

论文

## 蓝牙技术在区域气象中心供电保障系统中应用的探讨

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### 摘要

介绍了供电保障系统在沈阳区域气象中心业务中的重要作用和高压真空开关的基本原理及在线监测高压真空开关的重要性。根据蓝牙技术具有低成本、体积小、功耗低和操作性强等特点,探讨了将它应用于区域气象中心供电保障系统的在线检测系统中,可作为信号采集与传输的无线传输通道,有效解决传感器的安装、电源供应、信号传输与测试系统的高低压绝缘问题;并以区域中心供电系统中高压真空开关为例来探讨其可行性,探讨了应用设计中选择蓝牙模块装置的配置地点。结果表明:若采用嵌入蓝牙电力模块进行信息传输,可明显提高供电电能质量,使信息传输系统运行更加可靠、稳定,还可提高供电保障系统的安全性和抗干扰能力,减少真空开关的突发故障所造成的经济损失。

关键词 [蓝牙技术](#) [供电保障系统](#) [高压真空开关](#) [信息传输](#) [应用](#) [探讨](#)

分类号

## Application of blue-tooth technique to power supply system in Shenyang regional meteorological center

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**Abstract** The important roles of the power supply system for the operation in Shenyang regional meteorological center was introduced in this paper. The basic principles of the high voltage vacuum switches and the importance of its on-line monitoring were summarized. According to the characteristics of blue-tooth technique such as the low cost, small physical volume, low consume and strong operability, its application to the on-line checking of power supply system for Shenyang regional meteorological center was discussed. It could be the passage of collecting and delivering signals and could solve effectively many problems such as the sensor installation, the power supply and signals delivering as well as the power supply insulation. As a case study, the feasibility of high voltage vacuum switches of power supply system for regional meteorological center and the installation location of the blue-tooth model were discussed. The results indicated that the power quality could be improved obviously if the blue-tooth model was used to information transmission. And it made the information transmission system more dependable and stable. Furthermore, it could also improve the safety and the anti-interference ability of the power supply system and reduce the economic losing because of the abrupt breakdown of the high voltage vacuum switch.

**Key words** [Blue-tooth technology](#) [Power supply system](#) [High voltage vacuum switch](#) [Data transmission](#) [Application](#) [Discussion](#)

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