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DRYING OF THE ROTOR WINDING ISOLATION OF TURBOGENERATOR WITH A CHANGE OF THE COOLING MEDIUM

ABSTRACT

This paper describes one practical example for drying of rotor winding based on the ventilation and friction losses for the turbogenerator No 2 in Power Station – Bitola.

Turbogenerator is type TVV 200-2A produced by Elektrosila Russia. The stator winding is cooled directly with distillate. The rotor winding, the stator core and the housing are cooled with hydrogen. For better understanding the process of drying of the rotor winding, constructive characteristics are given.

For the rotor spin of 3000 min⁻¹ and closed housing filled with air instead of hydrogen and from the ventilation losses and friction from the air and rotor in the housing the isolation of the rotor winding is improved.

Keywords: Turbogenerator, hydrogen, cooling, losses.