

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

Applications

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 1050 kV.

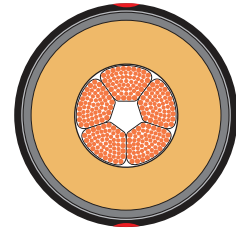
The HDPE outer sheath guarantees excellent insulation. High wear-resistance gives favorable laying conditions.

The cable is free of PCB.

Standards

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

POPB-T 220/127 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
240	80	1530	191	0.210	0.087	0.216	0.233	1600	14.0
300	81	1595	193	0.214	0.070	0.214	0.225	1650	18.0
400	85	1800	208	0.230	0.055	0.207	0.214	1700	24.0
500	88	1970	223	0.245	0.043	0.201	0.206	1800	30.0
630	92	2165	235	0.262	0.034	0.195	0.198	1850	37.5
800	95	2385	250	0.277	0.027	0.190	0.192	1900	48.0
1000	101	2800	271	0.299	0.021	0.184	0.186	2050	60.0
1200	104	3050	288	0.320	0.018	0.179	0.180	2100	72.0
1600	112	3695	322	0.350	0.014	0.170	0.171	2250	96.0
2000	116	4150	330	0.370	0.012	0.166	0.166	2350	120.0












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 220/127 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
240	409	503	503	615	482	633	716	419	561	640
300	458	565	565	691	544	712	808	471	629	719
400	522	638	645	794	631	828	939	544	728	833
500	593	724	735	907	728	956	1087	623	837	958
630	674	817	838	1040	841	1107	1259	713	959	1100
800	764	927	952	1175	951	1255	1430	802	1082	1243
1000	852	1013	1065	1335	1102	1454	1656	927	1252	1440
1200	937	1108	1175	1484	1218	1610	1835	1013	1373	1582
1600	1061	1227	1339	1709	1431	1898	2169	1163	1586	1833
2000	1148	1317	1457	1873	1586	2111	2416	1269	1739	2015

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 °C	$80 \text{ °C}^{2)}$	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
240	398	418	489	458	558	614	392	408	481	607
300	444	464	545	512	623	688	432	447	533	977
400	505	522	622	587	715	789	487	496	603	769
500	571	585	704	667	813	900	544	548	675	868
630	642	651	796	755	925	1025	601 ¹⁾	601	753	977
800	713	721	888	844	1036	1151	643 ¹⁾	643	820	1076
1000	807	808	1009	965	1187	1317	677 ¹⁾	677	888	1180
1200	853 ¹⁾	853	1086	1044	1287	1431	687 ¹⁾	687	926	1248
1600	931 ¹⁾	931	1219	1176	1460	1629	720 ¹⁾	720	999	1369
2000	992 ¹⁾	922	1315	1273	1587	1775	744 ¹⁾	744	1049	1453

- 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"

