



# 87/150 (170) kV

## XLPE Insulated with Cu Wire + Al Tape

Continuous Current Rating for Single Circuit (A)

### COPPER CONDUCTOR

Cross-Sectional Area ( mm <sup>2</sup> )		400	500	630	800	1000	1200	1600	2000	2500
Direct Buried		702	802	916	1035	1151	1327	1480	1635	1791
Pipe		681	778	892	1009	1128	1304	1460	1621	1784
In Air	Trefoil	768	882	1018	1156	1299	1543	1742	1943	2148
	Flat (S=3D)	942	1095	1274	1462	1663	1942	2214	2492	2784

HDPE pipe diameter = 2D

### ALUMINIUM CONDUCTOR

Cross-Sectional Area ( mm <sup>2</sup> )		400	500	630	800	1000	1200	1600	2000	2500
Direct Buried		550	632	725	827	932	1049	1205	1346	1487
Pipe		535	614	705	807	912	1030	1189	1333	1480
In Air	Trefoil	605	701	811	935	1063	1226	1431	1617	1811
	Flat (S=3D)	741	867	1009	1172	1345	1534	1803	2048	2310

HDPE pipe diameter = 2D



CONDUCTOR (Cu)	Cross-Sectional Area (mm <sup>2</sup> )	400	500	630	800	1000	1200	1600	2000	2500
	Shape	Circular	Circular	Circular	Circular	Circular	Segmentalled	Segmentalled	Segmentalled	Segmentalled
	Diameter (mm)	23,45	26,4	30,25	34	39	43,5	49,5	56	63,5
Thickness of Conductor Screen (mm)		1,2	1,2	1,2	1,2	1,4	1,4	1,5	1,6	1,6
Thickness of Insulation (mm)		18	18	18	18	18	18	18	18	18
Thickness of Insulation Screen (mm)		1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
Cu-Screen Cross-Sectional Area (mm <sup>2</sup> )		95	95	95	95	95	95	95	95	95
Thickness of Outer Sheath (mm)		3,3	3,3	3,4	3,6	3,7	3,7	4	4,4	4,7
Outer Diameter of Cable (mm)		78	81	85	90	95	101	107	114	124
Weight of Cable (kg/m)		8	9,2	10,8	12,7	15,1	17,4	21,2	25,6	31,6
Max. DC Cu Conductor Resistance at 20°C (ohm/km)		0,047	0,0366	0,0283	0,0221	0,0176	0,0151	0,0113	0,009	0,0072
Capacitance (microfarad/km)		0,148	0,159	0,173	0,187	0,207	0,226	0,249	0,274	0,304
Inductance (mH/km)		0,429	0,411	0,393	0,38	0,365	0,354	0,341	0,33	0,32

CONDUCTOR (Al)	Cross-Sectional Area (mm <sup>2</sup> )	400	500	630	800	1000	1200	1600	2000	2500
	Shape	Circular	Circular	Circular	Circular	Circular	Segmentalled	Segmentalled	Segmentalled	Segmentalled
	Diameter (mm)	24,25	27,4	30,6	34,8	39	43,5	50,2	56,5	63,5
Max. DC Al Conductor Resistance at 20°C (ohm/km)		0,0778	0,0605	0,0469	0,0367	0,0291	0,0247	0,0186	0,0149	0,0127
Weight of Cable (kg/m)		5,8	6,3	6,9	7,8	8,6	9,9	11,6	13,4	15,9