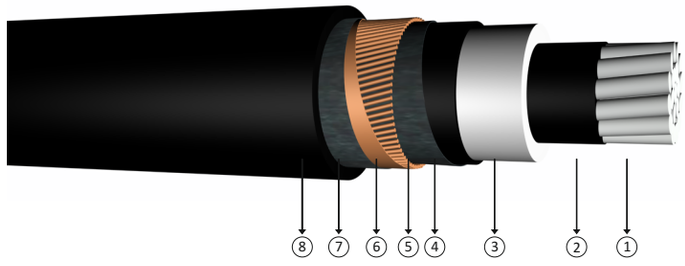
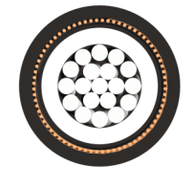
20.3/35 kV or 20.8/36 kV XLPE insulated, single core cables with aluminium conductor





Code: NA2XS2Y, AL/XLPE/CWS/PE

Standards: HD 620 S2, TSEK

Technical Data

Max. operating temperature : 90 °C
Max. short circuit temperature : 250 °C (max. 5 sec.)
Rated voltage : 20.3/35 kV
20.8/36 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 aluminium conductor
2. Inner semi conductive layer
3. XLPE insulation
4. Outer semi conductive layer
5. Semi conductive tape
6. Copper screen
7. Polyester tape
8. PE 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	37,5	1000	1000	0,868	1,1110	0,690	0,480	0,115	-	-	-	-
1x50/16	38,5	1100	1000	0,641	0,8205	0,664	0,459	0,125	196	175	217	187
1x70/16	40,5	1250	1000	0,443	0,5670	0,633	0,434	0,140	238	214	270	232
1x95/16	42,0	1400	1000	0,320	0,4096	0,609	0,416	0,153	284	256	328	281
1x120/16	44,0	1500	1000	0,253	0,3238	0,590	0,401	0,165	322	290	378	323
1x150/25	45,5	1750	1000	0,206	0,2637	0,572	0,389	0,178	355	324	425	365
1x185/25	47,5	1950	1000	0,164	0,2099	0,556	0,376	0,191	400	366	485	418
1x240/25	50,0	2200	1000	0,125	0,1600	0,535	0,363	0,209	461	426	572	494
1x300/25	52,5	2450	1000	0,100	0,1280	0,519	0,351	0,226	516	479	649	564
1x400/35	55,5	2950	1000	0,0778	0,1009	0,497	0,338	0,252	572	545	737	654
1x500/35	59,0	3400	1000	0,0605	0,0774	0,481	0,328	0,274	638	614	835	747
1x630/35	62,5	3900	1000	0,0469	0,0600	0,464	0,317	0,300	728	690	950	851

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