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MECHANICAL CHARACTERISTICS OF THE TURBOGENERATOR STATOR OUTHANG AT VARIOUS OPTIONS OF FIXING AT A CORE END ZONE

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Abstract

The mechanical characteristics in a copper and isolation of the turbogenerator 300 MW stator winding under a nominal loading has been searched by a numeral method at the different variants of fixing in the core end zone. Distribution of a radial and axial movements and a mechanical tension in isolation on a length of an outhang bar under action of an elektrodynamic forces is received. Changes of the indicated above characteristics when weakened a fixing of an outhang bars in a stator end zone are estimated. The new advanced design of a fixing it at an exit from a core for minimization a moving of a turbogenerator stator outhan is offered. References 10, figures 3.

Key words: turbogenerator, end area, stator winding, finite element method, mechanical movings and stresses.

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