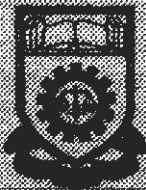


**COMPUTERISED TEMPERATURE RISE TEST FOR LOW
POWER TRANSFORMER USING SOLID STATE DEVICES.**

Thesis is presented in partial fulfilment for the award of the
Advanced Diploma in Electrical Engineering of
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NEZAR KHAN BIN SAR KHAN
Department of Electrical Engineering
INSTITUT TEKNOLOGI MARA
40450 Shah Alam, Malaysia
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Nizar Khan Bin Sar Khan

MARA Institute of Technology

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SELANGOR.

ABSTRACTS

The usage of computer provides indispensable factor in minimising labour. This project will study on how the computer can be used in implementing the temperature rise test on a typical dry type transformer.

The purpose of this project is to design the hardware and develop a computer software to conduct a temperature rise test on a dry type transformer. In this part of the project, the developed circuit which consist of temperature sensor will detect temperature winding and send it to the computer through interfacing.

The software has been programmed to receive the signal from the hardware and plot a suitable graph. finally the computer will cut off the power to transformer if the requirement of the test have been satisfied, and gives temperature rise result. The software has been develop using Borland C++. This will allow the users to easily understand the operation of the software and make any changes or upgrade the whole system.

This project is represented a study on a computer based transformer testing for temperature rise test using solid state devices.

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1.0 INTRODUCTION

Temperature rise test is a type test, which is a test made on a transformers which is representative of other transformer to demonstrate that these transformers comply with specified requirements not covered by routine test. Type tests are performed on a single transformer of one type and are intended to check the design characteristics. Type test usually relates to the first unit manufactured by a firm to a given specification. It is presumed that every such transformer would also comply with the type test, since its design is identical. Temperature rise is the temperature different between the temperature of the part under consideration and the temperature of the cooling air. For this project the transformer under test is a dry type air natural transformer which the symbol is AN. Transformers are identified by four symbols for each cooling method for which a rating is assigned by the manufacturer. Dry type transformers without protective enclosures are identified only by two symbols.

The purpose of temperature rise test of the transformer are to verify that the transformer is within the standards to which it is constructed and to determine that the temperature rise at rated load will not exceed the guaranteed values. This test not normally applied to every production transformer, it is a type test.