Connection cable Silicoul, class H, 180°C

A flexible and highly durable high-voltage cable adapted for motors, generators, transformers and rotors. A high-voltage cable also well suited for off-shore and traction applications. Very good thermal properties.

Typical applications

Cabling of both static and rotating machines such as motors, generators, rotors, stators, transformers, etc.

Branches

Offshore, ships, traction, wind power, hydro power, power supply.

Properties

- Good resistance to the damaging effects of "corona" and ozone
- Good resistance to thermal shock and UV radiation
- Halogen-free
- Compatible with most impregnating varnishes
- Excellent low and high thermal properties
- Excellent mechanical strength
- Excellent resistance to ageing
- Good flexibility

Composition

- Core of flexible tinned copper acc. IEC 60228 – class 5
- Separation band
- Silicone rubber
- Coated synthetic braided reinforced fabric

Colour

- 1.1 kV, yellow
- 3.7 kV, brown
- 6.6 kV, grey
- 13.8 kV, black

Packaging

On rolls of 25 m.

Technical data

- Temperatures: Working temp. -60°C - + 180°C, Short periods temperature peaks +230°C
- Voltage: Operating voltage: Yellow 1.1 kV, Brown 3.7 kV, Grey 6.6 kV, Black 13.8 kV

Test voltage

- Yellow 3.5 kV, Brown 10 kV, Grey 15 kV, Black 30 kV
- Bending radius: ~ 5xD (outer diameter)

Approvals, Standards

- F1 classed as NF F 16-101
- Type approved for use in ship construction acc. IEC 60092-350. Registered with Lloyd's Register of Shipping and Bureau Veritas
- Fire characteristics: Tested acc. IEC 60331-21, IEC 60332-1 and 60332-3-22 requirements

Options

- Available in UL-approved version acc. UL-style 3663 (on request)

Item number	Area (mm²)	Number wires x diam.	External diameter (mm)	Weight (kg/km)	Conductor resistance (Ω/km at 200C)	Description	Colour
125348	10	77 x 0.40	7.0	121	1.950	1.1 kV 10 mm²	Yellow
125351	16	126 x 0.40	8.6	178	1.240	1.1 kV 16 mm²	Yellow
125352	25	196 x 0.40	10.4	273	0.795	1.1 kV 25 mm²	Yellow
125353	35	276 x 0.40	11.9	376	0.565	1.1 kV 35 mm²	Yellow
125354	50	396 x 0.40	14.1	534	0.393	1.1 kV 50 mm²	Yellow
125355	70	360 x 0.50	1.9	738	0.277	1.1 kV 70 mm²	Yellow
125356	95	485 x 0.50	18.2	970	0.210	1.1 kV 95 mm²	Yellow
125357	120	608 x 0.50	20.2	1220	0.164	1.1 kV 120 mm²	Yellow
125350	150	721 x 0.50	22.8	1520	0.132	1.1 kV 150 mm²	Yellow
125373	16	126 x 0.40	10.2	212	1.240	3.7 kV 16 mm²	Brown
125374	25	196 x 0.40	11.8	305	0.795	3.7 kV 25 mm²	Brown
125375	35	276 x 0.40	13.2	413	0.565	3.7 kV 35 mm²	Brown
125376	50	396 x 0.40	15.4	575	0.393	3.7 kV 50 mm²	Brown
125377	70	360 x 0.50	17.0	782	0.277	3.7 kV 70 mm²	Brown
125378	95	485 x 0.50	19.8	1030	0.210	3.7 kV 95 mm²	Brown
125372	120	608 x 0.50	21.8	1290	0.164	3.7 kV 120 mm²	Brown
125358	16	126 x 0.40	11.5	238	1.240	6.6 kV 16 mm²	Gray
125359	25	196 x 0.40	13.0	330	0.795	6.6 kV 25 mm²	Gray
125362	35	276 x 0.40	14.6	440	0.565	6.6 kV 35 mm²	Gray
125360	50	396 x 0.40	16.7	612	0.393	6.6 kV 50 mm²	Gray
125363	70	360 x 0.50	18.3	825	0.277	6.6 kV 70 mm²	Gray
125361	95	485 x 0.50	20.5	1060	0.210	6.6 kV 95 mm²	Gray
125357	120	608 x 0.50	22.6	1315	0.164	6.6 kV 120 mm²	Gray
125364	10	80 x 0.40	13.0	232	1.95	13.8 kV 10 mm²	Black
125366	16	126 x 0.40	14.2	303	1.240	13.8 kV 16 mm²	Black
125367	25	196 x 0.40	15.7	407	0.795	13.8 kV 25 mm²	Black
125368	35	276 x 0.40	17.2	522	0.565	13.8 kV 35 mm²	Black
125369	50	396 x 0.40	18.9	690	0.393	13.8 kV 50 mm²	Black
125370	70	360 x 0.50	20.7	907	0.277	13.8 kV 70 mm²	Black
125371	95	485 x 0.50	22.7	1160	0.210	13.8 kV 95 mm²	Black
125365	120	608 x 0.50	24.7	1415	0.164	13.8 kV 120 mm²	Black

Temperature classes of insulation materials according to EN 60085

IEC 60085	Old IEC	NEMA Class	NEMA / UL	Max temp.
70				
90	Y			90°C
105	A	105	A	105°C
120	E			120°C
130	B	130	B	130°C
155	F	155	F	155°C
180	H	180	H	180°C
200			N	200°C
220		220	R	220°C
			S	
250				250°C

AWG number	Ø (inch)	Ø (mm)	Ø (mm²)
6/0 = 000000	0.580	14.73	170.30
5/0 = 00000	0.517	13.12	135.10
4/0 = 0000	0.460	11.7	107.0
3/0 = 000	0.410	10.4	85.0
2/0 = 00	0.365	9.26	67.4
1/0 = 0	0.325	8.25	53.5
1	0.289	7.35	42.4
2	0.258	6.54	33.6
3	0.229	5.83	26.7
4	0.204	5.19	21.1
5	0.182	4.62	16.8
6	0.162	4.11	13.3
7	0.144	3.66	10.5
8	0.128	3.26	8.36
9	0.114	2.91	6.63
10	0.102	2.59	5.26
11	0.0907	2.30	4.17
12	0.0808	2.05	3.31
13	0.0720	1.83	2.62
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.31
17	0.0453	1.15	1.04
18	0.0403	1.02	0.823
19	0.0359	0.912	0.653
20	0.0320	0.812	0.518
21	0.0285	0.723	0.410
22	0.0253	0.644	0.326
23	0.0226	0.573	0.258
24	0.0201	0.511	0.205
25	0.0179	0.455	0.162
26	0.0159	0.405	0.129
27	0.0142	0.361	0.102
28	0.0126	0.321	0.0810
29	0.0113	0.286	0.0642
30	0.0100	0.255	0.0509
31	0.00893	0.227	0.0404
32	0.00795	0.202	0.0320
33	0.00708	0.180	0.0254
34	0.00631	0.160	0.0201
35	0.00562	0.143	0.0160
36	0.00500	0.127	0.0127
37	0.00445	0.113	0.0100
38	0.00397	0.101	0.00797
39	0.00353	0.0897	0.00632
40	0.00314	0.0799	0.00501

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How to contact BEVI
Contact details for all countries are continually updated on our website.
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