Live Tank Circuit Breaker LTB D 72.5 to 170 kV
Protecting more networks than any other ABB breaker

LTB D can withstand breaking currents up to 40 kA, with fast interruption (2 cycles) for maximum power system stability. It is configurable for all applications and environments.

LTB D is also available as a Disconnecting Circuit Breaker where the disconnecting function is integrated in the circuit breaker.

Why ABB?
• Local and global ABB industry and application support
• Lowest failure rate - one third of Cigré average according report on high-voltage circuit breakers reliability, (Cigré group A3.06 October 2012)
• Low environmental impact
• Motor Drive mechanism option for ultra-quiet functionality
• High mechanical and electrical endurance exceeding industry standard
• Global service organization, local everywhere

Design features
The LTB D is a high-performance circuit breaker designed for a maximum breaking current of up to 40 kA at rated voltages from 72.5 kV up to 170 kV. The LTB D is available for single or three-pole operation.

Thanks to the excellent current-carrying design, the circuit breaker can handle rated loads of 3,150 A of continuous current (4,000 A in some configurations).

It is suitable for all applications and proven in extreme locations including deserts, the tropics and cold climates withstanding natural disasters from hurricanes to major earthquakes. During the past 30 years, the LTB D circuit breaker has provided reliability to power systems worldwide.

Applications
• Line, transformer, reactor and capacitor switching
• Switching of harmonic filters
• Low frequency railway applications
• Connecting renewable power to the grid

Controlled switching by Switchsync™
The single-pole operated live tank circuit breakers supplied by ABB are particularly well suited for controlled switching due to their good stability in regards to mechanical operating time and dynamic dielectric behavior. Controlled switching is used for elimination of harmful electrical transients upon planned switching of mainly capacitor banks, shunt reactors and power transformers.

The method is also gaining acceptance for reenergizing of EHV transmission lines, and replacing traditional pre-insertion resistors. Since 1986, thousands of Switchsync™ controllers have been delivered all over the world.
Reliable operating mechanism
For many years, ABB has used operating mechanisms with energy mechanically stored in springs. This solution offers considerable advantages in that the energy in the tensioned springs is always available. The spring operating mechanisms used for LTB D 72.5 to 170 kV are BLK, MSD or FSA depending on customers’ application and requirements.

As an alternative, ABB can offer Motor Drive, a digital servomotor system capable of directly driving the circuit breaker contacts with high precision and reliability. The number of moving parts in the drive is reduced to only one – the rotating motor shaft.

With the optional Motor Drive mechanism, the LTB D is ultraquiet and smart grid enabled.

After sales and service
ABB has a long history of supporting utilities’ needs for expanded breaker performance in response to the growing demands of a continuously evolving power grid.

As a globally operating technology corporation and a manufacturer of products and systems, we complement these offerings with a comprehensive spectrum of round-the-clock support service capabilities.

Our approach to product support is to offer services that improve reliability and extend the operating life of a customer’s circuit breaker, while reducing operation and maintenance costs at each life cycle phase. We offer the most comprehensive and cost-effective alternatives to the purchase of new power equipment.

More information?
Detailed information can be found in our Buyer’s Guide, Live Tank Circuit Breakers, Catalogue No 1HSM 9543 22-00en Ed.6.

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<td>Breaking current</td>
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<tr>
<td>Service conditions:</td>
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<tr>
<td>- Ambient temperature</td>
<td>-30 to 40 °C (Operation in temperatures down to -60 or up to +70 °C on request)</td>
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<td>1,000 m.a.s.l. (Higher altitude on request)</td>
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* LTB Airplus™ available on request.

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