



DIELECTRIC ABSORPTION TEST

IDENTIFIABLE FAILURE MODES

- Contamination to motor windings.
- Moisture to motor circuits
- Severe thermal degradation of insulation systems.

DESCRIPTION

The DA test is the application of a predetermined DC voltage to an insulation system for 1 minute.

The test is applied to stator and rotor windings on asynchronous motors, stator and rotor windings on synchronous motors and the armature and field windings on DC motors. The test can also be applied to resistor banks and associated cables.

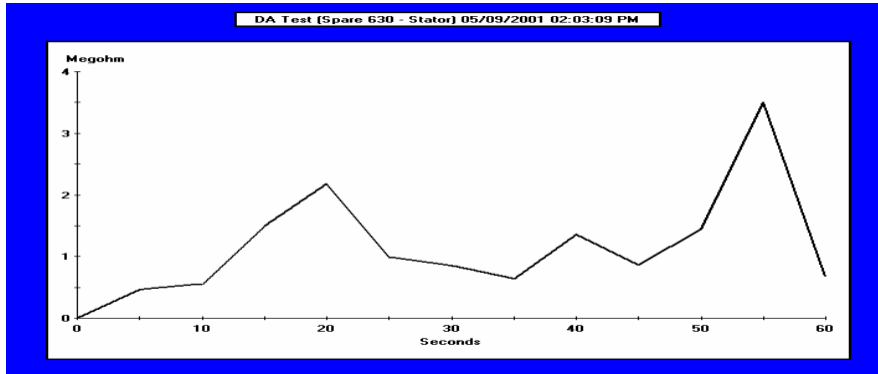
The DA test determines the ability of an insulation system to withstand a high voltage without breakdown to earth. The measured resistance is recorded every 5 seconds and graphed and the value at 1 minute is divided by the value at 30 seconds to give a DA ratio.

ANALYSIS APPLICATION

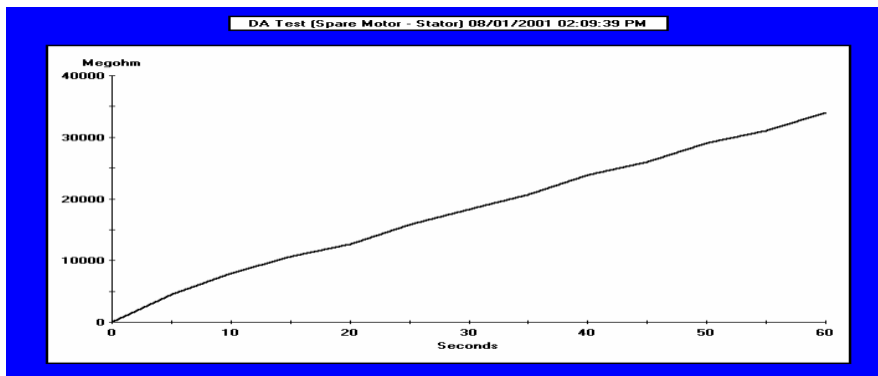
By recording and graphing the leakage current any short term or erratic current transients can be identified. These transients may be indicative of contamination or moisture. Further high voltage testing should not be carried out if an unsatisfactory result is recorded.

APPLICABLE STANDARD / ACCEPTANCE CRITERIA

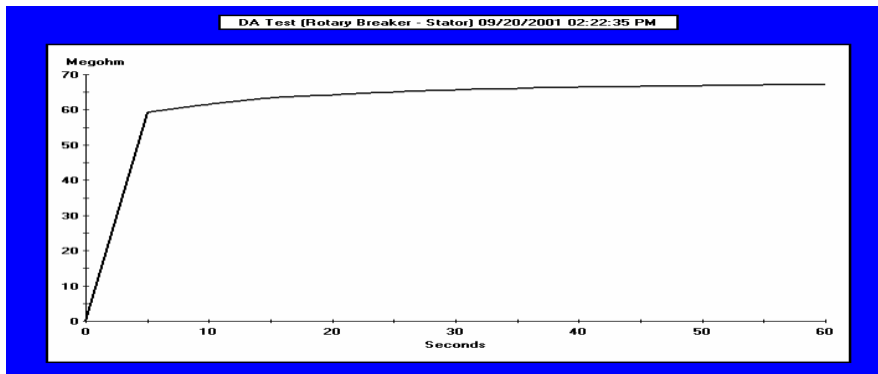
The referenced standard for DA tests is IEEE 95-2002



A DA graph indicating contamination to stator windings



A satisfactory DA graph



A DA graph indicating moisture to the stator windings