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DEFECT ANALYSIS OF ELECTRIC DRIVES USED AT OPEN-PIT MINE SUVODOL, TPP BITOLA FOR YEAR 2003

ABSTRACT

In Open Pit Mine in REK "Bitola" – "Suvodol" works induction motors in very bad environment: dust and very high temperatures in summer time, and very low temperature in winter, with increasing the load of the motors. With this analyzes we want to show you the problems we must solve and reasons for doing this problems. In this paper, we analyze one of the reasons which causes problems in motor drives, i.e. thermal monitoring of the main parts of the motor. Even a small temperature increases beyond the normal, deteriorates rapidly the properties of the insulation materials and decreases drastically the lifetime of the windings.

For the stator magnetic core and windings are getting temperature measuring, for rotor magnetic core and windings was made a simulation program in software package "MATLAB". The results of the temperature measuring and simulation program are present in this paper.

Keywords: