Microgrid APF Current Controller

This paper presents an adaptive current-control scheme for a three-phase active-power filter (APF) for use within a microgrid. A vector-proportional-integral (VPI) controller with grid frequency tracking ...

To address this issue, a harmonic current self-compensation control strategy of dc-APF is proposed, which uses a 1st-order inertia controller in the voltage loop and can simultaneously ...

Looking at the necessity, the detailed working of parallel/series filters for current and voltage source-based non-linear load application is discussed and compared. This paper reviews ...

In this paper, a novel current controller for selective compensation with active power filter (APF) in a microgrid (MG) is proposed. Power generation with sinusoidal voltage and high quality is essential in ...

An test platform using FPGA EP3C55F484C8N as the controller is established. The effectiveness and correctness of the proposed control method are verified in the simulation and ...

This paper presents a novel current controller for selective harmonic compensation using active power filters (APF) in microgrids powered by renewable energy sources.

current-limiting strategy based on filtering inductance reference current and shunt APF is proposed through studying the relationship among the DG output current, the DG output voltage, and filtering ...