ABB offers a comprehensive range of high-voltage products up to 1200 kilovolts that help enhance the safety, reliability and efficiency of power grids while minimizing environmental impact.

ABB is a pioneering technology leader in power grids, electrification products, industrial automation and robotics and motion, serving customers in utilities, industry and transport & infrastructure globally. Continuing a history of innovation spanning more than 130 years, ABB today is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug and automating industries from natural resources to finished products. ABB operates in more than 100 countries with about 147,000 employees.

In a power system, a switchgear is used to control, protect and isolate electrical equipment to ensure the reliability of the electricity supply.

The factory is spread over 3,400 square meters and has been designed on the principles of Lean production to manufacture air-insulated switchgear (AIS) and gas-insulated switchgear (GIS) up to 170-kilovolt (kV).

Modern process techniques such as lean manufacturing, lean administration, just-in-time, one-piece flow, kaizen and theory of constraints are applied. The use of these new techniques helps to achieve top industry standards such as:

- Shortest delivery times
- Reliable on-time delivery
- Highest quality level
- Rapid response to customer requirements
- Highest cost efficiency
- Best performance
FACTORY PROFILE HIGH VOLTAGE PRODUCTS

- High-voltage circuit breaker Live Tank Breaker (LTB), type LTB-D 72.5 kV - 170 kV, the world’s most installed high-voltage breaker
- Horizontal center break disconnector SDF 72.5 kV - 170 kV for maximum reliability and minimal maintenance
- Gas-insulated switchgear, type ELK-04 with ratings up to 170 kV, 4000 A, 63 kA

Manufacturing execution system (MES)
Implementing MES for material tracking, quality assurance and digital work instructions enables higher efficiency and productivity throughout the production process.

Lean manufacturing
The facilities allow for the efficient and effective production of customized as well as standardized products and systems. Flow production lines based on a one-piece flow and pull concept, ensured by a number of assembly stations (i.e. takt) enable optimized throughput time.
**Incoming goods inspection**
All materials are thoroughly checked in the incoming goods inspections to guarantee 100 percent quality.

**Continuous improvement**
The culture of continuous improvement processes (CIP) allows for operation and production to be reviewed and constantly optimized. This helps in achieving:
- Best quality
- Highest efficiency
- Safe operations

**Testing infrastructure**
High-voltage products are thoroughly tested in accordance with international standards and ABB quality assurance procedures. With state-of-the-art testing equipment like an explosion proof test chamber, high precision timing equipment and an advanced SF₆-gas handling plant, routine tests are performed for:
- Mechanical testing
- High-voltage testing according IEC 62271-203 and IEC 62271-1 standards
- Leakage testing for GIS
- Partial discharge detection for GIS
Factory acceptance test (FAT)
FAT is the single most important milestone in production where tests are performed to determine that the customer requirements and specifications are met prior to delivery to site.

A customer lounge is available at the GIS factory to host customers in the most efficient way to complete the FAT procedures and issue the relevant test protocols in the shortest time.
- From the lounge, the customer can interact with the testing engineers performing various tests
- Panoramic view of the entire test area (both mechanical test rooms and dielectric test rooms) and the assembly area

Installation and commissioning
Fully trained ABB experts provide on-site installation and commissioning for high reliability and optimized life-cycle performance from the first operation. Our facility is fully equipped with tools and test equipment for fast and reliable installation and commissioning.

Quality, safety and environment certifications
- ISO 9001 Quality Certificate
- ISO 14001 Environmental Certificate