


Single-core Cable for 132/76 (145) kV with Copper wire screen and Aluminum laminated sheath		XDRCU-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 60840 AEIC CS6 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
240	500	73	6	0,13	0,27	0,18	59	1500	14
300	600	73	7	0,14	0,26	0,16	49	1550	18
400	800	76	8	0,16	0,24	0,15	49	1600	24
500	1000	82	9	0,16	0,23	0,14	49	1700	30
630	1250	85	10	0,18	0,22	0,13	49	1750	38
800	1600	89	12	0,24	0,20	0,12	42	1800	48
1000	2000	93	14	0,27	0,19	0,11	39	1850	60
1200	2400	98	15	0,30	0,19	0,11	37	1900	72
1400	2750	98	21	0,34	0,18	0,11	34	1950	84
1600	3200	99	22	0,35	0,18	0,10	33	2000	96
2000	4000	106	27	0,39	0,17	0,10	31	2100	120
2500	5000	114	33	0,43	0,17	0,10	29	2250	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
240	500	533	591	531	554	631	700	588	397
300	600	602	671	602	628	723	807	668	447
400	800	686	766	686	718	838	938	764	509
500	1000	778	870	779	816	963	1080	869	577
630	1250	882	992	883	931	1113	1255	992	653
800	1600	991	1124	992	1055	1281	1460	1126	732
1000	2000	1173	1325	1178	1243	1553	1772	1329	863
1200	2400	1266	1433	1275	1345	1695	1941	1439	931
1400	2750	1362	1556	1376	1459	1850	2142	1562	999
1600	3200	1443	1663	1464	1559	1984	2318	1670	1057
2000	4000	1589	1846	1693	1757	2223	2625	1881	1162
2500	5000	1734	2037	1862	1940	2484	2977	2079	1267

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 132 kV to 138 kV acc. to IEC 60840

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