

# SiHF-C-Si UL/CSA halogen-free, 150°C/ 600 V, two-approvals silicon multicore cable, Cu-screened, EMC-preferred type



HELUKABEL SiHF-C-Si UL/CSA 3G1,5 QMM / 22652 300/500 V UL STYLE 4476 CSA AWM II A/B 001042368 CE



## Technical data

- Special silicone multicore cable with higher heat-resistance range to UL Style 4476 and CSA AWM II A/B
- **Temperature range**  
VDE -60 °C to +180 °C  
(up to +220 °C for short time)  
UL/CSA -50 °C to +150 °C
- **Nominal voltage**  
VDE: U<sub>0</sub>/U 300/500 V  
UL/CSA: U 600 V
- **Test voltage** 2000 V
- **Breakdown voltage** min. 5000 V
- **Insulation resistance**  
min. 200 MOhm x km
- **Minimum bending radius**  
flexing 10x cable ø  
fixed installation 5x cable ø
- **Coupling resistance**  
max. 250 Ohm/km
- **Radiation resistance**  
up to 20x10<sup>6</sup> cJ/kg (up to 20 Mrad)

## Cable structure

- Tinned copper conductors to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Silicone core insulation
- Core identification to DIN VDE 0293-308 colour coded or black cores with continuous white numbers
- For 2-cores brown, blue
- Cores stranded in layers with optimal lay-length
- Green-yellow earth-core (3 cores and above)
- Foil separator
- Tinned copper braided screening, approx. 85% coverage
- Outer jacket of silicone
- Jacket colour preferably black
- **Halogen-free**  
according to VDE 0482 part 267/  
DIN EN 50267-2-1/ IEC 60754-1 (equivalent DIN VDE 0472 part 815)
- **Behaviour in fire**  
no flame propagation  
test according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

## Properties

- **Advantages**  
Hardly changes of dielectric strength and the insulation resistance also at high temperatures  
High ignition or flash point  
In case of fire, forms an insulating layer of SiO<sub>2</sub>
- **Resistant to**  
High molecular oils, fats from vegetables and animals, alcohols, plasticizers and clophenes, diluted acids, lyes and salt dissolution, oxidation substances, tropical influences and weather, lake water, oxygen and UV
- For laying as a fixed installation only in open or ventilated pipe systems as well as in ducts. Otherwise the mechanical properties of the silicon are reduced by the enclosed air at temperatures exceeding 90 °C.

## Note

- G = with green-yellow earth core;  
x = without green-yellow earth core.
- **non-screened analogue type:**  
**SiHF UL/CSA**, see page N 75
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

UL-CSA approved Silicone cables were evolved for use wherever insulation is subjected to extreme temperature changes. The good performance of the environmental resistant properties means that silicone cables can be used at temperatures down to -60 °C. Silicone cables are halogen-free cables and are especially suited for installation in power stations. They have also found their uses in the steel producing industries, aviation industry, ship building as well as in ceramic, glass and cement factories. Due to elastical characteristic of core insulations, these are used as flexible connection cable.

An interference-free transmission of signals and pulse is assured by the high screening density. The ideal interference-protected silicone multicore flexible cable for such applications as given above.

**EMC** = Electromagnetic compatibility

To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

**CE** = The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
22637	2 x 0,5	20	9,0	55,5	94,0
22638	3 G 0,5	20	9,3	60,8	104,0
22639	4 G 0,5	20	9,7	66,5	125,0
22640	5 G 0,5	20	10,1	81,6	149,0
22641	7 G 0,5	20	10,5	92,2	168,0
22642	10 G 0,5	20	13,2	124,0	237,0
22643	12 G 0,5	20	13,4	134,4	260,0
22644	2 x 1	17	9,5	66,7	130,0
22645	3 G 1	17	9,6	86,2	151,0
22646	4 G 1	17	10,6	96,8	169,0
22647	5 G 1	17	11,6	108,3	198,0
22648	7 G 1	17	12,1	141,2	236,0
22649	10 G 1	17	14,7	190,0	248,0
22650	12 G 1	17	15,1	209,8	364,0
22651	2 x 1,5	16	10,6	87,7	169,0
22652	3 G 1,5	16	11,0	103,5	191,0
22653	4 G 1,5	16	11,6	131,7	230,0
22654	5 G 1,5	16	13,1	148,5	272,0
22655	7 G 1,5	16	14,1	193,4	341,0

Part no.	No. cores x cross-sec. mm <sup>2</sup>	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
22656	10 G 1,5	16	17,3	268,5	478,0
22657	12 G 1,5	16	17,9	298,4	521,0
22658	2 x 2,5	14	12,0	122,3	226,0
22659	3 G 2,5	14	12,7	147,7	271,0
22660	4 G 2,5	14	14,0	188,6	332,0
22661	5 G 2,5	14	15,1	214,9	384,0
22662	7 G 2,5	14	16,9	265,7	478,0
22663	4 G 4	12	17,0	294,0	516,0
22664	5 G 4	12	19,1	374,0	641,0
22665	4 G 6	10	18,6	449,0	773,0
22666	5 G 6	10	21,3	563,0	980,0
22667	4 G 10	8	25,5	759,0	1284,0

Dimensions and specifications may be changed without prior notice. (RN03)