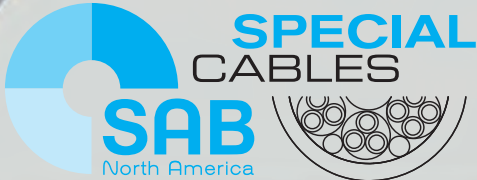


# HIGH TEMPERATURE CABLES









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# High Temperature Cables


## Content

	<b>page</b>
<b>Applications</b> .....	I/3
<b>Selection tables</b> .....	I/4
<b>Silicone Jacketed High Temperature Cables with UL Recognition, CSA Approval</b>	
■ SC 600 HDTR 	Besilen® insulated conductors with silicone outer jacket ..... I/7
■ SC 600 C HDTR 	Shielded Besilen® insulated conductors with silicone outer jacket ..... I/8
■ SC 600 HDTRS 	Besilen® insulated conductors with silicone outer jacket and steel wire armoring for mechanical protection ..... I/9
<b>Silicone Jacketed High Temperature Cables with UL/cUL Recognition</b>	
■ SC 700 HDTR 	Besilen® insulated conductors with silicone outer jacket ..... I/10
■ SC 700 C HDTR 	Shielded Besilen® insulated conductors with silicone outer jacket ..... I/11
<b>Silicone Insulated High Temperature Single Conductor Cables</b>	
■ SC 113	Silicone insulated hook-up wire ..... I/12
■ SC 123	Silicone insulated hook-up wire with fiberglass braid ..... I/13
■ B 118	Silicone insulated hook-up wire Uo/U 0.6/1 kV ..... I/14
■ B 119	Silicone insulated hook-up wire Uo/U 1.8/3 kV ..... I/15
■ B 120	Silicone insulated hook-up wire Uo/U 3.6/6 kV ..... I/16
<b>Silicone Jacketed High Temperature Cables</b>	
■ BiHF-J	Silicone insulated conductors with silicone outer jacket ..... I/17
■ BiHF(K)-J	Silicone insulated conductors with extremely notch resistant silicone outer jacket ..... I/18
■ BiHFP-J	Silicone insulated conductors with silicone outer jacket and steel wire armoring for mechanical protection ..... I/19
■ BiHF/Cu/Bi-J	Shielded silicone insulated conductors with silicone outer jacket ..... I/20
■ BiHF/Cu/Bi-(K)-J	Shielded silicone insulated conductors with extremely notch resistant silicone outer jacket ..... I/21
 ■ Besilen® ESD Control Cable	Silicone insulated conductors with anti-static silicone outer jacket for ESD protective components ..... I/22

1  
2

# High Temperature Cables

## Content

		page
<b>Silicone Jacketed High Temperature Continuous Flex Cables</b>		
■ S 180 HT	Continuous flex control cable with silicone outer jacket for cable tracks . . . . .	I/23
■ S 180 C HT	Continuous flex shielded control cable with silicone outer jacket for cable tracks . . . . .	I/24
	<b>Silicone Jacketed Single Core Cable with Very Fine Stranding Especially for use on Rail Vehicles</b>	
■ R 107	Silicone insulated copper rope . . . . .	I/25
■ B 108	Shielded silicone insulated specially stranded copper rope with copper braid . . . . .	I/26

# High Temperature Cables

## Applications

### Applications of Besilen® single conductors

Our Besilen® ignition cables and Besilen® high-voltage ignition cables are suitable for applications with high or very unsteady ambient temperatures of up to +180°C. Besilen® insulated wires and Besilen® insulated conductors are suitable for use at high temperatures especially for the internal wiring of lamps and appliances as well as for the wiring of switchboard plants and distributors, at low mechanical loads.

#### Exemplary applications:

SC 113	Flexible applications for internal wiring of lamps, heating appliances, switchboard plants and distributors in industries such as smelteries, steelworks and hot-rolling mills, industrial oven and textile machine construction, illumination and electric industries, wood working and paper processing industries
B 118 B 119 B 120	These insulated strands with 0.6/1kV, 1.8/3 kV resp. 3.6/6 kV are for example used in switchboards and distributors, in industrial furnaces and textile machine construction as well as in railway technology. Equally they are applied as connection of battery system or energy storage.

### Applications of Besilen® single conductors with fiberglass braiding

These Besilen® cables with fiberglass braiding are for use at high ambient temperatures for internal wiring e.g. of lamps, heating appliances and electric machines as well as for wiring of switchboard plants and distributors. The fiberglass braiding offers protection against mechanical damage and at the same time offers excellent heat resistance.

#### Exemplary applications:

SC 123	Application at ambient temperatures higher than +55°C, for internal wiring of e.g. lamps and illuminations, heating appliances, household, kitchen and laboratory appliances, electric machines, switchboard plants and distributors, medical appliances
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### Application of Besilen® jacketed cables

Our Besilen® jacketed cables are suitable for applications at high ambient temperatures in dry, damp and wet areas as well as for outdoor use; as flexible connection cable with low mechanical load. The mechanical load capacity can be enhanced by using a steel wire armoring, a fiberglass braiding or an inner jacket. The EMC characteristics can be improved with an overall tinned copper screen. If these cables are used for fixed installation, they are only to be installed in ventilated tube systems or conduits.

#### Exemplary applications:

BiHF-J BiHF(K)-J SC 600 HDTR SC 700 HDTR	Application in plastics processing, packaging machine construction, smelteries, steelworks and hot-rolling mills, safety technology, measuring and control technologies, cement, glass and ceramic industries, refrigeration, heat and air-conditioning technologies, power plants, sauna construction
BiHFP-J SC 600 HDTRS	Application in plastics processing, packaging and textile machine engineering, smelteries, steelworks and hot-rolling mills, cement, glass and ceramic industries sauna construction, refrigeration, heat and air-conditioning technologies, paper industry, foundries
BiHF/Cu/Bi-J BiHF/Cu/Bi(K)-J SC 600 C HDTR SC 700 C HDTR	Application in packaging and textile machine construction, refrigeration, heat and airconditioning, plastics processing, smelteries, steelworks and hot-rolling mills, cement, glass and ceramic industries, plastic processing machine construction

**Note:** If hermetically sealed and used at temperatures higher than 90°C the mechanical characteristics of Silicone rubber will be reduced.

### You will find further information about the safe application of cables in chapter O

**Besilen®** is a specially developed silicone rubber-based material with good electrical characteristics and it is a registered trademark of SAB BRÖCKSKES GmbH & Co. KG.

# High Temperature Cables

## Applications

### ■ Applications of cable track cables with Besilen® outer jacket

SAB cable track cables with Besilen® outer jacket are for continuous flex use in high temperature areas as for example in cable tracks as control cable with medium mechanical stress.

#### Exemplary applications:

<b>S 180 HT</b> <b>S 180 C HT</b>	Conveyor systems in steel production and steel processing industries, at feeding lines for blast furnaces
--------------------------------------	--

### ■ Application of silicone insulated round single conductors for railway technology

The conductors can be laid easily in narrow spaces due to its extremely flexible construction. The translucent insulation enables an easy inspection of the state of conductor. An additional copper support braiding under the insulation provides a supplementary reinforcement for applications with high mechanical stress.

#### Exemplary applications:

<b>R 107</b>	Highly flexible single conductor for current or ground connection in railway technology
<b>B 108</b>	Current or ground connection in railway technology

**Note:** If hermetically sealed and used at temperatures higher than 90°C the mechanical characteristics of Silicone rubber will be reduced.

