ASTM B856 ACSS

ACSS

High-Temperature Overhead Conductor

ASTM B856 / IEC 62420 · Up to 500 kV AC · −40…+200 °C industrial ACSS construction

ASTM B856 / IEC 62420 | **Up to 500 kV AC** | **−40…+200 °C**



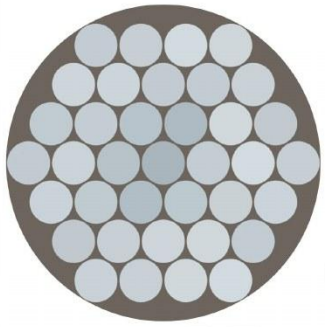
Application

ACSS (Aluminum Conductor Steel Supported) High-Temperature Overhead Conductor (ACSS) engineered to ASTM B856 / IEC 62420 for Up to 500 kV AC service across −40…+200 °C, featuring high-strength galvanized / galfan steel core and fully annealed 1350-o

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

Construction





Cross-section, not to scale

1	High-strength galvanized / Galfan steel core	ASTM B856 / IEC 62420
2	Fully annealed 1350-O aluminum outer layers	ASTM B856 / IEC 62420

Technical data

Typical values

Rated voltage / duty	Up to 500 kV AC (ASTM B856 / IEC 62420)	Conductor construction	High-strength galvanized / Galfan steel core — 7-wire or 19-wire high-tensile coated steel core supporting full mechanical tension
Primary insulation / dielectric	Fully annealed 1350-O aluminum outer layers — Soft-annealed 1350-O aluminum wires (63 % IACS) rated to +200/+250 °C continuous	Continuous operating temperature	−40…+200 °C per ASTM B856 / IEC 62420
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	Fully annealed 1350-O aluminum outer layers — Soft-annealed 1350-O aluminum wires (63 % IACS) rated to +200/+250 °C continuous	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 ASTM B856 / IEC 62420
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant	Standards	ASTM B856 / IEC 62420

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
ACSS Standard Transmission & Distribution Schedule (−40…+200 °C) 10 sizes						
☐ ACSS 50 mm²	50 mm²	7/3.00 mm	9.0	138	14.5	180
☐ ACSS 95 mm²	95 mm²	19/2.52 mm	12.6	262	28.2	252
☐ ACSS 120 mm²	120 mm²	19/2.85 mm	14.3	334	36.4	286
☐ ACSS 150 mm²	150 mm²	26/2.70 + 7/2.10	17.1	546	53.8	342
☐ ACSS 185 mm²	185 mm²	26/3.00 + 7/2.33	19.0	674	65.2	380
☐ ACSS 240 mm²	240 mm²	26/3.44 + 7/2.68	21.8	885	84.5	436
☐ ACSS 300 mm²	300 mm²	26/3.86 + 7/3.00	24.5	1,110	104.2	490
☐ ACSS 400 mm²	400 mm²	54/3.08 + 7/3.08	27.7	1,432	126.0	554
☐ ACSS 500 mm²	500 mm²	54/3.44 + 7/3.44	31.0	1,790	156.5	620
☐ ACSS 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 ASTM B856 / IEC 62420.

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…+200 °C
95 mm²	0.304	320	−40…+200 °C
150 mm²	0.192	435	−40…+200 °C
240 mm²	0.119	590	−40…+200 °C
400 mm²	0.072	820	−40…+200 °C
630 mm²	0.046	1,080	−40…+200 °C

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

Standards and approvals

- ASTM B856 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/acss-aluminum-conductor-steel-supported

Typical values for this cable type, based on ASTM B856 / IEC 62420. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.