

The influence of a curved on copper-type down conductor

ABSTRACT

The objective of this paper is to investigate the influence of curved copper conductor angle under current transient and voltage using numerical analysis approach. A thorough evaluation for copper down-conductor attainable in lightning protection system with a recommended cross-sectional area of conductor based on the standards under different numerous angles will be examined. The results in terms of field values were reviewed and considered in resemblance with the critical breakdown value of air. Although the comparison is by no means rigorous, it may shed some light on how the geometrical modelling and the physical parameters weighted in the computational modelling and how further refinement could be synthesized. In the end, a realistic approach for the optimal angle of down-conductor contributed to the installation design of a down-conductor in confined area is set and establish.

Keyword: Lightning protection system; Down-conductor