# High Temperature Cables

## Selection Table

		Cable Type																	
		I/7	I/8	I/9	I/10	I/11	I/12	I/13	I/14	I/15	I/16	I/17 I/18	I/19	I/20 I/21	I/22	I/23	I/24	I/25	I/26
Basic construction	Single conductor						●	●	●	●									
	Multi-conductor	●	●	●	●	●						●	●	●	●	●			
	Copper rope																	●	●
	Shielding		●			●								●				●	●
	Steel wire braiding			●									●						
Temperature range fixed laying*	+250°C	●	●	●	●	●	●	●				●	●					●	●
	+200°C	●	●	●	●	●	●	●				●	●					●	●
	+180°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	+105°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	+ 90°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	- 25°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	- 40°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	- 50°C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Voltage	Nominal voltage Uo/U 300/500 V	●	●	●	●	●	●	●				●	●	●					
	Nominal voltage Uo/U 0.6/1 kV								●							●	●		
	Nominal voltage Uo/U 1.5/1.5 kV																		●
	Nominal voltage Uo/U 1.8/3 kV										●							●	●
	Nominal voltage Uo/U 3.6/6 kV										●								
	Voltage UL/CSA resp. UL/cUL 600 V	●	●	●	●	●													
	Testing voltage 1500 V																		
	Testing voltage 2000 V	●	●	●	●	●	●	●				●	●	●	●				
	Testing voltage 4000 V								●										●
	Testing voltage 6000 V									●									●
	Testing voltage 6500 V																		●
Testing voltage 11 kV										●									
Standards and approvals	Halogen-free acc. to IEC 60754-1 + VDE 0482-754-1	●	●	●	●	●	●	●	●	●	●	●	●	●					●
	Halogen-free acc. to EN 50306-1 + EN 50264-1																	●	
	Fire performance: Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●		●
	Fire performance: No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2																		●
	Fire performance: CSA FT1, FT2	●	●	●															
	Fire performance: cUL FT1, FT2				●	●													
	Corrosiveness of conflagration gases: IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases	●	●	●	●	●	●	●	●	●	●	●	●	●					●
	Toxicity acc. to EN 50305 + VDE 0260-305																		●
	Smoke density acc. to IEC 61034 + VDE 0482-1034																		●
	Tested acc. to EN 45545-2																		●
Special features	UL + cUL recognized resp. CSA approved	●	●	●	●	●													
	Antistatic outer jacket														●				
	very good weather resistance						●		●	●	●	●	●	●				●	●
	Ozone resistance acc. to EN 50382-2 + VDE 0260-382-2																		●
	Good oil resistance																		●
	Highly flexible																	●	●
	Flexible	●	●	●	●	●			●	●	●	●	●	●	●	●			●
Protection against mechanical damage			●										●						

6

from 1 to 10 AWG · 2 from 8 AWG  
to ● short-term use

\*The temperature range for flexible application is mentioned on the corresponding catalog page



# High Temperature Cables

## SC 600 HDTR

Besilen® insulated conductors with silicone outer jacket

535 150°C 600V CSA AWM I/II A 150°C 600V FT1 FT2 CE



Marking for SC 600 HDTR 1271804:

SAB BRÖCKSKES · D-VIERSEN · SC 600 HDTR AWM Style 4535 150°C 600V CSA AWM I/II A 150°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® better than EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	conductor/conductor: 2000 V	
<b>Min. bending radius:</b>		
<i>fixed installation:</i>	4 x O.D.	
<i>free movement:</i>	6 x O.D.	
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/CSA:</b>
<i>static:</i>	-40/+180°C +200°C (2000h)	up to +150°C Style 4535
<i>flexible:</i>	-25/+180°C	
<i>short-term use:</i>	+250°C	
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, CSA FT1, FT2	
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases	
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant
- UL recognized and CSA approved

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b>				
1272002	2	0.220	5.6	26
1272003	3	0.232	5.9	30
1272004	4	0.248	6.3	36
1272005	5	0.272	6.9	42
1272007	7	0.295	7.5	53
1272008	8	0.339	8.6	61
1272010	10	0.366	9.3	73
1272012	12	0.378	9.6	83
1272016	16	0.417	10.6	105
1272018	18	0.441	11.2	117
1272024	24	0.516	13.1	161
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1271902	2	0.232	5.9	31
1271903	3	0.252	6.4	36
1271904	4	0.272	6.9	44
1271905	5	0.299	7.6	52
1271907	7	0.323	8.2	66
1271908	8	0.374	9.5	76
1271910	10	0.406	10.3	91
1271912	12	0.417	10.6	104
1271916	16	0.465	11.8	132
1271918	18	0.492	12.5	148
1271924	24	0.583	14.8	206
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1271802	2	0.248	6.3	34
1271803	3	0.260	6.6	42
1271804	4	0.283	7.2	50
1271805	5	0.307	7.8	60
1271807	7	0.335	8.5	77
1271808	8	0.386	9.8	89
1271810	10	0.421	10.7	106
1271812	12	0.433	11.0	122
1271816	16	0.480	12.2	157
1271818	18	0.512	13.0	176
1271824	24	0.626	15.9	255

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1271602	2	0.280	7.1	46
1271603	3	0.295	7.5	56
1271604	4	0.315	8.0	67
1271605	5	0.350	8.9	81
1271607	7	0.382	9.7	105
1271608	8	0.449	11.4	122
1271610	10	0.496	12.6	150
1271612	12	0.512	13.0	173
1271616	16	0.583	14.8	229
1271618	18	0.614	15.6	255
1271624	24	0.724	18.4	339
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1271402	2	0.335	8.5	68
1271403	3	0.354	9.0	85
1271404	4	0.386	9.8	104
1271405	5	0.437	11.1	129
1271407	7	0.476	12.1	168
1271408	8	0.563	14.3	197
1271410	10	0.622	15.8	241
1271412	12	0.642	16.3	279
1271416	16	0.720	18.3	363
1271418	18	0.760	19.3	403
1271424	24	0.913	23.2	597
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1271202	2	0.382	9.7	91
1271203	3	0.417	10.6	124
1271204	4	0.457	11.6	155
1271205	5	0.508	12.9	189
1271207	7	0.555	14.1	248
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1271002	2	0.441	11.2	134
1271003	3	0.461	11.7	167
1271004	4	0.512	13.0	212
1271005	5	0.563	14.3	256
1271007	7	0.630	16.0	348

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>				
1270802	2	0.575	14.6	228
1270803	3	0.610	15.5	291
1270804	4	0.669	17.0	363
1270805	5	0.744	18.9	443
1270807	7	0.831	21.1	601
<b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b>				
1270602	2	0.669	17.0	329
1270603	3	0.736	18.7	429
1270604	4	0.807	20.5	537
1270605	5	0.823	20.9	650
1270607	7	1.012	25.7	893
<b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b>				
1270402	2	0.850	21.6	518
1270403	3	0.906	23.0	665
1270404	4	1.008	25.6	849
<b>▶ 2 AWG (≈ 77/26) ▪ 35.00 mm<sup>2</sup></b>				
1270202	2	0.976	24.8	722
1270203	3	1.039	26.4	935
1270204	4	1.142	29.0	1181

Other dimensions and colors are available on request



Temperature range  
up to +200°C  
Style 4511 with nickel  
or silver plated  
copper strands.

# High Temperature Cables

## SC 600 C HDTR

Shielded Besilen® insulated conductors with silicone outer jacket



Marking for SC 600 C HDTR 1241804:

SAB BRÖCKSKES · D-VIERSEN · SC 600 C HDTR AWM Style 4535 150°C 600V CSA AWM I/II A 150°C 600V FT1 FT2

### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Shielding:</b>	tinned copper braiding
<b>Jacket material:</b>	Besilen® better than EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	black (similar RAL 9011)

### Outstanding features:



- good EMC characteristics
- halogen-free
- flexible at low temperatures
- heat resistant
- UL recognized and CSA approved

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	conductor/conductor: 2000 V conductor/shielding: 2000 V	
<b>Min. bending radius:</b>		
fixed installation:	4 x O.D.	
free movement:	6 x O.D.	
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/CSA:</b>
static:	-40/+180°C +200°C (2000h)	up to +150°C Style 4535
flexible:	-25/+180°C	
short-term use:	+250°C	
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, CSA FT1, FT2	
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases	
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

8

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1241902	2	0.323	8.2	62
1241903	3	0.335	8.5	68
1241904	4	0.354	9.0	83
1241905	5	0.382	9.7	93
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1241802	2	0.331	8.4	68
1241803	3	0.343	8.7	81
1241804	4	0.366	9.3	91
1241805	5	0.398	10.1	112
1241807	7	0.433	11.0	136

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1241602	2	0.370	9.4	87
1241603	3	0.394	10.0	110
1241604	4	0.425	10.8	129
1241605	5	0.457	11.6	158
1241607	7	0.504	12.8	186
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1241402	2	0.441	11.2	141
1241403	3	0.461	11.7	157
1241404	4	0.508	12.9	189
1241405	5	0.563	14.3	226

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1241203	3	0.543	13.8	221
1241204	4	0.583	14.8	258
1241205	5	0.657	16.7	323
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1241003	3	0.594	15.1	266
1241004	4	0.661	16.8	352
1241005	5	0.713	18.1	390

Other dimensions and colors are available on request



Temperature range up to +200°C  
Style 4511 with nickel  
or silver plated copper strands.



