



Overview

The ASTM B232 25kV Aerial Cable ACSR (compact) with a 3-layer track-resistant XLPE is designed for use in tree wire and spacer cable configurations. It is manufactured, tested, and marked in accordance with ICEA S-121-733, which sets the standard for Tree Wire and Messenger Supported Spacer Cable. This cable features a 3-layer system, consisting of a conductor shield (layer #1) and a 2-layer covering (layers #2 and #3).

Application

This aerial cable is intended for overhead primary and secondary distribution systems rated at 25 kV (nominal). It is designed to prevent faults due to contact or limited space. The track-resistant 3-layer system effectively mitigates short-circuits and flashovers caused by contact with trees or wildlife, significantly reducing the risk of system outages, damage, or fires.

Tree Wire: Installed in a flat configuration with appropriate spacing on insulators, similar to bare or covered overhead conductors. Self-supporting conductors, such as ACSR, are typically used in these installations.

Spacer Cable: 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 occupy minimal space, making them suitable for narrow rights-of-way.

Construction

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

Conductor: ACSR (Aluminum Conductor Steel Reinforced, 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), while 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.

Benefit

Enhanced Durability: The use of ACSR provides high tensile strength and resistance to environmental stresses.

Improved Safety: The 3-layer track-resistant system prevents short-circuits and flashovers, reducing the risk of outages and fires.

Versatile Installation: Suitable for both tree wire and spacer cable configurations, offering flexibility in overhead distribution systems.

Specification

- ASTM B230 – Aluminum 1350–H19 Wire for Electrical Purposes
- ASTM B231 – Concentric-Lay-Stranded Aluminum 1350 Conductors
- ASTM B232-Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)
- ASTM D2656 – Cross-linked Polyethylene Insulation for Wire and Cable Rated 2001 to 35000V
- 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 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	Conductor Stranding	Conductor Diameter	Conductor Shield Thickness	Covering Thickness Inner Layer	Covering Thickness Outer Layer	Overall Diameter	Conductor Weight	Total Weight	Rated Strength
	AWG or kcmil		inch	inch	inch	inch	inch	lb/FT	lb/FT	lb/FT
A4- 01ACSR61-25X	4	6/1	0.250	0.015	0.125	0.125	0.780	57.35	245	1860
A2- 01ACSR61-25X	2	6/1	0.316	0.015	0.125	0.125	0.846	91.2	303	2680
A1/0- 01ACSR61-25X	1/0	6/1	0.398	0.015	0.125	0.125	0.928	145.2	386	4380
A2/0- 01ACSR61-25X	2/0	6/1	0.447	0.015	0.125	0.125	0.977	182.8	442	5310
A3/0- 01ACSR61-25X	3/0	6/1	0.502	0.015	0.125	0.125	1.032	230.5	510	6620
A4/0- 01ACSR61-25X	4/0	6/1	0.563	0.015	0.125	0.125	1.093	290.8	592	8350
A266.8- 01ACSR181-25X	266.8	18/1	0.609	0.015	0.125	0.125	1.139	289.1	607	6880
A266.8- 01ACSR267-25X	266.8	26/7	0.642	0.015	0.125	0.125	1.172	366.9	697	11300
A336.4- 01ACSR181-25X	336.4	18/1	0.684	0.015	0.125	0.125	1.214	364.8	710	8680
A336.4- 01ACSR267-25X	336.4	26/7	0.720	0.015	0.125	0.125	1.250	462.0	820	14100
A336.4- 01ACSR307-25X	336.4	30/7	0.741	0.015	0.125	0.125	1.271	526.4	892	17300
A397.5- 01ACSR181-25X	397.5	18/1	0.743	0.015	0.125	0.125	1.273	431.0	798	9940
A397.5- 01ACSR247-25X	397.5	24/7	0.772	0.015	0.125	0.125	1.302	511.4	889	14600
A397.5- 01ACSR267-25X	397.5	26/7	0.783	0.015	0.125	0.125	1.313	546.0	927	16300
A477- 01ACSR247-25X	477	24/7	0.846	0.015	0.125	0.125	1.376	613.9	1018	17200
A477- 01ACSR267-25X	477	26/7	0.858	0.015	0.125	0.125	1.388	655.3	1064	19500
A477- 01ACSR307-25X	477	30/7	0.883	0.015	0.125	0.125	1.413	746.4	1164	23800
A556.5- 01ACSR181-25X	556.5	18/1	0.879	0.020	0.125	0.125	1.419	603.3	1029	13700
A556.5- 01ACSR247-25X	556.5	24/7	0.914	0.020	0.125	0.125	1.454	716.1	1155	19800
A556.5- 01ACSR267-25X	556.5	26/7	0.927	0.020	0.125	0.125	1.467	765.2	1209	22600
A636- 01ACSR181-25X	636	18/1	0.940	0.020	0.125	0.125	1.480	689.9	1138	15700
A636- 01ACSR267-25X	636	26/7	0.990	0.020	0.125	0.125	1.530	874.2	1341	25200

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.