

SC series cables

autarco

Autarco SC series H1Z2Z2-K solar cables are TUV tested according to EN50618 and are intended for use in Photovoltaic Systems at nominal voltage rate up to 1,5/1,5kV DC. They are suitable for applications in homes, commercial rooftops and in industrial and agriculture fields.



10 10-year product warranty

 UV resistant

 Water resistant

 Halogen free

 Fire protection

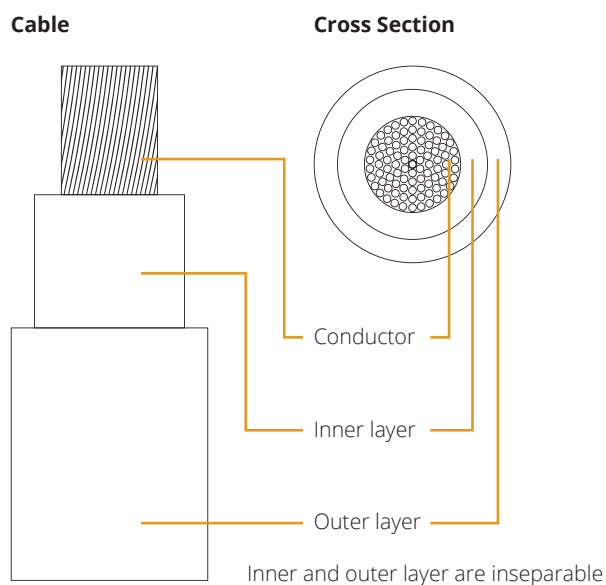
Quality certificates

- TUV EN 50618 H1Z2Z2-K
- EN 50618 Reference number: R50311889
- EN 50575, DoP: C-SC003 CP



Physical properties

| | |
|---------------------------------|---|
| Elongation | ≥125% for both inner and outer layer |
| Strength | ≥8 Mpa for both inner and outer layer |
| Cold bend test | No cracking (-40±2.0°Cx16h) |
| Sunlight resistance 720h | Elongation and strength retention rate ≥70% |
| Bending radius | ≥4xCable OD |
| Ambient temperature | -40°C up to +90°C |
| Content of halogen gas | IEC670754-1, EN50267-2-1 |
| Thermal Endurance | > 25 years |
| Insulation resistance | ≥500MΩ-km (at 20°C) |
| Max. conductor temp. | 120°C |
| Smoke emission test | ≥60% EN61034-2 |
| Flame | PASS IEC60332-1 |



Thermal performance

Operating temperature range -40°C to +120°C

Maximum short-circuit temperature 250°C (max. 5 s)

Fire protection

Flame non-propagation UNE-EN 60332-1 and IEC 60332-1

Low Smoke Zero Halogen UNE-EN 60754-1 and IEC 60754-1

Low smoke emission UNE-EN 61034 and IEC 61034

Light transmittance > 60%

Low corrosive gases emission UNE-EN 60754-2 and IEC 60754-2

Other characteristics

Conductor material Stranded tinned copper

Spark test 10000 VAC

Dielectric-withstand test 6500 VAC/5min

Colour options Black / Red / Blue

Inner and Outer material XLPE

Typical rated voltage 1500 VDC

Standard packaging 100 m

Electrical characteristics

| | S4.SC4-H1Z2Z2 | S4.SC6-H1Z2Z2 | S4.SC10-H1Z2Z2 | S4.SC16-H1Z2Z2 | S4.SC25-H1Z2Z2 | S4.SC35-H1Z2Z2 |
|---------------------------------------|---------------|---------------|----------------|----------------|----------------|----------------|
| Rated voltage (V) | 1500 VDC | 1500 VDC | 1500 VDC | 1500 VDC | 1500 VDC | 1500 VDC |
| Cross-section (mm²) | 4 | 6 | 10 | 16 | 25 | 35 |
| Outer diameter (mm) | 5.6 | 6.2 | 7.6 | 9.2 | 11.2 | 12.6 |
| Weight (kg/km) | 64.2 | 86 | 128 | 210 | 335 | 450 |
| Resistance (mΩ/m) | 5.09 | 3.39 | 1.95 | 1.24 | 0.795 | 0.565 |
| Voltage drop (V/A · km) | 14.3 | 9.49 | 5.46 | 3.47 | 2.23 | 1.58 |
| Current free in air (A) | 55 | 70 | 98 | 132 | 176 | 218 |
| Current on surface (A) | 52 | 67 | 93 | 125 | 167 | 207 |
| Conductor design | 52/0.3 | 78/0.3 | 84/0.4 | 128/0.4 | 195/0.4 | 276/0.4 |

High temperature current correction factor

| Ambient temperature (°C) | < 60 | 70 | 80 | 90 | 100 | 110 |
|---------------------------------|------|------|------|------|------|------|
| Current diversion factor | 1.00 | 0.91 | 0.82 | 0.71 | 0.58 | 0.41 |

