

Q2.4 – Dielectric Dissipation Factor (DDF) Measurement

Q2.4.1 : Can the authors please comment on the reasons for taking this alternative approach?

A2.4.1 : This approach was used to measure the condition of **the entire stator winding insulation system** rather than the individual insulation materials.

In the field, **DDF measurement** is used to check the insulation system of stator.

The main failure factors of insulation system are **temperature, overvoltage, and moisture** during operation. But it is necessary to study the stress of environmental factor (vibration, salinity, dust, particle, etc.) in the future.

Q2.4.2 : Have others that are engaged in thermal and electrical endurance testing of electrical insulation materials have any experience of using the approach described in this paper?

A2.4.2 : Typically, the insulation system is checked by **partial discharge(PD), insulation resistance(IR) and DDF** measurement in the field. But the reference value of diagnostic factors for determining maintenance schedule of the stator is different for each country/company.

In this paper, **trend of diagnostic factor** were analyzed using the DDF measurement.

This approach will be used as data **to determine the replacement point of the stator.**