INVERTER FOR HOME

ABSTRACT

Inverters become a necessary device for a common man. Especially, in summer, the power shortage is more. We can overcome from the difficulties caused by power shortage by using inverters. This project is designed for 100 VA load.

This project uses LM358 based sensor control. It detects battery under voltage due to insufficient battery or excessive output load . in both cases it indicates the abnormality by piezo buzzer. and LM339 to detect the over load. The inverter has the facility to display charging on and battery low conditions. CFL loads are not suggested for the device since it causes EMI disturbance. LED lighting is suggested for this project, as they consume low power and produce high intensity of lighting.

These inverters play vital role especially in rural areas. A rechargeable 12V battery is used to store the energy during power availability. The back up time depends on the battery ampere – hour rating. This inverter can show the battery low condition and Over load conditions by 5mm LED indicator circuit.

This project uses regulated 5V regulated power supply for control circuitry. 7805 three terminal voltage regulator is used for voltage regulation.

The main goal of this proposal is to design and implement a analog inverter. A low cost inverter which can be assembled locally in villages and repairable locally.

BLOCK DIAGRAM

