

SiHF UL/CSA halogen-free, 150°C/ 600 V, two-approvals silicon multicore cable



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 U₀/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 7,5x cable ø
fixed installation 4x cable ø
- **Radiation resistance**
up to 20x10⁶ 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)
- Outer jacket of silicone
- Jacket colour preferably black

Note

- G = with green-yellow earth core;
x = without green-yellow earth core.
- screened analogue type:
SiHF-C-Si UL/CSA
- **screened analogue type:**
SiHF-C-Si UL/CSA, see page N 77

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 SiO₂

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

Halogen-free

according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Behaviour in fire

no flame propagation
test according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

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.

Application

UL-CSA approved Silicone cables were evolved for use wherever insulation is subjected to extreme temperature changes. They are heat-resistant for permanent temperature up to +180 °C, for short time operation up to +220 °C. 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.

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

Part no.	No. cores x cross-sec. mm ²	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
23214	2 x 0,5	20	7,7	9,6	73,0
23215	3 G 0,5	20	8,1	14,4	82,0
23216	4 G 0,5	20	8,8	19,2	98,0
23217	5 G 0,5	20	9,4	24,0	120,0
23218	6 G 0,5	20	10,4	28,8	131,0
23219	7 G 0,5	20	10,4	33,6	140,0
23220	8 G 0,5	20	10,8	38,4	183,0
23221	10 G 0,5	20	12,8	48,0	201,0
23222	12 G 0,5	20	13,4	57,6	241,0
23223	16 G 0,5	20	13,9	76,8	269,0
23224	18 G 0,5	20	14,4	86,4	311,0
23225	25 G 0,5	20	16,8	120,0	401,0

Part no.	No. cores x cross-sec. mm ²	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
23226	2 x 1	17	8,2	19,2	88,0
23227	3 G 1	17	9,0	28,2	111,0
23228	4 G 1	17	10,0	38,4	130,0
23229	5 G 1	17	10,6	48,0	161,0
23230	6 G 1	17	11,4	57,6	182,0
23231	7 G 1	17	11,4	67,2	198,0
23232	8 G 1	17	12,4	76,8	251,0
23233	10 G 1	17	13,2	96,0	304,0
23234	12 G 1	17	14,4	115,2	343,0
23235	16 G 1	17	15,7	153,6	441,0
23236	18 G 1	17	16,6	172,8	492,0
23237	25 G 1	17	19,1	240,0	617,0

Continuation ►

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Part no.	No. cores x cross-sec. mm²	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
23238	2 x 1,5	16	9,1	28,8	117,0
23239	3 G 1,5	16	9,6	43,2	131,0
23240	4 G 1,5	16	10,6	57,6	166,0
23241	5 G 1,5	16	11,4	72,0	198,0
23242	6 G 1,5	16	12,4	86,4	240,0
23243	7 G 1,5	16	12,4	100,8	261,0
23244	8 G 1,5	16	13,9	115,2	298,0
23245	10 G 1,5	16	16,1	144,0	359,0
23246	12 G 1,5	16	16,6	172,6	431,0
23247	14 G 1,5	16	18,0	201,6	520,0
23248	16 G 1,5	16	20,0	230,4	569,0
23249	18 G 1,5	16	20,9	259,2	652,0
23250	20 G 1,5	16	21,8	288,0	724,0
23251	25 G 1,5	16	24,0	345,6	925,0
23252	41 G 1,5	16	29,2	590,4	1440,0
23253	2 x 2,5	14	9,8	48,0	141,0
23254	3 G 2,5	14	10,4	72,0	174,0
23255	4 G 2,5	14	11,6	96,0	217,0
23256	5 G 2,5	14	12,4	120,0	271,0
23257	6 G 2,5	14	13,6	144,0	314,0
23258	7 G 2,5	14	13,6	168,0	331,0
23259	8 G 2,5	14	14,9	192,0	404,0
23260	10 G 2,5	14	17,2	240,0	495,0
23261	12 G 2,5	14	21,0	288,0	554,0
23262	16 G 2,5	14	22,6	384,0	725,0
23263	18 G 2,5	14	24,0	432,0	838,0
23264	25 G 2,5	14	28,8	600,0	1108,0
23265	2 x 4	12	10,9	76,8	190,0
23266	3 G 4	12	11,8	115,2	241,0
23267	4 G 4	12	12,9	153,6	304,0
23268	5 G 4	12	14,5	192,0	384,0
23269	7 G 4	12	17,8	268,8	527,0

Part no.	No. cores x cross-sec. mm²	AWG-No.	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
23270	2 x 6	10	14,4	115,2	284,0
23271	3 G 6	10	15,1	172,8	392,0
23272	4 G 6	10	16,4	230,4	492,0
23273	5 G 6	10	18,2	288,0	610,0
23274	7 G 6	10	21,1	403,2	681,0
23275	2 x 10	8	18,0	192,0	405,0
23276	3 G 10	8	18,9	288,0	620,0
23277	4 G 10	8	20,0	384,0	741,0
23278	5 G 10	8	22,1	480,0	914,0
23279	7 G 10	8	24,9	672,0	1164,0
23280	2 x 16	6	20,9	307,2	441,0
23281	3 G 16	6	22,8	460,8	501,0
23282	4 G 16	6	24,9	614,4	623,0
23283	5 G 16	6	26,9	768,0	971,0
23284	7 G 16	6	28,1	1075,3	1690,0
23285	2 x 25	4	25,1	480,0	711,0
23286	3 G 25	4	27,0	720,0	1210,0
23287	4 G 25	4	32,1	960,0	1524,0
23288	2 x 35	2	28,7	672,0	1140,0
23289	3 G 35	2	30,6	1008,0	1523,0
23290	4 G 35	2	32,9	1344,0	2217,0

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