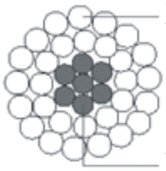
Sterlite® High Ampacity / Low Sag Conductor Series
STACIR Conductors



PRODUCT DESCRIPTION

Sterlite® Super Thermal Alloy Conductor Invar Reinforced (STACIR) conductor has outer layers composed of Super Thermal Aluminum (STAL) alloy wires that can operate up to 410°F. The inner core is composed of aluminum clad INVAR wires. INVAR is a metal alloy with 36% Ni in steel.

PRODUCT APPLICATION

STACIR/AW conductors are suited for re-conductoring applications. The capacity of the existing transmission line can be enhanced by simply replacing the existing conductor without any modifications to the tower.

PRODUCT BENEFITS

- Can carry 100% more current as that of ACSR of the same size, while maximum sag and maximum working tension remains the same as that of ACSR.
- For uprating transmission and distribution lines, no modification or reinforcement is required to the existing towers.

PRODUCT SPECIFICATIONS*

Properties	STACIR (ACSR Moose Equivalent)	STACIR (ACSR Zebra Equivalent)	STACIR (ACSR Panther Equivalent)
Typical Factors	54/7/0.139 in	54/7/0.125 in	30/0.118 + 7/0.118 in
Reference Specifications	IEC62004	IEC62004	IEC62004
Total Cross Section Area(sqin)	0.925 sqin	0.751 sqin	0.405 sqin
Conductive Wire	Al Zr At3	Al Zr At3	Al Zr At3
Core Wire	Aluminum Clad Invar	Aluminum Clad Invar	Aluminum Clad Invar
Conductor Diameter (in)	1.251 in	1.127 in	0.827 in
Weight (lbs/1000 ft)	1339 lbs/1000 ft	1063 lbs/1000 ft	631 lbs/1000 ft
Ultimate Tensile Strength (lbf)	32278 lbf	26385 lbf	18598 lbf
DC Resistance (ohms/1000ft)@68°F Temperature	0.0165 ohms/1000ft	0.0203 ohms/1000ft	0.0400 ohms/1000ft
Maximum Operating Temperature, °F	410°F	410°F	410°F
Current Carrying Capacity (Amp) at Maximum Operating Temperature	1869 Amp	1627 Amp	1038 Amp
Conductor Sag in feet at Maximum Operating Temperature	40.42 ft	31.12 ft	22.44 ft
Ruling Span	1312.33 ft	1230.31 ft	1099.08 ft

Assumptions: Ampacity is calculated based on Wind zone coefficient as 2, reliability level coefficient as 2, terrain category coefficient as 2, 0.2006 lbs/in^2 as wind pressure for Moose equivalent conductors, 0.1938 lbs/in^2 as wind pressure for Zebra equivalent conductors, 0.1824 lbs/in^2 as wind pressure for Panther equivalent conductors,starting condition for calculation of Sag tension for ACSR Moose as 22% of UTS at 89.6 °F, no wind and for ACSR Zebra & Panther as 25% of UTS at 89.6 °F, no wind, constant of mass temperature coefficient of resistance of conductor per °K as 0.0039 for Al59 otherwise 0.004, the values of Sag for conductors other than ACSR are calculated by maintaining the tension of ACSR conductor at 89.6 °F full wind, 113°F ambient temperature, 1.97 ft/s wind velocity, 0.5 as coefficient of solar absorption, 0.6 as coefficient of emmisivity and 0.7742Wt/sqin coefficient for solar radiation, at sea level.

*Please Contact Your Nearest Strlite Representative for Detailed Technical Specfications

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SUPPLY LENGTH

As per customer requirements.

MANUFACTURING PROCESS

To ensure the accuracy and precision of the manufacturing process, Sterlite has a state of the art plant with top of the line machines enabling control of critical process and quality parameters. All Sterlite production lines are backed up with strong quality assurance systems. This is done by ensuring that all process and test equipments are periodically calibrated with defined benchmarks.

INTERNATIONAL STANDARDS

These conductors comply with IEC62004 specification standards.

SERVICE USP's

- Complete range of power transmission conductors
- World-wide sales support
- Web-based order tracking & customer support
- Specialized technical support

TECHNICAL SPECIFICATIONS

The above designs are only a sample of the options available from Sterlite. Contact our sales team for a cable designed to your exact specifications.

DISCLAIMER

Sterlite's policy of continuous improvement may result in a change in specifications without prior notice. Any warranty of any nature relating to any Sterlite product is only contained in the written agreement between Sterlite Technologies Limited and the direct purchaser of such product(s).