# High Temperature Cables

## SC 600 HDTRS

Besilen® insulated conductors with silicone outer jacket and steel wire armoring for mechanical protection



Marking for SC 600 HDTRS 1281803:

SAB BRÖCKSKES · D-VIERSEN · SC 600 HDTRS AWM Style 4535 150°C 600V CSA AWM I/II A 150°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® better than EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)
<b>Armor:</b>	galvanized steel wire braiding

### Outstanding features:

- halogen-free
- flexible at low temperatures
- heat resistant
- protection against mechanical damage
- UL recognized and CSA approved

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	conductor/conductor: 2000 V	
<b>Min. bending radius:</b>		
<i>fixed installation:</i>	4 x O.D.	
<i>free movement:</i>	6 x O.D.	
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/CSA:</b>
<i>static:</i>	-40/+180°C +200°C (2000h)	up to +150°C Style 4535
<i>flexible:</i>	-25/+180°C	
<i>short-term use:</i>	+250°C	
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, CSA FT1, FT2	
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases	
<b>Approvals:</b>	UR AWM, CSA AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1281902	2	0.272	6.9	44
1281903	3	0.283	7.2	50
1281904	4	0.303	7.7	58
1281905	5	0.331	8.4	70
1281906	6	0.354	9.0	78
1281907	7	0.354	9.0	84
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1281802	2	0.280	7.1	48
1281803	3	0.291	7.4	56
1281804	4	0.315	8.0	65
1281805	5	0.339	8.6	78
1281806	6	0.366	9.3	88
1281807	7	0.366	9.3	95

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1281602	2	0.311	7.9	60
1281603	3	0.327	8.3	73
1281604	4	0.346	8.8	85
1281605	5	0.382	9.7	99
1281606	6	0.413	10.5	116
1281607	7	0.413	10.5	128
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1281402	2	0.366	9.3	86
1281403	3	0.386	9.8	103
1281404	4	0.417	10.6	126
1281405	5	0.469	11.9	152
1281406	6	0.508	12.9	174
1281407	7	0.508	12.9	192

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1281202	2	0.413	10.5	114
1281203	3	0.449	11.4	147
1281204	4	0.488	12.4	177
1281205	5	0.539	13.7	220
1281206	6	0.587	14.9	253
1281207	7	0.587	14.9	280
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1281002	2	0.472	12.0	157
1281003	3	0.500	12.7	194
1281004	4	0.543	13.8	244
1281005	5	0.594	15.1	288

Other dimensions and colors are available on request



Temperature range up to +200°C  
Style 4511 with nickel  
or silver plated copper strands.

# High Temperature Cables

## SC 700 HDTR

Besilen® insulated strands with Besilen® outer jacket

temperature range up to +200°C



Marking for SC 700 HDTR 1251804:

SAB BRÖCKSKES · D-VIERSEN · SC 700 HDTR AWM Style 4511 200°C 600V cUL AWM I/II A/B 200°C 600V FT1 FT2 CE

### Construction:

<b>Conductor:</b>	< 10 mm <sup>2</sup> : nickel-plated copper strands ≥ 10 mm <sup>2</sup> : tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V	
<b>Voltage UL/CSA:</b>	600 V	
<b>Testing voltage:</b>	conductor/conductor: 2000 V	
<b>Min. bending radius:</b>		
<i>fixed installation:</i>	4 x O.D.	
<i>free movement:</i>	6 x O.D.	
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg	
<b>Temperature range:</b>	<b>DIN VDE</b>	<b>UL/cUL:</b>
<i>static:</i>	-40/+180°C	up to +200°C
<i>flexible:</i>	-25/+180°C	
<i>short-term use:</i>	+250°C	
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1	
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, cUL FT1, FT2	
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases	
<b>Approvals:</b>	UR AWM, cUR AWM, CE, EAC, RoHS	
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30	

### Outstanding features:

- halogen-free
- flexible at low temperatures
- heat resistant
- UL/cUL recognized
- rated for 200°C

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b>				
1252002	2	0.220	5.6	26
1252003	3	0.232	5.9	31
1252004	4	0.248	6.3	36
1252005	5	0.272	6.9	44
1252007	7	0.295	7.5	54
1252008	8	0.339	8.6	69
1252010	10	0.366	9.3	74
1252012	12	0.378	9.6	85
1252016	16	0.417	10.6	109
1252018	18	0.441	11.2	122
1252024	24	0.516	13.1	155
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1251902	2	0.232	5.9	31
1251903	3	0.252	6.4	37
1251904	4	0.272	6.9	44
1251905	5	0.299	7.6	55
1251907	7	0.323	8.2	67
1251908	8	0.374	9.5	85
1251910	10	0.406	10.3	92
1251912	12	0.417	10.6	105
1251916	16	0.465	11.8	136
1251918	18	0.492	12.5	155
1251924	24	0.583	14.8	199
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1251802	2	0.248	6.3	35
1251803	3	0.260	6.6	42
1251804	4	0.283	7.2	52
1251805	5	0.307	7.8	63
1251807	7	0.335	8.5	79
1251808	8	0.386	9.8	98
1251810	10	0.421	10.7	108
1251812	12	0.433	11.0	124
1251816	16	0.480	12.2	161
1251818	18	0.512	13.0	182
1251824	24	0.626	15.9	249

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1251602	2	0.280	7.1	46
1251603	3	0.295	7.5	56
1251604	4	0.315	8.0	68
1251605	5	0.350	8.9	85
1251607	7	0.382	9.7	107
1251608	8	0.449	11.4	134
1251610	10	0.496	12.6	152
1251612	12	0.512	13.0	176
1251616	16	0.583	14.8	235
1251618	18	0.614	15.6	263
1251624	24	0.724	18.4	343
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1251402	2	0.335	8.5	69
1251403	3	0.354	9.0	85
1251404	4	0.386	9.8	108
1251405	5	0.437	11.1	134
1251407	7	0.476	12.1	171
1251408	8	0.563	14.3	220
1251410	10	0.622	15.8	245
1251412	12	0.642	16.3	283
1251416	16	0.720	18.3	372
1251418	18	0.760	19.3	417
1251424	24	0.913	23.2	550
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1251202	2	0.382	9.7	92
1251203	3	0.417	10.6	126
1251204	4	0.457	11.6	156
1251205	5	0.508	12.9	196
1251207	7	0.555	14.1	251
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1251002	2	0.457	11.6	135
1251003	3	0.484	12.3	161
1251004	4	0.528	13.4	217
1251005	5	0.598	15.3	274
1251007	7	0.654	16.6	351

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>				
1250802	2	0.575	14.6	230
1250803	3	0.610	15.5	293
1250804	4	0.669	17.0	367
1250805	5	0.744	18.9	458
1250807	7	0.831	21.1	595
<b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b>				
1250602	2	0.669	17.0	341
1250603	3	0.736	18.7	438
1250604	4	0.807	20.5	576
1250605	5	0.823	20.9	683
1250607	7	1.012	25.7	916
<b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b>				
1250402	2	0.850	21.6	521
1250403	3	0.906	23.0	671
1250404	4	1.008	25.6	857
<b>▶ 2 AWG (≈ 77/26) ▪ 35.00 mm<sup>2</sup></b>				
1250202	2	0.976	24.8	712
1250203	3	1.039	26.4	922
1250204	4	1.142	29.0	1162

Other dimensions and colors are available on request

10



# High Temperature Cables

## SC 700 C HDTR

Besilen® insulated strands with overall copper shield and Besilen® outer jacket

temperature range up to +200°C



Marking for SC 700 C HDTR 1261904:

SAB BRÖCKSKES · D-VIERSEN · SC 700 C HDTR AWM Style 4511 200°C 600V AWM III A/B 200°C 600V FT1 FT2

Construction:	
<b>Conductor:</b>	< 10 mm <sup>2</sup> : nickel-plated copper strands ≥ 10 mm <sup>2</sup> : tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334, from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Shielding:</b>	tinned copper braiding
<b>Jacket material:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	black (similar RAL 9011)

Technical data:	
<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Voltage UL/CSA:</b>	600 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V conductor/shielding: 2000 V
<b>Min. bending radius:</b>	<i>fixed installation:</i> 5 x O.D. <i>free movement:</i> 10 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	<b>DIN VDE</b> <b>UL/CSA:</b> <i>static:</i> -40/+180°C                      up to +200°C <i>flexible:</i> -25/+180°C <i>short-term use:</i> +250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, cUL FT1, FT2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Approvals:</b>	UR AWM, cUR AWM, CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

**Outstanding features:**

- good EMC characteristics
- halogen-free
- flexible at low temperatures
- heat resistant
- UL/cUL recognized
- rated for 200°C

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1261902	2	0.323	8.2	58
1261903	3	0.335	8.5	65
1261904	4	0.354	9.0	75
1261905	5	0.382	9.7	87
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1261802	2	0.331	8.4	62
1261803	3	0.343	8.7	77
1261804	4	0.366	9.3	83
1261805	5	0.398	10.1	106
1261807	7	0.433	11.0	126

