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SELECTIVE COMPENSATION OF THREE-PHASE CURRENT HARMONICS

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Abstract

A new nonlinear algorithm for shunt active power filter current control is designed. Proposed solution provides asymptotic current tracking and, unlike existing solutions, does not require “high-gain” control. Such approach simplifies the practical implementation and increases the system noise immunity. Simulation results confirms theoretical findings and demonstrate the effectiveness of the proposed solution for shunt active power filters with selective harmonics compensation. References 7, figures 2, table 1.

Key words: active power filter, higher-order harmonics, observer.

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