

Thermal-resistant Aluminium-alloy Conductor (TACSR / TACSR-AS)

Sterlite® Sterlite Thermal-resistant Aluminium-alloy Conductor, Steel Reinforced (TACSR) conductors are high ampacity conductors, wherein the inner core is composed of galvanized steel and the outer layers are composed of thermal-resistant aluminium–alloy.



APPLICATION

TACSR conductors are recommended for new lines for high power transfer requirements.

BENEFITS

New aluminium alloys having high thermal resistance can carry 50%-60% more current than ACSR of the same size, while maximum sag and maximum working tension remains almost the same as that of ACSR.

- Can carry 50%-60% more current than ACSR of the same size.
- Higher capacity new lines can be built to deal with future demands.
- Easy Installation, similar to conventional conductors.
- No Special Hardware/Accessories
- Better corrosion resistance than conventional ACSR due to Aluminum-clad steel (AS) core.
- Losses Reduction in Transmission Line using LL-TACSR/AS Type Conductor.
- Improve Conductor Drag Co-efficient advantage in Tower Tonnage.

TECHNICAL SPECIFICATIONS

PROPERTIES	UNIT	TACSR PANTHER	TACSR ZEBRA	TACSR MOOSE	TACSR/AS PANTHER	TACSR/AS ZEBRA	TACSR/AS MOOSE
Appropriate System Voltage	kV	132 kV	220 kV	220 kV / above	132 kV	220 kV	220 kV / above
Equivalent ACSR		PANTHER	ZEBRA	MOOSE	PANTHER	ZEBRA	MOOSE
Reference Standards		IEC 62004, IEC 60888/IEC 1232/, IEC 61089, other ASTM/EN Std.					
Conductor diameter	mm	21.00	28.62	31.77	21.00	28.62	31.77
Weight	kg/km	973	1621	1997	914	1554	1915
Ultimate tensile strength	KN	105	146	177	95	136	163
DC resistance at 20°C	Ohm/km	0.1390	0.0686	0.0556	0.1283	0.0656	0.0533
Current carrying capacity at maximum operating temperature (150)	A	804	1233	1411	838	1263	1443

Note: The Catalogue conductor Parameter are informative and can be customized as per Project Requirements.

Assumptions: Ampacity is calculated based on, 45°C ambient temperature, 0.56 m/s wind velocity, 0.8 as coefficient of solar absorption, 0.45 as coefficient of emissivity and 1045 W/sq.m coefficient for solar radiation, 0 m Elevation.

Non-Specular (NS) Dull Finish Conductor can be available on special requirement.

Disclaimer:

* Parameters mentioned in the document are indicative and can vary subject to different standards

* Customizations are available on select products. Please indicate your interest by reaching out to the sales team

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