



# ENSTO

## Electrical Solution Provider

Reliability & efficiency

**Better life.**  
With electricity.

Ensto designs and provides smart electrical solutions to improve the safety, functionality, reliability and efficiency of smart grids, buildings and transportation.

[ensto.com](http://ensto.com)

# Overhead line products

Proven to last decades



For 60 years, Ensto has manufactured full sets of products for building low- and medium-voltage overhead lines.

With installations in the cold north, hot deserts, salty coasts, and deep jungles, our products are proven to be reliable, installer friendly, and long-lasting.

Ensto offers insulators, tension, and suspension clamps, arc protection devices, current limiting devices, connectors, bird protectors, cross arms, and tools for building low- and medium-voltage networks. Ensto's polymer-housed, metal oxide surge arresters are available for medium and high voltage.



## Waterproof insulation piercing connectors, SLIW series

Our connectors are designed to resist corrosion and bimetallic electrochemical reactions and to endure varying mechanical tensions and other forces detrimental to the connection.



## Suspension and dead end clamps

Ensto's product range for suspending and anchoring conductors is very wide. High quality is assured by long field experience and thorough testing.

## Pole fuse switch units

Pole fuse switches include separate terminal covers for in-coming and outgoing conductors, thus making installation safer. With the operating stick, you can easily operate from the ground.

# Underground cable products

## Guarantee uninterrupted electricity distribution



Our product development is steered by rigorous testing in our own laboratory. We perform accredited-type testing to our products according to various international standards.

A well designed underground cable network guarantees uninterrupted electricity distribution.

Ensto's type-tested underground cable joints and terminations employ silicone rubber technology for cold shrink use and multilayer crosslinked polyolefin for heat shrink.

The range taking mechanical connectors with shear head screws are tin coated, to be used with copper and aluminum conductors. They are designed for low- and medium-voltage networks and comply with the applicable EN and IEC standards. Our accessories are not only sold individually, we also offer complete kits for a variety of cable types.



### Lugs and connectors

Our cable lugs and connectors have been designed to make installation as easy and effortless as possible. Our mechanical connectors and cable lugs have been equipped with shear-head bolts, which guarantee a reliable and uniform end result without the need for special tools.



### Heat shrink joints and terminations

Ensto heat shrink products cover 12–36kV indoor and outdoor terminations and joints. The selection includes separate accessories for both plastic and paper insulated cables and for transition joints.



