

Abstract

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Modeling and Analysis of SVPWM Based Dynamic Voltage Restorer

In this paper the modeling and analysis of Space Vector Pulse Width Modulation (SVPWM) based Dynamic Voltage Restorer (DVR) using PSCAD/EMTDC software will be presented in details. The simulation includes full modeling of the SVPWM technique used to control the DVR inverter. A test power system composed of three phase voltage source, sag generator, DVR and three phase resistive load is used to demonstrate restoration capability of the DVR. The simulation results of the presented DVR proved excellent voltage sag mitigation to protect sensitive loads.