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CONTROL SYSTEM OF THE FILTER-COMPENSATING DEVICE WITH THE SECOND-ORDER FUZZY REGULATOR

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Abstract

In this article the expediency of using the fuzzy controller, as part of an additional control loop of the compensator control system in terms of the level of commutation overvoltages and amplitudes of the higher harmonics of the supply network current, is shown. The use of fuzzy controller makes it possible, in the process of reactive power compensation, to reduce the

generation of higher harmonics of the current to the network, without exceeding the established level of switching overvoltages. The principles of control of the filter compensating device for the powerful sounding pulses generator using the second order fuzzy regulator are considered. The use of a fuzzy second-order regulator will enable the controlled parameters to be adjusted with the given accuracy. References 8, figures 5, table 1.

Key words: multi-functional compensators, control system, fuzzy logic controller.

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