

# 发电机励磁和调速器模型参数对东北电网大扰动试验仿真计算的影响

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## 摘要

应用电力系统分析综合程序PSASP, 研究了发电机励磁和调速系统的模型参数对东北电网人工接地试验仿真计算的影响。发电机励磁参数调整对系统动态电压振荡频率、振荡幅度、电压上升速度有较明显的影响, 对于电压相角和线路功率第1摆幅度有一定的影响。调速器模型及参数对系统扰动后稳态值的计算结果影响比较显著, 而对于功率第1摆幅度影响很小。通过人工接地试验校核稳定计算中使用的负荷模型参数, 必须考虑发电机励磁和调速系统模型参数的影响。

关键词 [发电机](#); [励磁系统](#); [调速系统](#); [动态电压](#); [暂态电压](#);  
[东北电网](#)

分类号

## Influence of Excitation and Governor Model Parameters on Simulation of Large-Disturbance Test in Northeast China Power Grid

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## Abstract

The influence of parameters of excitation and governor system model on the simulation of man-made grounding test in Northeast China Power Grid is studied by power system analysis software package (PSASP). The adjustment of parameters of excitation system evidently affects the dynamic voltage oscillation frequency, oscillation magnitude and voltage rising velocity; it affects the phase angle of voltage and the magnitude of the first swing of the line power to a certain extent as well. The Governor model and its parameters obviously affect the calculation results of the steady-state value after the disturbance, and slightly affect the magnitude of first swing of line power. The influences of parameters of excitation system and governor system model should be taken into account while the load model parameters are used in the check of stability calculation by means of man-made grounding test.

Key words [generator](#); [excitation system](#); [governor system](#); [dynamic voltage](#); [transient voltage](#); [northeast China power grid](#)

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