



Cable Accessories 1– 420 kV
Safe junctions for reliable power grids

Power and productivity
for a better world™



Cable Accessories

Safety by simplicity



Reliable junctions in power cable networks

Modern society depends on cable networks being able to supply electric power without breakdowns. A chain can only be as strong as its weakest link and it is a well known fact that cable joints and cable terminations are sensitive system components.

It pays off to choose cable accessories with care

Cable accessories are used in power cable networks worldwide. Our product range includes cable joints, cable terminations and cable connectors for all kinds of connections between cables and equipment, such as transformers, air- or gas-insulated switchgear, etc.

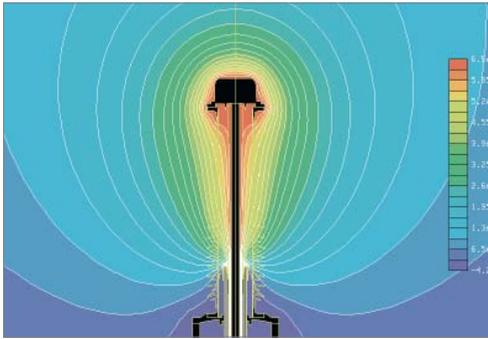
Unique, long experience

Long experience brings great expertise. We have been developing and manufacturing cable accessories for over a century and when high voltage XLPE-insulated cables began to be used over 50 years ago we were involved from the outset. Since then we have always been at the forefront of the development.

Professional training for professionals

The technology of cables and installation methods are constantly evolving and we keep you updated by offering training in cable technology and cable accessories.

We offer certified training courses including both theory and practical exercises in the assembly of cable accessories up to 420 kV, either at our facility in Sweden or at the customers' premises.



Cable termination illustrated with equipotential lines.



Flashover during voltage withstand test of a cable termination.



Creepage currents during salt-mist-chamber test.

Leading research and development

Our core competence is the electrical connections in power cable systems. Our watchwords are “safety by simplicity“.

Successful product development requires proper resources. We have a chemistry laboratory, well-equipped high voltage and high current laboratories as well as high voltage routine testing facilities.

Fundamental technologies

Our fundamental technologies within which we have accumulated substantial expertise over many years, include conductor contact technology, thermal properties, electrical stress control, polymeric materials, creepage current control and environmental protection.

Cable Accessories

12–42 kV

Cable accessories for 12–42 kV, simple solutions, easy to install and with reliable function.

Premolded products

The fact that the products are premolded means that they are manufactured in a single piece and that important functions such as electrical field-control, insulation and sealing are already built in at the factory. The use of flexible rubber provides active pressure which follows variations in the cable during load. This ensures watertightness and it increases electrical strength.



Bolt technology

Easy to connect safely. No special tools such as compression tools or welding equipment are required.



Cable connectors 12–42 kV CSE-A, CSEP-A, CSAP-A

Premolded insulated and screened separable cable connectors with various accessories for different applications.

Cable terminations 12–36 kV SOT

Premolded cable terminations for indoor or outdoor applications.

APIT, APSEA

Premolded cable termination with geometrical field control for indoor or outdoor applications.

Prefabricated and premolded

A product design that integrates vital parts and functions in the product minimizes the risk of faulty installation and, in many cases, enables re-adjustment during installation.

The use of premolded products makes it possible to perform routine testing, inspection and high voltage quality testing at factory prior to delivery.

Other design features

Other features for greater safety and long service life are: robust design for

excellent mechanical protection and integrated control of the electrical field, optimized for each product and size.

Range-taking

Manufacturing the products from flexible rubber means that fewer sizes are required to fit different cable dimensions.

Installation manuals with images

Easy-to-follow step by step installation manuals minimize the risk of incorrect installations due to misunderstandings.



Cable joints
SOJ 12–36 kV

Premolded cable joints for most types of cables.



Distribution cabinets
HDC-A 12–36 kV

For jointing or branching 1- or 3-core XLPE-insulated cables. Used for outdoor applications e.g. in wind power farms to build a grid with branching modules.

Cable Accessories

52–420 kV

A wide range of cable joints and cable terminations for XLPE-insulated cables.

Prefabricated and premolded

A product design that integrates vital parts and functions in the product, minimizes the risk of faulty installation and, in many cases, enables re-adjustment during installation.



The use of premolded products makes it possible to perform routine testing, inspection and high voltage quality testing at factory prior to delivery.

The cable terminations can be assembled horizontally, and then installed vertically.



Dry flexible cable terminations
APSEA 52–72 kV

Dry outdoor cable termination that can be installed at any angle. The terminations are not self supporting.



