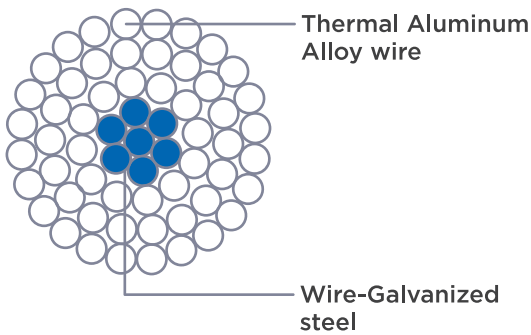


STER-TACSR™

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.

TECHNICAL SPECIFICATIONS

PROPERTIES	TACSR (ACSR MOOSE EQUIVALENT)		TACSR (ACSR ZEBRA EQUIVALENT)		TACSR (ACSR PANTHER EQUIVALENT)	
Typical factors	3.53 mm	0.1378 in	3.18 mm	0.1252 in	3.00 mm	0.1181 in
Reference specifications	IEC 62004		IEC 62004		IEC 62004	
Total cross section area	596.99 mm ²	0.9253 in ²	484.25 mm ²	0.7506 in ²	261.50 mm ²	0.4054 in ²
Conductive wire	Al Zr AT1		Al Zr AT1		Al Zr AT1	
Core wire	Galvanized Steel		Galvanized Steel		Galvanized Steel	
Conductor diameter	31.77 mm	1.2508 in	28.62 mm	1.1268 in	21.00 mm	0.8268 in
Weight	2004 kg/gm	1346.6 lbs/mile	1621 kg/km	1089.3 lbs/mile	972 kg/km	653.2 lbs/mile
Ultimate tensile strength	16438 kg	36239.54 lbs	14407 kg	31761.96 lbs	10119 kg	22308.55 lbs
DC resistance at 20°C temperature	0.06 Ω/km	0.09 Ω/mile	0.07 Ω/km	0.11 Ω/mile	0.14 Ω/km	0.22 Ω/mile
Maximum operating temperature	150°C	302°F	150°C	302°F	150°C	302°F
Current carrying capacity at maximum operating temperature	1509 Amp		1302 Amp		831 Amp	

Assumptions: Ampacity is calculated based on, 45°C (113°F) ambient temperature, 0.6 m/s wind velocity, 0.5 as coefficient of solar absorption, 0.6 as coefficient of emmissivity and 1200 wt/sqm coefficient for solar radiation, at sea level.