

Traction solutions for rolling stock

Global center of excellence



ABB's global center of excellence in Turgi occupies a leading position in the development, engineering, manufacturing, and service of traction converters and customized propulsion solutions for rail vehicles and electric buses.

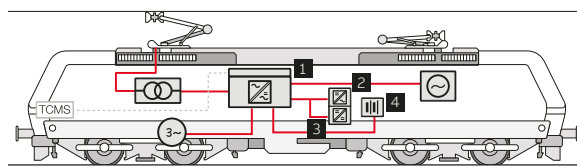
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01 Development and production of traction converters and traction packages at Turgi site

Manufacturing in Turgi

Traction converters for light rail vehicles, metros, regional trains, high-speed trains and locomotives are manufactured at our site in Turgi. ABB is the independent supplier of traction and onboard converters for many of the major rail vehicle builders, railway operators, and refurbishers throughout the world. Our converters range from just a few kilowatts, to several megawatts.

What is a traction converter?

Traction converters are the heart and the brain of rolling stock propulsion systems. They control the speed, torque and energy flow to the wheels.



- [1] Traction converter
- [2] Auxiliary converter

- [3] Battery charger
- [4] Energy storage

If you have travelled to Turgi on one of SBB's KISS double-deck or regional FLIRT trains, you have already experienced the powerful accelerative capabilities of ABB's traction converters.

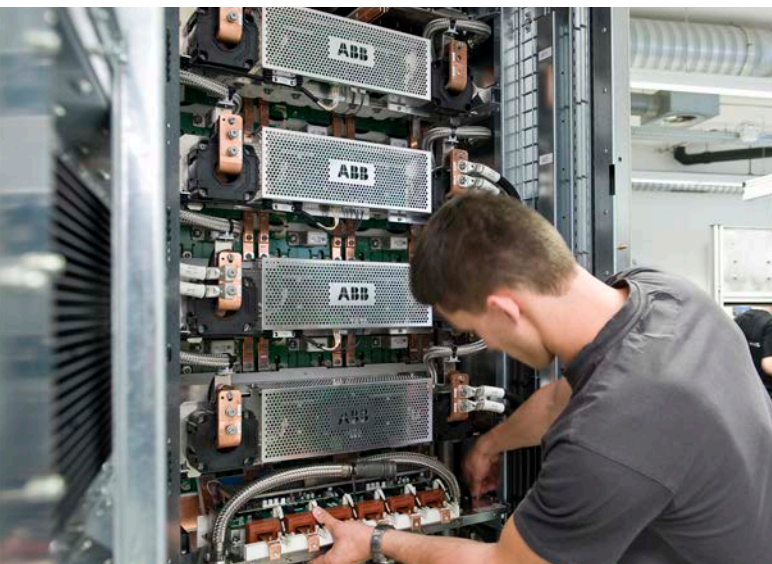
Batch assembly and flow production

The traction factory in Turgi is typically running between 30 and 40 projects in parallel. When required, prototype units are initially produced in close collaboration with our customers. ABB's traction converters are then manufactured in batches of widely varying quantities and specifications and are supplied to our customers just-in-time.

The final assembly process can also be converted into a flow production arrangement, thereby offering the flexibility to align with the production schedules of our customers.

Optimized material flow

ABB has implemented many innovative manufacturing and logistics concepts at the Turgi site, in order to optimize material flow throughout the production process. Materials are delivered to each work station just-in-time. Barcode systems are then utilized for material tracking, to minimize inventory on hand.



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01 Final assembly of modular design traction converter

02 KISS double-deck trains and FLIRT regional trains from Swiss federal railways are powered by ABB traction systems

Quality management

Quality checks are performed throughout the key stages of the production process. Prior to leaving the factory, each electrical sub-system of the traction converter undergoes extensive testing. The converter is also operated for several hours under a broad range of conditions.

ABB's traction converter production facilities comply with the most stringent quality standards:

- ISO 9001 Quality Certificate (Quality Management Standard)
- IRIS (International Railway Industry Standard)

Global network of production facilities

ABB's manufacturing facilities in Turgi are complemented by a global footprint of traction converter production facilities, located in close proximity to our customers. The traction business is also able to leverage off ABB's extensive global network of power electronics manufacturing facilities.



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Health, safety and environment

The production facilities utilize the most modern ergonomic work stations and assembly equipment. Excess materials are later carefully sorted and recycled. Our manufacturing facility complies with OHSAS 18001 Occupational Health and Safety and ISO 14001 (Environmental management standard).

In Turgi for almost 50 years

The Swiss engineering firm, Brown Boveri & Cie (BBC), first established a production facility in Turgi in 1966, manufacturing electrical drive systems for locomotives. In 1988, BBC merged with the Swedish firm ASEA.

ABB's current series of traction converters have been manufactured in Turgi since 2003.

In 2014, ABB Traction in Turgi received the „Industrial Excellence Award“ for the best factory in German speaking countries.

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