

Investigation of reasons of dry-type transformer's OLTC insulation breakdown

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The article analyzes the causes of damage of the on-load tap-changer of a dry-type transformer installed at one of 35 kV substations, in case of a ground fault in a network with isolated neutral. For the analysis of transient processes, a mathematical model of the transformer has been developed, taking into account its interturn and inter-winding capacities, determined from electrostatic field pattern.

Keywords: transformer, isolated neutral, on-load tap-changer, dual model, capacitance.