


Single-core Cable for 220/127 (245) kV with Copper wire screen and Aluminum laminated sheath		XDRUCU-ALT
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 Aluminum foil, overlapped as radial diffusion barrier laminated to the oversheath Thermoplastic oversheath as mechanical protection optionally with semi-conductive and/or flame-retardant layer 	Features of metallic sheath <ul style="list-style-type: none"> Low weight Low losses Low cost Internationally 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	93	12	0.11	0.25	0,17	59	2000	18
400	800	93	13	0,12	0,24	0,16	57	2000	24
500	1000	93	14	0.13	0.23	0,15	54	2000	30
630	1250	93	15	0.15	0.22	0,14	51	2000	38
800	1600	98	17	0.18	0.20	0,13	46	2100	48
1000	2000	104	20	0.19	0.19	0,12	44	2250	60
1200	2400	105	22	0.22	0.19	0,12	41	2250	72
1400	2750	105	24	0.22	0.18	0,11	40	2300	84
1600	3200	109	26	0.25	0.18	0,11	38	2350	96
2000	4000	113	30	0.27	0.17	0,10	36	2400	120
2500	5000	124	37	0.28	0.17	0,10	34	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	593	649	587	613	710	775	652	441
400	800	681	750	675	706	829	904	753	501
500	1000	768	850	764	800	949	1050	853	567
630	1250	873	975	872	917	1106	1230	979	640
800	1600	979	1100	979	1034	1264	1426	1105	716
1000	2000	1155	1292	1148	1214	1524	1717	1300	841
1200	2400	1246	1406	1242	1317	1673	1905	1411	905
1400	2750	1333	1521	1332	1416	1824	2094	1519	968
1600	3200	1420	1659	1423	1518	2007	2326	1628	1027
2000	4000	1565	1800	1615	1703	2191	2558	1837	1125
2500	5000	1709	1981	1808	1887	2446	2888	2025	1229

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

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

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