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# Conventional dynamic voltage restorer (DVR) for mitigation of voltage sag in power distribution systems

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**Abstract-**

**Voltage sag is a common and undesirable power quality phenomenon in the distribution systems which put sensitive loads under the risk. Dynamic voltage restorer (DVR) can provide the most commercial solution to mitigate voltage sag by injecting voltage as well as power into the system. This paper presents the application of dynamic voltage restorer (DVR) on power distribution systems for mitigation of voltage sags at critical loads. In this paper, an overview of the DVR, its functions, configurations, components, compensating strategies and control methods are reviewed along with the device capabilities and limitations. The proposed control scheme is very effective to detect any disturbance in power systems. Simulation results using MATLAB/Simulink software are presented to verify the effectiveness of the proposed scheme.**

**Index Terms- Dynamic Voltage Restorer (DVR), Voltage Sag (dip), Control System, Custom power device, Power Electronics, Energy Storage.**



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