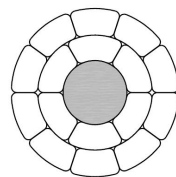


DATA SHEET: HELSINKI



Version 1, 10/10/'08

Conductor Type		LF ACCC 160				
Code Name		HELSINKI				
Conductor values:						
Nominal aluminium equivalent area	mm²	159				
Nominal Cross-sectional area of aluminium	mm²	153,7				
Nominal Cross-sectional area of Core	mm²	28,0				
Number, diameter and type of Core	#, mm	1	5,97	R	CC	
Number, (eq.) diameter and type of wire in layer 1	#, mm	6	3,51	T	Al	
Number, (eq.) diameter and type of wire in layer 2	#, mm	10	3,49	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	15,65				
Diameter of Core	mm	5,97				
Diameter tolerance of Core	mm	± 0,06				
Rated Tensile Strength of Conductor (RTS as per ASTM B 857) *	kN	69,1				
Extreme Load Safety Strength of Conductor (with 40% of the aluminium strength) **	kN	64,0				
Rated Tensile Strength of Core	kN	60,4				
Nominal Mass per unit length - Total	kg/km	479,7				
Nominal Mass per unit length - Aluminium	kg/km	425,6				
Nominal Mass per unit length - Core	kg/km	54,0				
DC resistance at 20 °C (nominal)	Ohm/km	0,1825				
DC resistance at 20 °C (maximum)	Ohm/km	0,1861				
DC current rating at maximum continuous surface operating temperature *** (calculated with maximum DC resistance at 20°C)	A, °C	805		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	0,0000171				
Modulus of elasticity above thermal kneepoint	GPa	118,6				
Modulus of elasticity below thermal kneepoint	GPa	66,1				
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