Overview

This 35kV aerial cable, designed for both tree wire and spacer cable configurations, features a compact All Aluminum Alloy Conductor (AAAC) and a robust 3-layer track-resistant PE construction. Manufactured and tested in accordance with industry standards, such as ASTM B399, it ensures reliable performance in overhead distribution systems.

Application

Primary and Secondary Distribution: Tailored for overhead primary and secondary distribution systems rated at 35 kV, it effectively prevents faults due to contact or space limitations, minimizing system outages and damage.
Tree Wire Installation: Installed flatly on insulators, it resembles bare or covered overhead conductors, making it ideal for tree wire power systems where self-supporting conductors like AAAC are commonly used.
Spacer Cable Systems: Employed in spacer cable power systems, it features uniform spacing in diamond configurations supported by spacer hardware, occupying minimal space and maximizing efficiency in rights-of-way or narrow corridors.

Advantage

Reliability: Compliant with industry standards, this cable guarantees reliable performance in overhead distribution systems.
Durability: The AAAC conductor and PE insulation ensure long-term durability, even in harsh environmental conditions.
Efficiency: The track-resistant PE construction minimizes the risk of system outages and damage, ensuring uninterrupted power supply to consumers.

Construction

Conductor: All Aluminum Alloy Conductor (AAAC), compactly stranded for optimal conductivity and corrosion resistance.
Conductor Shield: Extruded semiconducting thermoplastic shield, seamlessly bonded to the conductor, ensuring efficient power transmission and protection against external factors.
Inner Covering: Consists of low-, medium-, or high-density polyethylene (LDPE, MDPE, or HDPE), providing superior insulation and mechanical protection.
Outer Covering: Track-resistant medium- or high-density polyethylene (TK-MDPE or TK-HDPE), offering enhanced resistance to environmental stresses such as tracking and sunlight exposure. The outer layer, available in black or gray, ensures both sunlight resistance and track resistance.

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 B399 – Concentric-Lay-Stranded Aluminum Alloy 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, TÜV Rhineland 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	Equivalent AAC	Conductor Stranding	Conductor Diameter	Conductor Shield Thickness
	AWG or kcmil	AWG or kcmil		inch	inch
A4- 01AAAC7-35	48.69	4	7	0.250	0.015
A2- 01AAAC7-35	77.47	2	7	0.316	0.015
A1/0- 01AAAC7-35	123.3	1/0	7	0.398	0.015
A2/0- 01AAAC7-35	155.4	2/0	7	0.447	0.015
A3/0- 01AAAC7-35	195.7	3/0	7	0.502	0.015
A4/0- 01AAAC7-35	246.9	4/0	7	0.563	0.015
A266.8- 01AAAC19-35	312.8	266.8	19	0.642	0.015
A336.4- 01AAAC19-35	394.5	336.4	19	0.721	0.015
A397.5- 01AAAC19-35	465.4	397.5	19	0.783	0.015
A477- 01AAAC19-35	559.5	477	19	0.858	0.020
A556.5- 01AAAC19-35	652.4	556.5	19	0.927	0.020

Item #	Covering Thickness Inner Layer	Covering Thickness Outer Layer	Overall Diameter	Conductor Weight	Total Weight	Rated Strength
	inch	inch	inch	lb/FT	lb/FT	lb/FT
A4- 01AAAC7-35	0.175	0.125	0.88	45.4	290	**1760**
A2- 01AAAC7-35	0.175	0.125	0.946	72.24	345	**2800**
A1/0- 01AAAC7-35	0.175	0.125	1.028	114.9	423	**4270**
A2/0- 01AAAC7-35	0.175	0.125	1.077	144.9	474	**5390**
A3/0- 01AAAC7-35	0.175	0.125	1.132	182.5	536	**6790**
A4/0- 01AAAC7-35	0.175	0.125	1.193	230.2	610	**8560**
A266.8- 01AAAC19-35	0.175	0.125	1.272	291.6	705	**10500**
A336.4- 01AAAC19-35	0.175	0.125	1.351	367.9	816	**13300**
A397.5- 01AAAC19-35	0.175	0.125	1.413	433.9	909	**15600**
A477- 01AAAC19-35	0.175	0.125	1.498	521.7	1039	**18800**
A556.5- 01AAAC19-35	0.175	0.125	1.567	608.3	1156	**21900**

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 35 kV.