

Schedule Of Technical Particulars

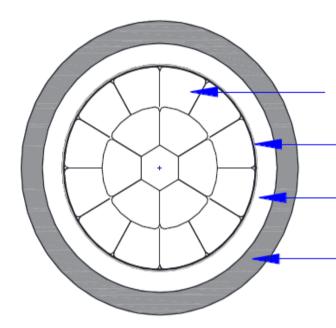
Item code T - 3298

170mm (336.4kcmils) Tree Wire for 15kv Overhead System

General

1	Manfacturers name & address	\rightarrow	Allied Cables Ltd	
2	Conductor Type	→	170mm (Tulip)	
3	Standards Applicable	\rightarrow	Customer Specification, ASTM B 230, ASTM B 231	
4	Number of Strands in the Conductor	\rightarrow	19	
5	Diameter of Wire Strands	\rightarrow	3.38	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	0.177	Ω /km
9	Minimum Breaking strength of total conductor	\rightarrow	27.3	kN
10	Nominal Diameter of compressed conductor	\rightarrow	16.40	mm
11	Lay Ratio 6 Layer	\rightarrow	Max	16
		\rightarrow	Min	8
	Lay Ration 12 Layer	\rightarrow	Max	16
		→	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			
a	Type of Covering Outer Covering	\rightarrow	HDPE	
b	Colour of Covering Outer Covering	\rightarrow	GREY	
С	Average Thickness of Outer Covering	→	1.9	mm
d	Minimum Thickness of Outer Covering	\rightarrow	1.7	mm
16	Approximate over all Diameter of Covered Conductor	\rightarrow	25.00	mm
17	Continuous Operating Temperature	→	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	\rightarrow	534	A
	temp 80C, wind speed 1 m/s			
22	Embossing Detail	\rightarrow	ACL AL/XLPE/HDPE 170 SQMM 15kv	
			with Meter Marking	

R.A Arunajith Perera Electrical Engineer Techinical Services Department ACL



170 mm2 Aluminum
Compressed Conductor
Semi-conductive
layer

Inner Covering
Thickness 1.9 mm (XLPE)

Outer Covering
Thickness 1.9 mm (HDPE)

R.A Arunajith Perera Electrical Engineer Technical Services Department ACL

Allied Cables

Allied Cables Ltd

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

170mm² AAC/XLPE/HDPE TREE WIRE for 15kv LINE

Item Code: T - 3298

Checked: Eng EX Approved: EE(TSD)

Date:12-May-17Scale:not to scale