

CONSTRUCTION OF 500W12VINVERTER CHARGER

BY

IHEBUNANDU MARK, C

EE/2007/202

DEPARTMENT OF ELECTRICAL/ELECTRONIC ENGINEERING

CARITAS UNIVERSITY AMORJI – NIKE,

ENUGU.

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APPROVAL PAGE.

This is to certify that the project construction of 500W/12v inverter/ charger has been approved by the department of electrical electronics engineering of Caritas University Amorji – Nike, Emene Enugu, for the award of the degree of Bachelor in engineering.

.....
Engr. C.O. Ejimofor
Head of department

.....
Date

.....
Engr. C.O. Ejimofor
Supervisor

.....
Date

.....
External Examiner

.....
Date

DEDICATION

I dedicate this work to Almighty God who sustained me to this level and impacted me with inspiration, wisdom, knowledge and understanding to write this project. I also dedicate this work to my ever loving parents Eld, and Mrs. Ihebunandu Okorie for their care and love for making my academics a reality .

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ABSTRACT

An inverter is a system which is capable of converting DC voltage from a battery into AC voltage. The Inverter constructed converts 12V dc to 220V Ac. It consists of an oscillator section using 8V dc to produce 50Hz sine wave. The sine wave is amplified by Tip 41 and used to drive IRPF 250 MOSFET power transistors capable of delivering 500W norminally. The mosfet switches the 12V dc across the high current transformer which then produces the Ac at its output. The output of the transformer is a square wave but has been converted to a near sine wave using some RC circuit.

There is also a provision in the system to charge the battery when PHCN is on as the inverter is expected to function only PHCN is off.

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