

عنوان مقاله:

Corona Ring Designation for 400 kV AC Transmission Line with Composite Insulators by FEM

محل انتشار:

بیست و ششمین کنفرانس بین المللی برق (سال: 1390)

تعداد صفحات اصل مقاله: 10

نویسندگان:

Masoud Jowkar - *Iran Science and Technology University*

Ahmad Gholami - *Iran Science and Technology University*

خلاصه مقاله:

this paper provides a three dimensional geometric model to simulate the electric field distribution along I-string and V-string composite insulators in 400kV AC transmission lines. Many factors affect the Efield distribution along composite insulators as well as the influence of tower, magnitude of voltage, corona ring, using bundled conductors, contamination, leakage current and environmental conditions. By optimization some of these factors, short and long term performance of composite insulators during their service life is assured. Here by using corona rings and changing its parameters such as caliber, mounting height, diameter and its shape, electric stress along composite insulators can be decreased and postpone the ageing phenomenon and decide to choose best configuration for I-String and V-String insulators. Effect of all parameters are simulated on electric field distribution by FEM in COMSOL .Multiphysics software

کلمات کلیدی:

Composite Insulator; Finite Element Method; Electric Field Distribution; Corona Ring

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/137044>

