

ABSTRACT

A substation always needed a grounding system. The purpose of grounding is to provide a way for electrical current to flow into the ground under normal conditions or a fault current condition without exceeding the limits of equipment operation and capabilities. Grounding system resistance value calculated before the construction of the substation in order to obtain the desired value.

Usually now used grounding grid system. An important step in calculating the technical specifications of the grounding grid to be used for grounding systems in substations is to calculate the resistance value of the grounding grid. ground resistance of grid depends on: the depth of the grid, the grid size, the number of mesh, the diameter of the conductor and resistivity of the soil. Ground resistance of grounding grid can be calculated by the method of Alonso Cs. As a newly developed method, the advantages of using this method in calculate resistance of grounding grid can be used for square meshes of any size with a simple calculation.

Keywords : grounding grid, ground resistance, resistivity of the soil.