基于人工单相接地短路试验的电力系统计算用模型参数校核方法研究

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摘要

利用2004年4月8日黄渡站5101线人工单相接地短路故障试验的系统数据,特别是试验时测录的相量测量数据,在华东电网发电机和励磁系统建模及参数实测工作取得成果的基础上,进行了试验方式下的潮流、短路电流和暂态稳定仿真计算,并与实测数据相比较。通过分析发电机、励磁系统、电力系统稳定器、负荷等模型和参数对仿真结果的影响,探索了利用相量测量数据进行电网计算用模型参数校核的方法和思路。

关键词 : 发电机; 励磁系统; 相量测量单元; 负荷模型; 参数校核; 电力系统

分类号

Research on Verification of Man-Made Single-Phase Earth Fault Based Model Parameters Utilized in Power System Calculation

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- 1. East China Electric Power Test & Research Institute, Hongkou District, Shanghai 200437, China;
- 2. East China Grid Company Limited, Huangpu District, Shanghai 200002, Chi Abstract

By use of the data measured in the testing of man-made single-phase earth fault performed on April 8th, 2004 at transmission line No. 5101 near Huangdu substation, especially the measured phasor data during the testing, and according to the obtained achievements in the modeling and parameter measurement of generators and excitation systems of East China Power Grid, the simulation of power flow, short circuit current and transient stability are conducted under the same condition as used in the performed testing, and the simulation results are compared with the measured data. By means of analyzing the impacts of the models and model parameters of generator, excitation system, power system stabilizer (PSS) and loads on simulation results, the approach and thinking of adopting measured phasor data to verify the model parameters for power grid calculation are researched.

Key words generator; excitation system; phasor measurement unit; load model; parameter verification; power system

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统; 相量测量单元; 负荷模型; 参数

校核; 电力系统"的 相关文章

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