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1261602	2	0.370	9.4	79
1261603	3	0.394	10.0	100
1261604	4	0.425	10.8	118
1261605	5	0.457	11.6	138
1261607	7	0.504	12.8	172
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1261402	2	0.441	11.2	121
1261403	3	0.461	11.7	139
1261404	4	0.508	12.9	174
1261405	5	0.563	14.3	210

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1261203	3	0.543	13.8	197
1261204	4	0.583	14.8	233
1261205	5	0.657	16.7	302
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1261003	3	0.594	15.1	251
1261004	4	0.661	16.8	335
1261005	5	0.713	18.1	382

Other dimensions and colors are available on request

# High Temperature Cables

## SC 113

Silicone insulated hook-up wire



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to DIN EN 50363-1

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	2000 V
<b>Min. bending radius:</b>	7.5 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to DIN VDE 0472 part 815 and IEC 60754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
<b>Corrosivity:</b>	in compliance with IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2- no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG		nominal outer-ø		cable weight ≈lbs/mft
			(≈)	inch	mm	
▶ 113002...*	0.25	24	(≈ 14/34)	0.067	1.7	3
▶ 113003...*	0.34	22	(≈ 7/30)	0.071	1.8	4
▶ 113005...*	0.50	20	(≈ 16/32)	0.075	1.9	5
▶ 113007...*	0.75	19	(≈ 23/32)	0.087	2.2	7
▶ 113010...*	1.00	18	(≈ 30/32)	0.091	2.3	9
▶ 113015...*	1.50	16	(≈ 27-29/30)	0.110	2.8	12
▶ 113025...*	2.50	14	(≈ 46/30)	0.134	3.4	19
▶ 113040...*	4.00	12	(≈ 52/28)	0.157	4.0	30
▶ 113060...*	6.00	10	(≈ 78/28)	0.177	4.5	42
▶ 113100...*	10.00	8	(≈ 77/26)	0.240	6.1	72
▶ 113160...*	16.00	6	(≈ 122/26)	0.295	7.5	112
▶ 113250...*	25.00	4	(≈ 190/26)	0.366	9.3	182
▶ 113350...*	35.00	2	(≈ 272/26)	0.421	10.7	253
▶ 113500...*	50.00	1	(≈ 400/26)	0.484	12.3	351
▶ 113700...*	70.00	2/0	(≈ 543/26)	0.575	14.6	479
▶ 113950...*	95.00	3/0	(≈ 484/24)	0.689	17.5	646
▶ 113120...*	120.00	4/0	(≈ 589/24)	0.748	19.0	791
▶ 113150...*	150.00	250 MCM	(≈ 740/24)	0.823	20.9	982
▶ 113185...*	185.00	350 MCM	(≈ 902/24)	0.906	23.0	1200
▶ 113240...*	240.00	450 MCM	(≈ 1220/24)	1.059	26.9	1615
▶ 113300...*	300.00	550 MCM	(≈ 1525/24)	1.181	30.0	2015

Other dimensions and colors are available on request

#### \* Color code for single conductors:

- |                     |                      |
|---------------------|----------------------|
| ...0 = green/yellow | ...4 = gray          |
| ...1 = blue         | ...5 = white         |
| ...2 = black        | ...6 = reddish brown |
| ...3 = brown        | ...7 = red           |

# High Temperature Cables

## SC 123

Silicone insulated hook-up wire with fiberglass braid



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to DIN EN 50363-1
<b>Standard color:</b>	nature
<b>Braiding:</b>	fiberglass
<b>Impregnation:</b>	impregnating lacquer

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant
- fiberglass braid for additional protection

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V
<b>Testing voltage:</b>	2000 V
<b>Min. bending radius:</b>	7.5 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to DIN VDE 0472 part 815 and IEC 60754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
<b>Corrosivity:</b>	in compliance with IEC 60754-2 + EN 50267-2-2 + VDE 0482 part 267-2-2- no development of corrosive conflagration gases
<b>Approvals:</b>	CE, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG		nominal outer-ø		cable weight
				inch	mm	≈lbs/mft
▶ 1230050	0.5	20	(≈ 16/32)	0.094	2.4	7
▶ 1230070	0.75	19	(≈ 23/32)	0.106	2.7	11
▶ 1230100	1.00	18	(≈ 30/32)	0.110	2.8	12
▶ 1230150	1.50	16	(≈ 27-29/30)	0.126	3.2	15
▶ 1230250	2.50	14	(≈ 46/30)	0.154	3.9	24
▶ 1230400	4.00	12	(≈ 52/28)	0.177	4.5	34
▶ 1230600	6.00	10	(≈ 78/28)	0.205	5.2	50
▶ 1231000	10.00	8	(≈ 77/26)	0.287	7.3	91
▶ 1231600	16.00	6	(≈ 122/26)	0.327	8.3	133
▶ 1232500	25.00	4	(≈ 190/26)	0.402	10.2	206
▶ 1233500	35.00	2	(≈ 272/26)	0.449	11.4	271
▶ 1235000	50.00	1	(≈ 400/26)	0.555	14.1	384
▶ 1237000	70.00	2/0	(≈ 543/26)	0.594	15.1	509
▶ 1239500	95.00	3/0	(≈ 484/24)	0.728	18.5	702

Other dimensions and colors are available on request

# High Temperature Cables

## B 118

Silicone insulated hook-up wire U<sub>0</sub>/U 0.6/1kV

On request with  
RU recognition

nominal voltage  
U<sub>0</sub>/U 0.6/1 kV



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 0.6/1 kV
<b>Testing voltage:</b>	2500 V
<b>Current carrying capacity:</b>	acc. to VDE 0298-4, see page O20 & O21
<b>Min. bending radius:</b>	7.5 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

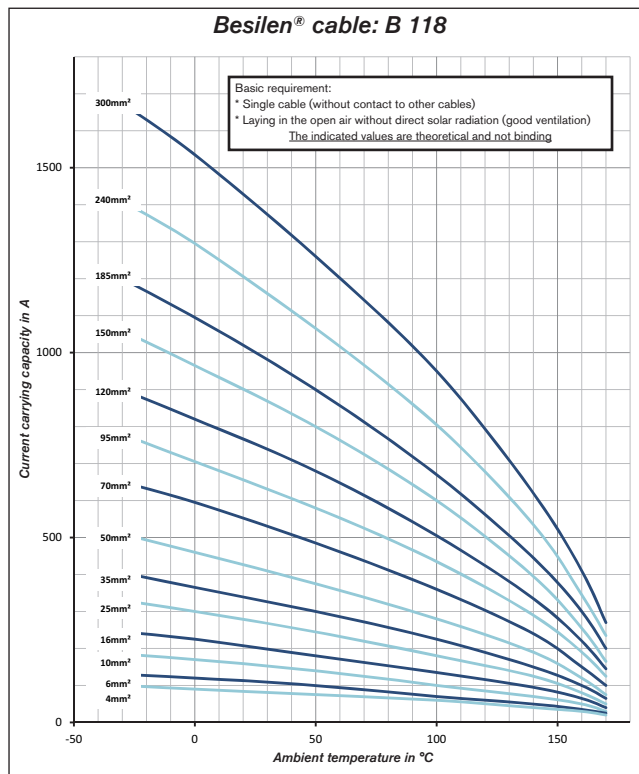
item no.	mm <sup>2</sup>	AWG	nominal outer- inch	mm	cable weight ≈lbs/mft
▶ 118..50*	0.50	20 (≈ 16/32)	0.098	2.5	7
▶ 118..75*	0.75	19 (≈ 23/32)	0.110	2.8	9
▶ 118..80*	1.00	18 (≈ 30/32)	0.114	2.9	11
▶ 118..82*	1.50	16 (≈ 27-29/30)	0.126	3.2	13
▶ 118..84*	2.50	14 (≈ 46/30)	0.150	3.8	21
▶ 118..86*	4.00	12 (≈ 52/28)	0.181	4.6	32
▶ 118..87*	6.00	10 (≈ 78/28)	0.201	5.1	44
▶ 118..88*	10.00	8 (≈ 77/26)	0.264	6.7	76
▶ 118..89*	16.00	6 (≈ 122/26)	0.319	8.1	115
▶ 118..90*	25.00	4 (≈ 190/26)	0.390	9.9	176
▶ 118..91*	35.00	2 (≈ 272/26)	0.445	11.3	243
▶ 118..92*	50.00	1 (≈ 400/26)	0.508	12.9	354
▶ 118..93*	70.00	2/0 (≈ 543/26)	0.598	15.2	468
▶ 118..94*	95.00	3/0 (≈ 484/24)	0.697	17.7	637
▶ 118..95*	120.00	4/0 (≈ 589/24)	0.772	19.6	780
▶ 118..96*	150.00	250 MCM (≈ 740/24)	0.846	21.5	976
▶ 118..97*	185.00	350 MCM (≈ 902/24)	0.929	23.6	1193
▶ 118..98*	240.00	450 MCM (≈ 1220/24)	1.075	27.3	1598
▶ 118..99*	300.00	550 MCM (≈ 1525/24)	1.197	30.4	1991

