Type PMI-B, 245 kV, up to 63 kA
Power Circuit Breaker

The 245PMI-B breaker represents a performance advancement of the technologies employed in interrupter, mechanism, and bushing technology that have been field proven on ABB SF₆ dead tank breakers since 1992.

ABB advantages
- Interrupting performance through 63 kA
- High performance interrupters comply with IEEE’s new C2 capacitive switching requirements for transmission line applications, and they reduce the potential for overvoltages caused by restrikes during capacitor bank switching
- One-piece interrupter assembly simplifies field change-out whenever end of life is reached by eliminating need for internal tank mounting of separate parts and alignment
- Fully integrated spring-hydraulic operating mechanisms are self-lubricating and self-damping. They are also hermetically sealed to the atmosphere, which eliminates corrosion and helps provide maintenance-free performance with long term stability
- Externally accessible current transformers enables simple field change-out without degassing breaker and bushing removal
- Extensive range of available field services, from technical assistance to turn-key installation, can dramatically reduce construction costs and speed time to commercial operation

Standard features
- Dead tank design, with one 2-cycle puffer interrupter per tank on a TGIC polyester powdercoat steel frame
- National Board certification of interrupter tanks per the ASME Pressure Vessel and Boiler Code
- All tanks factory leak tested in a hard-vacuum chamber with a helium mass spectrometer
- Certified per ANSI C37.04, C37.06, and C37.09 Standards
- Three maintenance-free HMB-4 spring-hydraulic mechanisms
- Frame mounted NEMA-3R steel control cabinet protected with TGIC polyester powdercoat finish
- Single tank-mounted gas density monitor and pressure gauge
- Porcelain bushings
- Continuous current ratings through 4000 A
- Ships fully assembled and factory tested with 5 psig SF₆ gas (bushings removed for export transit)

Options and accessories
- Switching Control Sentinel (SCS) for reduction of switching transients
- Condition monitoring with the Circuit Breaker Sentinel (CBS)
- Density monitor and temperature-compensated pressure gauge directly-mounted on each tank
- Extra creep and/or extra strike bushings for special applications
- Silicone rubber composite bushings
- Tank heaters for operation in ambient temperatures below -30º C
- High seismic designs

HMB 4.0 mechanism
The moving contacts of each pole are independently driven by a type HMB-4 spring-hydraulic mechanism mounted at an end of each tank. Mechanical energy is stored in a stack of compression disk springs and is translated hydraulically to the pole’s operating shaft. Spring charge is automatically maintained by the operation of a universal motor and hydraulic pump. Each fully-integrated mechanism is self-lubricating, hermetically sealed to the atmosphere and weather protected, affording excellent reliability and long term stability.
### Rated capabilities

<table>
<thead>
<tr>
<th>Circuit Breaker Type</th>
<th>Rated Maximum Voltage (kV, rms)</th>
<th>Short Circuit and Short Time Current (kA, rms)</th>
<th>Maximum Continuous Current (kA, rms)</th>
<th>Rated Interrupting Time (Cycles)</th>
<th>Full Wave Withstand Voltage (kV, Peak)</th>
<th>Power Frequency Insulation Withstand Voltage (kV, rms)</th>
<th>2 µ-sec Chopped Wave Impulse Voltage (kV, Peak)</th>
<th>Closing and Latching Current (kA, Peak)</th>
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<tbody>
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</tbody>
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* 3-cycle rated interrupting time alternatively available
§ 1050 kV full wave withstand voltage with 460 kV power frequency withstand rating optionally available

For more information please contact:

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