Medium voltage service
Service package 'Maintenance of vacuum circuit-breakers'
Type VD4 / VBL - R10/20

Does undiminished availability and reliability of your circuit breakers take topmost priority in your business?

If so, we as the authorized service partner for VD4 vacuum circuit-breakers recommend to conduct inspections and maintenance services on a regular basis. This way, maximum future availability, optimized performance, extended lifetime and minimized repair costs can be assured.

Maintenance of vacuum circuit-breakers
The 'Maintenance of vacuum circuit-breakers' service package for VD4 breakers is based on our longstanding service expertise and on manufacturer-specific know-how. It covers all related services and all original spare parts needed for this type of breaker. In conformity with the manufacturer’s specifications, the original spare parts are needed especially for regular maintenance of the VD4 circuit breakers.

This service package has been developed specifically for the VD4 vacuum circuit-breaker and assures proper compliance with the manufacturer’s maintenance instructions. As the authorized service partner, we can thus offer you the best possible servicing of the VD4 circuit breakers installed in your facility. These specialized technical services can be provided only by our service experts who have been trained specifically for this purpose and who are familiar with the specifics of your substation.

List of deliveries and services
The materials and services of this service package are rendered on site and according to schedule and cover all labor, material and tool costs:

Materials
– Service set for operating mechanism
– Auxiliary agents (grease, cleaning agents, etc.)
– Provision of special measuring instruments, e.g. for voltage drop measurement and vacuum testing

Services
– Visual inspection of the breaker mechanisms and of the pole pieces
– Installation of the parts supplied with the service set
– Check of the breaker settings
– Check of the contact points and of all screw connections
– Functional check of the switching device in a switchbay (test position)
– Voltage drop measurement and vacuum tests
– Provision of special measuring instruments, a voltage drop measuring device and a vacuum tester
– Preparation of a maintenance report for each switching device
Your benefit at a glance
- Maintenance services carried out by ABB experts, certified in conformity with the DQS requirements and based on the following standards: DIN EN ISO 9001, DIN EN ISO 14001, BS OHSAS 18001, and nuclear safety standard KTA 1401
- Early detection of weak points or damage
- Optimized reliability and availability of the breaker mechanisms translates into reduced downtime
- Enhanced on-the-job safety for your staff
- Original spare parts in line with the manufacturer’s specifications and provided with the manufacturer’s test certificate
- Short delivery times
- Easy-to-order material package
- Explicit budgeting of the maintenance costs
- Favorable package price as compared to the expenses of purchasing the individual parts

What is the benefit of having your regular servicing carried out by ABB Service Power Technologies?
The main cause of failures and malfunctions of VD4 circuit breakers is usually related to component aging.

As the arcing chambers of VD4 breakers are maintenance-free over their entire lifetime and merely require to be inspected now and then, the maintenance activities of this particular service package only concern components of the breaker mechanism that are exposed to the effects of wear and tear.

The ‘Maintenance of Vacuum Circuit-Breakers’ service package for VD4 breakers obviates the effects of wear and tear by replacing obsolete components with new and original spare parts that conform with the manufacturer’s specifications. With this concept, we can make sure that the specified properties of the circuit breakers are maintained and the risk of downtime is reduced. This way, you can implement maximum future availability and reliability of supply, as well as optimal performance of your circuit breakers.

In order to assure on-the-job safety for both equipment and operating staff as required by the BGV A3 regulations (issued by the German Employers’ Liability Insurance Association), we recommend to perform the maintenance services described for the ‘Maintenance of Vacuum Circuit-Breakers’ service package after 10,000 operating cycles, or at the latest every 4 years. An inspection of the vacuum circuit-breakers has to be carried out after 5,000 operating cycles at the latest.

In installations with exceptional operating conditions or special negative environmental conditions, it might be necessary to perform the maintenance activities after much less operating cycles, and at time intervals of less than 4 years. For more detail information, please refer to the respective operating instructions.

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