

MATLAB PROGRAM BASED TEMPERATURE ESTIMATION OF MOTORS BY DIFFERENT TNM MODELS

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ABSTRACT

This paper presents MATLAB Program Based Temperature Estimation of Motors by Different thermal network method (TNM) Models for analyzing Squirrel cage induction motors (SCIM). A general MATLAB program has been developed for the solution of some important TNM models that are available in literature. Comparison of accuracies has been discussed for estimation of hot spot temperatures. Simplifications and validity of simplifications in the investigation of thermal resistances from the point of accuracies expected; case wise also have been discussed. Results obtained for the 30 KW motor for the selected TNM models have been compared. Listing of the MATLAB program is presented as annexure.

KEYWORDS: MATLAB Program, Seven TNM Models, Analyzing Squirrel Cage Induction Motors SCIM motors

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