±800 kV特高压直流工程直流滤波器设计

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摘要：依据±500 kV高压直流输电工程直流滤波器设计经验，研究分析了±800 kV特高压直流输电工程直流滤波器设计需要考虑的关键问题，包括：直流侧谐振，直流滤波器可能发生的典型故障；介绍了用于计算直流滤波器典型故障的模型和方法。以云广±800 kV特高压直流输电工程为例，对直流侧谐振进行了校核，对直流滤波器设备暂态定值进行了计算。研究结果表明，云广±800 kV特高压直流输电工程直流滤波器设计是合理的，可满足直流系统安全可靠运行要求。

关键词：特高压直流；直流滤波器；谐振；暂态定值

Study on the Key Issues of DC Filter Design for ±800 kV UHVDC Transmission Projects

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Abstract: Based on the experience of DC filter design for ±500 kV HVDC transmission projects, this paper analyzes the key issues of DC filter design for ±800 kV UHVDC transmission project, including resonance of DC side and typical faults of DC filter, and introduces the models and methods for the typical faults calculation of DC filter. Taking Yunnan-Guangdong ±800 kV UHVDC transmission project as an example, the paper verifies the resonance of DC side and calculates the transient ratings of DC filter components, showing that the design of DC filter of the project is reasonable, and it can meet the requirement of the project operating safely.

Key words: ultra high voltage direct current (UHVDC); DC filter; resonance; transient rating