



Overview

The ASTM B231 25kV Aerial Cable AAC (compact) with a 3-layer track-resistant XLPE is engineered for optimal performance in tree wire and spacer cable configurations. It is manufactured, tested, and marked in compliance with ICEA S-121-733, the standard for Tree Wire and Messenger Supported Spacer Cable. This advanced cable system includes a conductor shield (layer #1) and a 2-layer covering (layers #2 and #3).

Application

Designed for overhead primary and secondary distribution systems rated at 25 kV (nominal), this aerial cable is ideal for environments where contact with trees or space constraints pose a risk. The track-resistant 3-layer system effectively prevents short-circuits and flashovers caused by contact with trees or wildlife, significantly reducing the risk of system outages, damage, or fires.

Tree Wire: In tree wire systems, the cable is installed flatly with proper spacing on insulators, similar to bare or covered overhead conductors. Self-supporting conductors like ACSR are typically used in these installations.

Spacer Cable: In spacer cable systems, the cable is installed with uniform spacing in a diamond configuration maintained by spacer hardware. Supported by a bare messenger such as bare aluminum clad steel, ACSR, OPGW, or galvanized steel wire, spacer cable assemblies are ideal for narrow rights-of-way.

Construction

This cable features an AAC conductor with a sophisticated 3-layer extruded shield and covering system:

Conductor: AAC (1350-H19, compact stranded).

Conductor Shield: An extruded semiconducting thermoplastic shield that is free stripping from the conductor and bonded to the covering.

Inner and Outer Covering Layers: The inner layer is crosslinked polyethylene (XLPE), and the outer layer is track-resistant crosslinked polyethylene (TK-XLPE). All layers are tightly bonded together. The outer layer is available in black or gray, providing resistance to sunlight and tracking.

Specification

These cables are manufactured and tested to meet or exceed the following standards:

ASTM B230 – Aluminum 1350–H19 Wire for Electrical Purposes
ASTM B231 – Concentric-Lay-Stranded Aluminum 1350 Conductors

ASTM B400 – Compact Round Concentric-Lay-Stranded Conductors

ASTM D1248 – Polyethylene Plastics Extrusion Materials for Wire and Cable

ICEA S-121-733 – Tree Wire and Messenger Supported Spacer Cable

Eastful Cable Lab



We have CNAS Accredited Facility to assure conformity assessment services with a focus on quality, expertise, and customer satisfaction.

CNAS has international mutual recognition among IAF, ILAC, APLAC and PAC.

Accreditation

We meet the requirements of ISO9001, ISO14001, ISO45001 and ISO50001 and our cables have certificate of CCC, RoHS, CASC, UL, cUL, TUV Rheinland and CCS.



National Green Factory



Our facility has been awarded of National Green Factory by Ministry of Industry and Information Technology of China. We are committed to the development of high-end, intelligent and green manufacturing industry.

*The overall energy consumption level of green factories is better than the energy efficiency benchmark level.

● Technical Parameters

Item #	Conductor Size (AWG or kcmil)	Conductor Stranding	Conductor Diameter (in)	Conductor Shield Thickness (in)	Covering Thickness Inner Layer (in)	Covering Thickness Outer Layer (in)	Overall Diameter (in)	Weight Conductor (lb/FT)	Weight Net (lb/FT)	Rated Strength (lb/FT)
A1/0- 01AAC7-25X	1/0	7	0.336	0.015	0.125	0.125	0.866	98.9	318	1990
A2/0- 01AAC7-25X	2/0	7	0.376	0.015	0.125	0.125	0.906	124.8	358	2510
A3/0- 01AAC7-25X	3/0	7	0.423	0.015	0.125	0.125	0.953	157.2	408	3040
A4/0- 01AAC7-25X	4/0	7	0.475	0.015	0.125	0.125	1.005	198.4	468	3830
A266.8- 01AAC19-25X	266.8	19	0.537	0.015	0.125	0.125	1.067	250.1	542	4970
A336.4- 01AAC19-25X	336.4	19	0.603	0.015	0.125	0.125	1.133	315.5	631	6150
A397.5- 01AAC19-25X	397.5	19	0.659	0.015	0.125	0.125	1.189	372.9	709	7110
A477- 01AAC19-25X	477	19	0.722	0.015	0.125	0.125	1.252	446.8	806	8360
A556.5- 01AAC37-25X	556.5	37	0.780	0.020	0.125	0.125	1.320	521.3	911	9940
A636- 01AAC37-25X	636	37	0.835	0.020	0.125	0.125	1.375	596.1	1006	11400
A795- 01AAC37-25X	795	37	0.932	0.020	0.125	0.125	1.472	745.3	1191	13900

NOTES

1. Dimensions and weights are subject to standard manufacturing tolerances and are subject to change without notice.

2. Cables are manufactured, tested and marked to meet or exceed the requirements in ICEA S-121-733 for tree wire and messenger supported spacer cable suitable for installation and use in systems rated 25 kV.