H05SS-F (SiHF-J/O)
300/500 V

Heat Resistant Silicone Cable

Si - *Silicone rubber insulation*
H - *High temperature*
F - *Fine wired flexible conductor*

Standards : *DIN VDE 0250-502*

APPLICATION

Suitable where PVC-insulated cables become brittle due to high temperature variations. Silicone-insulated single cores are preferably used in the metallurgical industry, steel works, hot-rolling mills, coking plants, foundries etc. The insulation consists of silicone rubber. It is resistant to vegetable and animal fat, many types of oil and diluted acids. No decomposition occurs when exposed to alcohol, alkaline dilutions etc. The insulation is resistant to oxygen and ozone. Should the cable burn, an insulation silicone dioxide layer will remain on the conductor to render it short circuit proof.

CONSTRUCTION

Conductor	Tinned copper conductor acc. to IEC 60228 Class 5
Insulation	Silicone rubber
Cores identification	Up to 5 cores colour coded in accordance to VDE 0293, 6 cores and and above black with printed consecutive number coding
Outer sheath	Silicone rubber
Sheath color	Red-brown

TECHNICAL DATA

Working voltage	300/500 V
Testing voltage	2000 V
Insulation resistance	5000 V
Temperature range	-60°C to 180°C
Short-term peak temp.	20 0°C
Bending radius	15 x cable diameter
Flame retardant	IEC 60332-1-2
Halogen-free	IEC 60754-1-2

CORE COLOR MARKING

No. of cores	With protective conductor	With protective conductor
	SiHF-J	SiHF-O
2	-	BU ,BN
3	GN/YE ,BU ,BN	BU ,BN ,BK
4	GN/YE ,BN ,BK ,GY	BU ,BN ,BK ,GY
5	GN/YE ,BU ,BN ,BK ,GY	-
SiHF-JZ		
> 5	GN/YE , Black cores with white numbering	-

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Core No. x Section	Structure	Insulation Thickness	Sheath Thicness	Wire OD. Nominal diameter	Conductor Resistance at 20°C tinned-coated
mm2	mm	mm	mm	mm	Ω/KM.
2 x 0.5	16/0.20	0.6	0.8	5.9	40.1
3 x 0.5	16/0.20	0.6	0.8	6.2	40.1
4 x 0.5	16/0.20	0.6	0.8	6.8	40.1
5 x 0.5	16/0.20	0.6	0.8	7.4	40.1
6 x 0.5	16/0.20	0.6	0.8	7.6	40.1
7 x 0.5	16/0.20	0.6	0.8	8.1	40.1
2 x 0.75	24/0.20	0.6	0.8	6.3	26.7
3 x 0.75	24/0.20	0.6	0.8	6.7	26.7
4 x 0.75	24/0.20	0.6	1.0	707	26.7
5 x 0.75	24/0.20	0.6	1.0	8.4	26.7
6 x 0.75	24/0.20	0.6	1.0	8.6	26.7
7 x 0.75	24/0.20	0.6	1.0	9.1	26.7
10 x 0.75	24/0.20	0.6	1.2	11.8	26.7
12 x 0.75	24/0.20	0.6	1.3	12.5	26.7
19 x 0.75	24/0.20	0.6	1.5	14.8	26.7
2 x 1	32/0.20	0.6	0.8	6.7	20.0
3 x 1	32/0.20	0.6	1.0	7.5	20.0
4 x 1	32/0.20	0.6	1.0	8.2	20.0
5 x 1	32/0.20	0.6	1.0	8.9	20.0
6 x 1	32/0.20	0.6	1.0	9.2	20.0
7 x 1	32/0.20	0.6	1.0	9.7	20.0
10 x 1	32/0.20	0.6	1.2	12.6	20.0
12 x 1	32/0.20	0.6	1.4	13.5	20.0
19 x 1	32/0.20	0.6	1.5	15.8	20.0
2 x 1.5	30/0.25	0.6	1.0	7.8	13.7
3 x 1.5	30/0.25	0.6	1.0	8.3	13.7
4 x 1.5	30/0.25	0.6	1.0	9.0	13.7
5 x 1.5	30/0.25	0.6	1.1	10.0	13.7
6 x 1.5	30/0.25	0.6	1.1	10.4	13.7
7 x 1.5	30/0.25	0.6	1.1	10.9	13.7
10 x 1.5	30/0.25	0.6	1.2	14.0	13.7
12 x 1.5	30/0.25	0.6	1.4	14.9	13.7
14 x 1.5	30/0.25	0.6	1.4	15.7	13.7
16 x 1.5	30/0.25	0.6	1.4	16.6	13.7
18 x 1.5	30/0.25	0.6	1.6	17.2	13.7
19 x 1.5	30/0.25	0.6	1.6	17.7	13.7
20 x 1.5	30/0.25	0.6	1.8	18.4	13.7
24 x 1.5	30/0.25	0.6	1.8	21.0	13.7
27 x 1.5	30/0.25	0.6	2.0	22.0	13.7
37 x 1.5	30/0.25	0.6	2.4	25.2	13.7
2 x 2.5	50/0.25	0.7	1.2	9.2	8.21
3 x 2.5	50/0.25	0.7	1.2	9.8	8.21
4 x 2.5	50/0.25	0.7	1.2	10.6	8.21
5 x 2.5	50/0.25	0.7	1.2	11.6	8.21
6 x 2.5	50/0.25	0.7	1.2	12.0	8.21
7 x 2.5	50/0.25	0.7	1.2	12.6	8.21
10 x 2.5	50/0.25	0.7	1.4	16.4	8.21
12 x 2.5	50/0.25	0.7	1.6	17.4	8.21
19 x 2.5	50/0.25	0.7	1.8	20.6	8.21
24 x 2.5	50/0.25	0.7	2.2	25.0	8.21
27 x 2.5	50/0.25	0.7	2.4	25.9	8.21
37 x 2.5	50/0.25	0.7	2.4	28.8	8.21