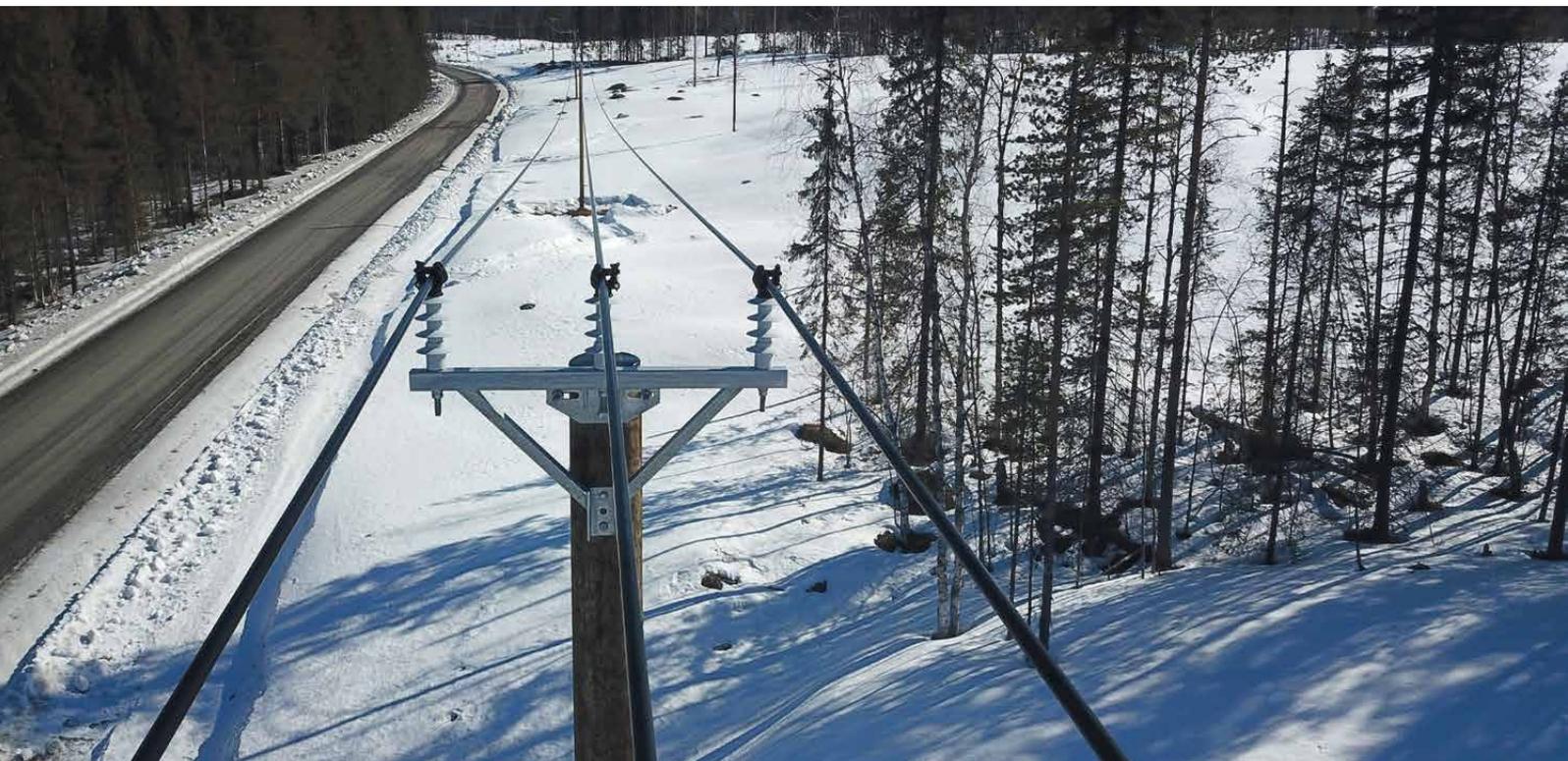
### Cold shrink joints and terminations

Cold shrink accessories enable working in places where hot work permits are difficult to obtain or where hot work is otherwise not possible.



# Full Covered Conductor Solution (FCCS)

Provides even more complete protection for the line



Full covered conductor solutions are developed to improve reliability of the distribution of electricity.

Time has assured the Covered Conductor solution to be extremely functional and reliable. Faults caused by snow, ice or storms have decreased remarkably. Full Covered Conductor Solution provides even more complete protection for the line.

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. With parallel line structure, the space saving is even bigger. Ensto accessories for medium voltage FCCS are tested according to the EN 50397-2 standard which, compared to earlier national standards, is substantially more demanding and covers the accessories designed for such solutions more extensively. This brings a whole lot of reliability for the FCCS. Ensto's accessories to Full Covered Conductor lines are electrically and mechanically designed for the best performance and safety.



**Suspension and dead end clamps**  
Suspension and tension clamps contain a waterproof insulation piercing part that eliminates electrical potential differences between conductor and the clamp. The insulation piercing part can also be used for overvoltage protection.



**Current limiting protection device**  
A current limiting device (CLD) is used to protect the conductors as well as other network components. With CLD, it is possible to achieve disruption-free distribution of electricity, a major benefit to the consumer.



**Insulation piercing connector**  
The connectors form the most essential group of the network's accessories. They are suitable for the most common conductor types and have the water-tight shear head bolt connector.



**Insulators**  
The Ensto line insulator products meet most requirements for medium voltage line construction. Our FCCS selection includes composite tension insulators and suspension insulators.

