

# 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, 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 : 20 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 PP tape
- 8 PVC inner sheath
- 9 Round aluminium wire
- 10 PP tape
- 11 PVC outer sheath

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 (approx)		Operation Capacitance (approx)	Current Carrying Capacity (A)				
mm <sup>2</sup>	mm	kg/km	m	Ω/km	Ω/km	*** mH/km	** mH/km	μF/km	In ground at 20°C		In air at 30°C		
									***	**	***	**	
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, gap between cables; in air = 1 x Cable outer diameter, in ground = 7 cm  
 \*\* : Trefoil formation  
 Number of system : 1