Urjatech

Aluminium Conductors

All Aluminium Conductors (AAC)

Made of one or more strands of hard drawn 1350 aluminum. It's manufactured from electrolytically refined aluminum with a minimum purity of 99.7%. Ideal for short to medium distance transmission lines

Features

- Lightweight and easy to handle for efficient installation.
- Resistant to corrosion, ensuring long-lasting performance.

Aluminium Conductor Steel Reinforced (ACSR)

Feature a concentrically stranded design, consisting of one or more layers of hard-drawn aluminum wires surrounding a galvanized steel wire core. The core, coated with Class A zinc, may be either a single wire or stranded, depending on the conductor size.

Features

- Aluminum for conductivity & steel for strength.
- Durable & reliable for long-distance use.
- Ideal for high-strength applications & large spans.
- Corrosion-resistant for varied environments

All Aluminium Alloy Conductors (AAAC)

Made from a high-strength Aluminum Magnesium-Silicon alloy. Compared to conventional ACSR, AAAC offers a lighter weight, similar strength and current-carrying capacity, lower electrical losses, & enhanced corrosion resistance. These advantages have led to its widespread use in distribution and transmission lines. The conductor has a minimum conductivity of 52.5% IACS.

Features

- Aluminum for conductivity & steel for strength.
- Durable & reliable for long-distance use.
- Ideal for high-strength applications & large spans.
- Corrosion-resistant for varied environments

Aluminium Conductor Steel Supported (ACSS)

Made from fully annealed aluminum wires, either round or trapezoidal, stranded around a steel core with seven or more wires, as per ASTM B-856 and ASTM B-857. ACSS and ACSS/TW can be designed with equal area or equal diameter compared to conventional round stranded conductors, allowing for optimized line design options.

Features

- Aluminum for conductivity & steel for strength.
- Durable & reliable for long-distance use.
- Ideal for high-strength applications & large spans.
- Corrosion-resistant for varied environments

AL- 59 CONDUCTOR

A159 alloy conductors are widely used in power transmission and distribution across various voltage levels, from low to ultra-high voltage. Made from a homogeneous Aluminum-Magnesium-Silicon alloy, they offer 59% conductivity, resulting in lower DC resistance and higher current-carrying capacity. Comparved to ACSR of the same size, A159 conductors provide 26%-31% more current capacity while maintaining the same maximum sag and lower working tension. Their resistivity is significantly

Features

- Superior conductivity and strength for efficient transmission.
- Lightweight with reduced sag for better performance.
- Excellent corrosion resistance for harsh environments.
- Cost-effective with lower maintenance needs

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Aluminium Conductor Composite Core (ACCC)

Enhancing capacity while improving line clearance and reducing losses, these conductors minimize strain on structures, extending their lifespan. Under equal load conditions, they reduce line losses by 25% to 40% or more compared to conductors of the same diameter and weight. Additionally, they offer 100% increased capacity, ensuring readiness for future demands.

Features

- Greater current carrying capacity and lower line losses.
- Lightweight for easy installation and reduced tower load.
- Stronger than traditional conductors, minimizing sag.
- Corrosion resistant for long-lasting performance in harsh environments