Abstract

A comparative study of few z-source inverter topologies with control methods are compared and presented in this paper. Z-source inverter uses shoot-through state which boosts input voltage, improves reliability of converter. This is useful in some applications like electrical drives, power generation technologies such as fuel cells, solar photovoltaic cells, wind turbines and commercial application like hybrid electric vehicles, etc. The ZSI has few drawbacks like decrease in efficiency, unidirectional power flow, light-load operation, higher inrush current
Comparative Study of Z-Source Inverter during starting. To overcome these limitations various modifications have been suggested by researchers in the basic topology of ZSI. A comparative study of these topologies with simulation results is presented in this paper.

References


Index Terms

Computer Science

Power System

Keywords

Voltage Source Inverter (vsi); Current Source Inverter (csi); Z-source Inverter (zsi)