CAC: Copper Alloy Conductors for overhead lines
SIMPLY SIMPLE: ONLY ONE MATERIAL - COPPER

The demand for energy is increasing. Modern societies depend on the reliable supply of electricity as an essential resource for national security, health and well-being, transport and communications, as well as for the supply of food and water. Energy operators are facing substantial challenges: they have to increase their capacities yet the resistance to the construction of new lines has never been so high. A new conductor is needed to ensure maximum efficiency and network security.

La Farga has developed CAC (Copper Alloy Conductor), a micro-alloyed copper conductor. The CAC is a high-temperature conductor especially designed for low, medium, high and very high voltage overhead lines.

Cx3 TECHNOLOGY

Cx3 technology gives the conductor new properties such as a different colour, dielectric behaviour, absence of corona effect and soundlessness.

In addition it is UV-resistant, prevents corrosion, and, if necessary, can be hydrophobic for extreme ice and snow conditions.

THE SAFEST AND MOST EFFICIENT CONDUCTOR

The combination of CAC (Copper alloy conductor) and Cx3 coating characteristics offers an innovative solution for the electricity transport and distribution sector, helping provide greater energy efficiency and safety.

MAIN ADVANTAGES OF CAC + CX3 TECHNOLOGY

- Capacity increase (ampacity): between 50 and 100% more than conventional conductors.
- Better energy efficiency than ACSR and HTLS.
- Safety: transports energy peaks thanks to its high temperature properties.
- Ability to cope with capacity overloads (N-1 or N-2).
- Better behaviour in icy and windy weather conditions thanks to its smaller diameter.
- Fewer losses due to the combination of dielectric coating and copper.
- No creep at high temperatures.
- Easy to install, Standard fittings available.

GENERAL APPLICATIONS

- New overhead lines. Fewer towers.
- Competitive upgrading of existing lines, increasing their ampacity without investing in pylons or rights-of-way, with lower energy losses.
- Areas with adverse climatology (snow/ice and/or wind).
- Lines connecting renewable energy plants to the main lines.

CAC
The most effective conductor in the world
OTHER SPECIAL APPLICATIONS

Soundless: CAC’s dielectric coating prevents noise due to the corona effect, especially appropriate in zones close to urban areas.

Hydrophobic: a special coating to prevent ice and snow from depositing, suitable for zones with ice/snow loads.

Anti-Theft: available in aluminium/steel colour.

Camouflage: possibility to use different pigments for the coating: green, blue, brown...

Anti-Corrosion: corrosion-resistant coating designed to prevent corrosion in certain extreme environmental conditions.

TYPES OF CAC CONDUCTORS

CAC: Copper alloy conductors, round wires.
- Range: from 10 mm² to 630 mm²

CAC-TW: Copper alloy conductors, trapezoidal wires.
- Range: from 95 mm² to 630 mm²