ACAR Conductor

IEC 61089 · ASTM B524

Aluminium conductor alloy reinforced — a homogeneous-conductor alternative to ACSR that raises ampacity and removes bimetallic corrosion without giving up mechanical strength.

SECTION RANGE	STRANDING	AMPACITY	STANDARDS
50–1000 mm²	1350 wires over 6201 alloy core	Higher than equal-size ACSR	IEC 61089, ASTM B524

TYPICAL APPLICATIONS

- Line uprating without tower modification
- Transmission in corrosive coastal zones
- Long spans with high current duty
- Replacement of ACSR on existing routes

CONSTRUCTION

- 1350 aluminium wires over 6201-T81 alloy core
- All-aluminium construction, no steel
- Stranding ratios matched to line duty
- No grease required for corrosion protection
- Right-hand outer lay, optional left-hand on request

TECHNICAL DATA

Conductor	1350 aluminium over 6201-T81 alloy core	**Standards**	IEC 61089, ASTM B524
Section range	50–1000 mm² (larger on request)	**Max. temperature**	90 °C continuous
Stranding	Project-matched aluminium/alloy ratios	**Packing**	1000–3000 m on wooden or steel drums
Corrosion	Excellent — single-metal family		

Typical values. The final construction is confirmed on the order datasheet and the released drawing.

STANDARDS, TESTING AND DOCUMENTS

Routine tests	Conductor resistance, voltage test and insulation resistance on every length
Type tests	Type-test reports for each construction, witnessed by a third party on request
Documents with the drum	Packing list, drum list, routine test certificate, datasheet, CO / FORM A
Traceability	Drum number marked and recorded against the routine test certificate

OTHER CONSTRUCTIONS FROM THE SAME RANGE

ACSR Conductor	www.zmsoverheadcable.com/products/acsr-conductors/acsr-conductor/
Aluminium Clad Steel Conductor	www.zmsoverheadcable.com/products/special-overhead-conductors/aluminum-clad-steel-conductor/
Back to special conductors	www.zmsoverheadcable.com/products/special-overhead-conductors/

PACKING AND DELIVERY

Drum	Wooden or steel-framed export drum, 250–500 m per drum by cross-section
Packing	Sealed ends, protected lugs, desiccant, UV-resistant wrap
Marking	Drum no., designation, voltage, cross-section, length, gross weight
Lead time	15–25 working days for standard builds
Terms	FOB Qingdao, Tianjin or Shanghai. CIF, CFR and DAP on request

HOW TO ORDER

To quote, send the voltage class (U0/U), conductor material and cross-section, screen or armour, sheath, drum length, delivery port and the standard the project specifies. We return a released drawing, the test programme and a drum plan with the quotation.

SELECTION NOTES

When is ACAR preferred over ACSR?
When the line needs more ampacity than equal-size ACSR can deliver, or when the route crosses coastal or industrial atmospheres where the steel core would require grease and inspection regimes.

How does sag compare with ACSR?
The alloy core is slightly less stiff than steel, so sag behaviour differs. We provide sag-tension data for the exact stranding so the line designer can check clearances.

Can you match an existing ACSR section?
Yes. Send the existing ACSR code and the target ampacity; we will propose the ACAR stranding that meets or exceeds it.

Certification. Environmental management to ISO 14001:2015 and occupational health and safety to ISO 45001:2018, with CE marking under the EU low-voltage and EMC directives. Independent inspection and type testing are carried out through ISO/IEC 17020 and 17025 accredited laboratories. Certificate numbers and validity dates are published at www.zmsoverheadcable.com/certificates/.

Request a quotation for this cable

Send the specification sheet or the cable schedule and we return a released drawing, the test programme and a drum plan with the price.

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