

ANALYSIS, MODELING AND SIMULATION OF SPACE VECTOR PWM- MULTILEVEL INVERTER

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Abstract

This paper presents an analysis and modeling of a Five-level diode clamped voltage source inverter using the space vector pulse width modulation (SVPWM) control scheme. The Multilevel inverters can generate three or more levels in each output phase voltage. The SVPWM control method is used for the synthesis of ac voltages at the terminals of multilevel inverter. The proposed general modulation algorithm can be extended for higher levels of inverters also. The effectiveness of the SVPWM control scheme will be verified by simulation results and the various advantages of high-level inverters are exhibited with the results obtained.

Keywords: Multi level inverters, SVPWM, Total Harmonic Distortion.