STUDENT SECTION

Energy Advantages of Using Damped AC Voltage to Test Electric Cables

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Abstract— In electro-energy an important problem is to ensure production and transport of electricity in optimum conditions and safety. In this respect knowing of the degree of aging of electrical equipment (transformers, cables, accessories, etc.) becomes a strategy matter of the maintenance management. Optimized and improved test methods and equipment for HV and MV power cables for the early detection of existing defects in the insulation by assessing the partial discharges (PD) have developed. This paper presents classical and modern methods of off-line and on-site testing with AC power cables. A comparative study is made on energy consumption required by conventional methods of testing with a.c. voltage power lines and the method Oscillating Wave Test System – OWTS using damped AC Voltages (DAC). Calculations have shown economy in OWTS method.