



SURVEY DATE (YYYY.MM.DD)	2014.09.08
Leap Report	00000583
CB SERIAL NUMBER	AG11111111

CUSTOMER	ABB
INSERTED BY	██████████

## Switchboard data

### Switchboard data

Name	Kyle Easy Audit Test
Application	Wind Generator
Dust protection	No dust protection (IP < 5y)
Cooling system	Vent
Pressurization system	No
Drip	Absent
Altitude	< 500 m

## CB Data

### Operations

Total operations since installation (number)	400
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### Generals

CB Serial Number	AG11111111
CB manufacturing date	November 2006
Installation date	2012/10/10 (YYYY.MM.DD)
Last maintenance date	

### Environment

Average environmental temperature :	0 - 25° C
Shocks due to temperature range	No
Humidity:	< 70 %. Standard humidity (continental and temperate zones)
Salt environment:	No salt mist.
Dust:	Moderate level of dust (protected switchboards in industrial environments).
Corrosive atmosphere:	Moderate corrosive atmosphere. Zone close to polluting industrial activities (chemical plants, smelting plants, etc.).
Vibrations:	Moderate. [0.2, 0.5] g. Installations like wind, wind off shore, marine,....

### Routine Tests

Test performed by factory

- Sight inspection and checking: materials and construction faultless and fully complying with the order specifications and rules
- Mechanical operation checking: correct mechanical working on "off load" operation.
- Dielectric rigidity 3,5 kV 50 Hz voltage was applied for 1 min between :
  - poles with the circuit breaker closed
  - poles and frame with the circuit breaker closed
  - across the terminals of each pole with the circuit breaker open a 2,5 kV 50 Hz voltage was applied between the auxiliary circuits and earthed main circuits
- Thermal protection on overloads

The time-current with a current of  $3I_{th}$  was checked starting from cold conditions.

-Electromagnetic protection on overloads

The operation within  $\pm 20\%$  the rating value was checked in the position of  $I_m$  and the delayer was checked in the positions ----- secs. within  $\pm 10\%$  the rating value.

-Selective protection:

The operation with current value and delayed time within  $\pm 20\%$  the rating value was checked in the position of  $3I_n$ .

Other tests: all routine tests prescribed by the standard IEC 60947 have been performed successfully

## Life Expectancy Analysis

### Leap Analysis Per Components Summary

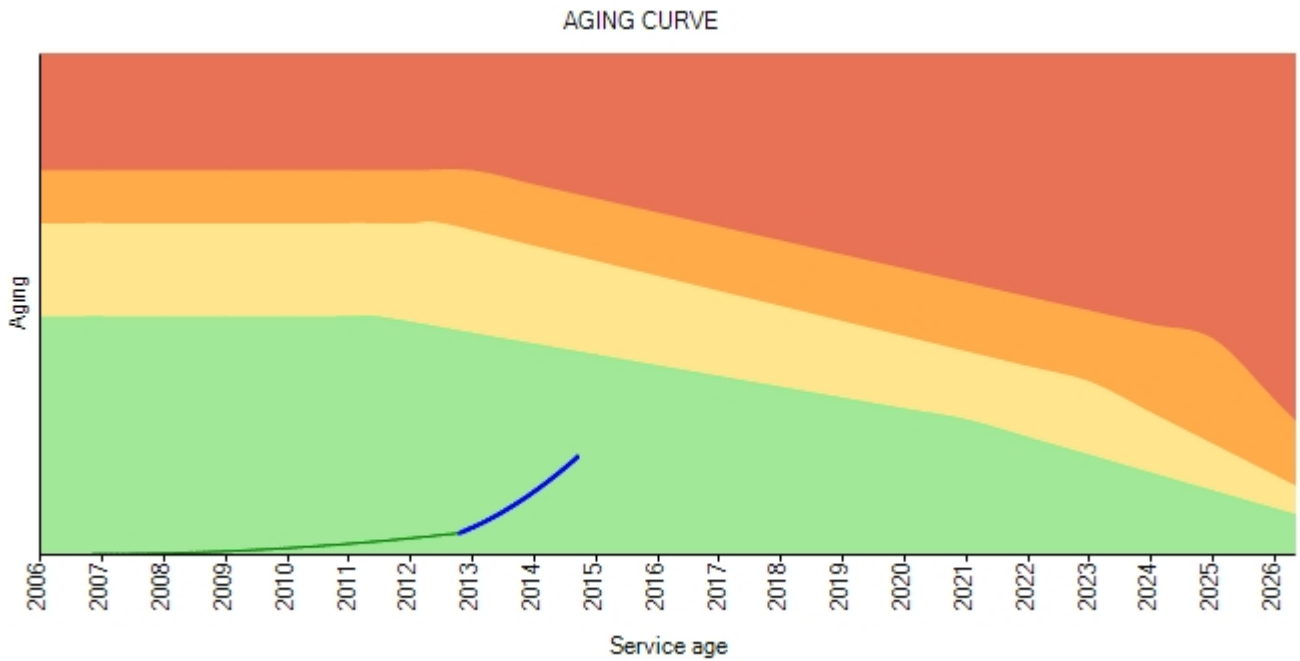
Components	Gravity	Frequency
Plastic case	Medium	basic every 9 months expert every 27 months
Contacts	Normal	basic every 12 months expert every 36 months
Arc chambers	Normal	basic every 12 months expert every 36 months
Power connections	High	basic every 6 months expert every 18 months
Jaw type contacts	Medium	basic every 9 months expert every 27 months
Auxiliary circuits	Medium	basic every 9 months expert every 27 months
Operating mechanism (wear)	Medium	basic every 9 months expert every 27 months
Operating mechanism (aging)	Medium	basic every 9 months expert every 27 months
Electrical and mechanical accessories	Medium	basic every 9 months expert every 27 months
Trip unit	Normal	basic every 12 months expert every 36 months

### Conclusion

Recommended Maintenance for CB : Basic Maintenance every 6 months, Expert maintenance with L3 Field Service Engineer every 18 months.

## Life indicators

### Aging curve



- Low faulty probability
- Medium faulty probability
- Moderate faulty probability
- Recommended inspection as soon as possible
- Breaker storage since manufacturing date until commissioning date
- Breaker aging calculated according to usage, application and historical maintenances