



直流线路纵差保护算法的改进及仿真验证

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摘要: 介绍了天广、高肇、兴安直流输电系统所采用的直流线路纵差保护原理, 并对上述工程中直流线路纵差保护逻辑的异同及与其他保护的协调配合关系进行了对比分析; 通过对天广直流2005年发生的一例故障案例进行分析, 对目前3回直流线路纵差保护存在的不足进行了研究, 并提出了改进方案, 仿真验证表明所提出的改进方案是有效的、可行的。

关键词: 直流输电; 直流线路故障; 纵差保护

Improvement and SimulationValidation of DC Line Longitudinal
Differential Protection

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Abstract: After introduction of the principle of the 87DCLL (DC line longitudinal differential protection) of Tian-Guang, GGI and GGII projects, the slight variations of this protection among these projects are discussed. The inadequacy of the 87DCLL protection is evaluated through the analysis of one DC line faults occurred in Tian-Guang HVDC project in 2005, and an improvement scheme is proposed. The simulation results show that the scheme presented in this paper is effectual and feasible.

Keywords: HVDC; DC line fault; longitudinal differential protection

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