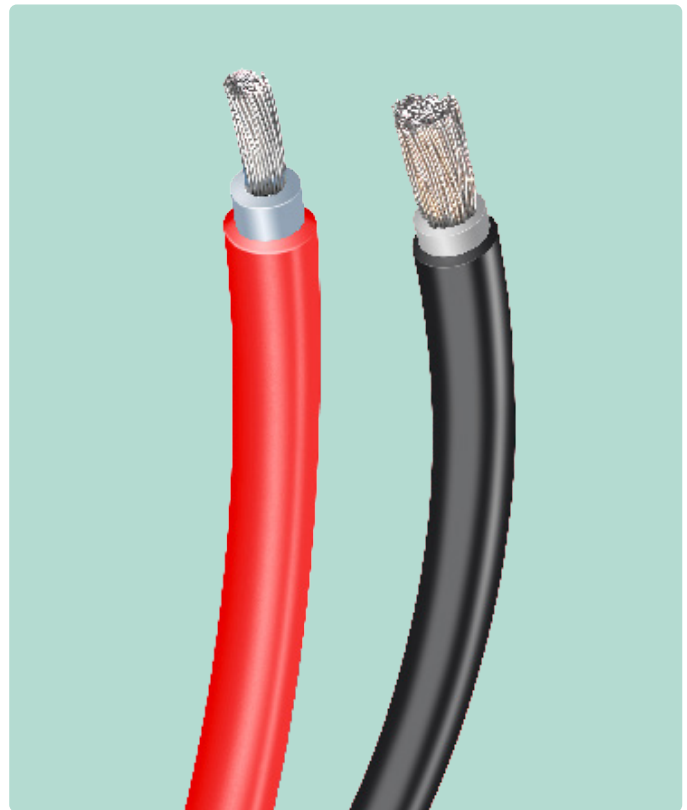


# Solar cable

The Autarco Solar cable (H1Z2Z2-K) with 6mm<sup>2</sup> cross section area. Suitable for the DC side of solar installations. Now with enhanced UV durability (exceeding the EN 50618 requirements), offered in black and red colour. Due to the remarkable quality of the cable, the expected lifetime of the Autarco solar cable is 25 years (acc. to EN 50618).

- + Enhanced UV durability, 2000h test in comparison to 720h acc. to EN 50618
- + Expected lifetime of 25 years acc. to EN 50618
- + Manufactured in Europe



## Quality Certificates

FCC, CE



## General information

<b>Product name</b>	S4.SC6-H1Z2Z2-LxxxxD
<b>Available cross section</b>	6mm <sup>2</sup>
<b>Certification</b>	Pending TUV co-license number
<b>Conductor</b>	E-Cu tinned acc. IEC 60228 Class 5
<b>Insulation</b>	XLPO
<b>Sheating</b>	XLPO
<b>Sheat colour</b>	Black, Red
<b>Expected period of use</b>	Acc. to EN 50618 : 25 years. The cables are designed to operate at a normal max conductor temperature of 90°C, but for a maximum of 20.000 hours a max. conductor temperature of 120 °C at a max. ambient temperature of 90 °C is permitted. (test according to EN 60216-1 and EN 60216-2)

# Electrical specifications

Rated voltage	1.0 kV AC / 1.5 kV DC
Max. permitted operating voltage	1.2 kV AC / 1.8 kV DC
Resistance of the conductor	EN 50395 clause 5 acc. to EN 50618, table 2
Surface resistance	EN 50395 clause 11
Insulation resistance	EN 50395 clause 8.1
Spark test	EN 62230, Annex A
Long term resistance of insulation to DC	EN 50395 clause 9 (10 days, 85 °C in NaCl 3 %, 1,8 kVDC)

# Mechanical specifications

Properties before ageing	EN 60811-1-1; EN 60811-1-2
Bending radius	≥ 4 x outer diameter

# Thermal specifications

Ambient temperature in operation	-40 °C to + 90 °C
Min. ambient temperature for installation	-25 °C
Min. allowed ambient temperature	-40 °C
Max. temperature of the conductor	120 °C, based on EN 60216-1 (20.000 h; 50 % residual elongation)
Short-circuit temperature	250 °C (max. 5 sec on conductor)
Damp heat test	EN 60068-2-78 (1.000h at 90 °C and 85 % relative humidity)
Shrinkage test	EN 60811-503 (120°C, 1h, shrinkage <2.0%)
Cold bending test	EN 60811-504 (-40 °C, duration of conditioning: 16 h)
Cold elongation test	DIN EN 60811-505 (-40 °C ± 2 °C, duration of conditioning: 16 h)
Cold impact test	EN 60811-506 and EN 50618, Annex C (-40 °C; mass of hammer 1.000 g)

# Safety specifications

Construction Product Regulation (CPR)	Class Dca in accordance with EN 50575:2014
Resistance against acid and alkaline solution	EN 60811-404 7 days; 23 °C (N-Oxalic-acid; N-Sodium hydroxide solution)
Ozone resistance	EN 50396 clause 8.1.3, method B
UV-resistance on sheath	Meets EN 50618, Annex E EN 50289-4-17, method A (720 h; 60 °C ± 3 °C; 50 ± 5 % relative humidity), meets 2 PfG 1169/10.19 test with 2.000h and exceeds significantly the test of 720h acc. EN 50618
Test for vertical flame propagation	EN 60332-1-2
Smoke emission	EN 61034-2 (light transmittance > 70 %)
Determination of halogens	EN 50525-1, Annex B

# Additional tests (not included in EN 50618)

Classification to the category AD8	Tested acc. to EN 50525-21 – Annex E
Resistance against salt water	Storage at 23 °C for 7 days in saturated salt solution Change of tensile strength < 5%
Resistance against Ammonia	7 days at 23 °C saturated ammonia atmosphere (int. Test)

# Technical specifications

Cross section (mm <sup>2</sup> )	6.0
Conductor design (n x max Ø mm)	80 x 0.310
Electrical resistance (mΩ/m)	3.39
Min. insulation thickness (mm)	0.53
Min. sheath thickness (mm)	0.58
Outer diameter (mm)	6.0
Weight (kg/km)	75
Available lengths (m)	10 / 100 / 500
Black Autarco Solar cable item code	S4.SC6-H1Z2Z2-LxxxBD
Red Autarco Solar cable item code	S4.SC6-H1Z2Z2-LxxxRD

The specifications contained in this datasheet may deviate slightly from our actual products due to on-going product improvement and are subject to change at any time without prior notice.