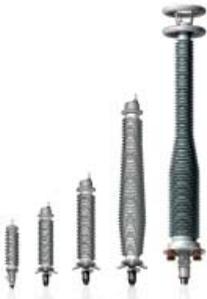
Dry cable termination
TD 145 kV

Dry outdoor cable termination with integrated screen separation. Suitable for installations with a fixed connection point and risk of high continuous creepage currents.



Dry plug-in cable terminations
CD 145–170 kV

Dry plug-in cable terminations suitable for connection to a gas-insulated switchgear GIS or an oil-filled transformer box TRF.



Oil-filled cable terminations
APECB 52–420 kV

Oil-filled outdoor cable terminations. Suitable for installations with a fixed connection point and risk of high continuous creepage currents.



Oil-filled cable terminations
APEGA 72–420 kV

Oil-filled cable terminations suitable for connection to gas-insulated switchgears GIS or transformers TRF.

Bolt technology

Bolt technology provides excellent contact between connector and conductor, and gives reliable current conductivity.

No heavy compression equipment or welding equipment is used. A torque wrench is all that is needed.

Modular design

Fewer kits of components are combined

to optimize the product for different types of cables. This makes the accessories very easy to install and the installers become familiar with the components.

Quality at all steps

Routine testing at factory and material inspection, reinforced cartons or boxes, professional training of jointers and easy-to follow installation manuals are our contributions to achieve the highest possible quality of the network.



Premolded cable joints JS / JX 52–123 kV

Premolded one-piece cable joints with or without screen interruption for cross-bonding of cable screens.



Premolded cable joints SMPGB 145–170 kV

Premolded cable joints with or without screen interruption for cross-bonding of cable screens.



Premolded cable joints JS / JX 245 kV

Premolded one-piece cable joints with or without screen interruption for cross-bonding of cable screens.



Premolded cable joints SMPGB 420 kV

Premolded cable joints with or without screen interruption for cross-bonding of cable screens.

Cable Accessories

Reasons for choosing

The solutions are well known, tried and tested and the products are world renowned for their high quality.

Proven reliability

Cable accessories from ABB have been in operation with leading manufacturers' power cables for over a century and still continue to provide outstandingly reliable service.

Regardless of the type of cable you work with, you will find the right accessory at ABB. The same applies to cable dimensions and cable design. We can also supply transition joints for jointing different XLPE-insulated cable types.

Designed for safe performance

There are several demands on cable accessories. They must restore the characteristics and different layers of the cable, provide safe electrical connection, electrical field and creepage current control, as well as protection against moisture, mechanical and environmental impact.

Most of the products are prefabricated or premolded, and they are all easy to install

and offer great flexibility. Because they are premolded or prefabricated they can be pretested – an absolute must in many contexts. Sensitive components are routine tested at the factory.

Specially produced rubber compounds create an active pressure around the cable, thereby creating a seal against moisture and helping to avoid air pockets. This also ensures that the cable accessory surrounds the cable with a uniform pressure when the cable diameter changes during load.

Simplified installation for higher safety

Prefabricated and premolded products and modular design make the cable accessories uniquely easy to install. The installers quickly become familiar with the components and this reduces the risk of mistakes.

A product design that integrates vital parts and functions in the product, minimizes the risk of faulty installation and, in many cases, enables re-adjustment during installation.

Easy-to-follow manuals also minimize the risk of incorrect installations.

Better economy

Our cable accessories provide greater safety in power cable networks. Safe junctions equals better grid reliability. This, as well as lower costs from easier and quicker installations, means major savings in the long term.

Our cable accessories are made from supple polymeric materials that are extremely flexible. Virtually every type of cable accessory can cope with many cable sizes, so you can manage with fewer versions.

The routines for purchasing and stocking are simplified as the kits are delivered complete in reinforced cartons or boxes and have long storage life.

Quality and the environment are among our top priorities. They are important and self-evident parts of the strategic plan.

Quality investments

Our carefully considered investments in quality and the environment are based on modern principles. They lead to the fulfillment of ambitious goals for competitiveness and profitability, with a view to maximizing value to the customers.

We work continuously to improve our processes, important foundations for this work are:

ISO 9001
Quality standard

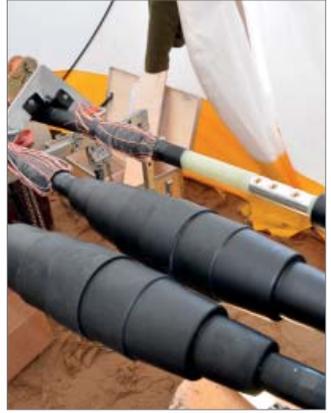
ISO 14001
Environmental standard

OHSAS 18001
Occupational Health and Safety Management Systems

Cable Accessories

In operation all over the world





Contact us

ABB AB

Cable Accessories

Box 531

SE-44115, Alingsås, Sweden

Tel: +46 21 32 50 00

e-mail: info.sedon@se.abb.com

www.abb.com/cableaccessories

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