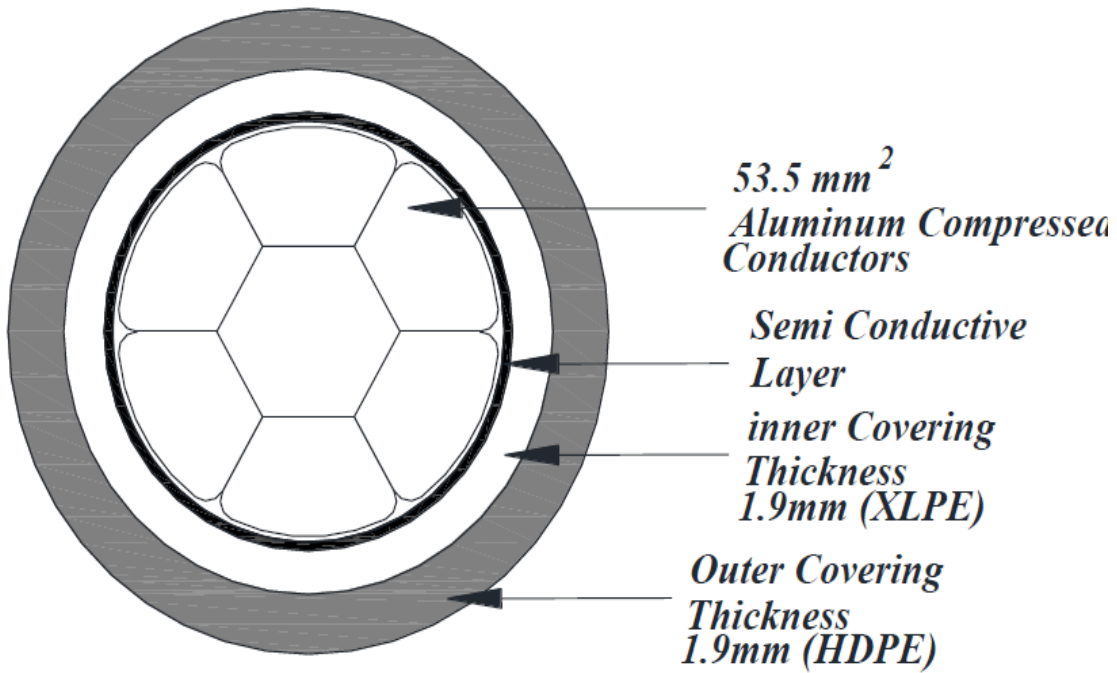


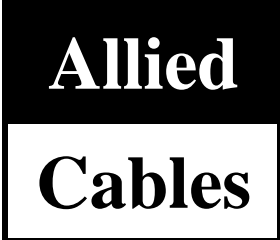
**53.5mm (1/0 AWG) Tree Wire for 15kv Overhead System****General**

1	Manufacturers name & address	→	Allied Cables Ltd
2	Conductor Type	→	53.5mm (Poppy)
3	Standards Applicable	→	Customer Specification, ASTM B 230, ASTM B 231
4	Number of Strands in the Conductor	→	7
5	Diameter of Wire Strands	→	3.12 mm
6	Conductor Type	→	H - 19 Aluminium
7	Shape of the Conductor	→	Circular Stranded Compressed
8	Max Linear dc Resistance of total conductor at 20°C	→	0.565 Ω/km
9	Minimum Breaking strength of total conductor	→	8.84 kN
10	Nominal Diameter of compressed conductor	→	9.00 mm
11	Lay Ratio	→	Max 16 Min 8
12	Lay Direction	→	RH
13	Conductor Screen - Layer 01		
a	Place of Screen	→	Around the Conductor
b	Material of Screen	→	Semi Conductive XLPE
c	Process	→	Longitudinally Extruded Layer
d	Nominal Thickness of Screen	→	0.5mm (min 0.4mm)
14	Inner Covering - Layer 02		
a	Type of Covering Insulation	→	XLPE
b	Colour of Covering Insulation	→	Natural
c	Average Thickness of Covering Insulation	→	1.9 mm
d	Minimum Thickness of Covering Insulation	→	1.7 mm
15	Outer Covering - Layer 03		
a	Type of Covering Outer Covering	→	HDPE
b	Colour of Covering Outer Covering	→	GREY
c	Average Thickness of Outer Covering	→	1.9 mm
d	Minimum Thickness of Outer Covering	→	1.7 mm
16	Approximate over all Diameter of Covered Conductor	→	17.60 mm
17	Continuous Operating Temperature	→	80 °C
18	Permitted Temperature at Emergency Operation	→	100 °C
19	Co-Efficient of Linear Expansion	→	23 x 10 <sup>-6</sup> °C
20	Modules of Elasticity	→	65 Gpa
21	Current Carrying Capacity @ 30C Ambient & Conductor temp 80C, wind speed 1 m/s	→	251 A
22	Embossing Detail	→	ACL AL/XLPE/HDPE 1/0 AWG 15kv with Meter Marking

**R.A Arunajith Perera****Electrical Engineer****Technical Services Department****ACL**



R.A Arunajith Perera  
Electrical Engineer  
Technical Services Department  
ACL



**Allied Cables Ltd**

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

**53.5mm<sup>2</sup> (1/0 AWG) AAC/XLPE/HDPE  
TREE WIRE for 15kv LINE**

**Item Code: T - 3300**

Checked: Eng EX

Approved: EE(TSD)

Date:

23-Aug-11

Scale:

not to scale