**Retrofit for circuit breaker operating mechanism**

**EBK-HMB030**

SF₆ gas-insulated switchgear type EBK-030

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**Product description**

EBK-HMB-030 is a retrofit solution for gas insulated switchgear type EBK-030. ABB Service Power Technologies is going to develop this new retrofit solution to ensure a reliable operation and extend the lifetime of switchgear.

By now the operating mechanism type ELK-X of circuit breaker is ~35 years in service. Due to extreme delivery times of components as well as the manufacturing end of supplied parts, an economic maintenance can’t be offered reasonably anymore.

This solution combines the technical need and a cost-efficient investment. For a life extension our long time of experience with this type of operating mechanism, showed an increasing number of internal and external oil leakages. On the other hand if the maximum number of CO operations (2,000 CO) will never be reached, the arcing chambers still operate reliably. This ensures a minor investment compared to our existing retrofit solution SW-21, which includes the exchange of complete circuit breaker (arching chambers, housing and operating mechanism).

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**Key figures**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil amount</td>
<td>2.3 l</td>
</tr>
<tr>
<td>Operating sequence</td>
<td>O-CO</td>
</tr>
<tr>
<td>Charging time O-CO</td>
<td>ca. 50 sec</td>
</tr>
<tr>
<td>Maintenance Interval</td>
<td>20 Years</td>
</tr>
</tbody>
</table>

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**Customer benefit**

The retrofit solution with latest operating mechanism type HMB-4 will be directly adapted at existing circuit breaker and is a reliable und economic alternative compared to conventional maintenance. Additionally the spare part availability is ensured for another 25 years.

This solution should be taken into consideration if maximum number of switching operations is not expected during the remaining lifetime.

An evacuation of gas compartments is not necessary, whereby a fast re-commissioning of the substation is possible.

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After 35 years in service the spare parts supply and availability of product know-how for gas insulated switchgear type EBK-030 is not ensured anymore.

ABB decided to develop a retrofit solution for the operating mechanism of the circuit breaker EBK-L. This guarantees both availability and reliability of this switchgear type for the operator.
Your benefit at a glance

- Prolongation of maintenance intervals
- Substantial reduction of maintenance costs
- Circuit breaker operating mechanism is state-of-the-art
- Fast, cost efficient and reliable spare part availability from actual series production
- No change of existing infrastructure necessary

02 New operating mechanism type HMB-8