


Single-core Cable for 132/76 (145) 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 60840 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
240	500	80	15	0,13	0,27	0,18	59	1600	14
300	600	80	16	0,14	0,26	0,16	49	1600	18
400	800	84	17	0,16	0,24	0,15	49	1700	24
500	1000	89	19	0,16	0,23	0,14	49	1800	30
630	1250	93	21	0,18	0,22	0,13	49	1850	38
800	1600	97	23	0,24	0,20	0,12	42	1950	48
1000	2000	101	25	0,27	0,19	0,11	39	2000	60
1200	2400	106	27	0,30	0,19	0,11	37	2100	72
1400	2750	107	30	0,34	0,18	0,11	34	2150	84
1600	3200	107	33	0,35	0,18	0,10	33	2150	96
2000	4000	113	37	0,39	0,17	0,10	31	2250	120
2500	5000	122	45	0,43	0,17	0,10	29	2450	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	537	593	534	557	640	708	593	400
300	600	607	680	612	639	745	827	680	457
400	800	693	767	689	720	850	945	767	514
500	1000	786	880	789	827	990	1104	882	588
630	1250	894	993	889	934	1129	1263	996	662
800	1600	1007	1125	1004	1058	1301	1470	1130	743
1000	2000	1193	1327	1183	1248	1579	1785	1334	879
1200	2400	1290	1436	1278	1351	1726	1955	1445	949
1400	2750	1392	1552	1406	1470	1878	2148	1573	1017
1600	3200	1478	1668	1534	1589	2030	2340	1700	1084
2000	4000	1636	1860	1706	1773	2296	2677	1898	1200
2500	5000	1797	2052	1877	1957	2562	3013	2096	1316

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 132 kV to 138 kV acc. to IEC 60840