


Single-core Cable for 400/230 (420) 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

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
500	1000	116	27	0.12	0.23	0,15	56	2350	30
630	1250	117	28	0.13	0.22	0,14	53	2350	38
800	1600	117	30	0.15	0.20	0,13	48	2350	48
1000	2000	120	33	0.17	0.19	0,12	45	2400	60
1200	2400	125	36	0.19	0.19	0,12	43	2500	72
1400	2750	125	38	0.20	0.18	0,11	41	2500	84
1600	3200	130	41	0.20	0.18	0,11	40	2600	96
2000	4000	138	46	0.21	0.17	0,10	39	2800	120
2500	5000	139	52	0.26	0.17	0,09	35	2800	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
500	1000	754	824	766	788	936	1022	841	550
630	1250	856	945	875	902	1093	1208	964	618
800	1600	957	1065	983	1016	1250	1394	1087	685
1000	2000	1121	1250	1151	1191	1504	1685	1277	796
1200	2400	1208	1350	1242	1286	1642	1846	1381	855
1400	2750	1293	1451	1332	1382	1778	2009	1484	912
1600	3200	1377	1551	1422	1477	1913	2172	1587	969
2000	4000	1510	1722	1571	1638	2162	2498	1764	1053
2500	5000	1643	1893	1719	1799	2410	2823	1941	1136

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 380 kV to 400 kV acc. to IEC 62067

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