GAP

CONDUCTOR CATALOGUE

Sterlite

GAP GTACSR-568mm^2

OVERVIEW

A high-capacity, thermal-resistant conductor, GTACSR-568 mm^2 limits sag, enhances reliability, and supports 400 kV reconductoring with a gap separating aluminium and steel.

APPLICATIONS

Renewable Energy Transmission

Upgradation of Transmission and Distribution lines

FEATURES & BENEFITS

Enhanced Thermal Performance

Operates at high temperatures with minimal sag and strength loss

Higher Current Capacity

Transmits up to 2x more current than equivalent ACSR conductors

Cost-Effective Upgrades

Increases line capacity without major tower or structure modifications

Ideal for Reconductoring

Supports existing infrastructure, eliminating need for reinforcement

Reduced Sag

Maintains low sag at elevated temperatures and thermal knee points

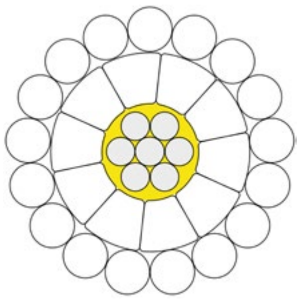
Extended Lifespan

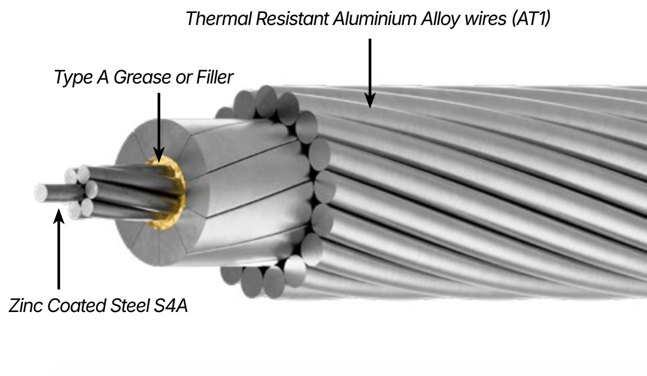
Reduces structural strain, improving operational life of lines

Specialized Installation

Requires careful handling, design, and unique fittings for deployment

CROSS SECTION





APPLICABLE STANDARDS

ASTM B957

IEC 61394 · IEC 62420
IEC 62641 · IEC 63248

TECHNICAL SPECIFICATIONS

Conductor	GTACSR-568 mm2 (GAP) (1120 kcmil)	
Total Sectional Area	567.56 mm^2	0.880 in^2
Aluminum sectional area	521.32 mm^2	0.808 in^2
Steel Core sectional area	46.24 mm^2	0.0717 in^2
Construction/Stranding details		
No.of Aluminum wire & layer	27 / 2-Layer	27 / 2-Layer
No. of Steel core wires & diameter	7 × 2.90 mm	7 × 0.114 in
Overall diameter	30.15 mm	1.187 in.
Weight	1.823 kg/m	1.225 lb/ft
Rated strength	137.59 kN	30931 lbs
DC Resistance @ 20°C	0.05551 Ω/Km	0.0893 Ω/mile
Current Capacity @ 150°C/302°F	1410 A	
Max. Operating Temperature	150°C	302°F
Direction of lay	Right hand	
Coefficient of thermal expansion	20.3 $\times 10^{-6}$/°C	11.28 $\times 10^{-6}$/°F
Final modulus of elasticity	66 Gpa	9572.5 ksi
Grease/Filler type	High Temp Grease (Type -A)	

Note: Current capacity based on referenced conductor temp., 0.56 m/s (1.84 ft/s) wind, 0 m (0 ft) Elevation, 0.45 emissivity, 0.80 absorptivity, 45°C (113°F) Ambient temp., 1045 W/m^2 (97.08 w/ft^2) solar radiation.

GAP GzTACSR MATTHEW (NON-SPECULAR)

OVERVIEW

A super thermal-resistant conductor, GzTACSR Matthew ensures minimal sag, high ampacity, and reliable high-temperature performance with a gap separating aluminium and steel.

