

11 kV triplexed single core cables XLPE-AL-ST

Copper 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

Watertight bedding: Semi-conducting swelling tape

Screen: Concentric layer of copper wires with a copper tape applied in the opposite direction

Watertight bedding: Swelling tape

Outer sheath: MDPE, red

Marking on sheath (indenting), line 1: ELECTRIC CABLE 11000 V BS 7870-4.10
x nkt cables x "Dimension" "Year" "Phase" "Meters"

Marking on sheath (indenting), line 2: ELECTRIC CABLE 11000 V BS 7870-4.10
x nkt cables x "Dimension" "Year" "Phase" "Code"

Only meter marking on phase 1

Application: For AC voltage with max. 12 kV between conductors

Maximum 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

2016-06-02 FFR P095.601	Issued by: FFR	Approved by: WYG	Edition: 3	Side 1 of 2
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Area of conductor	mm ²	95	185	300
Mechanical properties				
Diameter of conductor, nominal.	mm	10.7	14.8	18.9
Insulation thickness, nominal.	mm	3.4	3.4	3.4
Diameter over insulation, nominal.	mm	18.9	23.0	27.1
Area of copper screen, nominal.	mm ²	35	35	35
Diameter over screen, nominal.	mm	22.6	26.7	30.8
Thickness of sheath, nominal.	mm	1.8	1.9	2.1
Diameter over sheath, nominal.	mm	26.8	31.1	35.6
External diameter of laid up cores, approx.	mm	58	68	77
Weight of cable, approx.	kg/km	3404	4096	5323
Bending radius, minimum.	mm	402	467	534
Pull at cable, maximum.	kN	4.0	6.0	9.0
Electrical properties:				
Capacitance, max.	μF/km	0.31	0.40	0.48
Resistance, DC, at 20°C, max.	Ω/km	0.320	0.164	0.100
Resistance, AC, at 90°C close trefoil, max.	Ω/km	0.411	0.211	0.130
Charging current, at U ₀ kV.	mA/m	1,88	2.39	2,9
Short circuit rating for 1 sec.				
a) of conductor with initial temperature 90°C and final temperature 250°C	kA	9.0	17.5	28.3
b) of screen with final screen temperature 300°C	kA	7.0	7.0	7.0
Continuous current carrying capacity for maximum conductor temperature 90°C, screens bonded at both ends:				
a) Direct in ground at 15°C depth 0.5- 0.7 m and thermal resistivity 1.2°C m/W Triplexed	A*	258	362	474
b) In free air at 25°C Triplexed	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 0.5-0.7 m and thermal resistivity 1.2°C m/W Triplexed	A*	263	377	488
b) In free air at 25°C Triplexed	A	285	430	580
Reactance at 50 Hz				
Triplexed	Ω/km	0.12	0.11	0.10

*In ducts the rated current should be multiplied with 0.82