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

The PMG-B breaker evolved from the quality ABB type PMG breakers, merging components, expertise and outstanding performance history into a breaker that provides enhanced performance with exceptional long-term reliability.

ABB advantages
- Interrupting performance through 63 kA without shunt capacitors for short line fault performance, saves cost and simplifies engineering
- High performance interrupters for definite purpose breaker reduce potential for overvoltages caused by restrikes during capacitor bank switching
- Interrupter complies with IEEE’s new C2 capacitive current switching requirements for transmission line applications
- 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 mechanism is self-lubricating and self-damping. It is also hermetically sealed to the atmosphere, which eliminates corrosion and helps provide maintenance-free performance with long term stability
- Externally accessible current transformers enable simple field change-out without degassing breaker and bushing removal
- Foundation layout identical to that of previous 242PMG designs, minimizing engineering and construction costs for upgrades
- 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 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
- Maintenance-free HMB-8 class spring-hydraulic mechanism
- Frame mounted NEMA-3R steel control cabinet protected with TGIC polyester powdercoat finish
- Single tank-mounted gas density monitor and pressure gauge
- Continuous current ratings through 4000 A
- Mechanism is removed for shipment; breaker otherwise ships fully assembled and factory tested with 5 psig SF6 gas (bushings removed for export transit)

Options and accessories
- 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 -30°C
- High seismic designs

HMB-8 mechanism
The type HMB-8 class spring-hydraulic mechanism, externally mounted beneath the pole linkage system, provides the driving force to gang-operate the breaker’s high performance puffer interrupters. Mechanical energy, stored in a stack of compression disk springs, is hydraulically translated to the operating shaft. Spring charge is automatically maintained by the operation of a universal motor and hydraulic pump. The 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 (A, 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, rms)</th>
<th>Closing and Latching Current (kA, Peak)</th>
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</tbody>
</table>

* 3-cycle rated interrupting time available
† 1050-kV full wave withstand voltage with 460-kV power frequency withstand rating available

For more information please contact:

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