AAC

AAC aluminium 1350 Series

GENERAL INFORMATION

The AAC aluminum cables are built with series 1350 pure aluminum wires at H19 hardness twisted helically from 7 and more wires in concentric layers.

FEATURES

- The AAC cables, of pure aluminum series 1350 are built with H19 hard wires helically twisted. The pure aluminum has limited mechanical tension capacity, high thermal expansion coefficient and the highest conductivity among aluminum cables (62% IACS).
- The cables built with aluminum series 1350 are classified as follows:

1. Clase AA: Bare cables utilized in power distribution networks with limited flexibility (more rigid).
2. Clase A: Cables built to be insulated with environment capable polymers to be used in Aerial Service entrance cables where higher flexibility than class AA cables is required.

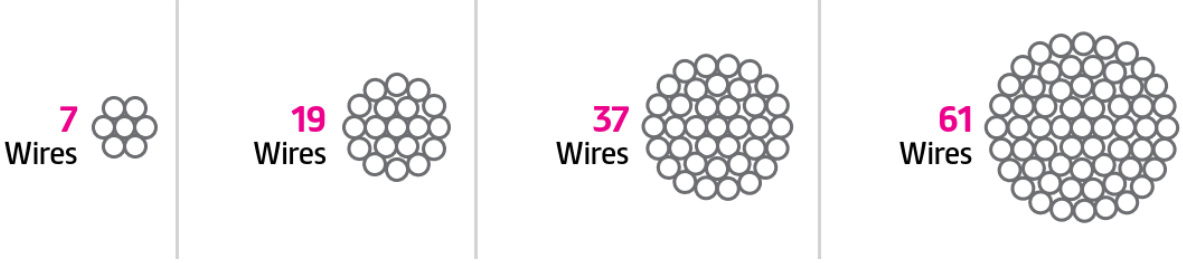
CERTIFICATIONS AND DESIGN STANDARDS

Standards of design: ASTM B230 and ASTM B231
Certifications: CIDET 03537

CABLE DESIGN

Conductor material	Aluminium

AAC CABLE CONFIGURATIONS



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INSTALLATION DETAILS

Application — Power Distribution

SPECIFIC APPLICATIONS

- The pure aluminum cables are designed to be installed in residential or industrial power distribution exposed systems and feed up networks. Also used on high voltage transmission lines in shorter lengths with low mechanical tension.
- Due to the aluminum high oxide reactivity the cables form a surface protective shield from environmental conditions allowing a good performance in aerial circuits.
- Due to aluminum low density the cables provide a high current capacity per metal weight, compared to copper, allowing high power transfer with less metal.
- The pure aluminum is a good conductor but is mechanically limited with high thermal expansion causing conductor reduce spam lengths requiring additional care on cable sag due to high conductor temperatures.

PRODUCT CHARACTERISTICS

Type	Nominal cross section conductor AWG [kcmil]	Nominal cross section conductor [mm²]	Conductor strand count	Cable weight [kg/km]	Diameter conductor [mm]	Conductor resistance at 20° C [Ohm/km]
Peachbell	6	13.3		36	4.66	2.212
Rose	4	21.15		58	5.88	1.391
Iris	2	33.62		90.5	7.42	0.874
Poppy	1/0	53.51		145	9.36	0.55
Aster	2/0	67.44		183.1	10.51	0.436
Phlox	3/0	85.02		230.84	11.8	0.345
Oxlip	4/0	107		291.1	13.25	0.274
Daisy	226	135		367.98	14.88	0.218
Laurel	266	135		375	15.05	0.218
Tulip	336	171		464.89	16.9	0.172
Canna	397	201		549.32	18.38	0.146
Cosmos	477	242		659.19	20.12	0.122
Dahlia	556	282		769.06	21.73	0.104
Mistletoe	556	282		770.93	21.8	0.104
Petunia	750	380		1,038.99	25.32	0.077
Magnolia	954	483		1,329.41	28.55	0.064
Gladiolus	1510	765		2,095.82	35.98	0.038

The conductor operating amperage is defined by the installation condition and operating temperatures identified. See Table 1 on Ampacities for Aluminum & ACSR Overhead Electrical Conductors issued by the Aluminum Association. Note: The values given may vary according to the manufacturing tolerances.