Other dimensions and colors are available on request

#### \* Color code for single conductors:

01 = black	06 = green
02 = blue	07 = violet
03 = brown	08 = white
04 = gray	16 = gentian blue
05 = yellow	27 = green/yellow

Besilen® cable: B 118



# High Temperature Cables

## B 119

Silicone insulated hook-up Uo/U 1.8/3kV

On request with  
RoHS recognition

nominal voltage  
Uo/U 1.8/3 kV



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	Uo/U 1.8/3 kV
<b>Testing voltage:</b>	6500 V
<b>Current carrying capacity:</b>	acc. to VDE 0298-4, see page O20 & O21
<b>Min. bending radius:</b>	7.5 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight ≈lbs/mft
			inch	mm	
▶ 119..82*	1.50	16 (≈ 27-29/30)	0.165	4.2	19
▶ 119..84*	2.50	14 (≈ 46/30)	0.181	4.6	26
▶ 119..86*	4.00	12 (≈ 52/28)	0.205	5.2	36
▶ 119..87*	6.00	10 (≈ 78/28)	0.224	5.7	49
▶ 119..88*	10.00	8 (≈ 77/26)	0.287	7.3	82
▶ 119..89*	16.00	6 (≈ 122/26)	0.343	8.7	122
▶ 119..90*	25.00	4 (≈ 190/26)	0.421	10.7	187
▶ 119..91*	35.00	2 (≈ 272/26)	0.476	12.1	256
▶ 119..92*	50.00	1 (≈ 400/26)	0.524	13.3	357
▶ 119..93*	70.00	2/0 (≈ 543/26)	0.614	15.6	476
▶ 119..94*	95.00	3/0 (≈ 484/24)	0.728	18.5	657
▶ 119..95*	120.00	4/0 (≈ 589/24)	0.803	20.4	802
▶ 119..96*	150.00	250 MCM (≈ 740/24)	0.862	21.9	989
▶ 119..97*	185.00	350 MCM (≈ 902/24)	0.945	24.0	1201
▶ 119..98*	240.00	450 MCM (≈ 1220/24)	1.091	27.7	1613
▶ 119..99*	300.00	550 MCM (≈ 1525/24)	1.213	30.8	2008

Other dimensions and colors are available on request

#### \* Color code for single conductors:

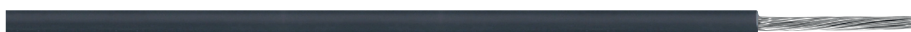
01 = black	06 = green
02 = blue	07 = violet
03 = brown	08 = white
04 = gray	16 = gentian blue
05 = yellow	27 = green/yellow

# High Temperature Cables

## B 120

Silicone insulated hook-up wire Uo/U 3.6/6kV

nominal voltage  
Uo/U 3.6/6 kV



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	Uo/U 3.6/6 kV
<b>Testing voltage:</b>	11 kV
<b>Current carrying capacity:</b>	acc. to VDE 0298-4, see page O20 & O21
<b>Min. bending radius:</b>	7.5 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight ≈lbs/mft
			inch	mm	
▶ 120..82*	1.50	16 (≈ 27-29/30)	0.268	6.8	38
▶ 120..84*	2.50	14 (≈ 46/30)	0.283	7.2	46
▶ 120..86*	4.00	12 (≈ 52/28)	0.307	7.8	59
▶ 120..87*	6.00	10 (≈ 78/28)	0.327	8.3	74
▶ 120..88*	10.00	8 (≈ 77/26)	0.374	9.5	108
▶ 120..89*	16.00	6 (≈ 122/26)	0.429	10.9	151
▶ 120..90*	25.00	4 (≈ 190/26)	0.508	12.9	223
▶ 120..91*	35.00	2 (≈ 272/26)	0.563	14.3	296
▶ 120..92*	50.00	1 (≈ 400/26)	0.610	15.5	402
▶ 120..93*	70.00	2/0 (≈ 543/26)	0.701	17.8	527
▶ 120..94*	95.00	3/0 (≈ 484/24)	0.807	20.5	711
▶ 120..95*	120.00	4/0 (≈ 589/24)	0.882	22.4	860
▶ 120..96*	150.00	250 MCM (≈ 740/24)	0.941	23.9	1052
▶ 120..97*	185.00	350 MCM (≈ 902/24)	1.008	25.6	1334

Other dimensions and colors are available on request

#### \* Color code for single conductors:

- |             |                   |
|-------------|-------------------|
| 01 = black  | 06 = green        |
| 02 = blue   | 07 = violet       |
| 03 = brown  | 08 = white        |
| 04 = gray   | 16 = gentian blue |
| 05 = yellow | 27 = green/yellow |



# High Temperature Cables

## BiHF-J

Silicone insulated conductors with silicone outer jacket

also possible with extremely notch resistant jacket



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)

### Outstanding features:

- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	4 x O.D.
<i>free movement:</i>	6 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 20 AWG (≈ 16/32) ▪ 0.50 mm<sup>2</sup></b>				
1410205	2	0.189	4.8	21
1410305	3	0.201	5.1	25
1410405	4	0.217	5.5	30
1410505	5	0.240	6.1	36
1410705	7	0.260	6.6	46
1411205	12	0.350	8.9	76
1411805	18	0.417	10.6	110
1412505	25	0.508	12.9	151
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1410207	2	0.213	5.4	28
1410307	3	0.224	5.7	33
1410407	4	0.244	6.2	40
1410507	5	0.272	6.9	48
1410607	6	0.303	7.7	58
1410707	7	0.303	7.7	65
1411007	10	0.394	10.0	91
1411207	12	0.406	10.3	105
1411807	18	0.520	13.2	153
1412507	25	0.587	14.9	211
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1410210	2	0.220	5.6	31
1410310	3	0.232	5.9	38
1410410	4	0.256	6.5	47
1410510	5	0.280	7.1	56
1410610	6	0.315	8.0	68
1410710	7	0.315	8.0	76
1410810	8	0.366	9.3	87
1411210	12	0.421	10.7	124
1411810	18	0.504	12.8	181
1412510	25	0.610	15.5	248

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1410215	2	0.260	6.6	42
1410315	3	0.276	7.0	54
1410415	4	0.307	7.8	69
1410515	5	0.339	8.6	81
1410615	6	0.370	9.4	95
1410715	7	0.370	9.4	106
1410815	8	0.441	11.2	126
1411215	12	0.504	12.8	178
1411815	18	0.606	15.4	263
1412015	20	0.638	16.2	288
1412515	25	0.732	18.6	362
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1410225	2	0.315	8.0	67
1410325	3	0.335	8.5	83
1410425	4	0.366	9.3	103
1410525	5	0.417	10.6	129
1410625	6	0.457	11.6	151
1410725	7	0.457	11.6	169
1410925	9	0.598	15.2	224
1411225	12	0.618	15.7	280
1412425	24	0.882	22.4	546
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1410240	2	0.378	9.6	99
1410340	3	0.402	10.2	125
1410440	4	0.437	11.1	155
1410540	5	0.492	12.5	189
1410740	7	0.535	13.6	249

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1410260	2	0.425	10.8	135
1410360	3	0.449	11.4	171
1410460	4	0.492	12.5	213
1410560	5	0.543	13.8	257
<b>▶ 8 AWG (≈ 77/26) ▪ 10.00 mm<sup>2</sup></b>				
1410461	4	0.661	16.8	374
1410561	5	0.736	18.7	456
<b>▶ 6 AWG (≈ 122/26) ▪ 16.00 mm<sup>2</sup></b>				
1410462	4	0.799	20.3	551
<b>▶ 4 AWG (≈ 190/26) ▪ 25.00 mm<sup>2</sup></b>				
1410463	4	1.000	25.4	894
<b>▶ 2 AWG (≈ 77/26) ▪ 35.00 mm<sup>2</sup></b>				
1410464	4	1.134	28.8	1209

