



76/132kV XLPE Insulated, PE Sheathed High Voltage Power Cables

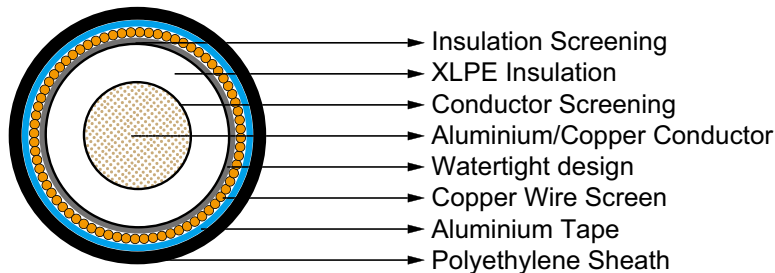
APPLICATIONS

These single core cables are designed for distribution of electrical power with nominal voltage 76/132kV. 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 2000mm² (RE); circular stranded compacted conductors up to 1200mm² (RM); circular conductors with shaped wires up to 2000mm² (RM, Keystone conductors); segmental conductors up to 2500 mm² (RMS, Milliken conductors); oval shaped stranded compacted conductors up to 800mm² 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 mm ²	Nom. Insulation Thickness mm	Copper Wire Screen Area mm ²	Approx. Overall Diameter mm	Approx. Weight	
				Cu	AL
kg/m					
185	22.0	50	74	6.0	4.4
240	20.0	50	72	6.2	4.3
300	19.0	50	72	6.8	4.5
400	18.0	50	74	7.7	5.2
500	18.0	50	77	8.8	5.7
630	18.0	50	81	10.3	6.4
800	16.0	50	82	11.7	6.8
1000	16.0	110	93	15.0	9.1
1200	15.0	110	94	17.0	9.7
1400	15.0	110	98	19.0	10.0
1600	15.0	110	101	21.0	11.0
1800	14.0	110	102	23.0	12.0
2000	14.0	110	106	25.0	13.0
2500	14.0	110	113	30.0	15.0

Electrical Data

Nom. Cross-Section Area mm ²	DC Resistance @20°C		AC Resistance @90°C		Capacitance per core µF/km	Inductance mH/km	Current Ratings/Power Ratings(continuous load)			
	Cu Ω/km	Al Ω/km	Cu Ω/km	Al Ω/km			Cu conductor		Al conductor	
							1 circuit	2 circuits	1 circuit	2 circuits
							A/MVA		A/MVA	
trefoil installation										
185	0.0991	0.164	0.127	0.211	0.107	0.49	368/84	314/72	289/66	246/56
240	0.0754	0.125	0.0973	0.161	0.121	0.46	420/96	358/82	332/76	282/64
300	0.0601	0.100	0.0781	0.129	0.134	0.44	469/107	398/91	371/85	315/72
400	0.0470	0.0778	0.0618	0.101	0.151	0.42	525/120	444/102	420/96	356/81
500	0.0366	0.0605	0.0492	0.0791	0.163	0.40	586/134	493/113	474/108	400/91
630	0.0283	0.0469	0.0393	0.0622	0.177	0.39	649/148	545/125	533/122	448/102
800	0.0221	0.0367	0.0326	0.0500	0.212	0.36	706/161	591/135	591/135	495/113
flat installation										
1000	0.0176	0.0291	0.0232	0.0375	0.245	0.56	999/228	852/195	791/181	675/154
1200	0.0151	0.0247	0.0201	0.0319	0.271	0.55	1074/246	915/209	859/196	732/167
1400	0.0129	0.0212	0.0175	0.0275	0.286	0.53	1155/264	984/225	929/212	791/181
1600	0.0113	0.0186	0.0156	0.0240	0.301	0.52	1226/280	1043/238	997/228	849/194
1800	0.0101	0.0165	0.0142	0.0213	0.332	0.51	1285/294	1091/249	1058/242	900/206
2000	0.0090	0.0149	0.0129	0.0193	0.346	0.50	1346/308	1144/262	1114/255	947/217
2500	0.0072	0.0119	0.0109	0.0156	0.378	0.47	1465/335	1244/284	1244/284	1057/242