Low and Medium Voltage Service Why medium voltage replacement breakers

Frequently asked questions

Why remove a vintage medium voltage circuit breaker and install a roll-in replacement?



Safety

Older medium voltage circuit breakers contain asbestos arc chutes and are now an environmental liability and safety issue with maintenance personnel. Arc chutes are extremely heavy, requiring two people to safely remove for a thorough maintenance inspection.

Parts

Original manufacturer's replacement parts for vintage circuit breakers may no longer be available. The used equipment market may no longer be able to supply dependable parts.

Application issues

Changes in the power system over time may make higher fault currents available resulting in circuit breakers that are applied beyond nameplate ratings.

Technology

Spring tension and associated breaker operating speed is no longer a concern. Today's circuit breakers can be equipped with advanced technology magnetic operating mechanisms. This greatly reduces the number of moving parts and eliminates the need for a stored energy device.

Minimum feeder outage

With roll-in replacement circuit breakers, a feeder outage is reduced to the time it takes to remove the existing breaker from the cell and rack in the replacement breaker. There is usually no need for a complete bus outage.

Lower operating cost

Older circuit breakers require continual maintenance and repetitive refurbishing in order to preserve reliability and avoid unexpected downtime. Vacuum interrupters offer reduced maintenance and feature clean, quiet operation in comparison to air magnetic breakers with arc chutes. Coupled with simple operating mechanisms, this means modern vacuum breakers require less frequent and ABB Inc. less intensive maintenance.



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ABB Inc.

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