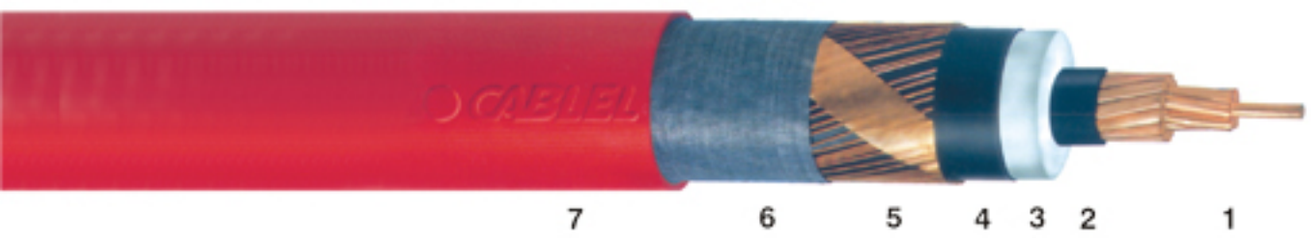
XLPE INSULATED CABLES WITH COPPER WIRE SCREEN AND PVC OVERSHEATH



1. Round stranded compacted conductor*
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive conductor screen
5. Copper wires wrapped with a copper tape layed with an open helix over core
6. Plastic tape
7. PVC outersheath

CABLE TYPE: XLPE/CWS/PVC
NOMINAL VOLTAGE: 87/150 (U_{max}: 170 kV)
SPECIFICATION: IEC 60840

Copper or Aluminium conductor, XLPE insulated, copper wire screened and PVC outersheathed.
The conductor and screen can be constructed with protection against longitudinal penetration of water. Additionally the cable screen can be constructed with protection against radial penetration of water by use of Al foil bonded to outersheath.
The outersheath can also consist of MDPE or HDPE.

CABLES WITH COPPER CONDUCTOR

NOMINAL CONDUCTOR CROSS SECTION	NOMINAL INSULATION THICKNESS	NOMINAL COPPER WIRE SCREEN CROSS SECTION	CABLE EXTERNAL DIAMETER (APPROX.)	CABLE NET WEIGHT (APPROX.)	CAPACITANCE	CONTINUOUS CURRENT RATING DIRECT IN GROUND		CONTINUOUS CURRENT RATING IN AIR	
						TREFOIL	FLAT	TREFOIL	FLAT
mm²	mm	mm²	mm	kg/km	nF/km	A	A	A	A
400	20,0	140	84	9800	150	660	710	815	930
500	20,0	140	88	11150	160	745	810	935	1075
630	20,0	140	91	12900	180	830	925	1070	1250
800	20,0	140	96	15000	190	965	1035	1245	1425
1000	20,0	140	101	17500	210	1060	1150	1400	1615
1200	20,0	140	105	19700	225	1215	1315	1635	1875
1600	20,0	140	113	24200	250	1370	1510	1895	2210

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL CONDUCTOR CROSS SECTION	NOMINAL INSULATION THICKNESS	NOMINAL COPPER WIRE SCREEN CROSS SECTION	CABLE EXTERNAL DIAMETER (APPROX.)	CABLE NET WEIGHT (APPROX.)	CAPACITANCE	CONTINUOUS CURRENT RATING DIRECT IN GROUND		CONTINUOUS CURRENT RATING IN AIR	
						TREFOIL	FLAT	TREFOIL	FLAT
mm²	mm	mm²	mm	kg/km	nF/km	A	A	A	A
400	20,0	140	84	7400	150	525	560	645	730
500	20,0	140	88	8000	160	600	640	745	850
630	20,0	140	91	8900	180	675	730	860	990
800	20,0	140	96	9700	190	780	830	1020	1140
1000	20,0	140	101	10800	210	870	935	1135	1305
1200	20,0	140	105	11700	225	935	1010	1240	1430
1600	20,0	140	113	13700	250	1050	1155	1440	1675

** For larger cross sections the conductor has a stranded segmental construction (Milliken)*

Notes:
a) The screen cross section can be adjusted to meet client s demands.
b) Current ratings soil thermal resistivity 1,0 km/w and maximum conductor temperature 90°C. Correction factors for different condition are given below.
c) Trefoil formation (cables touching): Cables with conductor cross section up to and including 630 mm^2 are assumed with screens solidly bonded at both ends. Cables with conductor cross section greater than 630 mm^2 are assumed single point or cross bonded.
d) Flat formation: Cables are assumed single point or cross bonded. Cables spacing between cable centres of twice the overall diameter.

Ambient temperature °C:	5	10	15	20	25	30	35	40	45	50
Correction coefficient	1,2	1,17	1,13	1,09	1,04	1,0	0,95	0,9	0,85	0,8

Soil temperature °C:	5	10	15	20	25	30	35	40
Correction coefficient	1,1	1,07	1,03	1,0	0,96	0,92	0,88	0,84

Soil thermal resistivity KM/W:	1,0	1,2	1,5	2,0	2,5
Correction coefficient	1,0	0,93	0,85	0,75	0,69

Laying depth m:	1,0	1,3	1,5	2,0	2,5	3,0
Correction coefficient	1,03	1,0	0,98	0,95	0,93	0,91

Minimum bending radius during installation 30XD
(D cable overall diameter)