


Single-core Cable for 220/127 (245) kV with Copper wire screen and Lead sheath		XDRCU-PBT
Cable layout <ul style="list-style-type: none"> Copper conductor, round stranded or segmented optionally with longitudinal water barrier Inner semiconductive layer firmly bonded to the XLPE insulation XLPE main insulation, cross-linked Outer semiconductive layer firmly bonded to the XLPE insulation Copper wire screen as short-circuit current carrying component with semi-conductive swelling tapes above and below as longitudinal water barrier Extruded Lead sheath as radial diffusion barrier Thermoplastic oversheath as mechanical protection optionally with semi-conductive and/or flame-retardant layer 	Features of metallic sheath <ul style="list-style-type: none"> Robust seamless construction 100% impervious to moisture Long-term proven design Production process The inner semiconductive layer, the XLPE main insulation and the outer semiconductive layer are extruded in a single operation applying a dry curing and a water or nitrogen cooling method.	
		Applicable standards IEC 62067 AEIC CS9 ANSI / ICEA S-108-720

Technical data

Copper conductor cross-section		Outer diameter (approx.)	Cable weight (approx.)	Capacitance	Impedance (90°C, 50 Hz) ...	Impedance (90°C, 50 Hz) ..	Surge impedance ..	Min. bending radius	Max. pulling force
mm ²	kcmil	mm	kg/m	µF/km	Ω/km	Ω/km	Ω	mm	kN
300	600	100	19	0.12	0.25	0.17	65	2000	18
400	800	100	20	0.13	0.24	0.16	60	2000	24
500	1000	100	22	0.14	0.23	0.15	56	2000	30
630	1250	101	23	0.16	0.22	0.14	51	2000	38
800	1600	105	25	0.19	0.21	0.13	46	2100	48
1000	2000	111	29	0.21	0.20	0.12	42	2200	60
1200	2400	112	32	0.24	0.19	0.12	39	2200	72
1400	2750	112	33	0.25	0.19	0.11	37	2200	84
1600	3200	116	36	0.27	0.18	0.11	36	2300	96
2000	4000	120	40	0.29	0.18	0.10	34	2400	120
2500	5000	130	48	0.31	0.17	0.10	32	2600	150

Ampacity

		Directly buried ..	Directly buried ...	In ducts ..	In ducts ...	In free air ..	In free air ...	In ductbank ...	Directly buried ..
Ambient temp.		20°C	20°C	20°C	20°C	35°C	35°C	15°C	40°C
Soil resistivity		1.0 Km/W	1.0 Km/W	1.0 Km/W	1.0 Km/W	-	-	0.8/1.0 Km/W	1.4 Km/W
mm ²	kcmil	A	A	A	A	A	A	A	A
300	600	597	650	589	615	716	778	654	445
400	800	686	750	678	709	838	917	755	509
500	1000	774	850	766	803	960	1056	855	573
630	1250	879	974	875	920	1122	1246	982	650
800	1600	990	1101	983	1037	1283	1435	1109	727
1000	2000	1168	1293	1152	1219	1542	1725	1304	852
1200	2400	1261	1404	1246	1320	1693	1909	1416	917
1400	2750	1351	1512	1368	1432	1850	2086	1536	983
1600	3200	1441	1620	1490	1544	1978	2257	1654	1043
2000	4000	1595	1805	1654	1720	2229	2574	1843	1147
2500	5000	1749	1990	1817	1896	2496	2908	2035	1260

Calculation basis:

Conductor temperature 90°C, 50 Hz, load factor 1.0, laying depth 1200 mm, phase distance at flat formation 30 cm
 Earthing method: Single-Point Bonding or Cross-bonding

Note:

Values apply for cables with rated voltages from 220 kV to 230 kV acc. to IEC 62067

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