Retrofitting
Solutions for ABB HA and H-HX BreaKing gas insulated MV circuit breakers in CBE and UniVer C applications

Safety and Reliability
- Strong fault risk reduction and significant life time extension
- Racking in-out motorization option and improved operator protection
- Lower maintenance requirements and long time availability of spare parts

Optimize your investment
- Limited capital investment
- Minimization of further maintenance costs
- Warranty on the conversion work

Protect your assets
- Latest generation solution designed according to IEC 62271-100 Standard
- Short implementation time for replacement with minimum shutdown of the switchboard

Circuit breaker retrofit is a cost-effective alternative to the complete switchgear replacement. Retrofitting is performed by replacing phased-out devices with circuit breakers from the current production range specifically designed to mechanically and electrically adapt to the existing models in the plant. The result is substantial improvement in reliability, safety, maintenance and performance.

ABB Service experts conduct on-site audits on existing installations to assess the condition of the equipment, recommend the most suitable solution and technically support the most appropriate investment.

ABB Service is a complete system provider of retrofitting solutions, from proposal to design, through manufacturing, testing and finally installation and commissioning.

HA is the family name of a wide range of hexafluoro circuit breakers manufactured by ABB and currently in obsolete phase. The withdrawable versions HA/ZC and HA/C were available for use in CBE enclosure and UniVer C switchboards, also used for Marine application. H-HX SACE Breaking was the next series replacing HA ones.
Technical Data
ABB offers a full range of retrofit solutions based on vacuum circuit breakers and gas circuit breakers. Please contact ABB for shipping registers certified apparatus.

ABB experts propose the best apparatus for each switchgear unit, depending on the characteristics of the apparatus installed in the network and the specific operating requirements of each unit. The following basic technical data are required in order to provide standard retrofitting solutions:
• Rating plate data and serial number
• Photos of all four sides
• Photo of the switchgear compartment interior
• Existing functional electric circuit diagram
• Generator data for the relevant feeders.

Safety upgrade
ABB can provide remote racking solutions in order to enhance personnel safety. TruckMaster allows circuit breakers to be remotely racked in and out from a safe distance.

Options
• **TruckMaster** remote motorized racking
• **Swicom** switchgear monitoring and diagnostic
• **ArcSwitch** Safety upgrade and personnel risk prevention

The data and illustrations are not binding. We reserve the right to make changes without notice in the course of technical development of the product.

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