

### All Aluminium Alloy Conductor - AAC (CICADA) -37/4.65mm<sup>2</sup>

#### 1 General

i) Manufacturers name & address	→	Allied Cables Ltd
ii) Conductor Type	→	AAC - CICADA
iii) Standards Applicable	→	BS EN 50182:2001

#### 2 Aluminium Wire

i) Diameter	→	4.65	mm
ii) Sectional Area Of Aluminium	→	16.98	mm <sup>2</sup>
iii) Density	Max	→	2700 kg/m <sup>3</sup>
iv) Resistivity At 20°C	→	2.8264	μΩ.m
v) Coefficient of liner expansion	→	23 x 10	/°C
vi) Breaking Load	Min	→	2.7 kN
vii) DC Resistance At 20°C	Max	→	1.664 Ω/km

#### 3 AAC Conductor

i) Aluminium Wires	→	37	
ii) Overall diameter	→	32.55	mm
iii) Nominal Aluminium Area	→	600	mm <sup>2</sup>
iv) Total Sectional Area	→	628.34	mm <sup>2</sup>
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	→	14
	Min	→	10
vi) Calculated Breaking Load	→	100.54	kN
vii) DC resistance at 20°C	Max	→	0.0459 Ω/km
viii) Final Calculated Modules of elasticity	→	56	Gpa
ix) Coefficient of linear expansion	→	23 x 10	/°C
x) Approximate Mass per KM	→	1733	kg/km

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