

### Covered Conductor AAC / PVC - COCKROACH

#### 1 General

i) Manufacturers name	→	Allied Cables Ltd
ii) Conductor Type	→	PVC Covered AAC (Cockroach Covered)
iii) Standards Applicable	→	BS215 Part 1:1970, Customer Specification BS6485

#### 2 Aluminium Wire

i) Diameter	→	4.22	mm
ii) Sectional Area	→	13.99	mm <sup>2</sup>
iii) Density	→	2700	kg/m <sup>3</sup>
iv) Resistivity at 20°C	Max →	2.8264	μΩ.cm
v) Breaking Load	Min →	2.24	kN
vi) Coefficient of liner expansion	→	23 x 10 <sup>-6</sup>	/°C
vii) DC Resistance at 20°C	Max →	2.021	Ω/km

#### 3 AAC Conductor

i) Aluminium Wires	→	19	
ii) Overall diameter	→	21.10	mm <sup>2</sup>
iii) Nominal Aluminium Area	→	250.0	mm <sup>2</sup>
iv) Total Sectional Area	→	265.7	mm <sup>2</sup>
v) Lay ratio for core (6 wire layer)	Max →	16	
	Min →	10	
Lay ratio for core (12 wire layer)	Max →	14	
	Min →	10	
vi) Calculated Breaking Load	→	40.4	kN
vii) DC resistance at 20°C	Max →	0.1083	Ω/km
viii) Final Calculated Modules of elasticity	→	56	Gpa
ix) Coefficient of linear expansion	→	23 x 10 <sup>-6</sup>	/°C

#### 4 AAC / PVC Conductor

i) Type of Covering	→	PVC Type T11	
ii) Covering Thickness	Nom →	1.9	
	Min →	1.6	
iii) Color of Covering	→	Black	
iv) Overall Diameter	Appro →	24.9	mm
v) Printing Details	→	ROWAN CABLE PRODUCTS - 091/010319 250 MM RSC PROPERTY OF NETWORK RAIL	
vi) Other Marking	→	Meter Marking	

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