

MEASUREMENT OF AIR BREAKDOWN VOLTAGE AND ELECTRIC FIELD USING STANDARD SPHERE GAP METHOD

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Rapid growth in power sector of nation has given an opportunity to high voltage engineers to protect the power equipment for reliable operation during their operating life. There are several studies conducted by power engineers to check degradation of insulation i.e., quality of insulation of power equipment. Various phenomena occur in Air dielectric when a voltage is applied. As the high voltage power equipments are mainly subjected with spark over voltage causes by the lightning strokes, switching action, a protective device is used to determine the safe clearance required for proper insulation level. A strongly conducting spark formed during breakdown, practically produces a short circuit between the electrodes. The sphere gaps are commonly used for measurements of peak values of high voltages and have been adopted by IEC and IEEE as a calibration

