



Surface Potential and Resistance of Grounding Grid Systems in Homogeneous Soil

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Abstract:

This article presents laboratory scale models developed to study the performance of grounding systems in uniform soil. Two parallel grids are investigated and correlated with a same mass grid having the same conductormaterial and extending over the same area at a depth equal to that of the upper grid. The experimental results demonstrate how the potential profiles and ground resistance are influenced by the grounding grid design such as number of meshes, grid depth and spacing between parallel grids. The effectiveness of the two parallel grids is compared with that of the upper grid only. The measured surface potential and ground resistance agreed satisfactorily with the present calculated values

Keywords:

surface potential, step voltage, ground resistance, scale model, grounding grids

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