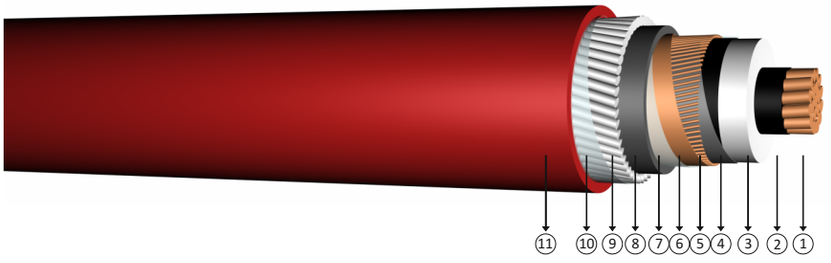
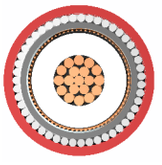
18/30 kV or 19/33 XLPE insulated round aluminium wire armoured single core cables with copper conductor





Code: N2XSYR(A)Y, CU/XLPE/CWS/PVC/AWA/PVC

Standards: IEC 60502 - 2, VDE 0276 - 620, BS 6622

Technical Data

Max. operating temperature : 90 °C
Max. short circuit temperature : 250 °C (max. 5 sec.)
Rated voltage : 18/30 kV
19/33 kV
Min. bending radius : 15 x D
D : Cable outer diameter

Application

These are cables with low dielectric losses used in energy networks with sudden load changes. Laid in residential or industrial areas, underground or in ducts.

Construction

1. Stranded copper conductors
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Polyester tape
8. Inner sheath
9. Round aluminium wire
10. Polyester tape
11. PVC outer jacket

DIMENSION AND WEIGHTS			ELECTRICAL PROPERTIES									
Nominal Cross Section	Overall Diameter (approx)	Net Weight (approx)	Delivery Length	DC Conductor Resistance at 20 °C Max	DC Conductor Resistance at 90 °C Max	Operation Inductance		Operation Capacitance	Current Carrying Capacity (A)			
									In ground at 20 °C		In air at 30 °C	
mm²	mm	kg/km	m	ohm/km	ohm/km	*** mH/km	*** mH/km	µF/km	***	***	***	***
1x35/16	39,0	1927	1000	0,524	0,6707	0,657	0,367	0,123	214	192	233	202
1x50/16	40,0	2100	1000	0,387	0,4954	0,632	0,351	0,135	251	226	279	241
1x70/16	41,8	2400	1000	0,268	0,3430	0,601	0,332	0,151	306	276	348	299
1x95/16	43,5	2735	1000	0,193	0,2470	0,577	0,318	0,166	363	329	421	362
1x120/16	46,4	3220	1000	0,153	0,1958	0,558	0,308	0,180	410	373	483	416
1x150/25	48,0	3660	1000	0,124	0,1587	0,541	0,299	0,194	449	415	540	469
1x185/25	49,6	4090	1000	0,0991	0,1268	0,525	0,292	0,208	503	468	615	536
1x240/25	52,4	4800	1000	0,0754	0,0965	0,506	0,284	0,229	576	541	718	630
1x300/25	54,6	5465	500	0,0601	0,0769	0,490	0,279	0,248	641	608	812	717
1x400/35	58,0	6610	500	0,0470	0,0602	0,471	0,275	0,276	697	684	904	823
1x500/35	61,2	7686	500	0,0366	0,0468	0,456	0,270	0,301	768	762	1011	929
1x630/35	66,0	9308	500	0,0283	0,0362	0,440	0,264	0,330	858	847	1128	1043

Note : Current carrying capacities are valid under the following conditions;
In ground : 20 °C, 70 cm depth of lay, soil-thermal resistivity 1 K.m/W, load factor 0.7
In air : 30 °C, load factor 1.0
*** : Flat formation, clearance between cables; in air = 1 x Cable outer diameter, in ground = 7 cm
*** : Trefoil formation
Number of system : 1