



## 64/110kV XLPE Insulated, PE Sheathed High Voltage Power Cables

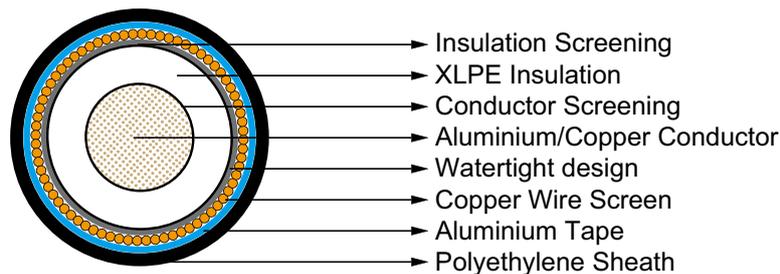
### APPLICATIONS

These single core cables are designed for distribution of electrical power with nominal voltage 64/110kV. They are suitable for installation mostly in power supply stations, indoors and in cable ducts, outdoors, underground and in water as well as for installation on cable trays for industries, switchboards and power stations.

### Standard

IEC 60840

### CONSTRUCTION



**Conductor:** The cable conductors can be made of copper or aluminium, depending on customer's preference or current carrying capacity. Large size solid conductors are made of aluminium. Available constructions including: round solid conductors up to 2000mm<sup>2</sup> (RE); circular stranded compacted conductors up to 1200mm<sup>2</sup> (RM); circular conductors with shaped wires up to 2000mm<sup>2</sup> (RM, Keystone conductors); segmental conductors up to 2500 mm<sup>2</sup> (RMS, Milliken conductors); oval shaped stranded compacted conductors up to 800mm<sup>2</sup> for external gas pressure cables (OM).

**Conductor Screen:** Extruded layer of semi-conducting cross-linkable compound is applied over the conductor and shall cover the surface completely.

**Insulation:** Insulation is of cross-linked polyethylene compound XLPE.

**Insulation Screen:** Extruded layer of semi-conducting cross-linkable compound is applied over the insulation.

**Metallic Layer:** The metallic layer may be applied over the core assembly collectively.

The metallic screen shall consist of either copper tapes or a concentric layer of copper wires or a combination of tapes and wires.

**Separation Sheath:** Aluminum Tape sheath

**Outer Sheath:** PE

# Caledonian High Voltage Cables

## Dimensional Data

Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Wire Screen Area	Approx. Overall Diameter	Approx. Weight	
				CU	AL
mm <sup>2</sup>	mm	mm <sup>2</sup>	mm	kg/m	
240	15.0	95	65.0	5.6	4.1
300	15.0	95	67.0	6.3	4.5
400	15.0	95	71.0	7.2	5.0
500	14.0	95	72.0	8.2	5.3
630	14.0	95	76.0	9.7	5.9
800	14.0	95	80.0	11.6	6.7
1000	14.0	95	86.0	14.0	7.4
1200	14.0	95	92.0	16.0	8.7
1600	14.0	95	98.0	19.9	10.4
2000	14.0	95	106.0	24.2	12.0
2500	14.0	95	114.0	30.0	14.3

## Electrical Data

Nom. Cross-Section Area	DC Resistance @20°C		AC Resistance @90°C		Capacitance per core	Inductance	Continuous Current Rating for Single Circuit (in air)			
	Cu	Al	Cu	Al			Cu conductor		Al conductor	
							Trefoil	Flat	Trefoil	Flat
mm <sup>2</sup>	Ω/km	Ω/km	Ω/km	Ω/km	μF/km	mH/km	A		A	
240	0.0754	0.125	0.0973	0.161	0.141	0.442	576	715	449	557
300	0.0601	0.100	0.0781	0.129	0.152	0.424	658	820	515	642
400	0.0470	0.0778	0.0618	0.101	0.165	0.407	762	955	601	752
500	0.0366	0.0605	0.0492	0.0791	0.188	0.392	877	1108	697	878
630	0.0283	0.0469	0.0393	0.0622	0.206	0.376	1012	1292	807	1023
800	0.0221	0.0367	0.0326	0.0500	0.224	0.363	1149	1483	931	1189
1000	0.0176	0.0291	0.0232	0.0375	0.251	0.349	1292	1688	1060	1364
1200	0.0151	0.0247	0.0201	0.0319	0.275	0.340	1542	1974	1226	1558
1600	0.0113	0.0186	0.0156	0.0240	0.304	0.328	1741	2251	1432	1834
2000	0.0090	0.0149	0.0129	0.0193	0.336	0.318	1942	2536	1619	2085
2500	0.0072	0.0119	0.0109	0.0156	0.372	0.309	2149	2836	1815	2353