



**POWER & OPTICAL SYSTEMS**

**CATALOG  
2026**





**AAAC**

## Applications

AAAC bare conductors are primarily employed in medium to high voltage distribution and transmission lines where corrosion resistance is a priority. These conductors excel in coastal regions, industrial areas with chemical contamination, and environments with high pollution levels. AAAC provides an optimal balance of electrical performance and mechanical strength without steel reinforcement, making it suitable for moderate span lengths with enhanced corrosion resistance requirements.

## Specifications (Standards)

US Electric Wire's AAAC bare conductor meets or exceeds the following ASTM specifications:

### **B399 | B399M**

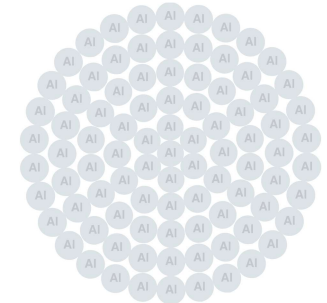
Standard specification for concentric-lay-stranded aluminum-alloy 6201-T81 conductors.

### **B398 | B398M**

Standard specification for aluminum-alloy 6201-T81 wire for electrical purposes.

## Construction

AAAC conductors consist entirely of high-strength aluminum alloy wires (typically 6201-T81 or 6101-T81) arranged in concentric layers. The aluminum alloy composition provides improved tensile strength compared to pure aluminum while maintaining good conductivity (approximately 52.5% IACS). This homogeneous construction eliminates bi-metallic corrosion concerns and offers a standard operating temperature of 90°C, with lighter weight than comparable ACSR conductors of equivalent strength.



# AAAC Bare Overhead Conductor

## Particularity

The basic composition of this alloy pertains to the Aluminium-Magnesium-Silicon group, which is also known in Europe as Almelec or Aldrey and after their drawing they must undergo a thermal treatment at a temperature of approximately 1965° C.

## Properties

As regards aluminium, the wires of this alloy have a double tensile strength (greater than 30 Kg/mm<sup>2</sup>), its electrical conductivity is 15% lower (53% instead of 61%) and the weight is the same.

## Mechanical properties 1/2 Conductors sized to have diameter equal to ACSR (1)

Code Word	Size (AWG or kcmil)	Equivalent ACSR Size (2)	Equivalent AAC Size (3)	Stranding No. X Dia. In.	Cross-Section (Sq. ins.)	O.D. In	Approx. Weight (lbs./kft)	Rated Strength (lbs.)
Akron	30.6	#6 (Turkey)	#6	7×0.0661	0.0240	0.198	28.3	1110
Alton	48.7	#4 (Swan)	#4	7×0.0834	0.0382	0.250	45.1	1760
Ames	77.5	#2 (Sparrow)	#2	7×0.1052	0.0608	0.316	71.7	2800
Azusa	123.3	1/0 (Raven)	1/0	7×0.1327	0.0968	0.398	114.1	4280
Anaheim	155.4	2/0 (Quail)	2/0	7×0.1490	0.1221	0.447	143.9	5390
Amherst	195.7	3/0 (Pigeon)	3/0	7×0.1672	0.1537	0.502	181.2	6790
Alliance	246.9	4/0 (Penguin)	4/0	7×0.1878	0.1939	0.563	228.6	8560
Butte	312.8	266.8 (Partridge)	266.8	19×0.1283	0.2456	0.642	290.9	10500
Canton	394.5	336.4 (Linnet)	336.4	19×0.1441	0.3099	0.720	366.9	13300

Mechanical properties 2/2 Conductors sized to have diameter equal to ACSR (1)

Code Word	Size (AWG or kcmil)	Equivalent ACSR Size (2)	Equivalent AAC Size (3)	Stranding No. X Dia. In.	Cross-Section (Sq. ins.)	O.D. In	Approx. Weight (lbs./kft)	Rated Strength (lbs.)
Cairo	465.4	397.5 (Ibis)	397.5	19×0.1565	0.3655	0.782	432.8	15600
Darien	559.5	477.0 (Hawk)	477.0	19×0.1716	0.4394	0.858	520.3	18800
Elgin	652.4	556.5 (Dove)	556.5	19×0.1853	0.5124	0.926	606.7	21900
Flint	740.8	636.0 (Grosbeak)	636.0	37×0.1415	0.5818	0.990	691.2	24400
Greeley	927.2	795.0 (Drake)	795.0	37×0.1583	0.7282	1.108	865.1	30500

(1) Our cables utilizes an aluminum alloy that meets both the requirements of 6101 T81 and 6201 T81 designation.

(2) Equivalent ACSR Size refers to an ACSR conductor size of equal diameter.

(3) Equivalent AAC Size refers to an ASTM AAC 1350 conductor of approximate equivalent electrical resistance.

Dimensions and weights not designated minimum or maximum are nominal values and subject to manufacturing tolerances. In this context, weight means mass.

Notes

# AAAC Bare Overhead Conductor

Electrical properties 1/1 Conductors sized to have diameter equal to ACSR (1)

Code Word	Size (AWG or kcmil)	Equivalent ACSR Size (2)	Equivalent AAC Size (3)	Stranding No. X Dia. In.	O.D. In	Resistance (4) OHMS/KFT			Ampacity @75°C (5)
						DC @20°C	AC @25°C	AC @75°C	Standard
Akron	30.6	#6 (Turkey)	#6	7×0.0661	0.198	0.654	0.666	0.779	105
Alton	48.7	#4 (Swan)	#4	7×0.0834	0.250	0.411	0.418	0.489	145
Ames	77.5	#2 (Sparrow)	#2	7×0.1052	0.316	0.258	0.263	0.308	190
Azusa	123.3	1/0 (Raven)	1/0	7×0.1327	0.398	0.162	0.165	0.193	255
Anaheim	155.4	2/0 (Quail)	2/0	7×0.1490	0.447	0.129	0.131	0.153	295
Amherst	195.7	3/0 (Pigeon)	3/0	7×0.1672	0.502	0.102	0.104	0.122	345
Alliance	246.9	4/0 (Penguin)	4/0	7×0.1878	0.563	0.0810	0.0825	0.0966	395
Butte	312.8	266.8 (Partridge)	266.8	19×0.1283	0.642	0.0642	0.0655	0.0766	460
Canton	394.5	336.4 (Linnet)	336.4	19×0.1441	0.720	0.0509	0.0520	0.0608	535
Cairo	465.4	397.5 (Ibis)	397.5	19×0.1565	0.782	0.0432	0.0441	0.0516	590
Darien	559.5	477.0 (Hawk)	477.0	19×0.1716	0.858	0.0359	0.0368	0.0430	665
Elgin	652.4	556.5 (Dove)	556.5	19×0.1853	0.926	0.0308	0.0316	0.0369	730
Flint	740.8	636.0 (Grosbeak)	636.0	37×0.1415	0.990	0.0272	0.0280	0.0327	790
Greeley	927.2	795.0 (Drake)	795.0	37×0.1583	1.108	0.0217	0.0226	0.0263	905



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