DIELECTRIC STRENGTH

DIELECTRIC STRENGTH (Hipot):

The dielectric strength test is a measurement of isolation. It is measured between each winding or all other windings and the core or case. The terminals of the winding under test are strapped together, while all other winding terminals and the case or core are tied to ground. For an RMS voltage a leakage current can be specified, although this test is generally a go no-go test since failure will be determined by a flash-over or breakdown. A DC voltage can also be used, and should be specified in Volts DC. If a sinusoidal voltage is applied, it will always be an appropriate 60Hz root-mean-squared (rms) voltage.

---

INSULATION RESISTANCE

INSULATION RESISTANCE (IR):

The IR test, sometimes referred to as DC Insulation Resistance, is a test to determine the insulation properties of the transformer. The direct-current insulation resistance is measured between each winding or all other windings and the core or case. The measured value will be greater than a specified minimum value and is measured in Megohms at a specified DC voltage level. The voltage level is typically 50 to 1000 Vdc and is applied for a minimum of 10 seconds.