

LOW COST MULTILEVEL INVERTER (PARALLEL INVERTER)

J.M.R.MALLA AND S.G.MALLA

Abstract

The present generation AC Drives are used with Multilevel Inverter. Already three types of multilevel inverter are present, those are 1. Diode clamped inverter, 2. Capacitor clamped inverter, 3. H-Bridge inverter. In this paper my proposed inverter is parallel multilevel inverter. This is a low cost multilevel inverter because here for m level we are used only m-1 Gto's/ mosfet family switches per phase. In previous technology we are used $2(m-1)$ Gto's/ mosfet family switches per phase for example we consider 9 level inverter in previous technology we are used 16 Gtos for switching devises, by using present technology we are used only 8 Gtos for 9 level inverter. So, by using this technology we are reduce half of the switches, and also reduce the on time period of the each switch by using this new PWM technology, then to increase the reliability and life time of the inverter. For low cost AC drives this technology is used in AC drives. It is better technology in electric vehicles.

Keyword : Multilevel inverter, converter, electric vehicles, parallel inverter, reliability, New SPWM, 3, 5, 7,9,11,13,15,19 & 21 levels parallel inverter.