Abstract

This paper presents the comparison between the two modes of PWM inverters for various load conditions. SPWM inverter has been modeled in this paper using two types of fuzzy logic controller depending upon the input to the FLC. Inverters are of great requirement for processes to provide the best and accurate results in different working condition such as for industrial, commercial, in drive power systems etc. So for their uninterrupted working in that field, there is need to deploy the device which works during the failure of power supply system but with high quality response. The method for generating pure sinusoidal voltage waveform at the PWM inverter output is described in this paper. Harmonics have been under the continuous research as these are the basic and old problem [1] which continues to affect the performance of the power systems in various applications depending upon the types of loads. In order to create best output of PWM inverter, fuzzy technique has been taken into consideration as it deals with non-precise inputs. All results are shown using MATLAB/Simulink simulation which shows that inverter output current is in sinusoidal waveform and in phase with line voltage, and current harmonics are in the limits of international (IEEE) standards (}