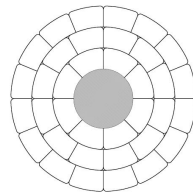


DATA SHEET: ROME



Version 0, PRELIMINARY

Conductor Type			LF ACCC 610			
Code Name			ROME			
Conductor values:						
Nominal aluminium equivalent area	mm²	619				
Nominal Cross-sectional area of aluminium	mm²	599,5				
Nominal Cross-sectional area of Core	mm²	71,3				
Number, diameter and type of Core	#, mm	1	9,53	R	CC	
Number, (eq.) diameter and type of wire in layer 1	#, mm	8	4,61	T	Al	
Number, (eq.) diameter and type of wire in layer 2	#, mm	12	4,60	T	Al	
Number, (eq.) diameter and type of wire in layer 3	#, mm	16	4,60	T	Al	
Minimum filling factor of the aluminium cross section	%	93				
Lay ratio of inner layer(s)		10-16				
Lay ratio of outer layer		10-14				
Overall diameter	mm	29,89				
Diameter of Core	mm	9,53				
Diameter tolerance of Core	mm	± 0,06				
Rated Tensile Strength of Conductor (RTS as per ASTM B 857) *	kN	187,5				
Extreme Load Safety Strength of Conductor (with 40% of the aluminium strength) **	kN	167,8				
Rated Tensile Strength of Core	kN	153,8				
Nominal Mass per unit length - Total	kg/km	1793,0				
Nominal Mass per unit length - Aluminium	kg/km	1661,1				
Nominal Mass per unit length - Core	kg/km	132,0				
DC resistance at 20 °C (nominal)	Ohm/km	0,0468				
DC resistance at 20 °C (maximum)	Ohm/km	0,0478				
DC current rating at maximum continuous surface operating temperature *** (calculated with maximum DC resistance at 20°C)	A, °C	1911	175			
Maximum allowable continuous operating temperature (surface)	°C	175				
Maximum allowable continuous operating temperature (core)	°C	180				
Coefficient of linear expansion above thermal kneepoint	/ K	0,00000161				
Coefficient of linear expansion below thermal kneepoint	/ K	0,0000187				
Modulus of elasticity above thermal kneepoint	GPa	118,6				
Modulus of elasticity below thermal kneepoint	GPa	63,1				
Individual wires:						
Resistivity of aluminium at 20 °C (maximum)	nohmm	27,35				
Minimum tensile strength, aluminium wire	MPa	58,6				

Standard applied for conductor manufacturer: EN50182

* Note ASTM calculates aluminium strength at 96% of the minimum Tensile Strength of the aluminium wire

** This safety strength is recommended where sustained loads of over 80% of the RTS are expected for prolonged periods. For further information, please see the ACCC Conductor Technical Note TN-750-001.

*** Conditions: Wind : 0,6m/s; emissivity= abs.Coef. = 0,5; sun radiation : 1000W/m²; Ambient temperature: 25 °C