THE DEVELOPMENT OF SOFTWARE FOR SELECTING LOW VOLTAGE CABLE IN MAIN SWITCHBOARD (MSB)

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BISMILLAHIRAHMANIRAHIM. In the name of ALLAH S.W.T, the Most Gracious, the Ever Merciful. Praise to ALLAH S.W.T, Lord of the Universe and Peace and Prayers be upon His final Prophet Muhammad s.a.w and Messenger.

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TABLE OF CONTENTS

TABLE OF CONTENTS

CHAPTER 1

BACKGROUND OF THESIS

1.1 Aims and Objective

The aim of this project is to develop a computerised work management system for electrical power distributions process. The Development of Software for Selecting Low Voltage Cable in Main Switchboard is software to help user in making decision to choose type of cable and circuit breaker that suitable for the connection from the main switchboard to the load in low voltage system.

For many years, the design of electrical installation in buildings has been done manually. The work involved is rather tedious, time consuming and repetitive in nature. The designer may not have the time and resources to make a complete check on every item of the installation designed by them. With this software, it is hope that the planning and calculation can be done in a more efficient and effective manner. Building structure and the large large volume of design elements such as various type of cable and their installation methodes and various type of circuit breaker, can now be streamlined into a record structure.

This software has been developed by using Visual Basic 6.0 programming language. The measurement of the cable will be calculated internally by this software. This software will calculate the full load current (Ib), trip rating of circuit breaker (In), size of cross sectional area of cable and then give the best decision of what type of cable and circuit breaker that can be used in the system. After the calculation, user can see the result in the summary table in the software. The best selection of cable size is important to make sure there is no problem when the system is constructed and to cut off the cost implications for the cable. For example, if the cable size is too small, there may have cable problem or fault but if the cable is too big, the cost of the cable will increase.