

Advanced Technologies

ACCS

(Aluminum Conductor Composite Single)



LIGHT AND STRONG

Aluminum Conductor Composite Single

Design / Research and Develop Department
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INTRODUCTION

Due to the growing demand of the Utilities to increase the power along the existing lines: De Angeli Prodotti is constantly involved in the **development** and **design** of innovative conductors for the replacement of conventional conductors. De Angeli has developed the **ACCS conductor**: a solution with a single carbon core protected by a high temperature tape and an aluminum tube extruded on the top to avoid galvanic corrosion. The **ACCS** technology gives a significant increase of the ampacity and reduces the sag compared to standard conductors.

ENGINEERING

The conductive layers could be of thermal resistant aluminum, Zirconium, Al alloys wires and opened to customized solutions.

Carbon core is 50% lighter and **20% more resistant** than the steel core of a common ACSR conductor⁽¹⁾. Using hard aluminum alloy resistant up to 150°C and the trapezoidal wires, **ACCS will reduce the line losses up to 10% and increases the ampacity of more than 100%(1)**. The Figure 1. shows the comparison of the ampacity-temperature curve between the ACSR conductor and a conductor with carbon fiber core.

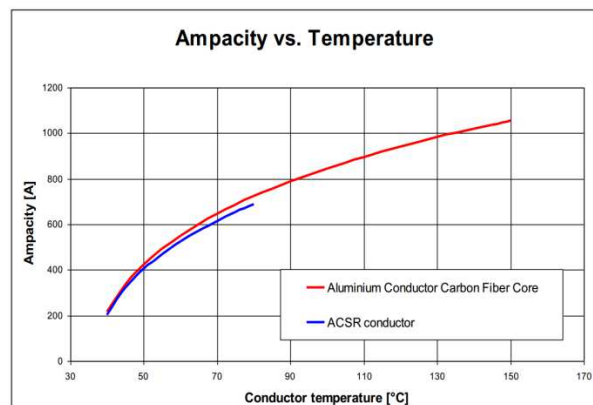


Figure 1. Comparison between ACSR and Aluminum Conductor Composite Single.

⁽¹⁾ Example calculated with ACSR Ø 22.80 mm

This technology has already been adopted all around Europe for strategic lines up to 380kV.

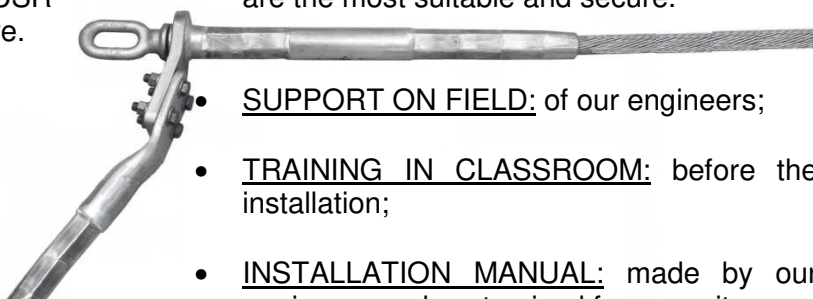
RANGE OF PRODUCTS

OUTSIDE DIAMETER (mm)	NAME OF THE CONDUCTOR			
	ACCM	ACCS	T-ACCS	TO BE DESIGNED TOGETHER WITH YOU...
17,1	TO BE DESIGNED TOGETHER WITH YOU...	AMPERE	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...
18	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...	THOMSON	TO BE DESIGNED TOGETHER WITH YOU...
18,29/18,3	TO BE DESIGNED TOGETHER WITH YOU...	KIRCHHOFF	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...
20,5	TO BE DESIGNED TOGETHER WITH YOU...	LENZ	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...
21,79/21,8	GALVANI	FARADAY	OHM	TO BE DESIGNED TOGETHER WITH YOU...
23,5	FERMI	MAXWELL	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...
25,1	HACK	VOLTA	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...
25,4	PLANCK	TO BE DESIGNED TOGETHER WITH YOU...	FERRARIS	TO BE DESIGNED TOGETHER WITH YOU...
27,6/27,72	DIRAC	WHEATSTONE	HENRY	TO BE DESIGNED TOGETHER WITH YOU...
TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...	TO BE DESIGNED TOGETHER WITH YOU...

OFFER

De Angeli Prodotti offers a complete package to our customer:

- **FITTINGS**: together with the supply of the conductor we can offer the fittings studied by our suppliers: **compression clamps** are the most suitable and secure.
- **SUPPORT ON FIELD**: of our engineers;
- **TRAINING IN CLASSROOM**: before the installation;
- **INSTALLATION MANUAL**: made by our engineers and customized for every item;
- **TAILOR MADE**:
The R&D department can design **CUSTOMIZED CONDUCTOR** with carbon fiber core, suitable for the various needs of the customers.



Visit our web site or send us an E-Mail for more information:

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