

CABLES FOR A MOVING WORLD

The new solution for overhead lines

TRATOS OHC-HV[®]

ACCORDING TO IEC 62004

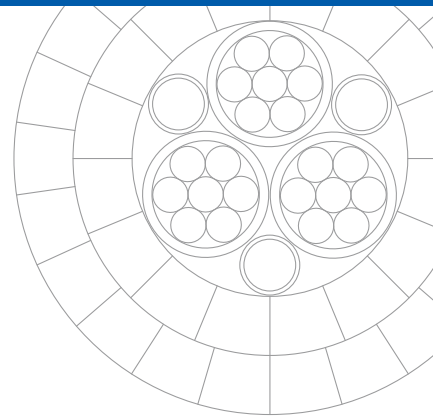
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www.tratosgroup.com



Tratos is fully compliant with the Restriction of Hazardous Substances (RoHS) regulations, Waste Electronic and Electrical Equipment (WEEE) regulations and Registration, Evaluation, Authorisation and restriction of Chemicals (REACH). Certification held by Tratos ISO 14001 Environmental Management, ISO 9001 Quality Management and BS OHSAS 18001 Occupational Health & Safety Management.

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In many countries the rapidly growing demand for electrical energy has led to the bodies responsible for electrical transmission systems to search for technical innovations which will increase the amount of power transmitted, with improved efficiency, within overall tight budgetary constraints.

There are not many solutions to this problem, the obvious ones being either the construction of completely new lines along the existing routes or the replacement of existing conductors with new more efficient ones, having a higher current carrying capacity without the usual corresponding increase in weight because of the limiting operating temperature of traditional designs.

The attraction of simply replacing only the conductors in an existing line, lead Tratos to draw upon its more than 40 years of experience and investment in R & D to develop a completely new, more efficient, hybrid load carrying conductor for overhead lines.

***Reduce and ease the cost of installation,
increase the power transmitted.***



BENEFITS AGAINST TRADITIONAL CONDUCTORS

- *Current carrying capacity increased by up to twice that of the equivalent size of traditional designs.*
- *Existing pylons and installation techniques can be used due to reduced weight and strain.*
- *Greater tensile strength to withstand snow, ice and wind loadings.*
- *Reduced sag and increased ground clearance at maximum current rating.*
- *Fully compatible with existing ACSR and AAAC networks.*

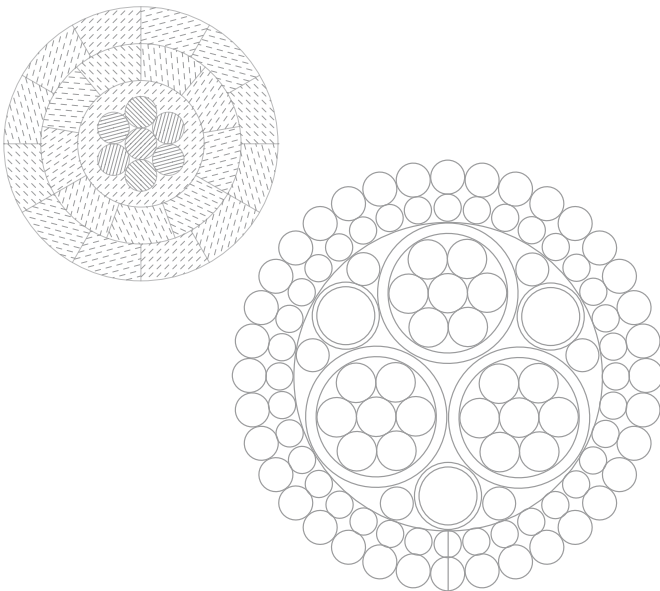
TRATOS INNOVATIVE DESIGN

Tratos has now developed, tested and successfully installed a completely new hybrid design of conductor for use in overhead lines based upon a high load carrying carbon fibre core with two compact, space saving, segmental thermal resistant aluminium alloy (AT1) wire layers, helically applied around in accordance with IEC 62004.

This avoids the use of traditional conductor designs, based on existing technology, where any increase in transmitted power results directly in either an increase in size and hence the weight of the conductor, or an increase in the operating temperature above the recommended maximum operating temperature.

APPLICATIONS

These new innovative hybrid conductors are especially suitable as a fast and cost effective replacement for traditional ACSR conductors in short and medium spans in all topographical locations.



CASE STUDY

The grid operator for electricity transmission, installed this type of innovative hybrid conductor in a demanding pass in the Alps, as part of the 132 kV Moena-Cence-nighe circuit.

The successful, uneventful installation took place during October 2011, the actual installation of the conductors presented no particular problems being comparable with those of traditional conductors of a similar size.





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