

CONSTRUCTION AND DIMENSIONS

64/110kV (Um=123kV) N2XS(FL)2Y Cu/XLPE/Cu Wire/Al Tape/HDPE 1x800RM/150mm²

	APPLICABLE STANDARDS	IEC 60840
	1. CONDUCTOR	
	Material :	Copper
	Type :	Circular stranded compacted according to IEC 60228 Class 2
	Diameter :	approx. 33,62 mm (Protected against water penetration)
	Short circuit current :	114,5 kA for 1 sec. (Ti: 90°C, Tf:250°C)
	2. CONDUCTOR SCREEN	
	Material :	Extruded thermosetting sc compound
	Thickness :	approx. 1 mm
	3. INSULATION	
Material :	Cross linked polyethylene (XLPE)	
Thickness :	nom. 13	
4. INSULATION SCREEN		
Material :	Extruded thermosetting sc compound	
Thickness :	approx. 1 mm	
CROSS LINKING PROCESS		
Application :	Completely dry curing and cooling	
5. SEMI CONDUCTIVE WATER BLOCKING TAPE		
6. METAL SCREEN		
Material :	Copper wires + copper tape contact helix	
Cross section :	nom. 150 mm ² (geometrical)	
7. WATER BLOCKING TAPE		
8. RADIAL WATER BARRIER		
Material :	PE laminated aluminium tape	
Thickness :	approx. 0,2 mm (Al tape)	
Application :	Longitudinally	
9. OUTER SHEATH		
Material :	HDPE - Type ST7 according to IEC 60840	
Thickness :	nom. 3,3 mm	
Colour :	Black It has anti rodent additive	
10. EXTRUDED SC LAYER		
Thickness :	approx. 0,8 mm	
Colour :	Black	
Cable Diameter :	approx. 81 mm	
Cable Weight :	approx. 12120 kg/km	

Maximum Pulling Force : 50 N/mm²
Minimum Bending Radius : 20xD (During laying)
 20xD (fixed installation without former)

Notes:

1- Design data subject to change inline with the design improvements with prior information to customer.

2- The picture shown is not to scale and may not necessarily be an accurate reproduction of the exact cable design.

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Manufacturer's quality management system shall be evaluated by certificate	:	ISO 9001
Manufacturer's environmental management system shall be evaluated by certificate	:	ISO 14001
Highest operating ambient temperature shall be not less than, °C	:	40
Lowest operating ambient temperature shall be not higher than, °C	:	- 40
Highest instalation ambient temperature shall be not less than, °C	:	40
Lowest instalation ambient temperature shall be not higher than, °C	:	- 5
Site altitude above sea level, m	:	≤ 1000
Network frequency, Hz	:	50
Lighting impulse withstand voltage (1.2/50us), kV	:	550
Main insulation withstand voltage (impact duration 30 min.), kV	:	160
Partial discharge level making tests according to IEC 60840 shall be, pC	:	max. 5
Cable outer sheath with its outer layer insulation withstand voltage (impact duration 1 min.), kV	:	10 kV DC
1m lenght and 1 mm ² cross section copper conductor's DC resisitance at +20°C , Ω	:	max. 0,0221 (for 800mm ² Copper Conductor)
1m lenght and 1 mm ² cross section aluminum conductor's DC resisitance at +20°C , Ω	:	max. 0,0367 (for 800mm ² Aluminum Conductor)
Cable outer sheath and its outer layer shall be	:	Protected against rodents and resistant to ultraviolet rays
Calculated nominal electrical stress at conductor screen according to IEC 60840 shall be, kV/mm	:	≤ 8
Calculated nominal electrical stress at insulation according to IEC 60840 shall be, kV/mm	:	≤ 4
The resistivity of the conductor screen shall be not bigger than , Ω.m	:	max. 1000
The resistivity of the insulation screen shall be not bigger than , Ω.m	:	max. 500
Longitudinal protection against water penetration (layers on the both sides of the screen and between conductor wires)	:	Swelling yarns in conductor, semi-conductive water blocking tape over conductor & semi-conductive water blocking tape under screen and water blocking tape over screen
Radial protection against water penetration	:	PE Laminated Aluminum Tape
Minimum bending radius at installation, cable diameters (D), pcs.	:	≥ 20
Minimum bending radius at installed, cable diameters (D), pcs.	:	≥ 20
The resistivity of the conductor screen shall be not bigger than, Ωm	:	1000
The resistivity of the main insulation screen shall be not bigger than, Ωm	:	500