

Dynamic voltage restorer (DVR) system for compensation of voltage sags, state-of-the-art review

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Abstract-

The problem of voltage sags and its severe impact on sensitive loads is well known. To solve this problem, The DVR is a modern and important custom power device for compensation voltage sags in power distribution systems. The Dynamic Voltage Restorer (DVR) is fast, flexible and efficient solution to voltage sag problem. The DVR is a series compensator used to mitigate voltage sags and to restore load voltage to its rated value. In this paper, an overview of the DVR, its functions, configurations, components, operating modes, voltage injection methods and closed-loop control of the DVR output voltage are reviewed along with the device capabilities and limitations.

Index Terms- Power Quality, Voltage Sag, Dynamic Voltage Restorer (DVR), Control Strategy, Voltage Source Converter.

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