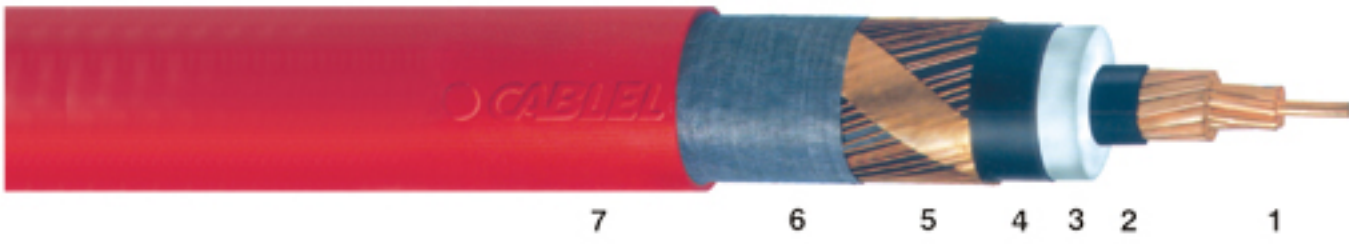


# XLPE INSULATED CABLES WITH COPPER WIRE SCREEN AND PVC OVERSHEATH



- 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 oversheath

**CABLE TYPE:** XLPE/CWS/PVC  
**NOMINAL VOLTAGE:** 26/45 (U<sub>max</sub>: 52 kV)  
**SPECIFICATION:** IEC 60840

Copper or Aluminium conductor, XLPE insulated, copper wire screened and PVC outsheathed. 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 outsheath. The outsheath can also consist of MDPE or HDPE compound.

CABLES WITH COPPER CONDUCTOR									
NOMINAL CONDUCTOR CROSS SECTION	NOMINAL INSULATION THICKNESS	NOMINAL PB SHEATH THICKNESS	CABLE EXTERNAL DIAMETER (APPROX.)	CABLE NET WEIGHT (APPROX.)	CAPACITANCE	CONTINUOUS CURRENT RATING DIRECT IN GROUND		CONTINUOUS CURRENT RATING IN AIR	
						TREFOIL	FLAT	TREFOIL	FLAT
mm <sup>2</sup>	mm	mm	mm	kg/km	nF/km	A	A	A	A
95	9,0	50	45	2900	170	315	335	355	410
120	9,0	50	47	3200	180	360	380	405	470
150	9,0	50	48	3500	190	400	425	460	535
185	9,0	50	50	3900	205	450	480	525	610
240	9,0	50	53	4600	225	515	560	615	725
300	9,0	50	55	5200	240	575	630	700	830
400	9,0	50	58	6300	265	650	720	800	965
500	9,0	50	61	7400	290	725	820	905	1115
630	9,0	50	65	9000	325	805	930	1035	1300
800	9,0	50	70	11000	350	955	1045	1215	1490
1000	9,0	50	75	13200	390	1040	1160	1350	1690
1200	9,0	50	79	15400	420	1210	1320	1580	1955
1600	9,0	50	86	19500	475	1360	1515	1820	2310



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
mm <sup>2</sup>	mm	mm <sup>2</sup>	mm	kg/km	nF/km	A	A	A	A
95	9,0	50	45	2300	170	245	260	275	315
120	9,0	50	47	2400	180	280	295	320	365
150	9,0	50	48	2600	190	315	330	360	415
185	9,0	50	50	2800	205	355	375	415	480
240	9,0	50	53	3100	225	405	435	485	565
300	9,0	50	55	3300	240	460	490	555	650
400	9,0	50	58	3800	265	520	560	640	755
500	9,0	50	61	4300	290	590	640	740	885
630	9,0	50	65	4900	325	665	735	845	1030
800	9,0	50	70	5700	350	780	835	1000	1195
1000	9,0	50	75	6600	390	865	940	1130	1365
1200	9,0	50	79	7400	420	930	1015	1225	1505
1600	9,0	50	86	9000	475	1035	1160	1400	1760

\* 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<sup>2</sup> are assumed with screens solidly bonded at both ends. Cables with conductor cross section greater than 630 mm<sup>2</sup> 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.

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

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

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

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

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