

TITLE : STANBY POWER SUPPLY (200 W)

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(Power).

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## ABSTRACT

A study on a standby Power Supply unit incorporating an inverter circuit has been made. This supply unit is capable of supplying 240 V output continuously. The inverter used here employs two darlington transistor which are enabled once the main supply is cut-off.

The inverter d.c. source is achieved by rectifying the a.c. mains. In the event of mains failure, the inverter will take its power supply from the battery. A change over from mains to inverter supply is accomplished by mean of a three-pole relay unit.

In this study a model of the Stanby Power Supply units was made and tested. The construction and testing of this unit was succesfully done in the laboratory.

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## INTRODUCTION

### 1.1 THE NEEDS OF STANBY POWER SUPPLY

Today the user of electrical energy in our daily life is common thing, in fact it is must for houses, industries and town centres.

Most of our electrical appliances are an a.c power supply. When the supply is being cut off, all the electrical appliances using the a.c supply will not function. This problem can be solved if there is a piece of equipment that is able to give a.c supply even when the the electrical is cut-off. Using this idea that the project of Stanby Power Supply or Uniteruptible Power Supply (U.P.S) is made.

This supply unit will be to provide an emergency supply should the mains fail. It is not to provide a continuous power source to the load which typically demand an uniteruptible supply. Such load are computers, comunication links, emergency lighting and instrumentation which concern the public . However the battery has only a limited capacity, it can only supply the required power demand for a shart period of time only, say for 4 hours. After which, the main failure should already be rectified.