Other dimensions and colors are available on request

# High Temperature Cables

## BiHF(K)-J

Silicone insulated conductors with extremely notch resistant silicone outer jacket

EWKF



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® notch resistant
<b>Jacket color:</b>	black (similar RAL 9011)

### Outstanding features:

- improved initial tear resistance
- improved tear-growth resistance
- extremely notch resistant
- good sunlight resistance
- halogen-free
- flexible at low temperatures
- heat resistant

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	4 x O.D.
<i>free movement:</i>	6 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

18

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1450207	2	0.213	5.4	27
1450307	3	0.224	5.7	33
1450407	4	0.244	6.2	40
1450507	5	0.272	6.9	48
1450707	7	0.303	7.7	65
1451207	12	0.406	10.3	105
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1450210	2	0.220	5.6	30
1450310	3	0.232	5.9	38
1450410	4	0.256	6.5	46
1450510	5	0.280	7.1	56
1450710	7	0.315	8.0	75
1451210	12	0.421	10.7	124

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1450215	2	0.260	6.6	43
1450315	3	0.276	7.0	53
1450415	4	0.307	7.8	68
1450515	5	0.339	8.6	81
1450715	7	0.370	9.4	106
1451215	12	0.504	12.8	178
1451815	18	0.606	15.4	263
1452415	24	0.717	18.2	350
1452515	25	0.732	18.6	363
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1450225	2	0.315	8.0	65
1450325	3	0.335	8.5	82
1450425	4	0.366	9.3	101
1450525	5	0.417	10.6	128
1450625	6	0.457	11.6	150
1450725	7	0.457	11.6	168

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1450340	3	0.402	10.2	124
1450440	4	0.437	11.1	153
1450540	5	0.492	12.5	188
1450740	7	0.535	13.6	248
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1450360	3	0.449	11.4	169
1450460	4	0.492	12.5	212
1450560	5	0.543	13.8	256

Other dimensions and colors are available on request

# High Temperature Cables

## BiHFP-J

Silicone insulated conductors with silicone outer jacket and steel wire armoring for mechanical protection



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)
<b>Armor:</b>	galvanized steel wire braiding

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

### Outstanding features:



- halogen-free
- flexible at low temperatures
- heat resistant
- protection against mechanical damage

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) ▪ 0.75 mm<sup>2</sup></b>				
1430207	2	0.252	6.4	46
1430307	3	0.264	6.7	53
1430407	4	0.283	7.2	60
1430507	5	0.311	7.9	73
1430607	6	0.343	8.7	89
1430707	7	0.343	8.7	91
<b>▶ 18 AWG (≈ 30/32) ▪ 1.00 mm<sup>2</sup></b>				
1430210	2	0.260	6.6	51
1430310	3	0.272	6.9	58
1430410	4	0.295	7.5	69
1430510	5	0.319	8.1	81
1430610	6	0.354	9.0	99
1430710	7	0.354	9.0	103

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) ▪ 1.50 mm<sup>2</sup></b>				
1430215	2	0.295	7.5	64
1430315	3	0.311	7.9	75
1430415	4	0.343	8.7	93
1430515	5	0.378	9.6	113
1430615	6	0.409	10.4	133
1430715	7	0.409	10.4	139
<b>▶ 14 AWG (≈ 46/30) ▪ 2.50 mm<sup>2</sup></b>				
1430225	2	0.354	9.0	94
1430325	3	0.374	9.5	112
1430425	4	0.406	10.3	132
1430525	5	0.457	11.6	170
1430625	6	0.504	12.8	211
1430725	7	0.504	12.8	222

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) ▪ 4.00 mm<sup>2</sup></b>				
1430240	2	0.417	10.6	132
1430340	3	0.441	11.2	159
1430440	4	0.476	12.1	194
1430540	5	0.539	13.7	251
1430640	6	0.583	14.8	291
1430740	7	0.583	14.8	308
<b>▶ 10 AWG (≈ 78/28) ▪ 6.00 mm<sup>2</sup></b>				
1430260	2	0.465	11.8	172
1430360	3	0.496	12.6	224
1430460	4	0.539	13.7	269
1430560	5	0.606	15.4	333

Other dimensions and colors are available on request

# High Temperature Cables

## BiHF/Cu/Bi-J

Shielded silicone insulated conductors with silicone outer jacket

also possible with extremely notch resistant jacket



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Shielding:</b>	tinned copper braiding
<b>Jacket material:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Jacket color:</b>	reddish brown (similar RAL 3016)

### Outstanding features:



- good EMC characteristics
- halogen-free
- flexible at low temperatures
- heat resistant
- increased mechanical protection

### Technical data:

<b>Nominal voltage:</b>	Uo/U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V conductor/shielding: 2000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

20

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 20 AWG (≈ 16/32) - 0.50 mm<sup>2</sup></b>				
1900205	2	0.299	7.6	56
1900305	3	0.311	7.9	60
1900405	4	0.327	8.3	67
1900505	5	0.350	8.9	77
1900705	7	0.370	9.4	89
1901005	10	0.457	11.6	128
1901205	12	0.469	11.9	142
1901605	16	0.531	13.5	179
1901805	18	0.551	14.0	196
<b>▶ 19 AWG (≈ 23/32) - 0.75 mm<sup>2</sup></b>				
1900207	2	0.323	8.2	67
1900307	3	0.335	8.5	73
1900407	4	0.354	9.0	83
1900507	5	0.382	9.7	93
1900707	7	0.421	10.7	122
1901007	10	0.528	13.4	171
1901207	12	0.539	13.7	189
1901607	16	0.587	14.9	224
1901807	18	0.642	16.3	269

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 18 AWG (≈ 30/32) - 1.00 mm<sup>2</sup></b>				
1900210	2	0.331	8.4	72
1900310	3	0.343	8.7	80
1900410	4	0.366	9.3	91
1900510	5	0.398	10.1	106
1900710	7	0.433	11.0	135
1901010	10	0.551	14.0	190
1901210	12	0.555	14.1	208
1901610	16	0.634	16.1	271
1901810	18	0.661	16.8	301
<b>▶ 16 AWG (≈ 27-29/30) - 1.50 mm<sup>2</sup></b>				
1900215	2	0.370	9.4	92
1900315	3	0.398	10.1	111
1900415	4	0.425	10.8	128
1900515	5	0.457	11.6	147
1900715	7	0.504	12.8	182
1901015	10	0.646	16.4	273
1901215	12	0.661	16.8	300
1901615	16	0.732	18.6	362
1901815	18	0.764	19.4	404

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 14 AWG (≈ 46/30) - 2.50 mm<sup>2</sup></b>				
1900225	2	0.433	11.0	134
1900325	3	0.453	11.5	152
1900425	4	0.500	12.7	184
1900525	5	0.551	14.0	220
1900725	7	0.591	15.0	263

Other dimensions and colors are available on request

# High Temperature Cables

## BiHF/Cu/Bi(K)-J

Shielded silicone insulated conductors with extremely notch resistant silicone outer jacket

EWKF



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 5
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color code:</b>	colored acc. to HD 308 (VDE 0293-308), from 6 conductors- black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	in layers
<b>Inner jacket:</b>	Besilen® EM9 acc. to EN 50363-2-1 + VDE 0207-363-2-1
<b>Shielding:</b>	tinned copper braiding
<b>Jacket material:</b>	Besilen® notch resistant
<b>Jacket color:</b>	black (similar RAL 9011)

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V conductor/shielding: 2000 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<b>Radiation resistance:</b>	2 x 10 <sup>7</sup> cJ/kg
<b>Temperature range:</b>	
<i>static:</i>	-40/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Chemical resistance:</b>	see page O/11
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

### Outstanding features:

- improved initial tear resistance
- improved tear-growth resistance
- extremely notch resistant
- good sunlight resistance
- good EMC characteristics
- halogen-free
- flexible at low temperatures
- heat resistant
- increased mechanical protection

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 19 AWG (≈ 23/32) • 0.75 mm<sup>2</sup></b>				
1950207	2	0.323	8.2	67
1950307	3	0.335	8.5	73
1950407	4	0.354	9.0	83
1950507	5	0.382	9.7	94
1950707	7	0.421	10.7	124
1951207	12	0.539	13.7	191
<b>▶ 18 AWG (≈ 30/32) • 1.00 mm<sup>2</sup></b>				
1950210	2	0.331	8.4	73
1950310	3	0.343	8.7	81
1950410	4	0.366	9.3	92
1950510	5	0.398	10.1	107
1950710	7	0.433	11.0	136
1951210	12	0.555	14.1	211

