

HiTemp Accessories for ACCC Conductors

As demand increases for power, greater electrical loads are put on existing lines that are unable to handle that load. ACCC conductor carries up to twice the current of conventional ACSR conductor. So rather than building new transmission lines, ACCC conductors can replace existing ACSR conductors to increase energy output.

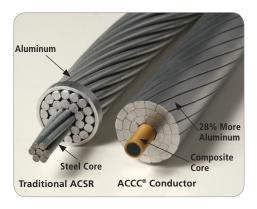
In response to this need, CTC Global (CTC) developed the Aluminum Conductor Composite Core (ACCC), a high temperature composite core conductor. ACCC is capable of carrying up to twice the current of a conventional ACSR conductor of the same diameter and similar weight. Instead of building new transmission lines, ACCC conductors can replace existing ACSR conductors, thus allowing utilities to increase energy output with an economical option.

However, with the increased power from ACCC conductors, standard compression accessories could not handle the elevated temperatures and work loads. In response, AFL developed the HiTemp product line, consisting of compression and motion control accessories, pulling grips, and high temperature compounds to give customers a system solution when installing this new technology.

AFL's HiTemp ACCC Accessories are designed and engineered to operate 25-30 percent cooler than the conductor, improving heat dissipation. These accessories are fabricated from a specially tempered aluminum that transfers elevated current and dissipates increased heat more efficiently. The compression high tension fittings use a unique patented technology designed to hold at least 95 percent of the rated conductor breaking strength without compromising the integrity of the composite conductor core.

ACCC conductors are a high-capacity, low-sag conductor that utilizes a hybrid carbon and glass fiber core that offers greater strength, a lower coefficient of thermal expansion, lighter weight and excellent corrosion resistance. ACCC conductors offer twice the capacity while cutting line loss by 25-40 percent under equal load conditions.





Features/Benefits of ACCC Conductor

- Doubles the capacity of an existing line
 - 92% aluminum by weight versus 73-83% for steel core conductors
 - Low thermal expansion of the core means there are rarely sag clearance limits to capacity
- Losses are reduced by up to 40%
 - Light, strong composite core allows 28% more aluminum at the same diameter/weight
- Lowers project costs and/or improves profitability
 - Reconductor to upgrade a line with no/minimal tower structure improvements required
- Efficiency gains from line losses create significant additional profitability every year

- Construction
 - Carbon fiber core strengthens conductor making it light weight with low sag
 - Very low thermal expansion almost eliminates high temp sag
 - Flexible glass fiber provides galvanic barrier and environmental longevity
 - Design and ratio of glass fiber layer optimizes strength and flexibility
 - Proprietary resin protects conductor from high temperatures for longevity
 - Continuous operation for over 50 years at 180°C

Ordering Information

Refer to AFL's ACCC catalog for complete ordering information on all HiTemp Compression Accessories for ACCC Conductor.



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