

SiHF silicon multicore cable, flexible, halogen-free, meter marking



Technical data

- Special silicone multicore cable with higher heat-resistance range adapted to DIN VDE 0250 part 1 and part 816
- **Temperature range**
-60 °C to +180 °C
(up to +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 temperature up to +145 °C
to DIN VDE 0100 for higher temperatures valid:
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 7,5x cable \varnothing
fixed installation 4x cable \varnothing
- **Radiation resistance**
up to 20×10^6 cJ/kg (up to 20 Mrad)

Cable structure

- Tinned fine wire copper conductors to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Silicone core insulation
- Core colours according to DIN VDE 0293-308
- Core colour
 - up to 5 cores one-coloured
 - up 6 and more cores, black with white numbering
 - 3 and above, with green-yellow earth core
 - 2 cores without green-yellow earth core
- Cores stranded in layers with optimal lay-length
- Outer jacket of silicone
- Jacket colour preferably redbrown
- with meter marking, change-over in 2011

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_2
- **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 part 267/
DIN EN 50267-2-2/ IEC 60754-2 (equivalent DIN VDE 0472 part 813)
- **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.

Note

- G = with green-yellow earth core;
x = without green-yellow earth core (OB).
- **screened analogue type:**
SIHF-C-SI see page E 17

Application

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	Outer \varnothing approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
22989	2 x 0,5	5,6	9,6	42,0	20
22990	3 G 0,5	5,9	14,5	44,0	20
22940	3 x 0,5	5,9	14,5	44,0	20
22991	4 G 0,5	6,4	19,3	58,0	20
22941	4 x 0,5	6,4	19,3	58,0	20
22992	5 G 0,5	7,3	24,0	62,0	20
22942	5 x 0,5	7,3	24,0	62,0	20
22993	6 G 0,5	8,3	28,9	79,0	20
22994	7 G 0,5	8,1	33,7	85,0	20
22995	8 G 0,5	8,9	38,4	99,0	20
22996	10 G 0,5	10,0	48,1	124,0	20
22997	12 G 0,5	10,6	57,6	141,0	20
22998	16 G 0,5	12,1	76,7	186,0	20
22999	18 G 0,5	12,7	86,5	211,0	20
23000	25 G 0,5	15,2	120,0	271,0	20
23001	2 x 0,75	6,4	14,4	53,0	18

Part no.	No. cores x cross-sec. mm ²	Outer \varnothing approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
23002	3 G 0,75	6,8	21,6	63,0	18
23104	3 x 0,75	6,8	21,6	63,0	18
23003	4 G 0,75	7,6	29,0	83,0	18
23105	4 x 0,75	7,6	29,0	83,0	18
23004	5 G 0,75	8,5	36,0	101,0	18
22943	5 x 0,75	8,5	36,0	101,0	18
23005	6 G 0,75	9,2	43,0	115,0	18
23006	7 G 0,75	9,2	50,0	124,0	18
23127	8 G 0,75	9,9	57,7	138,0	18
23128	10 G 0,75	11,1	72,1	156,0	18
23129	12 G 0,75	12,2	86,5	185,0	18
23130	16 G 0,75	13,7	115,2	218,0	18
23131	18 G 0,75	14,6	129,7	260,0	18
23132	25 G 0,75	17,2	180,0	370,0	18
23007	2 x 1	6,6	19,0	59,0	17
23008	3 G 1	7,0	29,0	77,0	17

Continuation ►

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Part no.	No.cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.	Part no.	No.cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
22944	3 x 1	7,0	29,0	77,0	17	23033	12 G 2,5	17,1	288,0	502,0	14
23009	4 G 1	7,8	38,0	94,0	17	23142	16 G 2,5	19,6	384,0	659,0	14
22945	4 x 1	7,8	38,0	94,0	17	23143	18 G 2,5	20,6	432,2	761,0	14
23010	5 G 1	8,8	48,0	115,0	17	23144	25 G 2,5	24,4	600,0	1007,0	14
22946	5 x 1	8,8	48,0	115,0	17	23034	2 x 4	10,8	77,0	180,0	12
23011	6 G 1	9,5	58,0	134,0	17	23035	3 G 4	11,4	115,0	224,0	12
23012	7 G 1	9,5	67,0	144,0	17	23036	4 G 4	12,5	154,0	295,0	12
23133	8 G 1	10,3	76,7	175,0	17	23037	5 G 4	13,9	192,0	359,0	12
23134	10 G 1	11,5	96,1	216,0	17	23039	7 G 4	15,6	269,0	479,0	12
23135	12 G 1	12,5	115,2	231,0	17	23040	2 x 6	12,4	115,0	210,0	10
23136	16 G 1	14,2	153,5	302,0	17	23041	3 G 6	13,2	173,0	270,0	10
23137	18 G 1	15,1	172,9	340,0	17	23042	4 G 6	14,8	230,0	341,0	10
23138	25 G 1	18,0	240,0	431,0	17	23043	5 G 6	16,5	288,0	432,0	10
23013	2 x 1,5	7,6	29,0	81,0	16	23045	7 G 6	18,0	403,0	552,0	10
23014	3 G 1,5	8,0	43,0	98,0	16	23046	2 x 10	16,2	192,0	400,0	8
22947	3 x 1,5	8,0	43,0	98,0	16	23047	3 G 10	17,2	288,0	507,0	8
23015	4 G 1,5	8,7	58,0	122,0	16	23048	4 G 10	19,4	384,0	644,0	8
22948	4 x 1,5	8,7	58,0	122,0	16	23049	5 G 10	21,4	480,0	788,0	8
23016	5 G 1,5	9,6	72,0	147,0	16	23145	7 G 10	23,4	672,2	1151,0	8
22949	5 x 1,5	9,6	72,0	147,0	16	23050	2 x 16	18,0	308,0	591,0	6
23017	6 G 1,5	10,4	86,0	173,0	16	23051	3 G 16	19,3	462,0	749,0	6
23018	7 G 1,5	10,4	101,0	187,0	16	23052	4 G 16	21,4	616,0	950,0	6
23019	8 G 1,5	11,2	114,0	213,0	16	23053	5 G 16	24,0	770,0	1204,0	6
23020	10 G 1,5	13,0	116,0	263,0	16	23146	7 G 16	26,4	1075,3	1682,0	6
23021	12 G 1,5	13,9	173,0	314,0	16	23054	2 x 25	22,0	480,0	700,0	4
23022	14 G 1,5	14,7	202,0	379,0	16	23055	3 G 25	23,4	720,0	1100,0	4
23023	16 G 1,5	16,2	231,0	445,0	16	23056	4 G 25	26,3	960,0	1500,0	4
23024	18 G 1,5	17,0	260,0	506,0	16	23057	2 x 35	24,6	672,0	1100,0	2
23025	20 G 1,5	17,5	288,0	566,0	16	23058	3 G 35	26,3	1008,0	1500,0	2
23026	24 G 1,5	20,4	346,0	722,0	16	23059	4 G 35	29,1	1344,0	2100,0	2
23027	2 x 2,5	8,8	48,0	134,0	14						
23028	3 G 2,5	9,7	72,0	152,0	14						
23029	4 G 2,5	10,6	96,0	188,0	14						
23030	5 G 2,5	11,6	120,0	228,0	14						
23139	6 G 2,5	12,6	144,0	304,0	14						
23032	7 G 2,5	12,6	168,0	320,0	14						
23140	8 G 2,5	13,6	192,2	373,0	14						
23141	10 G 2,5	15,5	240,1	450,0	14						

Dimensions and specifications may be changed without prior notice. (RE01)

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