عنوان مقاله:

Transient Voltage Distribution in Stator Winding of Generators Using RLC Ladder Network

محل انتشار:

پنجمین کنفرانس ملی مهندسی برق و الکترونیک ایران (سال: 1392)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Hamid Reza khezri - *Islamic Azad University Bafgh Branch*

Hamid Reza Akbari - *Islamic Azad University Bafgh Branch*

Seyed mojtaba Hosseini Bafghi - *Islamic Azad University South Tehran Branch Bafgh/iran*

خلاصه مقاله:

The generators are among the most important and expensive equipment in power systems. The most important use of generators is production of electricity, something which has greatly played a commendable role of boosting industrialization. Electrical stresses in winding generator may have a detrimental effect on the consumers. In order to analyzing electrical stresses in the generator a model is needed which can be able to simulate the voltage distribution along the generator winding. The paper presents an analysis of the calculated and measured voltages along the high-voltage winding. To do so, RLC Ladder Network theory is applied. The parameters of this model are determined based on numerical field analysis methods (e.g. finite element method), by using Maxwell software. Simulations were performed by using Multisim software. The model is validated by means of a comparison between measured and calculated voltages in windings a 6kV/250KW generator with 11 turns

کلمات کلیدی:

modeling, RLC Ladder Network, Generators, voltage distribution, fast transient voltages, Windings