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International Journal of Computer Applications
© 2015 by IJCA Journal

Volume 114 - Number 15

Year of Publication: 2015

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10.5120/20054-2012

{bibtex}pxc3902012.bib{/bibtex}

Abstract

The main work of this paper is to increase the efficiency and also safe operation of the power electronics switches which are used in the circuit. Induction heating is a technique, in that a suitable range of frequencies is needed for different work piece geometry requirements. More number of topologies is available among which half bridge topology is found to be efficient. The approach is based on the closed loop operation in order to improve the efficiency of the induction heating system. This project describes the main consideration in the study of resonant converter, PID controller and VIENNA rectifier for an induction heating appliances. Here the controller used is dsPIC (digital signal controller) for producing switching pulses to the inverter section and Vienna rectifier. The simulation is obtained using MATLAB/SIMULINK.

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Index Terms

Computer Science

Circuits And System

Keywords

PWM PID dsPIC MPLAB IDE MATLAB/SIMULINK