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IMPROVED UTILIZATION OF TAPPED AUTOTRANSFORMERS WITH THE OUTPUT COMMUTATOR AS A COMPONENT OF THE AC VOLTAGE STABILIZER

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Abstract

In order to increase the efficiency of use of the autotransformer (AT) with tapped winding as a component of the transformer-and-switches executive structures (TSES) of AC voltage stabilizers, multiphysics simulation of the AT with the semiconductor commutator at the output has been fulfilled. The TSES, in which the commutator is placed at the input of the AT, has been compared with the proposed one. The advantage of the proposed TSES for certain parameters have been proven. The possibility of influence of purposeful change of positioning of the winding sections has been tracked. References 15, figures 5, tables 3.

Key words: transformer-and-switches executive structure, tap chanching transformer, utilization efficiency of autotransformer, winding positioning.

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