

SiHF-C-Si silicon multicore cable, halogen-free, Cu-screened, EMC-preferred type



Technical data

- Special silicone-insulated cable with higher heat-resistance adapted to DIN VDE 0250 part 1 and part 816
- **Temperature range**
-60°C to +180°C
(+220°C for short time)
- **Temperature limit at the conductor**
in operation +180°C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 2000 V
- **Breakdown voltage** min. 5000 V
- **Insulation resistance**
min. 200 MΩm x km
- **Power rating**
at ambient temperatures up to +145°C according to DIN VDE 0100
150°C - load value 100%
155°C - load value 91%
160°C - load value 82%
165°C - load value 71%
170°C - load value 58%
175°C - load value 41%
- **Minimum bending radius**
flexing 10x cable Ø
fixed installation 5x cable Ø
- **Coupling resistance**
max. 250 Ωm/km
- **Radiation resistance**
up to 20×10^6 Cj/kg (up to 20 Mrad)

Cable construction

- Tinned copper conductor according to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of silicone
- Core identification according to DIN VDE 0293-308, single colour, or black cores with sequential numbering imprinted in white, for 2 cores brown, blue
- Cores stranded in layers with optimal lay-length
- Green-yellow earth core (≥3 cores)
- Inner sheath of silicone
- Braid of tinned Cu wires, coverage approx. 85%
- Silicone-rubber-insulated common outer jacket
- Jacket preferentially redbrown colour

Properties

- **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 DIN VDE 0482 part 267 / EN 50267-2-2 / IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- **Burning behaviour**
no propagation of fire
testing 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.

Note

- G = with green-yellow earth core;
x = without green-yellow earth core.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

Silicone-rubber-insulated cables are used for all applications where the cable insulation is subjected to high temperature fluctuations. These cables are heat-resistant for continuous use at temperatures up to +180°C, as well as for short periods of time at +220°C.

Silicone-rubber-insulated cables can also be used at low temperatures down to -60°C because of the excellent weathering resistance of the material. These cables are halogen-free and hence are particularly suitable for applications in iron and steel works, rolling mills, foundries, in aircraft construction and ship building, as well as in cement, glass and ceramic plants. Silicone-rubber-insulated cables have demonstrated proven applications in projector and high-power lighting fixtures as well as all types of heating equipment.

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 cooper braiding on both ends.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.	Part No.	No. cores x cross-sec. mm ²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
23151	2 x 0,5	8,7	55,5	101,0	20	23160	2 x 0,75	9,2	61,4	124,0	18
23152	3 G 0,5	8,9	60,8	118,0	20	23161	3 G 0,75	9,5	69,1	136,0	18
23153	4 G 0,5	9,4	66,5	131,0	20	23162	4 G 0,75	10,1	86,7	159,0	18
23154	5 G 0,5	10,0	81,6	153,0	20	23163	5 G 0,75	10,8	95,2	180,0	18
23155	7 G 0,5	10,5	92,2	173,0	20	23164	7 G 0,75	11,6	113,3	212,0	18
23156	10 G 0,5	13,1	124,0	242,0	20	23165	10 G 0,75	14,4	165,2	306,0	18
23157	12 G 0,5	13,4	134,4	263,0	20	23166	12 G 0,75	14,7	180,3	333,0	18
23158	16 G 0,5	14,6	170,2	326,0	20	23167	16 G 0,75	16,5	212,2	418,0	18
23159	18 G 0,5	15,1	181,0	351,0	20	23168	18 G 0,75	17,3	282,1	453,0	18
23291	25 G 0,5	19,4	230,1	348,0	20	23292	25 G 0,75	22,1	297,4	468,0	18

Dimensions and specifications may be changed without prior notice.

Continuation ►

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Part No.	No. cores x cross-sec. mm²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
23169	2 x 1	9,5	66,7	132,0	17
23170	3 G 1	9,7	86,2	153,0	17
23171	4 G 1	10,4	96,8	173,0	17
23172	5 G 1	11,3	108,3	202,0	17
23173	7 G 1	12,0	141,2	243,0	17
23174	10 G 1	14,9	190,0	238,0	17
23175	12 G 1	15,2	209,8	371,0	17
23176	16 G 1	17,0	251,8	468,0	17
23177	18 G 1	17,8	297,4	526,0	17
23293	25 G 1	23,0	329,0	559,0	17
23178	2 x 1,5	10,7	87,7	172,0	16
23179	3 G 1,5	11,2	103,5	198,0	16
23180	4 G 1,5	11,8	131,7	235,0	16
23181	5 G 1,5	13,3	148,5	281,0	16
23182	7 G 1,5	14,3	193,4	345,0	16
23183	10 G 1,5	17,7	268,5	482,0	16
23184	12 G 1,5	18,0	298,4	531,0	16
23185	16 G 1,5	20,1	362,3	662,0	16
23186	18 G 1,5	20,9	394,0	720,0	16
23294	25 G 1,5	24,1	488,2	791,0	16

Part No.	No. cores x cross-sec. mm²	Outer ø ca. mm	Cop. weight kg / km	Weight ca. kg / km	AWG-No.
23187	2 x 2,5	12,1	122,3	230,0	14
23188	3 G 2,5	12,9	147,7	275,0	14
23189	4 G 2,5	14,2	188,6	340,0	14
23190	5 G 2,5	15,3	214,9	394,0	14
23191	7 G 2,5	16,9	265,7	488,0	14
23192	4 G 4	17,1	294,0	520,0	12
23193	5 G 4	19,4	374,0	653,0	12
23194	4 G 6	18,8	449,0	781,0	10
23195	5 G 6	21,2	563,0	982,0	10
23196	4 G 10	25,7	759,0	1294,0	8
23197	4 G 16	28,4	1180,0	1988,0	6
23198	4 G 25	35,0	1810,0	2995,0	4

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