

**MITIGATION OF VOLTAGE SAGS/SWELLS USING DYNAMIC
VOLTAGE RESTORER BASED ON DQO ALGORITHM**

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ABSTRACT

This paper presents the application of dynamic voltage restorers (DVR) on power distribution systems for mitigation of voltage sags/swells at critical loads. Voltage sags is short reduction voltage from nominal voltage, occur in a short time which can cause damage and loss of production especially in industrial sector. Voltage swells is a sudden increasing of supply voltage in rms voltage at network fundamental frequency cause by energizing large capacitor or switching off a large inductive load. A dynamic voltage restore based on the dqo algorithm is discussed. The control scheme is very effective to detect any disturbance in low voltage distribution systems. Simulation results using Matlab/Simulink are presented to verify the effectiveness.

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