

Schedule Of Technical Particulars

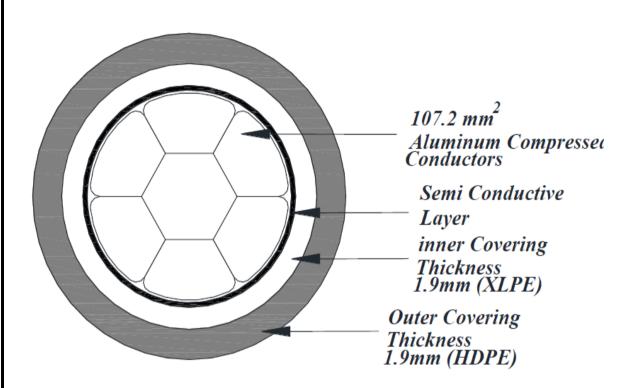
Item code T - 3299

107.2mm (4/0 AWG) Tree Wire for 15kv Overhead System

General

1	Manfacturers name & address	\rightarrow	Allied Cables Ltd	
2	Conductor Type	\rightarrow	107.2mm (Oxlip)	
3	Standards Applicable	\rightarrow	Customer Specification, ASTM B 230, ASTM B 231	
4	Number of Strands in the Conductor	\rightarrow	7	
5	Diameter of Wire Strands	\rightarrow	4.42	mm
6	Conductor Type	\rightarrow	H - 19 Aluminium	
7	Shape of the Conductor	\rightarrow	Circular Stranded Compressed	
8	Max Linear dc Resistance of total conducotr at 20°C	\rightarrow	0.282	Ω /km
9	Minimum Breaking strength of total conductor	\rightarrow	17	kN
10	Nominal Diameter of compressed conductor	\rightarrow	12.80	mm
11	Lay Ratio	\rightarrow	Max	16
		\rightarrow	Min	8
12	Lay Direction	\rightarrow	RH	
13	Conductor Screen - Layer 01			
а	Place of Screen	\rightarrow	Around the Conductor	
b	Material of Screen	\rightarrow	Semi Conductive XLPE	
С	Process	\rightarrow	Longitudinally Extruded Layer	
d	Nominal Thickness of Screen	\rightarrow	0.5mm (min 0.4mm)	
14	Inner Covering - Layer 02			
а	Type of Covering Insulation	\rightarrow	XLPE	
b	Colour of Covering Insulation	\rightarrow	Natural	
С	Average Thickness of Covering Insulation	\rightarrow	1.9	mm
d	Minimum Thickness of Covering Insulation	\rightarrow	1.7	mm
15	Outer Covering - Layer 03			
а	Type of Covering Outer Covering	\rightarrow	HDPE	
b	Colour of Covering Outer Covering	\rightarrow	GREY	
С	Average Thickness of Outer Covering	\rightarrow	1.9	mm
d	Minimum Thickness of Outer Covering	\rightarrow	1.7	mm
16	Approximate over all Diameter of Covered Conductor	\rightarrow	21.60	mm
17	Continuous Operating Temperature	\rightarrow	80	°C
18	Permitted Temperature at Emergency Operation	\rightarrow	100	°C
19	Co-Efficient of Linear Expansion	\rightarrow	23 x 10 ⁻⁶	°C
20	Modules of Elasticity	\rightarrow	65	Gpa
21	Current Carrying Capacity @ 30C Ambient & Conductor temp 80C, wind speed 1 m/s	→	429	A
22	Embossing Detail	\rightarrow	ACL AL/XLPE/HDPE 4/0 AWG 15kv	
			with Meter Marking	

R.A Arunajith Perera Electrical Engineer Techinical Services Department ACL



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Allied Cables Ltd

Allied Works, Liverpool Road, Warrington, Cheshire WA5 1AP

Allied Cables

107.2mm² (4/0 AWG) AAC/XLPE/HDPE TREE WIRE for 15kv LINE

Item Code: T - 3299

Checked: Eng EX Approved: EE(TSD)

Date: 23-Aug-11 **Scale:** not to scale