Service High Voltage Products

Scope of inspection work
Gas insulated switchgear type ELK-04 / EXK-0

Regular inspection work according to manufacturer’s recommendation improves the availability and reliability of your substation.

As a result ABB’s service engineers prepare a final inspection report to evaluate customer’s status of gas insulated switchgear.

Circuit breaker
- Visual check
- Function control
- Recording of velocity or switching time
- Check of connected cable plug
- Check of operation counter

Operating mechanism type HMB-1
- Visual check
- Function control
- Visual check of oil level
- Visual Check of carbon brushes
- Check of terminals (electrical connections) and auxiliary switches
- Check of function of spring travel switch
- Measure charging time of hydraulic pump
- Reading of operation counter
- Check if stored operation sequence is enabled without blocking
- Visual check of lightness
- Check of function of anti-condensation heater
- Visual check of connected cable plugs
- Check of function of the power relais

Fast acting earthing switch
- Visual check
- Function control
- Visual check of carbon brushes
- Measure of motor current
- Control of auxiliary switches / limit switches
- Visual check of connected cable plugs
- Check of function of anti-condensation heater
- Inspection of crank lock and end position lock

Combined disconnector / earthing switch
- Visual check
- Function control
- Control of movable parts
- Purification of driving elements
- Lubrication of driving elements
- Visual check of carbon brushes
- Measure of motor current
- Control of auxiliary switches / limit switches
- Visual check of connected cable plugs
- Check of function of anti-condensation heater
- Inspection of crank lock and end position loc
- Inspection of center-position lock

Gas compartment
- Check of SF6-gas pressure
- Measuring of SF6 humidity
- Analysis of SF6 gas (air content)
- Analysis of SF6 gas (decomposition products)
- Check of gas-leakages
- Check of adjusted density monitor values
Local control panel

- Visual check
- Check of alarm circuits
- Check of position indications
- Check of field interlocking
- Check of MCBs
- Check of control switches
- Check of function of anti-condensation heater
- Check of mechanical and electrical connections
- Visual check of connected cable plugs

Functional and visual inspections are carried out at 8-year intervals. The gas compartments are not opened for such inspections.

For the duration of the inspection the installation has to be partly taken out of service.