# Network automation

For more effective limitation of power cuts



Invest in smart grid – reduce the duration of delivery interruptions.

Network automation improves the quality of service and SAIDI/SAIFI indicators by remote control or automatic sectionalizing of the network. Weather proof load break switches and reclosers for medium-voltage overhead lines are durable and reliable to operate in any environment. Fast payback of the automation investment is generated by fewer interruptions, less-affected customers, and faster repairs.

## A surge arrester for every application

We offer also medium-voltage and high-voltage surge arresters based on metal oxide varistor and silicone rubber technologies. They provide total control of residual voltage based on insulation coordination rules, thus considerably improving the level of protection.



## Auguste load break switch

Can automatically isolate the defective part of the grid following a pre-programmed number of openings of the automatic circuit recloser placed upstream (ADA function).



## Smartcloser

Our smart pole-mounted reclosers detect faults as they occur and then attempt to restore the line to its normal status automatically.



## Digital trip unit

The trip unit is installed in pole mounted circuit breakers. It controls the circuit breaker opening in case of overcurrent.



## Surge arresters

Surge arresters have been designed with respect to sustainable development, by limiting consumption of resources at the manufacturing stages and for easier dismantling at the end of life.



# Tools

Designed to fit the needs of network installers



Our tool selection includes products that are especially designed to fit the needs of network installers.

Ensto's tool selection comprises products especially designed for the needs of network installers. Our tools make the installer's work easier and guarantee a safe installation.

## Safe and easy installation

Ensto's tool selection consists of high-quality cable preparation tools for medium and low voltage underground cables, installation tools for both underground cable and overhead line accessory installation and various measuring equipment. When installers use tools that fit and are designed for their work, a reliable installation can be made safely. A well-made installation has great impact on the service life and reliability of the network.

Our most important product lines are live line tools, cable pulling equipments, pole climbing irons and earthing devices. We have also a wide selection of underground cable tools. Our tool selection includes both Ensto's own tools and our suppliers' products.



## Tightening tool CT42

Tightening tool CT42 is a special tool which is used for tightening the steel band COT37.



## Wire stringing wheel ST26.1

Used for pulling in overhead cables. ST26.1 is used for straight lines and small angles up to 30 degrees.



## Wedge ST192

During the installation of connectors the phase conductors of an insulated overhead cable can be separated by using wedges. The wedge can also be used when installing suspension clamps.



## Ratchet wrench CT164

For installation of connectors and suspension fittings. The wrench body is made of steel and the grip of oil resistant rubber. The wrench is double-sided 13 and 17 mm.

# Electric vehicle charging solutions

With lifetime value for users, owners and operators



Ensto has been designing and producing EV charging points for over 10 years

Ensto offers reliable, efficient and modular charging solutions for electric vehicles (EVs). We focus on smart charging solutions, and our charging points are compatible with smart networks and cloud services.

## Wide range of EVC products

Ensto's comprehensive product range has the perfect solution for any location and environment. We make EV charging easy and safe. Our products provide an environmentally friendly way to give customers a helping hand and make life a little bit easier.

As the manufacturer, we can offer a wide range of installation and customization options and tailor our products to the needs of your customers. We can also provide additional services, including maintenance packages and extended warranties.



## Ensto eFiller

With Ensto eFiller, charging your electric vehicle could not be easier. It is specifically designed for home use and includes all the basic, easy-to-use features you need for a reliable EV charge at home.



## Ensto Wallbox

The compact and powerful Ensto Wallbox is a future-proof solution designed to deliver reliable EV charging for any business, in any environment.



## Ensto Pro and Ensto Media

An EV charging point is much more than just a socket: it is a way to go the extra mile and show that your business cares about its customers and employees. With Ensto Pro and Media you can do that.



## Ensto Power

Extremely fast on route charger when you are in a hurry. Ensto Power has been designed to serve drivers en-route, where it can charge an EV in 15-30 minutes, depending on the vehicle.





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