

MODELING AND SIMULATION OF VOLTAGE SOURCE INVERTER BASED ON SPACE VECTOR MODULATION TECHNIQUE FOR GRID CONNECTION

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Abstract

In this paper modeling and simulation of three phase two level 100 kVA space vector modulation controlled voltage source inverter and its comparison with sinusoidal pulse width modulation controlled VSI for L-C filter requirements, L-C and L-C-L filters are designed and simulation results for isolated grid are presented. The simulation is done using MatLab/Simulink[®]7.4.0.287 (R2007a).The need for inverters in distributed generation systems reveals the significance of achieving low distortion, high quality power. The designed filter should attenuate switching frequency components and should meet the utility voltage, current and distortion limits.