

Single-core high-voltage oil-filled cable

Construction

- Hollow conductor of round copper wires, stranded, segmented above 1000 m²
- Semi-conducting paper screen
- Conductor insulation of oil cable paper
- Höchstaedter and semiconductor paper tape
- Lead sheath, radially watertight
- Anti-corrosion protection of impregnated paper tape
- Pressure layer of non-magnetic steel tapes
- HDPE outer sheath, halogen-free, black with two red stripes

Application

In distribution networks and power stations.

Laying in underground tubes, indoors, in cable ducts, or buried.

A comprehensive range of sealing ends, joints and fixing elements is available from Brugg Cable.

Special features

Admissible impulse voltage
1425 kV.

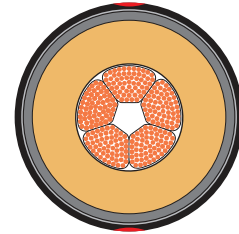
The HDPE outer sheath guarantees excellent insulation. High wear-resistance gives favorable laying conditions.

The cable is free of PCB.

Standards

SEV 3320.1977 + A1.1990 + A2.1990
IEC 141-1.1993

POPB-T 380/220 kV



Technical data














Cross-section	Dia-meter	Weight	Oil content	Capacitance	AC resistance at 60°C and 50 Hz	Reactance at 50 Hz ⊗ ⊗ ⊗ s = 25 cm	Impedance at 60°C and 50 Hz	Laying data	
								min. bending radius ¹⁾	max. pulling force
mm ²	mm	kg/100m	l/100m	μF/km	Ω/km	Ω/km	Ω/km	mm	kN
400	99	2210	268	0.193	0.055	0.207	0.214	2000	24.0
500	102	2380	285	0.205	0.043	0.201	0.206	2050	30.0
630	105	2580	300	0.218	0.034	0.195	0.198	2100	37.5
800	109	2925	317	0.230	0.027	0.190	0.192	2200	48.0
1000	106	3100	318	0.267	0.021	0.184	0.186	2150	60.0
1200	111	3360	336	0.284	0.018	0.179	0.180	2250	72.0
1600	118	3980	374	0.315	0.014	0.170	0.171	2400	96.0












Notice:

¹⁾ Min. installation radius =
0.8 x min. traction radius

– For further information on transport, laying, installation and test standards, see chapter "Technical Information"

Load currents
POPB-T 380/220 kV

Laying	in tube elements, buried				open air					
	 Spacing $s = 25 \text{ cm}$				 $s = 2 \cdot d$			 touching		
Mode	Regular service		Emerg. service ³⁾	Regular or industrial service		Emerg. service ³⁾	Regular or industrial service		Emerg. service ³⁾	
Conductor temperature 60 °C	$\leq 80 \text{ °C}^{1)}$	$80 \text{ °C}^{2)}$	95 °C	60 °C	80 °C	95 °C	60 °C	80 °C	95 °C	
Earthing										
Cross-section										
mm ²	A	A	A	A	A	A	A	A	A	A
400	426	568	572	735	549	754	869	460	662	772
500	479	639	648	839	631	871	1003	525	760	887
630	536	713	734	958	727	1007	1161	598	870	1019
800	593	782	819	1079	825	1146	1324	671	981	1153
1000	632	834	910	1227	950	1335	1548	751	1128	1332
1200	669	874	978	1332	1041	1468	1704	814	1230	1456
1600	719	924	1091	1520	1219	1730	2014	926	1416	1684

Laying	buried									
	 touching									
Mode	Regular service		Industrial service			Emerg. service ³⁾	Regular service		Emerg. service ³⁾	
Conductor temperature 60 °C	$\leq 80 \text{ °C}^{1)}$	$80 \text{ °C}^{2)}$	$60 \text{ °C}^{2)}$	$80 \text{ °C}^{2)}$	95 °C	60 °C	$\leq 80 \text{ °C}^{1)}$	$80 \text{ °C}^{2)}$	95 °C	
Earthing										
Cross-section										
mm ²	A	A	A	A	A	A	A	A	A	A
400	403	429	543	501	644	727	385	402	521	709
500	450	473	613	567	731	829	424	437	582	807
630	499	517	689	640	833	943	465	469	646	894
800	548	556	763	711	932	1058	491 ¹⁾	491	703	1006
1000	557 ¹⁾	557	840	785	1050	1198	458 ¹⁾	458	732	1064
1200	565 ¹⁾	565 ¹⁾	896	840	1132	1296	447 ¹⁾	447	756	1128
1600	565 ¹⁾	565 ¹⁾	984	930	1273	1466	430 ¹⁾	430	801	1229

- ¹⁾ Conductor temperature limited by max. permissible lead sheath temperature 65° or by transfer temperature to earth of 50°C
- ²⁾ Lead sheath temperature limit of 65°C and transfer temperature to earth of 50°C usually exceeded.
- ³⁾ Emergency service for max. 8h/day and 100h/year (lead sheath temperature limit of 65°C and transfer temperature to earth of 50°C exceeded)

Notice:

- For calculation conditions, short-time loading and permissible short-circuit currents, see chapter "Technical Information"

