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FINAL REPORT OF DIPLOMA PROJECT

**DEVELOPMENT OF STEP-DOWN TRANSFORMER
(240V-24V)**

OCTOBER 2005

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ACKNOWLEDGEMENT

In the name of Allah SWT, the most gracious and merciful praise to Allah SWT the lord of universe and may blessing and peace of Allah for upon his messenger.

First and foremost, thank to Allah SWT for giving us idea, health and energy to complete this project in successfully.

We would like to thank to our supervisor, En Anuar bin Mohamad @ Ahmad for his kindness, support and concern that he gave to us. We are also most grateful for invaluable support from him.

With respectfully, we would like to thank our first supervisor, Pn Noridah bt Alias for her opinions, kindness, support and concern to us in finishing this project.

We also like to express our thank to En Rahim, the lectures of Malaysia Science University, Nibong Tebal, who make a research about transformer, because of his consistent advice and guidance as well as provision of his valuable time, encouragement, idea and patience during the time period of completing this project.

We also like to express our thanks to our friend either in electrical, civil or mechanical engineering because of their support to us in complete this project.

And lastly we hope our project can be together to generate happier people in UiTM Bukit Mertajam Campus.

ABSTRACT

Transformer is a static electrical device that transfers energy from one electrical circuit to another by magnetic coupling. It is often used to convert between high and low voltages and accordingly between low and high currents. A simple single phase transformer consists of two electrical conductors called the primary coil and the secondary coil. There was two type of transformer; step-up transformer which the secondary coil has more turn then the primary coil and step-down transformer which secondary coil has fewer turns than the primary coil.

In this thesis, the transformer is a step-down type. This transformer will step down voltage from 240V to 24V and rating of 75VA. The size and length of the wire have being measure. The number a is need to be calculated. a is ratio of the input voltage per output voltage. To find the turn of coil, the ratio can be used by a is equal to primary turn per secondary turn. If a is higher than 1, it is step-down. If a is small than 1, it is step up.

The proposed of project is to make the transformer related the correct voltage. The ratio is 10. By calculating, the number of the primary coil is 1159 turn and secondary coil is 116 turn. The rating also needs to be correct. By calculation also, the size and the length of wire can be measure.

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