

SOFT START - SOFT STOP OF AN INDUCTION MOTOR

E-757

Project Report Submitted by

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of 3E2

In part satisfaction of the award of

Diploma of Technician Engineer

in

Electrical Engineering

of the

Higher Technical Institute

Nicosia, Cyprus

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Electrical Engineering

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JUNE 1991

1844

SUMMARY

Advanced motor control engineering introduces modern, new technology for controlling which employs methods and techniques having nothing to do with relays and generally with any mechanical logic devices, any more. Instead, power electronic devices are used. These are controlled by analogue or digital ccts which either programmable or one function ccts. If programmable, personal computers perform their programing.

The scope of the present project is to introduce, analyse and apply amethod for the starting of 3-phase induction motors utilizing power electronics. The method is known as "Soft starting of an induction motor".

The primary emphasis in this project is given in designing and developing the control cct used for driving the power cct. Together with the represantation of the varius parts of the control cct, a detailed analysis of those parts is provided.

The soft starting of an induction motor, is an advanced method, which comes to substitute the previous methods where mechanical starters and relays were used. The new method is cheaper, its construction takes less space and it can provide protection of the motor, such as phase failure. Also, the torque of the rotor and hence of the shaft is increased smoothhighly, eliminating sudden movements and large surges of current in the stator windings are avoided.

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ACKNOWLEDGEMENTS

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