

عنوان مقاله:

(Investigation of performance and simulation of dynamic behavior of variable frequency transformer (VTF

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خلاصه مقاله:

In recent years, the use of power controllers in the power grid has become popular. One of the equipments that has been considered is the variable frequency transformer (VFT). The variable frequency transformer is a controllable two-way power transmitter equipment that enables power transmission and control between two non-synchronous networks with high reliability. The VFT system is based on a combination of generator and transformer technologies. In this paper, first, an introduction and history of variable frequency transformers are stated. Then, the physical structure of VLT Langlois and how it works is investigated. In the next section, the dynamic model of VFT is described and the theoretical relationships governing VFT are obtained. In the next section, the dynamic behavior of VFT is simulated, which includes the stepwise adjustment of transmission power and the occurrence of errors. The conclusion is drawn at the end.

کلمات کلیدی:

Variable frequency transformer, asynchronous connection, electrical power transmission and control, interconnected power system

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