

# LEADER TECHNOLOGY SHENZHEN CO.,LIMITED

## Halogen free cable for photovoltaic equipment

### ①、构造 Structure



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

产品标准: EN50618:2014,除客户有关于外观、加工性的书面要求外,均需依LEADER 标准。

Product Standard : EN50618:2014 , all in accordance with the LEADER standard ,unless there is a written request about visual and processability.

| 标称截面<br>Cross Section<br>(mm <sup>2</sup> ) | 导体构造<br>Construction<br>(No./mm±0.008)<br>Tinned copper<br>wire | 绞合<br>外径<br>DIA.<br>(mm) | 绝缘材料<br>Insulation<br>Material | 绝缘厚度<br>Insulation<br>Thickness<br>(mm) |      | 绝缘外径<br>Insulation Od.<br>(mm±0.15) | 护套材料<br>Cover<br>material | 护套厚度<br>Jacket<br>Thickness<br>(mm) |      | 线缆外径<br>Cable Od.<br>(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 | 6.3                           |
| 1×10  | 146/0.283   | 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                           |
| 1X25  | 361/0.283   | 6.50                     |                                | 0.9                                     | 0.71 | 8.60                                |                           | 1.0                                 | 0.75 | 11.0                          |
| 1X35  | 266/0.4   | 8.00                     |                                | 0.9                                     | 0.71 | 10.10                               |                           | 1.1                                 | 0.84 | 12.5                          |

印字Marking: LEADER CABLE TÜV CE 62930 IEC131/EN50618 H1Z2Z2-K \*\*mm<sup>2</sup> 1.0KVAC 1.5KVDC HALOGEN FREE LOW SMOKE PV CABLE MADE IN CHINA www.leadergroup-cn.com YYYY \*\*\*\*M

导体要求: 导体的等级应符合IEC 60228的5类。

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

### ②.电气性能 Electrical performance

| 标称截面<br>Cross Section(mm <sup>2</sup> )                           | 1×2.5 | 1×4   | 1×6   | 1×10  | 1×16  | 1×25  | 1x35  |
|---|-------|-------|-------|-------|-------|-------|-------|
| 最大导体电阻20℃ (Ω/km)<br>Conductor Max. Resistance<br>AT 20℃ (Ω/km)    | 7.98  | 5.09  | 3.39  | 1.95  | 1.24  | 0.795 | 0.565 |
| 最小绝缘电阻20℃ (MΩ·km)<br>Insulation Min. Resistance AT<br>20℃ (MΩ·km) | 690   | 579   | 499   | 419   | 339   | 340   | 290   |
| 最小绝缘电阻90℃ (MΩ·km)<br>Insulation Min. Resistance AT<br>90℃ (MΩ·km) | 0.690 | 0.579 | 0.499 | 0.419 | 0.339 | 0.34  | 0.29  |

### ③.参考载流量 Current Rating Ambient Temperature

| 敷设方法<br>Installation Method<br>Conductor (mm <sup>2</sup> ) | 单根电缆至于空气中<br>Single cable Free in<br>air | 单根电缆至于表面<br>Single cable Free on<br>a surface | 电缆表面相互贴邻<br>Two loaded cables<br>touching, on a surface |
|---|--|---|---|
| 1×4   | 55                                       | 52  | 44  |
| 1×6   | 70                                       | 67  | 57  |
| 1×10  | 98                                       | 93  | 79  |
| 1×16  | 132                                      | 125   | 107   |
| 1×25  | 176                                      | 167   | 142   |
| 1×35  | 218                                      | 207   | 176   |

环境温度 ambient temperature: 60℃ 最大导体温度 Max. conductor temperature: 120℃

#### 四.物理性能 Electrical performance

| 测试项目   |                              | 测试标准                              | Test method  |
|--|------------------------------|-----------------------------------|--------------|
| 绝缘/护套伸长率<br>elongation of insulation/sheath        | 老化前<br>test are before aging | 125%↑                             | EN 60811-1-1 |
| 绝缘/护套抗张强度<br>Tensile strength of insulation/sheath |                              | 8.0Mp↑                            |              |
| 绝缘/护套伸长率<br>elongation of insulation/sheath        | 老化后<br>test are after aging  | >70% Tensil Strength before aging | EN 60811-1-2 |
| 绝缘/护套抗张强度<br>Tensile strength of insulation/sheath |                              | >70% Tensil Strength before aging |              |
| 护套热收缩Shrinkage resistant                           |                              | ≤2%                               | EN 60811-503 |
| 耐酸碱Acid and alkali resistant                       |                              | EN 60811-2-1                      |              |
| 耐臭氧Ozone resistant                                 |                              | EN50396 - 8.1.3                   |              |
| 耐气候性 UV resistant                                  |                              | EN 50289 - 4 - 17                 |              |
| 动态穿透Dynamic penetrate force                        |                              | 1                                 |              |
| 低温冲击 ( - 40℃, 5h) Impact at low temperature        |                              | EN 60811-1-4                      |              |
| 耐燃 Fire performance                                |                              | IEC60332-1-2                      |              |
| 氯溴含量Cland Br Content                               |                              | EN 50618                          |              |
| 热寿命Thermal endurance Test                          |                              | EN60216 - 1,EN60216 - 2, T1120    |              |

#### 五.应用 Application:

|  |  |
|--|--|
| 应用范围Application                        | 用于光伏系统内部和外部连接<br>Suited for connecting photovoltaic system components inside and outside |
| 认证 Approval                            | EN 50618   |
| 额定电压Rating voltage                     | DC1500V  |
| 测试电压Test voltage                       | AC 6.5KV,50Hz 5min   |
| 绝缘线芯直流耐压 DC Voltage test of insulation | 1800V, 240h(85℃, 3%Nacl) 不击穿No break   |
| 工作温度 Working temperature               | - 40~90℃   |
| 短路温度 Short circuit temperature         | 250℃ 5S  |
| 弯曲半径Bending radius                     | 6×D  |
| 寿命Life Period                          | ≥25 years  |

|               |              |              |
|---------------|--------------|--------------|
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