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ACTIVE FILTERS APPLICATION FOR ENERGY LOSSES REDUCTION IN THREE-PHASE POWER SUPPLY SYSTEMS

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Abstract

A new analytical condition of expedient application of shunt active filters (SAF) and formula for estimating the energy saving effect from their installation in three-phase power supply systems under stationary load have been obtained. It is proposed to evaluate the energy-saving effect from the use of SAF under periodically varying load by the energy losses gain coefficient, for which the method of determination is given. The application of the method is illustrated by the calculation of the energy-saving effect by the results of weekly monitoring the electricity consumption in the KNUTD hostel number 7. References 9, figures 2, table 1.

Key words: power losses, shunt active filter, three-phase power supply system.

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