



ENSTO

Full Covered Conductor Solution

Ensto Full Covered
Conductor accessories
– certified according to
EN50397-2 standard

Better life.
With electricity.

Ensto – Electrical Solution Provider

Ensto designs and provides smart electrical solutions to improve the safety, functionality, reliability and efficiency of smart grids, buildings and transportation. Ensto, an international technology company and a family business,

was founded in 1958 and employs ca. 1,600 passionate professionals in Europe, the USA and Asia. In 2018, we generated turnover of 266 million euros.

We believe in a better life with electricity and a more sustainable tomorrow.

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FCCS provides complete protection for the line



See more FCCS accessories
on ensto.com

Covered conductors were developed to improve reliability of the distribution of electricity. Time has assured the Covered Conductor solution to be extremely functional and reliable. Full Covered Conductor Solution provides even more complete protection for the line.



Conductors (Amokabel)



Tension clamp SO2565

Full Covered Conductor Solution (FCCS) allows space savings e.g. 40% narrower clearances for line corridors through forested areas, compared to a standard bare line. Ensto accessories for medium voltage Full Covered Conductor Solutions are tested according to the EN 50397-2 standard which, compared to earlier standards, is substantially more demanding and covers the accessories designed for such solutions more extensively. This brings a whole lot of reliability for the Full Covered Conductor Solution.

Benefits of FCCS

- Protects the aluminium conductor from corrosion
- Reduces faults caused by tree contacts and enhances the reliability
- Reduces animal faults
- Upgrade the voltage/current without changing the phase distance
- Prevents bush fires
- Lower life cycle cost compared to bare conductor
- Reduces maintenance cost of tree trimming
- Reduces clearance between phases, can cope with direct contact between phases
- Less risk of sabotage
- Environmental advantages

Standards

- **EN 50397-1 November 2006:**
Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV a.c. and not exceeding 36 kV a.c. Part 1: Covered conductors
- **EN 50397-2 October 2009:**
Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV AC and not exceeding 36 kV AC - Part 2: Accessories for covered conductors - Tests and acceptance criteria



Helical tie SO216.157



Earth parking device SEW31



Composite line post Insulator
SDI82.2M20



Suspension clamp SO181.6

Accessories which are tested with low voltage standards and not tested with EN50397-2 standard may lead to

- Unequal potential
- Prone to partial discharges and radio disturbances
- Prone to Corona Discharge
- No possibility to add Power Arc Device and Earthing Horn to the clamps
- Difficult and cumbersome installation
- Unsafe and Safety Hazard
- May attract Corrosion and lack of UV protection
- Shorter lifecycle of the network



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