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CURRENT STATE AND DEVELOPMENT TRENDS OF AC VOLTAGE CONVERTERS WITH TRANSFORMER-AND-SWITCHES EXECUTIVE STRUCTURE

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AC voltage converters (regulators, stabilizers) with TSES – transformer-and-switches executive structure are distinguished by high energy indices and electromagnetic compatibility with the supply network and the consumer. In the article, characteristic objects of research and patenting of devices of this class are analyzed which, due to a priori multivariance, can differ substantially in the type of construction of the control units and their integration, the law of sectioning of the windings of the transforming element. The effectiveness and expediency of strict adherence to the already approved basic provisions of the TSES theory is substantiated and the ways of their further improvement are defined with the expansion of the circle of significant quality indicators of voltage converters on their basis. References 24.

Key words: transformer-and-switches executive, AC voltage converter, sectionalized winding, tap changing transformer, discrete smart transformer, voltage stabilizer, regulator.

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