IEC 61089 AAAC

AAAC

(All Aluminum Alloy Conductor) 6201-T81 Overhead Line Conductor

IEC 61089 / ASTM B399 / BS EN 50182 · Up to 220 kV AC · −40…+90 °C industrial AAAC

IEC 61089 / ASTM B399 / BS EN 50182 | Up to 220 kV AC | −40…+90 °C



Application

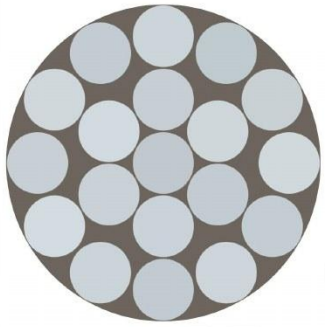
AAAC (All Aluminum Alloy Conductor) 6201-T81 Overhead Line Conductor (AAAC) engineered to IEC 61089 / ASTM B399 / BS EN 50182 for Up to 220 kV AC service across −40…+90 °C, featuring central core & inner alloy stranding and concentric outer 6201-t81

Typical uses: High-Voltage Grid & Substation Interconnects, Wind, Solar & Hydro Power Evacuation, Utility Overhead & Underground Distribution, Industrial Power Infrastructure

Construction



AAAC TEBAOFLEX.COM



Cross-section, not to scale

1	Central core & inner alloy stranding	IEC 61089 / ASTM B399 / BS EN 50182
2	Concentric outer 6201-T81 alloy layer	IEC 61089 / ASTM B399 / BS EN 50182

Technical data

Typical values

Rated voltage / duty	Up to 220 kV AC (IEC 61089 / ASTM B399 / BS EN 50182)	**Conductor construction**	Central core & inner alloy stranding — Heat-treated 6201-T81 Mg-Si aluminum alloy wires (≥ 52.5 % IACS)
Primary insulation / dielectric	Concentric outer 6201-T81 alloy layer — High-strength 6201-T81 aluminum alloy outer stranding layer	**Continuous operating temperature**	−40…+90 °C per IEC 61089 / ASTM B399 / BS EN 50182
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s adiabatic limit depending on dielectric class)	**Minimum installation temperature**	−5 °C (thermoplastic) / −25 °C (cross-linked or elastomer) / −40 °C (metallic)
Outer protection / covering	Concentric outer 6201-T81 alloy layer — High-strength 6201-T81 aluminum alloy outer stranding layer	**Minimum bending radius**	20 × OD (installed / static routing)
Layer count & geometry	2 concentric/structural layers verified by cross-section inspection	**Environmental & chemical durability**	Engineered for industrial service in accordance with IEC 61089 / ASTM B399 / BS EN 50182
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	**Standards**	IEC 61089 / ASTM B399 / BS EN 50182

Sizes

10 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Nominal area	Stranding	Outer Ø ≈ mm	Weight ≈ kg/km	Rated tensile kN ≈	Min. sheave R mm
AAAC Standard Transmission & Distribution Schedule (−40…+90 °C) 10 sizes						
☐ **AAAC 50 mm²**	**50 mm²**	**7/3.00 mm**	**9.0**	**138**	**14.5**	**180**
☐ **AAAC 95 mm²**	**95 mm²**	**19/2.52 mm**	**12.6**	**262**	**28.2**	**252**
☐ **AAAC 120 mm²**	**120 mm²**	**19/2.85 mm**	**14.3**	**334**	**36.4**	**286**
☐ **AAAC 150 mm²**	**150 mm²**	**26/2.70 + 7/2.10**	**17.1**	**546**	**53.8**	**342**
☐ **AAAC 185 mm²**	**185 mm²**	**26/3.00 + 7/2.33**	**19.0**	**674**	**65.2**	**380**
☐ **AAAC 240 mm²**	**240 mm²**	**26/3.44 + 7/2.68**	**21.8**	**885**	**84.5**	**436**
☐ **AAAC 300 mm²**	**300 mm²**	**26/3.86 + 7/3.00**	**24.5**	**1,110**	**104.2**	**490**
☐ **AAAC 400 mm²**	**400 mm²**	**54/3.08 + 7/3.08**	**27.7**	**1,432**	**126.0**	**554**
☐ **AAAC 500 mm²**	**500 mm²**	**54/3.44 + 7/3.44**	**31.0**	**1,790**	**156.5**	**620**
☐ **AAAC 630 mm²**	**630 mm²**	**54/3.86 + 19/2.32**	**34.8**	**2,245**	**194.0**	**696**

– Custom kcmil/code-word sizes, grease-filled corrosion protection and non-specular surface finishes available per IEC 61089 / ASTM B399 / BS EN 50182.

DC resistance & continuous current ratings

6 sizes

Nominal area	Max. DC R_{20} Ω/km	Continuous current A ≈	Operating temp.
50 mm²	**0.578**	**210**	**−40…+90 °C**
95 mm²	**0.304**	**320**	**−40…+90 °C**
150 mm²	**0.192**	**435**	**−40…+90 °C**
240 mm²	**0.119**	**590**	**−40…+90 °C**
400 mm²	**0.072**	**820**	**−40…+90 °C**
630 mm²	**0.046**	**1,080**	**−40…+90 °C**

– Ampacity calculated per IEEE 738 (0.6 m/s wind, 40 °C ambient, 0.5 solar absorptivity / emissivity).

Standards and approvals

- IEC 61089 Compliant
- EN 10204 3.1 Routine Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/aaac-all-aluminum-alloy-overhead-conductor

Typical values for this cable type, based on IEC 61089 / ASTM B399 / BS EN 50182. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.