11 kV Triplexed single core cables XLPE-AL-ST
Aluminium screen wires
Longitudinal water tightness in screen area

Conductor:	**Circular solid aluminium conductor**
Conductor screen:	**Extruded semi-conducting compound**
Insulation:	**XLPE**
Insulation screen:	**Extruded semi-conducting compound, fully bonded**
Bedding:	**Semi-conducting swelling tape**
Screen:	**Layer of aluminium wires with an aluminium tape applied in the opposite direction**
Bedding:	**Swelling tape**
Outer sheath:	**MDPE, red**
Marking on sheath, line 1:	**x nkt cables x ELECTRIC CABLE 11000 V "Dimension" "Year"**
Marking on sheath, line 2:	**x nkt cables x ELECTRIC CABLE 11000 V "Dimension" "Code"**
Meter marking and phase number by ink-jet	
Application:	**For AC voltage with max. 12 kV between phases**
Maximum operating conductor temperature:	**90 °C**
Maximum short circuit temperature:	**250 °C**
Minimum installation temperature:	**–15 °C**
Standards:	**BS 7870-4.10 where applicable Conductor according to IEC 60228**

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Area of conductor	mm^2	95	185	300
Mechanical properties				
Diameter of conductor, nom.	mm	10.7	14.8	18.9
Insulation thickness, nom.	mm	3.4	3.4	3.4
Diameter over insulation, nom.	mm	18.9	23.0	27.1
Area of aluminium screen, nom.	mm^2	58	115	115
Diameter over screen, nom.	mm	23.7	29.3	33.4
Thickness of sheath, nom.	mm	1.8	1.9	2.1
Diameter over sheath, nom.	mm	27.4	33.2	37.7
Diameter over sheath, appr. max.	mm	29	35	40
Diameter over laid-up cores (triplex), appr.	mm	60	72	82
Weight of cable, appr.	kg/km	2400	3905	5085
Radius of bend, min.	mm	410	500	565
Pull at cable, each cable, max.	kN	4.0	6.0	9.0
Electrical properties:				
Capacitance, max.	µF/km	0.314	0.399	0.485
Resistance, DC, at 20°C, max.	Ω/km	0.320	0.164	0.100
Short circuit rating for 1 sec.				
a) of conductor with initial temperature 90°C and final temperature 250°C	kA	8.98	17.5	28.3
b) of screen with initial temperature 80°C and with final screen temperature 250°C	kA	6.0	11.7	11.7
Continuous current carrying capacity for maximum conductor temperature 90°C, screens bonded at both ends:				
a) **Direct in ground at 15°C** Depth 0.7 m and thermal resistivity 1°C m/W Triplex	A*	275	390	510
b) **In free air at 25°C** Triplex	A	280	425	565
Continuous current carrying capacity for maximum conductor temperature 90°C, screens bonded at a single point:				
a) **Direct in ground at 15°C** Depth 0.7 m and thermal resistivity 1°C m/W Triplex	A*	280	405	525
b) **In free air at 25°C** Triplex	A	285	430	580
Reactance at 50 Hz Triplex	Ω/km	0.12	0.11	0.10

* In ducts the rated current should be multiplied with 0.82
* In ground with thermal resistivity at 1.2 °C m/W the rated current should be multiplied with 0.93 (0.94 for 95 mm^2)

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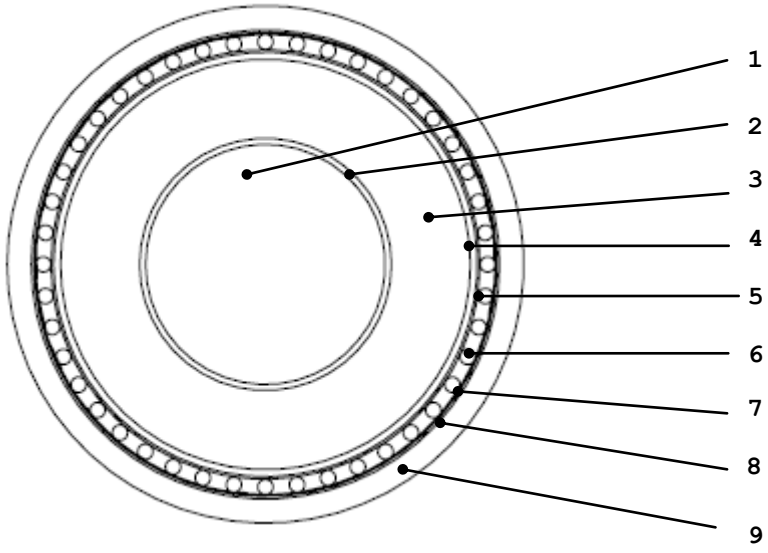
Drawing of cable



1 Conductor, aluminium, solid

2 Semi-conducting layer

3 XLPE insulation

4 Semi-conducting layer, fully bonded

5 Semi-conducting swelling tape

6 Concentric layer of aluminium wires

7 Aluminium tape applied in opposite direction

8 Swelling tape

9 Outer sheath, MDPE