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TECHNICAL FEATURES OF EQUIVALENT TESTS OF THYRISTOR VALVES OF STATIC VAR COMPENSATORS

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Abstract

The work of a specialized station with improved technical and economic characteristics for equivalent testing of symmetrically controlled thyristor valves used in static VAr compensators has been considered. Its power unit is equipped with a traditional low-voltage current circuit and an energy-efficient high-voltage oscillating circuit, made as a series resonant inverter according to a half-bridge circuit. On the basis of analysis of block diagram of the test station and equivalent schemes of the indicated circuits with the test thyristor valve analytical expressions for describing the electromagnetic processes occurring in its circuits were obtained, the parameters of the test station, necessary for testing the valves in the equivalent mode, were determined and the optimal control algorithms of the station were identified. The recommendations for testing the valves of thyristor-controlled reactors are developed and the corresponding results of field studies for given valve and station parameters are given. Referen

ces 6, figures 5.

Key words: test station, thyristor valve, serial resonant inverter, thyristor-controlled reactor.

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