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THE ELECTROMAGNETIC VIBRATION DISTURBING FORCES IN TURBOGENERATOR WITH A GLANCE OF CURRENT ASYMMETRY OF STATOR WINDING

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Abstract

Updated a mathematical model for calculating of electromagnetic vibration-disturbing forces of turbo-generator by the rotor eccentricity with the influence of the defect on the rotor currents of the stator winding. It is shown that in the simulation should take into account the eccentricity of the phase winding of current asymmetry hundred-torus. Determined that when a static array of eccentricity of the rotor surface induced eddy currents. Identify new diagnostic features eccentricity occurrence by analyzing the spectrum of vibration-disturbing forces harmonics of rotating frequency and multiples thereof. References 5, figures 5, table 1.

Key words: turbogenerator, circuit-field mathematical model, vibration-disturbing forces, eccentricity of rotor, diagnostic features.

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