Application

Covered Line Wire AAAC(Aluminum Alloy Conductor) Aluminum Conductor finds widespread application in medium-voltage overhead distribution systems, particularly in rural and suburban areas. Its suitability extends to regions with moderate to heavy vegetation or challenging terrain. These conductors are essential for delivering reliable electricity in environments prone to weather-related damage and vegetation contact.

Advantage

Enhanced Conductivity: Covered Line Wire AAAC Aluminum Conductor utilizes high-strength aluminum alloy strands (AAAC), which offer superior electrical conductivity compared to traditional aluminum conductors. This results in reduced power losses and improved efficiency in electrical transmission.
Corrosion Resistance: The aluminum alloy construction of the conductor provides excellent corrosion resistance, ensuring longevity and reliability even in harsh environmental conditions. This reduces the need for frequent maintenance and replacement, leading to cost savings over the lifespan of the conductor.
Flexibility: AAAC conductors are designed to be flexible, allowing for easier installation and adaptation to various terrain types and installation requirements. This flexibility also reduces the risk of conductor damage during installation and operation.
Reduced Weight: The lightweight nature of AAAC conductors simplifies handling and installation, reducing labor costs and equipment requirements during installation and maintenance activities. Additionally, the reduced weight minimizes the strain on support structures, contributing to long-term structural integrity.

Construction

Covered Line Wires for AAAC conductors are constructed using a combination of materials designed to optimize both electrical and mechanical performance:
Core: Aluminum alloy strands.
Outer Layers: Aluminum 1350-H19 wires concentrically stranded around the steel core to provide excellent conductivity.
Covering Materials: The conductors are weatherproofed with high-quality materials:
Polyethylene (PE): Basic protection against weather and abrasion.
High Density Polyethylene (HDPE): Improved durability and environmental stress resistance.
Crosslinked Polyethylene (XLPE): Superior thermal resistance, mechanical strength, and longevity.

Specification

-ASTM B-230 - Aluminum 1350-H19 Wire for Electrical Purposes.
-ASTM B-231 - Concentric-lay-stranded Aluminum Conductors, Coated-steel Reinforced (ACSR).
-ASTM B-1248 - Polyethylene Plastics Molding and Extrusion Materials.
-ASTM C-8.35 - Specifications for Weather-resistant Polyethylene-Covered Wire and Cable.
-ICEA S-70-547-Covered Line Wire Aluminum Conductor
-NEMA PUB NO. WC 5-1973 - Standards Publication Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

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

Code Name	Size	No.of Wires	Insulation Thickness	Nominal Diameter		Rated Strength	Nominal Weight				Ampacity
				Conductor	Cable		Aluminum	LDPE	HDPE	XLPE	
-	AWG or kcmil	-	mm	mm	mm	kg	kg/km	kg/km	kg/km	kg/km	A
Maple	6	7	0.762	5.029	6.553	503	42.41	59.53	61.01	61.01	78
Hornbeam	4	7	0.762	6.350	7.874	798	67.56	89.29	90.78	90.78	145
Linden	2	7	1.143	8.026	10.312	1270	107.44	147.33	147.33	147.33	190
Oilnut	1/0	7	1.524	8.839	11.887	2023	170.99	238.11	247.03	247.03	250
Waterash	2/0	7	1.524	11.354	14.402	2445	215.63	291.68	302.01	302.01	290
Shellbark	3/0	7	1.524	12.751	15.799	3080	271.59	358.65	370.55	370.55	335
Planetree	4/0	7	1.524	14.300	17.348	3883	342.57	443.47	456.86	456.86	385