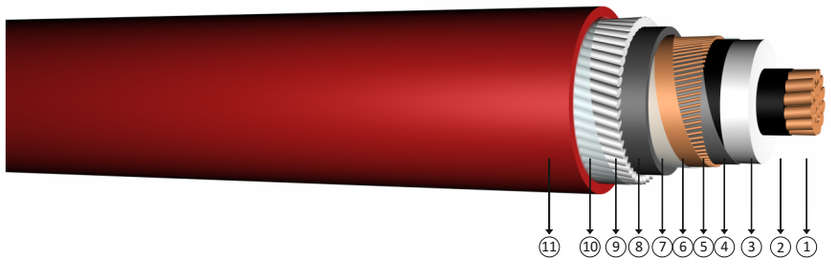
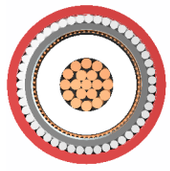
12/20 kV or 12.7/22 kV XLPE insulated round aluminium wire armoured single core cables with copper conductor





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	: 12/20 kV 12.7/22 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	32,6	1482	1000	0,524	0,6707	0,657	0,367	0,123	213	189	233	199
1x50/16	34,5	1730	1000	0,387	0,4954	0,632	0,351	0,135	250	223	279	238
1x70/16	36,4	2020	1000	0,268	0,3430	0,601	0,332	0,151	304	273	348	296
1x95/16	38,1	2330	1000	0,193	0,2470	0,577	0,318	0,166	361	325	421	358
1x120/16	39,8	2640	1000	0,153	0,1958	0,558	0,308	0,180	407	368	483	412
1x150/25	41,1	3040	1000	0,124	0,1587	0,541	0,299	0,194	445	410	540	466
1x185/25	43,0	3465	1000	0,0991	0,1268	0,525	0,292	0,208	498	463	615	534
1x240/25	46,8	4290	1000	0,0754	0,0965	0,506	0,284	0,229	569	534	718	627
1x300/25	48,9	4935	500	0,0601	0,0769	0,490	0,279	0,248	633	601	812	715
1x400/35	52,4	6045	500	0,0470	0,0602	0,471	0,275	0,276	686	674	904	819
1x500/35	55,8	7185	500	0,0366	0,0468	0,456	0,270	0,301	756	750	1011	927
1x630/35	56,0	8660	500	0,0283	0,0362	0,440	0,264	0,330	842	836	1128	1041

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