



## 230/400kV XLPE Insulated, PE Sheathed High Voltage Power Cables

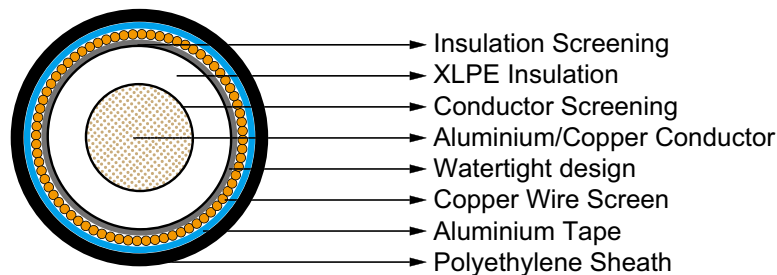
### APPLICATIONS

These single core cables are designed for distribution of electrical power with nominal voltage 230/400kV. 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 62067

### 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	
630	33.0	170	118	17	13
800	31.0	170	118	18	13
1000(RM)	29.0	170	118	20	14
1000(RMS)	29.0	170	121	20	14
1200	27.0	170	120	22	14
1400	27.0	170	123	24	15
1600	27.0	170	127	26	16
1800	26.0	170	128	28	17
2000	26.0	170	131	30	18
2500	26.0	170	138	36	20

## Electrical Data

Nom. Cross-Section Area	DC Resistance @20°C		AC Resistance @90°C		Capacitance per core	Inductance	Current Ratings/Power Ratings(continuous load)			
	Cu	Al	Cu	Al			Cu conductor		Al conductor	
							1 circuit	2 circuits	1 circuit	2 circuits
mm <sup>2</sup>	Ω/km	Ω/km	Ω/km	Ω/km	μF/km	mH/km	A/MVA		A/MVA	
							trefoil installation			
630	0.0283	0.0469	0.0393	0.0622	0.119	0.46	594/412	481/333	499/346	406/281
800	0.0221	0.0367	0.0317	0.0500	0.134	0.44	636/441	512/355	545/378	440/305
1000(RM)	0.0176	0.0291	0.0276	0.0409	0.150	0.41	671/465	538/373	587/407	471/326
							flat installation			
1000(RM)	0.0176	0.0291	0.0232	0.0375	0.156	0.56	938/650	804/557	748/518	641/444
1200	0.0151	0.0247	0.0201	0.0319	0.171	0.55	1001/694	855/592	808/560	690/478
1400	0.0129	0.0212	0.0175	0.0275	0.180	0.53	1070/741	912/632	868/601	740/513
1600	0.0113	0.0186	0.0156	0.0240	0.188	0.52	1125/779	957/663	924/640	787/545
1800	0.0101	0.0165	0.0142	0.0213	0.201	0.51	1168/809	990/686	973/674	826/572
2000	0.0090	0.0149	0.0129	0.0193	0.209	0.50	1212/840	1026/711	1016/704	861/597
2500	0.0072	0.0119	0.0109	0.0156	0.226	0.47	1289/893	1086/752	1112/770	938/650