

Aluminium Conductor - AAC BLUEBONNET - 127/4.22mm WITHOUT Grease

1 General

i) Manufacturers name & address	→	Allied Cables Ltd
ii) Conductor Type	→	AAC - BLUEBONNET
iii) Standards Applicable	→	ASTM B 231, ASTM B 230

2 Aluminium Wire (1350 - H19)

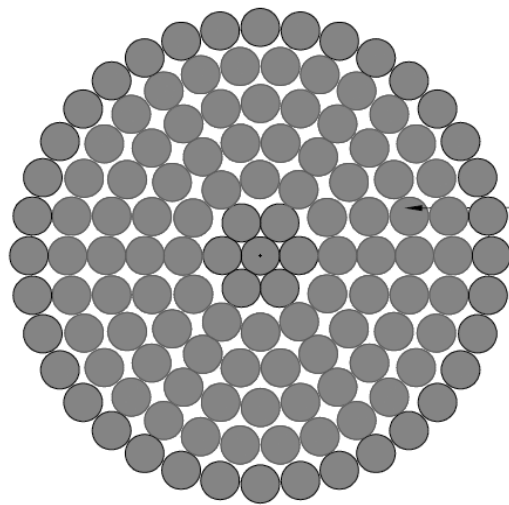
i) Diameter	→	4.22	mm
ii) Sectional area of Aluminium	→	14.00	mm
iii) Density	→	2700	kg/m ³
iv) Resistivity at 20°C	Max →	2.8172	μΩ.m
v) Coefficient of liner expansion	→	23 x 10	/°C
vi) Breaking load (calculated)	Min →	2.31	kN
vii) DC resistance at 20°C (calculated)	Max →	2.014	Ω/km

3 AAC Conductor

i) Aluminium Wires	→	127	
ii) Overall diameter	→	54.90	mm ²
iii) Nominal Area	→	1776	mm ²
iv) Total Sectional Area	→	1700	mm ²
v) Lay ratio for core (6 wire layer)	Max →	16	
	Min →	10	
Lay ratio for core (12 wire layer)	Max →	16	
	Min →	10	
Lay Ratio for core (18 wire layer)	Max →	16	
	Min →	10	
Lay ratio for core (24 wire layer)	Max →	16	
	Min →	10	
Lay ratio for core (30 wire layer)	Max →	16	
	Min →	10	
Lay ratio for core (36 wire layer)	Max →	16	
	Min →	10	
vi) Lay direction (outer layer)	→	Right Hand	
vii) Calculated Breaking Load	→	261	kN
viii) DC resistance at 20°C	Max →	0.01649	Ω/km
ix) Final Calculated Modules of elasticity	→	55	Gpa
x) Coefficient of linear expansion	→	23 x 10	/°C
xi) Approximate Mass (ecluding grease)	→	4910	kg/km

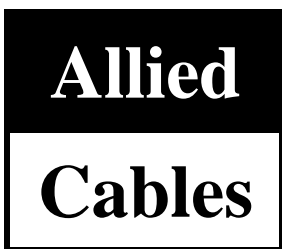
*** Lay ratio of any layer shall be equal to or less than the lay ratio of the layer immediately beneath it.

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Technical Services Department
ACL



127/4.22mm AL
H-19 AL Wires

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127/4.22 AAC - BLUEBONNET - UNGREASED

Item Code: G - 516

Checked: Eng.EX.

Approved: EE (TSD)

Date:

30-Jan-18

Scale:

not to scale