



# 87/150 (170) kV

## XLPE Insulated with Lead Sheath

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		703	802	918	1036	1155	1331	1486	1641	1798
Pipe		682	779	894	1012	1133	1309	1467	1629	1794
In Air	Trefoil	771	886	1023	1162	1307	1553	1755	1962	2171
	Flat (S=3D)	945	1098	1279	1468	1671	1952	2225	2508	2803

HDPE pipe diameter = 2D

### ALUMINIUM CONDUCTOR

Cross-Sectional Area ( mm <sup>2</sup> )		400	500	630	800	1000	1200	1600	2000	2500
Direct Buried		551	633	726	828	934	1056	1208	1351	1495
Pipe		535	615	706	808	916	1034	1194	1340	1491
In Air	Trefoil	607	703	814	940	1069	1234	1441	1631	1829
	Flat (S=3D)	743	870	1012	1177	1349	1541	1810	2061	2326

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	Segmental	Segmental	Segmental	Segmental
	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
Thickness of Lead Sheath (mm)		2,6	2,7	2,8	2,9	3	3,2	3,3	3,7	3,9
Thickness of Outer Sheath (mm)		3,3	3,4	3,6	3,7	3,8	4	4,2	4,6	4,9
Outer Diameter of Cable (mm)		79	83	87	91	97	103	110	118	128
Weight of Cable (kg/m)		13,6	15,4	17,6	20,2	23,5	27	31,9	38,7	46,5
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)		0,428	0,413	0,396	0,382	0,368	0,358	0,345	0,336	0,326

CONDUCTOR (Al)	Cross-Sectional Area (mm <sup>2</sup> )	400	500	630	800	1000	1200	1600	2000	2500
	Shape	Circular	Circular	Circular	Circular	Circular	Segmental	Segmental	Segmental	Segmental
	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)		11,4	12,6	13,8	15,4	16,9	19,5	22,5	26,4	30,8