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Electrification Project**

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TECHNICAL SPECIFICATION**

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ACSR LYNX GUARANTEED TECHNICAL SPECIFICATION

CODE NAME			ACSR 183 AL1 / 43 ST1A
STANDARD			BS 215-EN 50182
CONSTRUCTION			7x2.79 mm ST1A, 30x2.79 mm AL1
CROSS-SECTIONAL AREA ALUMINIUM	mm ²		183.4
CROSS-SECTIONAL AREA STEEL	mm ²		42.8
TOTAL CROSS-SECTIONAL AREA	mm ²		226.2
UNIT ALUMINIUM WEIGHT	kg/km		506.9
UNIT STEEL WEIGHT	kg/km		334.7
UNIT NET WEIGHT (without grease)	kg/km		841.6
CALCULATED RESISTANCE 20 °C DC	Ω/km		0.1576
MODULUS OF ELASTICITY FINAL	kg/ mm ²		82.000
COEFFICIENT OF LINEAR EXPANSION PER	°C		17.8x10 ⁻⁶
MINIMUM BREAKING	kN		79.97
GREASING CASE			CASE 2 – All the conductor is greased except outer layer
GREASING STANDARD			EN 50326
DROP POINT OF GREASE			°C 150
WEIGHT OF GREASE (±20%)			kg 25,5
LAY RATIO	AL	First Layer Second Layer	10-14 10-16
	ST	First Layer	16-26
DIRECTION OF LAY	AL	First Layer Second Layer	Right Left
	ST	First Layer	Right
LENGTH OF EACH DRUM			Customer Request (±%2) meters
ALUMINIUM WIRE			
DIAMETER	mm		2.79 ± 0.03
BENDING BEFORE TENSILE STRENGTH	MPa		170 Min.
BENDING AFTER TENSILE STRENGTH	MPa		162 Min.
RESISTIVITY (20°C)	nΩm		28.264 Max
CONDUCTIVITY at 20°C	%IACS		61
WRAPPING TEST			8 turns on wire dia, 6 turns back, 6 turns re-turn – no cracks must appear
STEEL CORE			
DIAMETER OF SINGLE WIRE	mm		2.79±0.05
BENDING BEFORE TENSILE STRENGTH	MPa		1350 Min.
BENDING AFTER TENSILE STRENGTH	MPa		1283 Min.
BENDING BEFORE MIN. STRESS % 1 ELONGATION	MPa		1140 Min.
BENDING AFTER MIN. STRESS % 1 ELONGATION	MPa		1083 Min.
BENDING BEFORE ELONGATION			3.5 % Min.
BENDING AFTER ELONGATION			3.0 % Min.
WRAPPING TEST			15 turns / min
WEIGHT OF ZINC COATING	g/m ²		230 Min.