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 16 AWG (≈ 27-29/30) • 1.50 mm<sup>2</sup></b>				
1950215	2	0.370	9.4	93
1950315	3	0.394	10.0	112
1950415	4	0.425	10.8	130
1950515	5	0.457	11.6	148
1950715	7	0.504	12.8	184
1951215	12	0.661	16.8	304
1951815	18	0.764	19.4	410
1952415	24	0.882	22.4	528
1952515	25	0.898	22.8	550
<b>▶ 14 AWG (≈ 46/30) • 2.50 mm<sup>2</sup></b>				
1950225	2	0.433	11.0	135
1950325	3	0.453	11.5	153
1950425	4	0.500	12.7	185
1950525	5	0.543	13.8	215
1950625	6	0.591	15.0	249
1950725	7	0.591	15.0	267

item no.	no. of conductors incl. ground	nominal outer-ø inch	mm	cable weight ≈lbs/mft
<b>▶ 12 AWG (≈ 52/28) • 4.00 mm<sup>2</sup></b>				
1950340	3	0.535	13.6	203
1950440	4	0.571	14.5	253
1950540	5	0.626	15.9	305
1950740	7	0.685	17.4	385
<b>▶ 10 AWG (≈ 78/28) • 6.00 mm<sup>2</sup></b>				
1950360	3	0.618	15.7	300
1950460	4	0.669	17.0	364
1950560	5	0.732	18.6	432

Other dimensions and colors are available on request



Possible on request  
without inner jacket

# High Temperature Cables

## Besilen® ESD Control Cable

Silicone insulated conductors with anti-static silicone outer jacket for ESD protective components

electrostatic discharge



Marking for Besilen® ESD Control Cable 1730004:

SAB BRÖCKSKES · D-VIERSEN · ESD-Control Cable 2x4.0mm² 0173-0004 CE

### Construction:

<b>Conductor:</b>	tinned copper strands, extra fine wires
<b>Insulation:</b>	Besilen®
<b>Color code:</b>	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334
<b>CAN-Bus element</b>	
<b>Color code:</b>	acc. to DIN 47100
<b>Screen:</b>	tinned copper braiding
<b>Stranding:</b>	in layers
<b>Jacket material:</b>	special Besilen®
<b>Jacket color:</b>	black (similar RAL 9005)

### Outstanding features:



- high flexibility
- antistatic outer jacket
- ESD - electrostatic discharge

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 300/500 V
<b>Testing voltage:</b>	conductor/conductor: 2000 V
<b>CAN-Bus element</b>	
<b>Peak operating voltage:</b>	max. 350 V
<b>Testing voltage:</b>	conductor/conductor: 1500 V conductor/shielding: 1200 V
<b>Min. bending radius:</b>	
<i>fixed installation:</i>	5 x O.D.
<i>free movement:</i>	10 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-40/+180 °C
<i>flexing:</i>	-25/+180 °C
<b>Surface resistance:</b>	1 x 10 <sup>4</sup> - 1 x 10 <sup>9</sup> Ω acc. to EN 50395 section 11
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	dimensions	nominal outer-ø		cable weight ≈lbs/mft
		inch	mm	
1730002	30 x 1.00	0.717	18.2	321
1730003	26 x 1.00	0.661	16.8	266
1730004	2 x 4.00	0.417	10.6	97
1730005	3 x 4.00	0.441	11.2	126
1730006	4 x 1.00 + (2 x 0.50)C CB	0.480	12.2	112
1730007	6 x 0.50	0.283	7.2	4

Other dimensions and colors are available on request



# High Temperature Cables

## S 180 HT

Continuous flex control cable with silicone outer jacket for cable tracks

+180°C

SABFlex



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	FEP
<b>Color code:</b>	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	specially adjusted layering with non-woven tape over each layer
<b>Wrapping:</b>	tape
<b>Jacket material:</b>	special Besilen®
<b>Jacket color:</b>	gray (similar RAL 7000)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 0.6/1 kV
<b>Testing voltage:</b>	conductor/conductor: 4000 V
<b>Min. bending radius:</b> <i>continuously flexible:</i>	10 x O.D.
<b>Temperature range:</b> <i>static:</i> <i>flexing:</i> <i>short-term use:</i>	-25/+180°C -25/+180°C +200°C
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Flexibility:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

### Outstanding features:



- extreme temperature resistance
- high notch resistance
- very good flexibility

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 16 AWG (≈ 84/34) ▪ 1.50 mm<sup>2</sup></b>				
31800315	3	0.303	7.7	63
31800415	4	0.327	8.3	78
31800515	5	0.362	9.2	99
31800715	7	0.417	10.6	134
<b>▶ 14 AWG (≈ 140/34) ▪ 2.50 mm<sup>2</sup></b>				
31800325	3	0.370	9.4	97
31800425	4	0.398	10.1	119
31800525	5	0.453	11.5	153
31800625	6	0.504	12.8	180
31800725	7	0.531	13.5	215
31801225	12	0.650	16.5	316
31802025	20	0.795	20.2	512

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b>				
31800440	4	0.480	12.2	177
31800540	5	0.528	13.4	224
31800740	7	0.626	15.9	315
31801240	12	0.772	19.6	475
<b>▶ 10 AWG (≈ 186/32) ▪ 6.00 mm<sup>2</sup></b>				
31800360	3	0.528	13.4	203
31800460	4	0.575	14.6	274
31800560	5	0.646	16.4	333
31800760	7	0.764	19.4	468
<b>▶ 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b>				
31800361	3	0.602	15.3	307
31800461	4	0.669	17.0	409
31800561	5	0.744	18.9	501

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b>				
31800362	3	0.846	21.5	671
31800462	4	0.815	20.7	613
31800562	5	0.913	23.2	770
<b>▶ 4 AWG (≈ 760/32) ▪ 25.00 mm<sup>2</sup></b>				
31800463	4	0.945	24.0	882
<b>▶ 2 AWG (≈ 1083/32) ▪ 35.00 mm<sup>2</sup></b>				
31800164	1	0.508	12.9	288
31800464	4	1.110	28.2	1209
<b>▶ 3/0 AWG (≈ 1340/28) ▪ 95 mm<sup>2</sup></b>				
31800167	1	0.831	21.1	750
<b>▶ 250 MCM (≈ 2122/28) ▪ 150 mm<sup>2</sup></b>				
31800169	1	1.004	25.5	1172

Other dimensions and colors are available on request



**Application:**  
for use in cable tracks with  
extremely high ambient  
temperatures  
for example: steel industry

# High Temperature Cables

## S 180 C HT

Continuous flex shielded control cable with silicone outer jacket for cable tracks

+180°C

SABFlex



### Construction:

<b>Conductor:</b>	tinned copper strands acc. to IEC 60228, VDE 0295, class 6
<b>Insulation:</b>	FEP
<b>Color code:</b>	black conductors with consecutive numbers acc. to EN 50334 + VDE 0293-334 from 3 conductors- a green/yellow ground
<b>Stranding:</b>	specially adjusted layering with non-woven tape over each layer
<b>Wrapping:</b>	tape
<b>Shielding:</b>	tinned copper braiding
<b>Jacket material:</b>	special Besilen®
<b>Jacket color:</b>	gray (similar RAL 7000)

### Technical data:

<b>Nominal voltage:</b>	Uo/U 0.6/1 kV
<b>Testing voltage:</b>	conductor/conductor: 4000 V conductor/shielding: 4000 V
<b>Min. bending radius:</b> <i>continuously flexible:</i>	15 x O.D.
<b>Temperature range:</b> <i>static:</i> <i>flexing:</i> <i>short-term use:</i>	-25/+180°C -25/+180°C +200°C
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Flexibility:</b>	very good
<b>Approvals:</b>	CE, EAC, RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

### Outstanding features:



- very good EMC characteristics
- extreme temperature resistance
- high notch resistance
- very good flexibility

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 16 AWG (≈ 89/34) ▪ 1.50 mm<sup>2</sup></b>				
31850315	3	0.319	8.1	74
31850415	4	0.350	8.9	92
31850515	5	0.378	9.6	112
31850715	7	0.449	11.4	161
<b>▶ 14 AWG (≈ 140/34) ▪ 2.50 mm<sup>2</sup></b>				
31850325	3	0.386	9.8	110
31850425	4	0.437	11.1	148
31850525	5	0.476	12.1	180
31850725	7	0.551	14.0	245
31852025	20	0.827	21.0	575

