Medium Voltage Service Technical Flyer

# Retrofit

# Solutions for ABB air-magnetic DIARC circuit breaker

Circuit breaker retrofit is a cost-effective alternative to the complete switchgear replacement. ABB Service experts conduct site audits on existing installations to asses the condition of the equipment, recommend the proper solution and support the right investment decision.

Retrofit stands for the replacement of phased-out devices by current production circuit breakers which are mechanically and electrically adapted for the existing engineering. The result is a deep improvement on reliability, safety, maintenance and performances.

ABB Service 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**

DIARC is the family name of a wide range of air-magnetic circuit breakers manufactured by ABB and currently phased-out. They were either manufactured for fitting their own panel and cassette but also delivered to panel builders in both fixed and withdrawable version. Additional variants have been produced during their life cycle due to the technological development, such as Marine application certified apparatus.

The original design included some asbestos parts. The same has been removed from production at the time the asbestos was recognized unhealthy. Specific handling procedures have then to be applied during maintenance and performed by certified operators only.

DIARC data label referred to MVA fault power and open-air rated current and therefore shall be converted to kA and inpanel capacity for complying with today standards.



#### **Technical Data**

A full range of retrofit solutions have been developed based on ABB vacuum and gas circuit breakers. Fused vacuum contactor is also available for replacing motor starter units. Shipping Registers certified apparatus can be provided too. ABB proposal provides the best fit for purpose apparatus for each switchgear unit, depending of the complete network equipment conditions and the specific feeder operational characteristics.

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

- Data label technical information and serial number.
- Four sides pictures.
- Compartment inner pictures.
- Existing panel schematic diagram.
- Generator data for the relevant feeders.

For more information please contact Service department at:

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