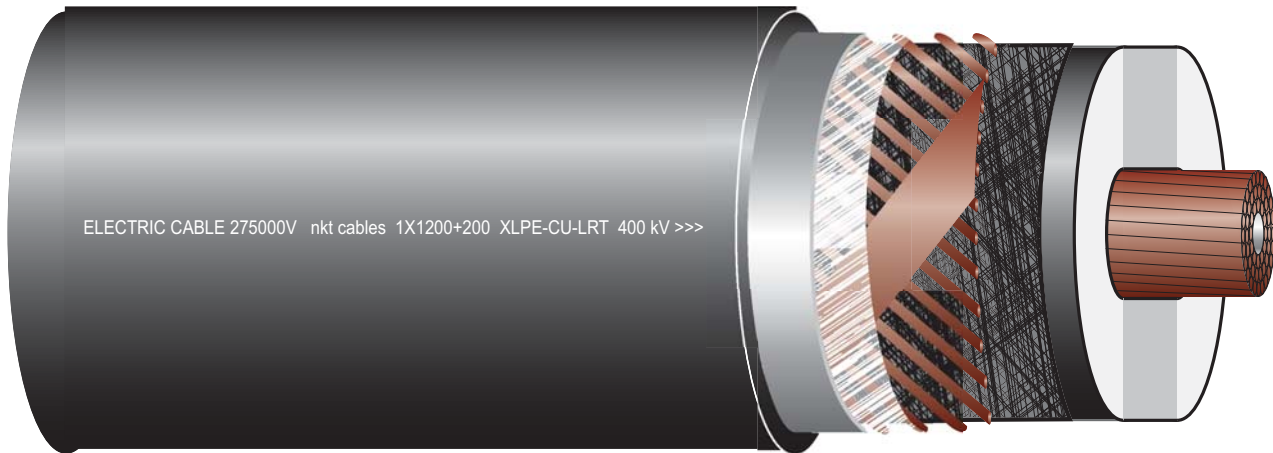


Extra High voltage

275 kV single core cable XLPE-CU-LRT

Halogen free



Application

Application	275 kV A.C. Electricity transmission cable.
Conductor temperature	Max. 90°C
Short circuit temperature	Max. 250°C
Installation temperature	Min. -15°C
Min. radius of bend	15 x D
Max. pulling tension	Directly on conductor 50 N/mm ² of total conductor cross section.

Construction

Conductor	Circular stranded sectional copper conductor
Conductor screen	Extruded semi-conducting compound
Insulation	XLPE
Insulation screen	Extruded semi-conducting compound
Winding	Semi-conducting queld-tape
Screen	Concentric layer of copper wires with a copper tape applied in the opposite direction.
Water barrier	Queld tape + aluminium foil.
Outer sheath	PE
Colour of sheath	Black
Lead	1X1200+1380 are lead covered

Technical

Standard	IEC 62067
Marking of sheath	ELECTRIC CABLE 275000 V nkt cables 'Dimension' 'Year' 'Metres' (additional text on request)
Rated voltage	275 kV AC between phases
Standard length	Available on request
Screen sizes	Other screen sizes on request
Outer sheath	Semi-conducting outer layer on request
Cable design	Project designed on request

Nominal area of conductor and screen	Diameter of conductor nominal	Radial thickness of insulation	Standard length	Outer dimension max.	Approx weight	EI-nr	EAN-nr
mm ²	mm	mm	m	mm	kg pr. km		
1X400+200	23.4	25.4	On request	144.0	20000		
1X500+200	26.9	28.9	-	114.0	21300		
1X1200+1380	42.9	22	-	120.0	33600		

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Mechanical properties

Area of conductor	mm ²	400	500	1200
Diameter of conductor, nom.	mm	23.4	26.9	42.9
Insulation thickness, nom	mm	25.4	28.9	22.0
Diameter over insulation, nom.	mm	85.4	86.5	91.9
Area of copper screen, nom.	mm ²	200	200	200
Diameter over screen, nom.	mm	93.9	95.0	104.2
Thickness of sheath, nom.	mm	4.1	4.3	4.4
Diameter over sheath, nom.	mm	108.0	109.2	113.9
Diameter over sheath, max.	mm	114.0	115.0	120.0
weight of cable. appr.	kg/m	20.0	21.3	33.6
Radius of bend, min.	mm	1700	1700	1750
Pulling tension on the cable.	kN	20	20	33.7

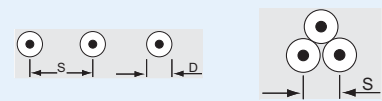
Electrical properties

Area of conductor	mm ²	400	500	1200
Resistance, DC, at 20°C, max.	Ω/km	0.0470	0.0366	0.0151
Capacitance, max.	μF/km	0.10	0.12	0.21
Short circuit rating for 1 sec. Conductor with initial temperature 90°C and final temperature 250°C	kA			171
Short circuit rating for 1 sec. Screen with final screen temperature 300°C	kA			40

Current carrying capacity

G) Continuous current carrying capacity for maximum conductor temperature 90°C: Direct in ground at 15°C, dept 1,0 m, thermal resistivity 1,2° Km/W.

A) Continuous current carrying capacity for maximum conductor temperature 90°C: In free air at. 25°C.

Compacted conductor area	mm ²	400	500	1200
Cable formation				
				
G)				
Screens bonded at both ends				
trefoil formation, close together S = D	A	915	945	1010
flat formation, close together S = D	A	795	810	845
flat formaton, free distance between cable S = D + 70 mm	A	775	790	820
Screens bonded at a single point				
trefoil formation, close together S = D	A	1090	1145	1255
flat formation, close together S = D	A	1020	1070	1155
flat formaton, free distance between cable S = D + 70 mm	A	1155	1220	1350
A)				
Screens bonded at both ends				
trefoil formation, close together S = D	A	1345	1400	1535
flat formation, close together S = D	A	1160	1180	1250
flat formaton, free distance between cable S = D + 70 mm	A	1155	1165	1215
Screens bonded at a single point				
trefoil formation, close together S = D	A	1535	1630	1850
flat formation, close together S = D	A	1490	1575	1770
flat formaton, free distance between cable S = D + 70 mm	A	1695	1820	2115

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A) Continuous current carrying capacity for maximum conductor temperature 90°C: In free air at. 25°C.

Compacted conductor area	mm ²	400	500	1200
Reactance at 50 Hz				
trefoil formation, close together S = D	Ω/km	0.12	0.12	0.11
flat formation, close together S = D	Ω/km	0.12	0.12	0.11
flat formaton, free distance between cable S = D + 70 mm	Ω/km	0.12	0.12	0.11



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