



## Caledonian

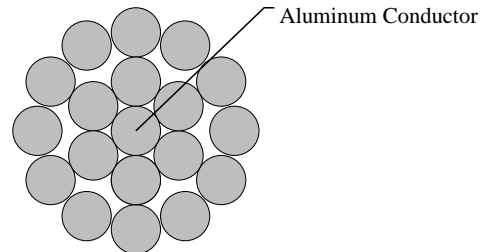
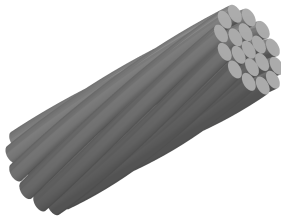
Aluminium Conductor Cables

[www.caledonian-cables.com](http://www.caledonian-cables.com)

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### All Aluminum Conductor (AAC) Cables

Beetle 100



### APPLICATIONS

AAC conductor is also known as aluminium stranded conductor. It is manufactured from electrolytically refined aluminium, with a minimum purity of 99.7%.

### STANDARDS

BS EN 50182

### CABLE CONSTRUCTION

Concentric lay stranded Aluminium Conductor ( AAC) is made up of one or more strands of hard drawn 1350 aluminum alloy. These conductors are used in low, medium and high voltage overhead lines. AAC has seen extensive use in urban areas where spans are usually short but high conductivity is required. The excellent corrosion resistance of aluminium has made AAC a conductor of choice in coastal areas. Because of its relatively poor strength to weight ratio, AAC had limited use in transmission lines and rural distribution because of long spans utilized. All aluminium conductors are made up of one or more strands of aluminium wire dep.

### PHYSICAL AND THERMAL PROPERTIES

Ambient Temperature: -5°C - 50°C

Isokeraunic level: 10 - 18

Relative Humidity: 5 - 100%

#### Electrical Properties

Density@20°C: 2.703 kg/dm

Temperature Coefficient@20°C: 0.00403 (°C)

Resistivity@20°C :0.028264

Linear Expansivity: 23 x10-6 (°C)

Rated Strength: 18.08KN

Electrical Resistance:0.2701Ω/Km

Current Rating: 269A

### MECHANICAL PROPERTIES

Wind Pressure: 80 - 130kg/m<sup>2</sup>



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Seismic Acceleration: 0.12 - 0.05g

## DIMENSION AND PARAMETERS

Nominal Area	Nominal Area Teorical	No./Nominal Diameter of Strands	Conductor Diameter	Cable Weight
mm <sup>2</sup>	mm <sup>2</sup>	no./mm	mm	kg/km
100	106.4	19/2.67	13.35	292