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 12 AWG (≈ 224/34) ▪ 4.00 mm<sup>2</sup></b>				
31850440	4	0.500	12.7	204
31850540	5	0.551	14.0	254
31850740	7	0.657	16.7	363
31851240	12	0.799	20.3	531
<b>▶ 10 AWG (≈ 186/32) ▪ 6.00 mm<sup>2</sup></b>				
31850360	3	0.551	14.0	229
31850460	4	0.598	15.2	307
31850560	5	0.677	17.2	382
31850760	7	0.795	20.2	524
<b>▶ 8 AWG (≈ 320/32) ▪ 10.00 mm<sup>2</sup></b>				
31850461	4	0.701	17.8	459
31850561	5	0.776	19.7	556

item no.	no. of conductors incl. ground	outer-ø ± 5%		cable weight ≈lbs/mft
		inch	mm	
<b>▶ 6 AWG (≈ 504/32) ▪ 16.00 mm<sup>2</sup></b>				
31850462	4	0.846	21.5	677
31850562	5	0.945	24.0	844
<b>▶ 4 AWG (≈ 760/32) ▪ 25.00 mm<sup>2</sup></b>				
31850463	4	0.992	25.2	970
<b>▶ 2 AWG (≈ 1083/32) ▪ 35.00 mm<sup>2</sup></b>				
31850464	4	1.142	29	1299
<b>▶ 3/0 AWG (≈ 1340/28) ▪ 95 mm<sup>2</sup></b>				
31850167	1	0.878	22.3	825
<b>▶ 250 MCM (≈ 2122/28) ▪ 150 mm<sup>2</sup></b>				
31850170	1	1.126	28.6	1512

Other dimensions and colors are available on request



**Application:**  
for use in cable tracks with  
extremely high ambient  
temperatures  
for example: steel industry



# High Temperature Cables

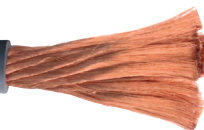
## R 107

Silicone insulated copper rope

EN 45545-2

Nominal voltage up to  
U<sub>0</sub>/U 1.8/3 kV

SABrail



BSKES · D-VIERSEN · R 107 1.8/3 kV 25.0mm<sup>2</sup> 6107-0890

Marking for R 107 61070890:

SAB BRÖCKSKES · D-VIERSEN · R 107 1.8/3 kV 25.0mm<sup>2</sup> 6107-0890

**Application:** For the use in rail vehicles, e. g. bogies and boxes.

### Construction:

<b>Conductor:</b>	bare copper strands, extremely fine wires
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color:</b>	slate gray (RAL 7015)

### Outstanding features:

- extremely flexible
- fulfills fire protection requirements  
acc. to EN 45545-2 /  
from 18 AWG to 8 AWG:  
R15 (EL1A) HL 1 / R16 (EL1B) HL 1-2  
from 6 AWG:  
R15 (EL1A) HL 1-2 / R16 (EL1B) HL 1-3
- halogen-free
- heat resistant
- flexible at low temperatures
- flame retardant and self-extinguishing
- good ozone, UV, and weather resistance

### Technical data:

<b>Nominal voltage:</b>	U <sub>0</sub> /U 1.8/3 kV
<b>Testing voltage:</b>	6500 V
<b>Current carrying capacity:</b>	acc. to VDE 0298-4, see page O20 & O21
<b>Min. bending radius:</b>	5 x O.D.
<b>Temperature range:</b>	
<i>static:</i>	-50/+180°C
<i>flexible:</i>	-25/+180°C
<i>short-term use:</i>	+250°C
<b>Halogen-free</b>	acc. to EN 50306-1 + EN 50264-1 are fulfilled. Development of HCl is < 0.5% acc. to IEC 60754-1. pH-value is > 4.3 IEC 60754-2. Conductivity is < 10.0 μS/mm acc. to IEC 60754-2. Fluoric content < 0.1% acc. to IEC 60684-2.
<b>Burning characteristics:</b>	No flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Toxicity:</b>	acc. to EN 50305 + VDE 0260-305
<b>Smoke density:</b>	acc. to IEC 61034 + VDE 0482-1034
<b>Weather resistance:</b>	very good
<b>Ozone resistance:</b>	acc. to EN 50382-2 + VDE 0260-382-2
<b>Oil resistance:</b>	good
<b>Approvals:</b>	RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight ≈lbs/mft
			inch	mm	
▶ 61070882	1.50	16 (≈ 84/34)	0.272	6.9	42
▶ 61070884	2.50	14 (≈ 140/34)	0.291	7.4	51
▶ 61070886	4.00	12 (≈ 224/34)	0.319	8.1	65
▶ 61070887	6.00	10 (≈ 186/32)	0.335	8.5	80
▶ 61070888	10.00	8 (≈ 320/32)	0.394	10.0	116
▶ 61070889	16.00	6 (≈ 504/32)	0.406	10.3	149
▶ 61070890	25.00	4 (≈ 760/32)	0.476	12.1	220
▶ 61070891	35.00	2 (≈ 1083/32)	0.543	13.8	292
▶ 61070892	50.00	1 (≈ 703/28)	0.618	15.7	397
▶ 61070893	70.00	2/0 (≈ 988/28)	0.697	17.7	529
▶ 61070894	95.00	3/0 (≈ 1340/28)	0.756	19.2	699
▶ 61070895	120.00	4/0 (≈ 1680/28)	0.883	20.9	861
▶ 61070896	150.00	250 MCM (≈ 2122/28)	0.949	24.1	1067
▶ 61070897	185.00	350 MCM (≈ 1472/26)	0.996	25.3	1285
▶ 61070898	240.00	450 MCM	1.173	29.8	1664
▶ 61070899	300.00	550 MCM	1.248	31.7	2079

Other dimensions and colors are available on request



On request with  
tinned copper strands.  
Also available with  
copper braiding as R108.

# High Temperature Cables

## B 108

Shielded silicone insulated specially stranded copper rope with copper braid

Nominal voltage up to  
U<sub>0</sub>/U 1.8/3 kV



KES · D-VIERSEN · B 108 U<sub>0</sub>/U 1.8/3 kV 10.0mm<sup>2</sup>



Marking for B 108 1081000:

SAB BRÖCKSKES · D-VIERSEN · B 108 U<sub>0</sub>/U 1.8/3 kV 10.0mm<sup>2</sup>

### Construction:

<b>Conductor:</b>	bare copper strands, extra fine wires
<b>Shielding:</b>	bare copper braiding
<b>Insulation:</b>	Besilen® EI2 acc. to EN 50363-1 + VDE 0207-363-1
<b>Color:</b>	translucent

### Outstanding features:

- extremely flexible
- halogen-free
- heat resistant
- flexible at low temperatures
- flame retardant and self-extinguishing
- weather resistant
- dimensionally stable construction

### Technical data:

<b>Nominal voltage:</b>	12 - 10 AWG: U <sub>0</sub> /U 1.5/1.5 kV from 8 AWG: U <sub>0</sub> /U 1.8/3 kV
<b>Testing voltage:</b>	12 - 10 AWG: 4000 V from 8 AWG: 6500 V
<b>Current carrying capacity:</b>	acc. to VDE 0298-4, see page O20 & O21
<b>Min. bending radius:</b>	5 x O.D.
<b>Temperature range:</b>	<i>static:</i> -40/+180°C <i>flexible:</i> -25/+180°C <i>short-term use:</i> +250°C
<b>Halogen-free</b>	acc. to IEC 60754-1 + VDE 0482-754-1
<b>Burning characteristics:</b>	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2
<b>Corrosivity:</b>	IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases
<b>Weather resistance:</b>	very good
<b>Approvals:</b>	RoHS
<b>Absence of harmful substances:</b>	acc. to RoHS directive of the European Union see page O/30

item no.	mm <sup>2</sup>	AWG	nominal outer-ø		cable weight ≈lbs/mft
			inch	mm	
▶ 1080400	4.00	12 (≈ 224/34)	0.224	5.7	44
▶ 1080600	6.00	10 (≈ 186/32)	0.240	6.1	58
▶ 1081000	10.00	8 (≈ 320/32)	0.370	9.4	110
▶ 1081600	16.00	6 (≈ 504/32)	0.382	9.7	143
▶ 1082500	25.00	4 (≈ 760/32)	0.496	12.6	236
▶ 1083500	35.00	2 (≈ 1083/32)	0.567	14.4	314
▶ 1085000	50.00	1 (≈ 703/28)	0.642	16.3	419
▶ 1087000	70.00	2/0 (≈ 988/28)	0.728	18.5	572
▶ 1089500	95.00	3/0 (≈ 1340/28)	0.772	19.6	734
▶ 1081200	120.00	4/0 (≈ 1680/28)	0.839	21.3	897
▶ 1081500	150.00	250 MCM (≈ 2122/28)	0.965	24.5	1120

Other dimensions and colors are available on request