ARDUINO BASED NINE LEVEL INVERTER

ABSTRACT

In this project we attempt to develop a nine level inverter with two isolated DC sources and only two H-bridges. Usually we are using two h bridges and symmetric level dc voltage input and get nine level output. Especially in this project only two number of H bridges are used, but asymmetric level dc voltage in put supply gives the H-bridges and get 9 level output, so we are avoid the extra numbers H-bridges. Totally 8 numbers of IRF 840 MOSFETs are used. A suitable program in the ATMEGA-16 IC will govern the supply of appropriate switching pulses to the semiconductor switches.

Multi-level inverters are developed for the following reasons.

    a. To integrate separate DC sources into a common inverter.

    b. To use semiconductor switches of lower ratings to handle higher voltage levels.

    c. To provide a near sine wave AC with reduced THD.

BLOCK DIAGRAM