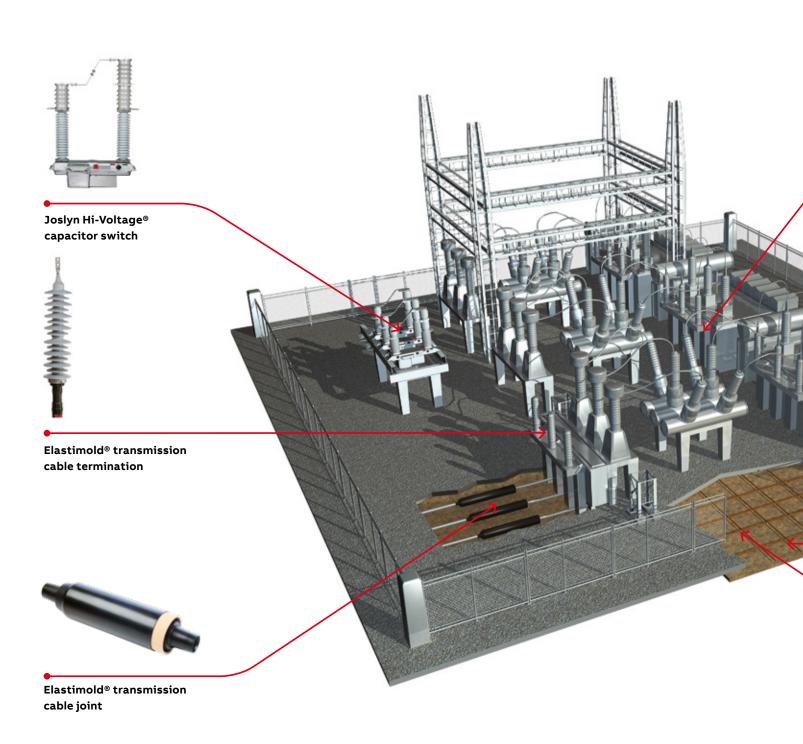




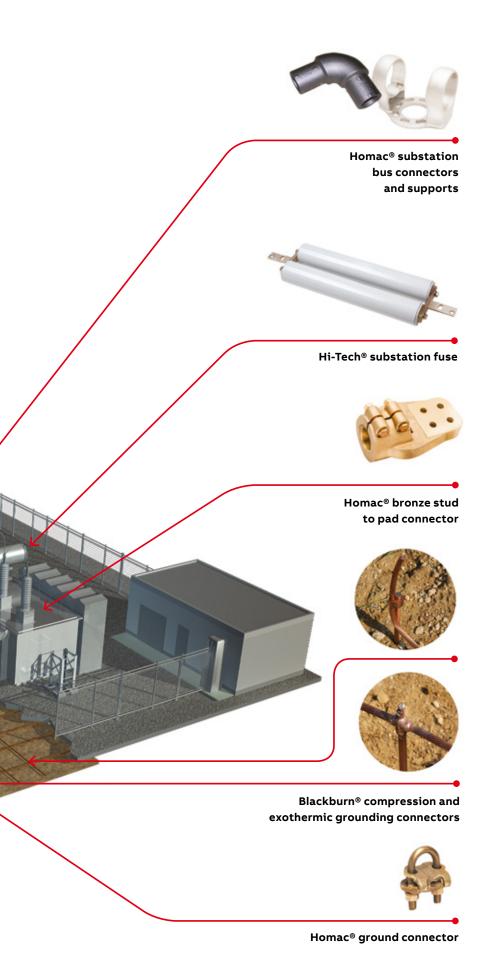
# **Substation solutions**

# Connect and protect with advanced substation solutions from ABB

When it comes to improving substation performance, nobody empowers you like ABB.



OVERVIEW



To achieve consistent, reliable performance from your substation, you need the highest-quality components and the expertise of an industry leader. ABB brings it to you with the industry's top brands, including Homac®, Blackburn®, Elastimold®, Joslyn Hi-Voltage® and Hi-Tech®. We can help you manage power delivery, increase sustainability, ensure safety and reduce maintenance, repair and operating costs.

All our products and services are the result of customer-driven innovation. Our powerful online specification tools are designed to save time and money. Best of all, when you rely on ABB, you get world-class support that flows as dependably as your power.

## **Connect**

Depend on ABB for substation connectors, A-frames, terminations, splices and more. From high voltage to low, we've got the solutions you need to keep connections strong.

#### Substation bus and braided connectors

With a broad range of Homac substation connectors, ABB is your source for both weldment and bolted products for up to 500 kV, including:

- Couplers
- Taps
- · Bus supports
- Terminals
- · Expansion connectors
- · Bus assemblies
- · A-frames
- Jumpers

All Homac equipment is produced in plants certified ISO 9001-2008 for design and manufacturing excellence.

# Compression and exothermic grounding connectors

When you need grounding, you can count on Blackburn compression and grounding fittings from ABB, designed especially for substation applications and carefully manufactured in an ISO 9001-2008 facility. Many of our innovative product offerings, including a new mechanical lay-in connector, meet the rigorous IEEE 837-2014 standard.

Blackburn exothermic products are also manufactured to rigorous standards and provide the reliability you need for critical substation grounding connections. Typical Blackburn connectors have at least twice the cross-sectional area of the conductors being joined, and an equivalent or greater current-carrying capacity. Many have also been tested successfully to the IEEE 837 standard.

## High and medium voltage terminations and splices

ABB offers one of the industry's most reliable and complete packages for managing medium and high voltage cable connections and protecting your underground power distribution systems. Ranging from 5 kV to 138 kV, our Elastimold cable accessory product line includes:

- Cable joints
- · Cable terminations
- · Cable accessories
- · Grounding connection systems
- Underground arresters







## **Protect**

Safeguard the flow of power and the life of equipment. Get quality and peace of mind with the best in capacitor switches, reclosers and fuses from ABB.

