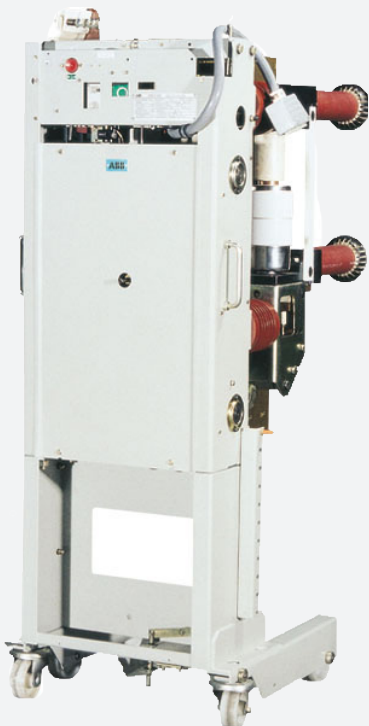


Retrofitting

Solutions for ASEA/ABB make vacuum circuit breaker type HCA



The foremost advantage of retrofitting a circuit breaker in switchgear is that the required specifications are met with the latest technology at only a partial cost of replacing the equipment. This becomes more evident when the associated costs of civil works, cabling and downtime are considered. Retrofitting helps in saving up to 60 percent of the cost of new equipment.

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01 ASEA/ABB make
HCA circuit breaker

Typically, retrofitting constitutes replacement of vital equipment having similar or advanced features, for life extension, reduced maintenance and improved functionality. This includes upgradation and modernization of basic equipment and allied parts. The retrofitted switchgear offers far greater system reliability, long term availability of spares and increased safety to the operators with minimal investment and downtime.

ABB is a full system provider for retrofit solutions, from the proposal and design, through the manufacturing and testing, up to the installation and commissioning.

Benefits

Reliability

- Significant life time extension
- Lower maintenance requirements
- Long time availability of spare parts

Safety

- Strong fault risk reduction
- Additional embedded safety features
- Improved operator protection

Technology

- Latest generation apparatus
- Designed according to IEC 62271-100 standard
- Tested and certified products

Project

- Short implementation time for replacement
- Minimum shutdown of the switchboard
- Smooth site activity

Investment

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

Facts

HCA is a family name of wide range of vacuum circuit breakers manufactured by ABB. They were manufactured for fitting in VHE12S panel of ABB. These circuit breakers are widely present in the networks and ABB can provide the relevant retrofitting solutions. This equipment has been in service for decades and retrofitting could significantly extend the operational life of the switchgear. The use of well proven VD4 Vacuum Circuit Breaker enhances the reliability of the switchgear. The retrofit circuit breakers can be fitted with surge arrestors or potential transformers on request.

Technical data

A full range of retrofit solutions have been developed based on latest ABB vacuum circuit breakers. Perfect one-to-one interchangeability is guaranteed from electrical and mechanical point of view. ABB proposal provides the best fit for purpose apparatus for each switchgear unit, depending on the complete network equipment conditions and the specific feeder operational characteristics.

The following basic details are necessary for providing standard retrofit solutions:

- All rating plate details
- Four sided pictures
- Compartment inner picture
- Existing panel schematic diagram

Rating	
Type	VD4-HCA
Rated voltage (kV)	12 kV
Rated current (A)	1250, 2000, 2700 (AN), 3000 (AF)
Rated short circuit current (kA)	Upto 40 kA

- Options**
- **MySiteCare** monitoring and diagnostic
 - **MyRemoteCare** cloud based services
 - **Power Care** customer support agreement