FEATURES & BENEFITS

High Temperature Operation

Operates continuously up to 180°C without strength loss

Double Current Capacity

Trapezoidal design with AT3 Aluminium carries 2× more current than ACSR

Ideal for Reconductoring

Upgrades existing lines without tower modifications or reinforcement

Reduced Sag

Maintains low sag and thermal knee point at high temperatures

Extended Durability

Grease-filled gap reduces fatigue, enhancing lifespan of strands

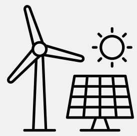
Non-Specular Finish

Dull surface improves emissivity and blends with surroundings

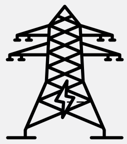
Specialized Installation

Requires trained personnel and unique tools for proper handling

APPLICATIONS



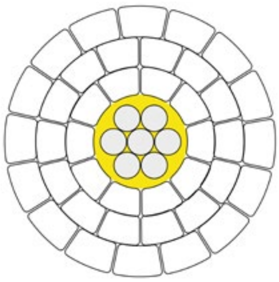
Renewable Energy Transmission

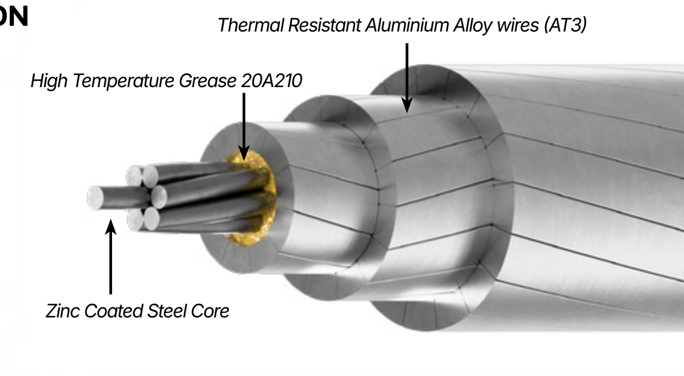


Medium, High and Extra High Voltage Transmission

Long-Span Crossings for Rivers, Valleys and Mountains

CROSS SECTION





APPLICABLE STANDARDS

B957 · B979

BS EN 50326

IEC 62420 IEC 62641 · IEC 63248

TECHNICAL SPECIFICATIONS

Conductor	GzTACSR MATTHEW (Non-Specular) (1224 kcmil)	
Total Sectional Area	676.3 mm^2	1.048 in^2
Aluminum sectional area	620 mm^2	0.961 in^2
Steel Core sectional area	56.3 mm^2	0.087 in^2
Construction/Stranding details		
No.of Aluminum wire & layer	40/ 3-Layer	40/ 3-Layer
No. of Steel core wires & diameter	7 × 3.20 mm	7× 0.126 in
Overall diameter	31.50 mm	1.240 in.
Weight (including grease weight)	2.186 kg/m	1.469lb/ft
Rated strength	178.0 kN	40016 lbs
DC Resistance @ 20°C	0.0478 Ω/Km	0.0769 Ω/mile
Current Capacity @ 180°C (356°F)	1884 A	
Max. Operating Temperature	180°C	356°F
Direction of lay	Right hand	
Coefficient of thermal expansion	20.25 $\times 10^{-6}$/°C	11.25 $\times 10^{-6}$/°F
Final modulus of elasticity	66.24 Gpa	9607 ksi
Grease/Filler type	High Temperature Grease (20A210)	

Note: Current capacity based on referenced conductor temp., 0.56 m/s (1.84 ft/s) wind, 0 m (0 ft) Elevation, 0.68 emissivity, 0.80 absorptivity, 45°C (113°F) Ambient temp., 1045 W/m^2 (97.08 w/ft^2) solar radiation

Corporate Offi ce

5th Floor, RMZ Infinity, Plot No. 15,
Udyog Vihar – IV, Gurugram - 122015,
Haryana, India

Manufacturing Units

Haridwar
Sector-5, Vardhman Industrial Estate,
Behind Patanjali Yogpeeth, Haridwar, Uttarakhand 249 405

Jharsuguda
At-Bhurkhamunda, PO - Kalimandir Road,
District - Jharsuguda, Odisha 768 202

Piparia
Survey NO.209, Phase -II, Piparia, Piparia
Industrial Estate, Silvassa, Maharashtra 396 230

Rakholi
Survey NO.99/2/22, & 23, Rakholi, Madhuban Dam
Road Rakholi, Silvassa, Maharashtra 396 230

For any queries or suggestions

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