

# TECHNICAL SPECIFICATION

# for Longitudinally Sealed Single Core Cables type $2XS(F)2Y = 1 \times 300RM/35 \text{ mm}^2 = 19/33(36)kV$ acc. to NPS/002/021 / G-125983 /

### **CONSTRUCTION**

- □ Round, stranded and compacted conductor -Class 2
- Extruded semi-conductive conductor screen
- Insulation XLPE
- ☐ Extruded semi-conductive insulation screen
- ☐ Semi-conductive swelling tape(s)
- ☐ Metallic screen
- □ Non-conductive swelling tape(s)
- Outer sheath



## APPLICATION

- □ Laying in ground
- □ Laying in air
- □ Laying in ducts

# **TEMPERATURE**

### **Conductor**

- □ Continuous operation 90 °C
- □ Short circuit 250 °C (duration max 5 s)

The picture is informative only – not in scale

	DESCRIPTION	UNIT	DETAILS /1	
CONSTRUCTION DATA				
Conductor				
	Material	-	Copper	
	Nominal cross sectional area	$mm^2$	300	
	Number of wires	No	acc. to EN 60228	
	Conductor diameter	mm	acc. to EN 60228	
	Longitudinally sealed	-	No	
Conductor screen / 2				
	Material	-	semi-cond. polyethylene	
	Minimum at point radial thickness	mm	0.3	
Insulation /2				
	Material	-	XLPE	
	Minimum average / minimum at point radial thickness	mm	<b>8.0</b> / 7.1	
	Diameter over insulation	mm	37.7	
Insulation screen / 2				
	Type	-	FULL BONDED	
	Material	-	semi-cond. polyethylene	
	Minimum at point radial thickness	mm	0.3	
Metallic screen				
	Wrapping under Metallic Screen – Material	-	semi - cond. swelling tape(s)	
	Metallic screen - Material	-	Copper (wires and equalizing tape)	
	Diameter over metallic screen	mm	41.8	
	Cross sectional area	$mm^2$	35	
	Wrapping over Metallic Screen - Material		non-cond. swelling tape(s)	
Sheath				
	Material	-	MDPE – colour BLACK	
	Minimum average /minimum at point radial thickness	mm	<b>2.4</b> / 1.94	
	Diameter over sheath - (D <sub>k</sub> )	mm	47.7	

<sup>&</sup>lt;sup>1</sup> - Diameters are calculated values and subject to manufacturing tolerances

<sup>&</sup>lt;sup>2</sup> - Triple extrusion processes, Dry curing and cooling.

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DESCRIPTION	UNIT	DETAILS /1		
Weight of complete cable (approx.)	kg/km	4 140		
ELECTRICAL DATA at 50Hz				
SHORT CIRCUIT CURRENTS				
Max Short Circuit Capacity:				
□ conductor: $90 \rightarrow 250  ^{\circ}\text{C}$	kA / 1 s	42.9		
□ metallic screen: → acc. to BS 7870-4.10	kA / 1 s	4.5		
AMPACITY (In) <sup>/3</sup> BOTH-ENDS BONDING (BE)				
GROUND				
□ FLAT formation	A	586		
□ TREFOIL formation	A	596		
AIR	A	750		
MECHANICAL DATA				
Recommended min. bending radius for laying	m	<b>20 * D<sub>k</sub></b> * 10 -3		
Recommended permissible bending radius at final installation	m	<b>20 * D<sub>k</sub></b> * 10 <sup>-3</sup>		
Maximum Cable Pulling Force: /4	kN	<b>50</b> * (No * cross sectional) conductor * 10 <sup>-3</sup>		
		$But \leq 20 \text{ kN}$		
Lowest recommended temperature during laying:	°C	≥0		
DELIVERY DATA				
Length per drum / Diameter (Type) of wooden drum	m/m	<b>540</b> / 2.0 (20)		
		<b>1140</b> / 2.4 (24)		
		<b>1300</b> / 2.4 (24A)		

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GROUND:

Ground temperature
Laying depth
Ground thermal resistivity

AIR (SHADED Cable):
Air temperature
25 °C

 $<sup>^{/4}</sup>$  - Cable pulling forces by its conductor