

## 数字化变电站系统结构

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摘要

阐述了数字化变电站的系统结构和设计原则, 讨论了过程总线和变电站总线的基本组网方案, 分别从功能冗余及网络容错等方面提出了多种具有高可靠性的数字化变电站系统结构, 并从过程层和间隔层方面提出了常规设备的接入方案。

关键词 [电力系统; 数字化变电站; 系统结构; 通信; IEC 61850](#)

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## System Architecture of Digitized Substation

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Abstract

The system architecture and design principles of digitized substation are expounded and the technical fundamentals for the proposed system architectures are analyzed. The basic scheme of network composition for process bus and station bus are presented. Digitized substation architectures with high reliability are proposed in the matter of functional redundancy and network fault tolerance, and the solutions for the connecting of conventional devices are put forward in the process level and bay level.

Key words [power system; digitized substation; system architecture; communication; IEC 61850](#)

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