#### Capacitor switches

Joslyn Hi-Voltage capacitor switches from ABB contain no oil or gas. They use solid dielectric insulation to keep people and the environment safe. VBM switches are available with the zero voltage close, which mitigates overvoltage disturbances, eliminates high inrush currents and reduces harsh treatment of equipment.

#### Reclosers

World-class designs and engineering, quality-rated production facilities and the best after-sale support and training — that's what you can expect with Elastimold reclosers from ABB. They are smart grid ready, compatible with industry-leading controls, weigh 33% less than typical units and are modular so field upgrades and retrofits are fast and easy.

#### **Substation fuses**

Because substations handle very high fault currents, ABB offers Hi-Tech current-limiting fuses, ideal for PTs, capacitor banks and 34.5 kV systems. Adding these current-limiting fuses greatly reduces the energy let through during a fault and clears faster than other protective devices. That translates directly into a safer working environment and minimizes the risk of catastrophic failure of costly equipment.

Hi-Tech products also offer external current-limiting back-up fuses for systems ranging between 46 kV and 138 kV that would otherwise be protected only by power expulsion fuses that do not limit energy during a fault. The addition of Hi-Tech substation fuses can increase maximum interrupting ratings of the overall protection scheme while limiting the energy the station must withstand during low impedance faults.

#### Low voltage products

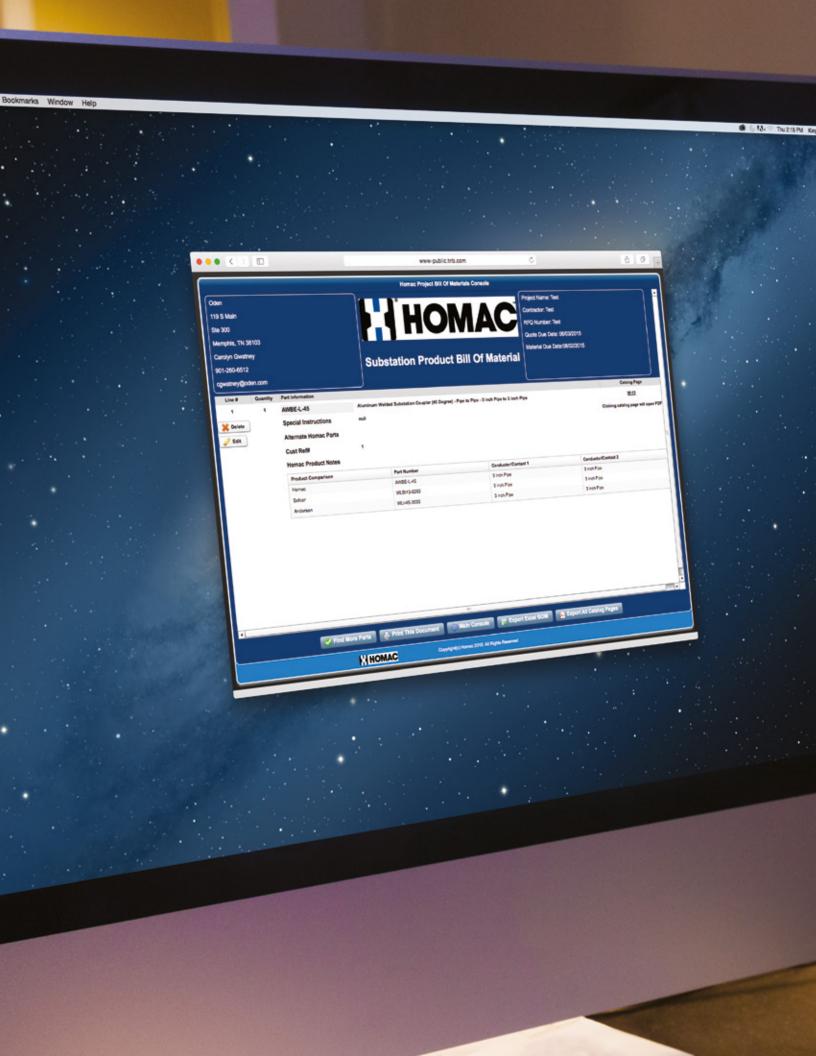
Look to ABB low voltage products for the substation control house and yard, including:

- Storm-hardened cable tray solutions
- · Cable fasteners
- · Conduits and fittings
- Wire terminations and tools
- Metal framing
- · Electrical boxes
- · Industrial lighting
- · And more









ONLINE RESOURCES

# ABB makes finding components or configuring prefabricated assemblies simple

Reduce costs and save time with search, specification and prefab configuration online tools.

#### Substation connector selection program

Now there's a free online tool suite that enables quick and accurate identification of the exact Homac substation bus connectors to meet your application requirements. Rapidly cross-reference part numbers from different manufacturers. Identify the proper connector by description alone. Quickly access relevant catalog pages and build project bills-of-material. Order prefab bus assemblies, A-frames and jumpers to reduce work at the site, lowering project costs. To start using your new competitive edge, please visit us at www.tnb.com/HomacSubstationTool.

#### **CAD library**

Simplify 3D modeling of substations and save valuable design time using the ABB CAD Library — now featuring 3D models of our complete line of Homac substation bus connectors. It's a free service for ABB customers and available online at www.tnb.com/HomacSubstationTool.

#### Learn more

Discover unsurpassed quality, value and reliability. Ask your ABB representative about all our substation solutions, or visit us online at solutions.abb/cable-accessories-apparatus.



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