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Core No. x Section	Structure	Insulation Thickness	Sheath Thicness	Wire OD. Nominal diameter	Conductor Resistance at 20°C tinned-coated
mm2	mm	mm	mm	mm	Ω/KM.
2 x 4	56/0.30	0.8	1.2	10.8	5.09
3 x 4	56/0.30	0.8	1.2	11.5	5.09
4 x 4	56/0.30	0.8	1.5	13.0	5.09
5 x 4	56/0.30	0.8	1.5	15.0	5.09
7 x 4	56/0.30	0.8	1.5	16.2	5.09
2 x 6	84/0.30	0.8	1.5	13.4	3.39
3 x 6	84/0.30	0.8	1.5	14.2	3.39
4 x 6	84/0.30	0.8	1.6	16.2	3.39
5 x 6	84/0.30	0.8	1.6	17.7	3.39
7 x 6	84/0.30	0.8	1.6	19.3	3.39
2 x 10	80/0.40	1.0	1.6	17.6	1.95
3 x 10	80/0.40	1.0	1.6	18.7	1.95
4 x 10	80/0.40	1.0	1.8	21.4	1.95
5 x 10	80/0.40	1.0	1.8	22.5	1.95
4 x 16	128/0.40	1.0	1.8	24.0	1.24
5 x 16	128/0.40	1.0	1.8	26.5	1.24
4 x 25	200/0.40	1.2	2.0	29.3	0.795
4 x 35	280/0.40	1.2	2.0	31.0	0.565
5 x 35	280/0.40	1.2	2.0	34.2	0.565
4 x 50	400/0.40	1.4	2.2	34.7	0.393

CURRENT RATINGS FOR SILICONE CABLES

Heat-resistance at an ambient temperature up to 150 deg C

	Group 1		Group 2		Group 3	
Nominal cross-section	Current carrying capacity A	Protective fuse A	Current carrying capacity A	Protective fuse A	Current carrying capacity A	Protective fuse A
0.25 mm2	2.8	-	-	-	5	-
0.5 mm2	6	-	7	-	10	-
0.75 mm2	9	6	12	6	15	10
1 mm2	12	10	15	10	19	20
1.5 mm2	16	16	18	16	24	25
2.5 mm2	21	20	26	25	32	35
4 mm2	28	25	34	35	42	50
6 mm2	36	35	44	50	54	63
10 mm2	49	50	61	63	73	80
16 mm2	65	63	82	80	98	100
25 mm2	85	83	108	100	129	125
35 mm2	105	100	135	-	158	160
50 mm2	140	125	168	-	198	200
70 mm2	175	160	207	-	245	250
95 mm2	210	200	250	-	292	300
120 mm2	250	250	292	-	344	335
150 mm2	-	-	335	-	391	-
185 mm2	-	-	382	-	448	-
240 mm2	-	-	453	-	528	-
300 mm2	-	-	523	-	608	-

Remark

Group 1 : One or more single core cables laid in duct

Group 2 : Multicore cables, flexible cables laid in open or ventilated conduits

Group 3 : Single core cables laid in open air with a spacing at least equal to diameter

Power ratings for ambient temperature over 150 deg C

Temperature 0c	Current carrying capacity values in %
Up to 150	100
Over 150 to 155	91
Over 155 to 160	82
Over 160 to 165	71
Over 165 to 170	58
Over 170 to 175	41