conductor, non earthed system, Circuit not under load)

Minimum bending radius: 最小弯曲半径

Fixed installation approx. 4 x outer diameters

Flexing 10 x cable diameter

Temperature range: 温度范围

Operating temperature: -40°C to +90°C

Max. conductor temperature: 120°C



Colors for insulation and sheath 绝缘和护套颜色

1) Insulation color – White

Sheath color – Red

2) Insulation color – White

Sheath color – Black



HENAN TONG-DA CABLE CO., LTD.
Add.: Shijiawan Industrial Zone, Yanshi City, Henan Province, China 471922
E-mail: ericwu@hntddl.com Cel: +86 157 8778 0661

Technical Data 技术参数

Nominal cross section	Dia. Of tinned copper wire	Nominal thickness of insulation	Nominal thickness of sheath	Approx. overall diameter	Approx. cable weight
mm ²	mm	mm	mm	mm	kg/km
6	0.31 (Max.)	0.7	0.8	6.1	79.7

Electrical properties 电气性能

Rated voltage	AC: 1.0/1.0 kV DC: 1.5 kV	Max. system voltage	AC: 1.2/1.2 kV DC: 1.8 kV
Test voltage	AC: 6.5 kV/5min	Max. DC Resistance at 20 °C	3.39 Ω/km
Min. insulation resistance at 20 °C	500 MΩ.km	Min. insulation resistance at 90 °C	0.50 MΩ.km
Min. surface resistance of sheath	10 ⁹ Ω	Current carrying capacity	70A (Single cable, in air)

Physical Properties 机械性能

Item	Test Method Standard	Insulation	Sheath
Tensile strength, min.	EN 60811-501	8.0 N/mm ²	8.0 N/mm ²
Elongation, min.		125 %	125 %
Hot set test(250°C, 15min, 20N/cm ²)	EN 60811-507	Elongation under load, max.100 %	Elongation under load, max.100 %
		Permanent deformation after cooling, max.25 %	Permanent deformation after cooling, max.25 %
Cold elongation test	EN 60811-505	-40 ± 2 °C	-40 ± 2 °C
Temperature index corresponding to 20000 h		120 °C	120 °C



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TEST 检验

The solar cable shall be tested in accordance with applicable standard and requirements of customer. The following test items shall be carried out according to corresponding reference.

Item		Test method
1	Conductor structure	EN 50618
2	Insulation thickness	EN 50396
3	Sheath thickness	EN 50396
4	Cable diameter	EN 50396
5	Hot set test	EN 60811-507
6	D.C resistance at 20°C	EN 50395
7	Insulation resistance at 20°C	EN 50395
8	AC voltage test	EN 50395
9	Test for vertical flame propagation on complete cable	EN 60332-1-2
10	Marking	EN 50618



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Marking and Packaging 标识和包装

Cable Surface Printing Words: 印字

The outer surface of cable shall be durably and legibly marked throughout its length, at maximum interval of one meter and include the following:

Marking : 电缆印字

▲ TÜV EN 50618 H1Z2Z2-K DC 1.5kV 1×6mm² HENAN TONG-DA CABLE CO.,LTD Meter (0000m, 0001m, 0002m)

Estimated Packing Information

Cable description	Quantity (M)	Drum materials	Approx drum Size(mm)	Each roll (M)	Number of drums
H1Z2Z2-K 1×6 mm ²	11635	Wooden	1000/500/600/700	5818	2