

Dead Tank Circuit Breaker 145PM40-C

New compact design with enhanced reliability

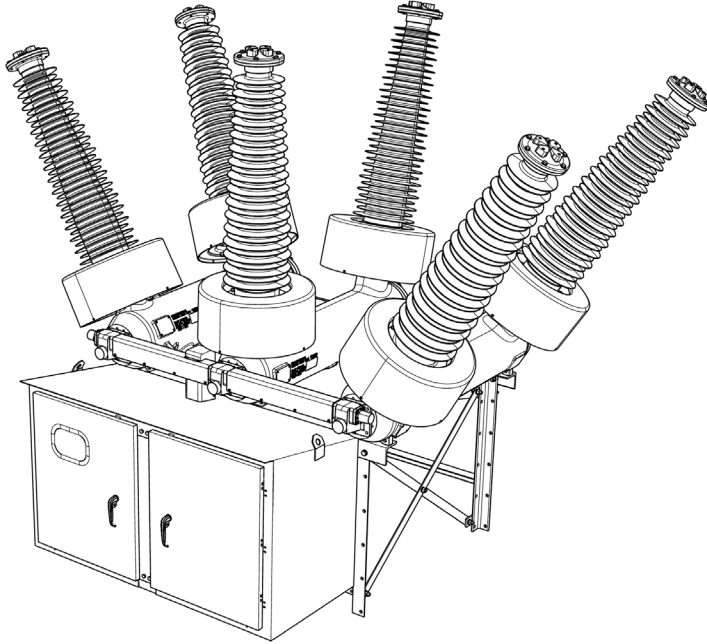


ABB offers the widest range of high voltage circuit breakers on the market. Our portfolio of dead tank circuit breakers ranges from 72.5 kV to 800 kV.

ABB has a long history of developing innovative technologies to address the changing demands of power systems. As these systems continue to evolve, switching solutions must be designed to meet present-day applications as well as anticipate the future state of the grid.

ABB is proud to offer the type 145PM40-C SF₆ power circuit breaker for enhanced reliability with a more compact design.

With just under 50,000 breakers delivered to date, spanning voltages up to 800 kV, the ABB type PM dead tank circuit breakers remain the most purchased brand in the industry. This is due to their low cost of ownership and strong performance, backed by industry-leading service and support.

Applications

The 145MP40-C is available for standard applications such as:

- overhead line switching
- transformer switching
- capacitor bank switching

Special applications upon request:

- shunt reactor switching
- harmonic filters

Benefits of ABB's advanced technology

Common platform

- This design shares common features and existing technology with other ABB switchgear platforms, ensuring established and time-tested reliability.
- The 145PM40-C offers the most commonly purchased features as standard or available options.

High performance and long life for all applications

- The 145PM40-C dead tank circuit breaker is certified for Class C2 capacitive switching and Class IEC M2 mechanical endurance (10,000 operations).
- Our high performance, dual-motion self-blast interrupter achieves full ratings up to 145 kV, 40 kA.
- The breaker is designed for a design life of a minimum of thirty (30) years under normal operating environments.

Environmental awareness

- The type PM uses SF₆ as the insulating medium. ABB has invested a great deal to reduce SF₆ leaks through design, manufacturing techniques and innovative monitoring technologies. The PM line also utilizes less SF₆ than competing designs.

Ease of installation and maintenance

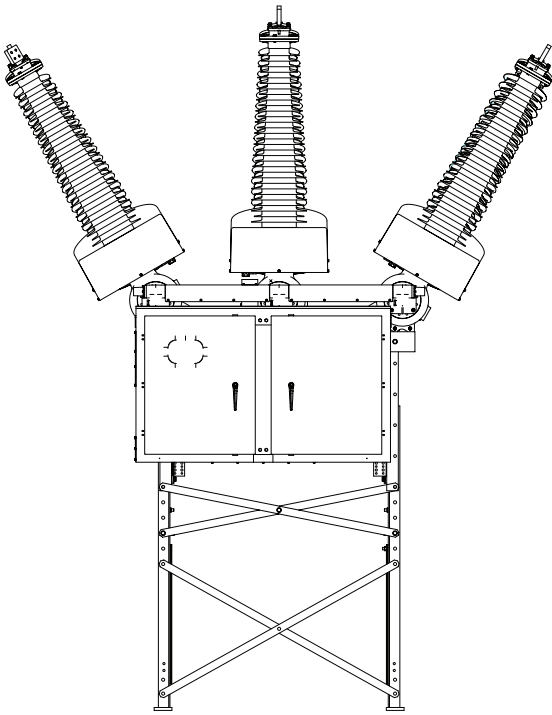
- The type 145PM40-C is shipped completely assembled and filled with positive SF₆ pressure, allowing for the quickest installation time in the industry.
- Only standard tools are required for installation, inspection and normal maintenance and repair tasks.

MSD mechanism

The MSD mechanism incorporates proven design principles from ABB's earlier spring operating mechanisms, including stable, reliable low power operating latches and cam disc operation for closing operation control.

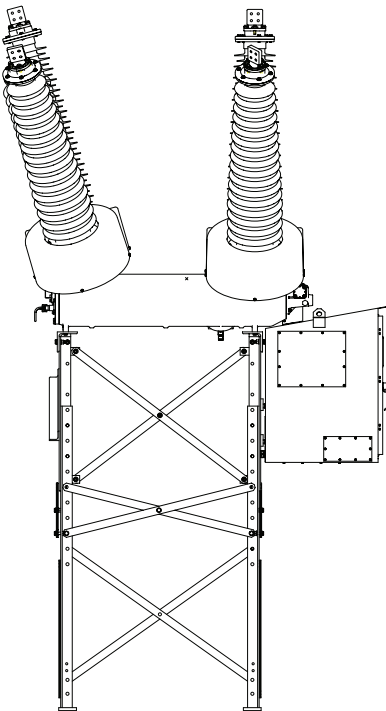
The MSD torsion spring operating mechanism is designed with a minimum of components, ensuring a high degree of total reliability and minimal need for maintenance.

An important innovation of the MSD design is the use of the torsion springs for opening and closing energy storage. This allows for a very compact design, with both closing and opening springs contained within the operating mechanism.



Physical data

Phase spacing	5.75 ft (1753 mm)
Height - as shown	14.98 ft (4566 mm)
Width - as shown	11.62 ft (3541 mm)
Length - as shown	8.19 ft (2496 mm)
Shipping weight	6,450 lbs (2925 kg)
Footprint of frame	5.02 ft (1530 mm) x 3.85 ft (1172 mm)
Centerline to centerline	5.75 ft (1753 mm)
Minimum height to live parts	12.20 ft (3718 mm)
Typical installed weight with porcelain bushings and maximum BCT's	6,600 lbs (2995 kg)



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