

自动化

基于IEC 61850的高级配电自动化开放式通信体系

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摘要:

以IEC 61850标准为基础,结合IEC 60870-5-101/104,探讨为高级配电自动化(advanced distribution automation, ADA)建立一套开放式的通信体系,以解决大量配电终端接入的问题。在分析ADA通信需求的基础上,将ADA的信息模型划分为3层,即主站层、馈线层、终端层;阐述了主站与配电终端之间、配电终端与配电终端之间采用的通信网络和信息交换模型。最后分析了ADA通信中用到的关键技术。

关键词: 智能配电网 配电自动化 IEC 61850 通信体系

IEC 61850-Based Open Communication System of Advanced Distribution Automation

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Abstract:

Based on IEC 61850 and combining with IEC 60870-5-101/104, the issue of constructing an open communication system for advanced distribution automation (ADA) is researched to solve the problem that a lot of distribution terminals are connected in. On the basis of analyzing communication requirements of ADA, the information model of ADA is divided into three layers, i.e., the main station layer, the feeder layer and the terminal layer; the communication network and information exchange model used between the main station and distribution terminals and those used among distribution terminals are expounded. Finally, key technologies adopted in ADA communication are analyzed.

Keywords: smart distribution grid (SDG) distribution automation (DA) IEC 61850 communication system

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