

联络线三相金属性短路地点对电力系统暂态稳定性的影响

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摘要

研究联络线故障水平对电力系统暂态稳定性的影响, 对于电力系统的安全稳定评估与校核, 以及暂态稳定预防控制都有着重要意义。分析了在不同地点的联络线上发生三相金属性短路时对于单机无穷大系统和两机系统的暂态稳定性的影响程度。在理论分析的基础上, 结合有关算例在各种情况下进行了仿真, 仿真结果验证了分析结果的正确性。

关键词 [三相短路; 联络线; 电力系统暂态稳定; 短路地点; 预防控制](#)

分类号

Influence of Three-Phase Metallic Short Circuit Occurred Position in Tie Line on Power

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Abstract

The research on the fault level of tie line is of significance for the security and stability evaluation of power system as well as the preventive control of transient stability. The influencing extent as well as the influence of three-phase metallic short circuit that occurs in different position of tie line on transient stability of one machine infinite bus (OMIB) system and that of two machine system are analyzed. On the basis of theoretical analysis, by means of concerned examples under different conditions the influence of short circuit position on system stability is simulated and the influenced extent is also analyzed. Simulation results show that the results from analysis are correct.

Key words [three-phase short circuit; tie line; power system transient stability; fault position; preventive control](#)

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