Three-phase grid-connected inverter repetitive control

This abstract outline a proportional-integral (PI) controller and direct-quadrature (DQ) frame-based optimal control method for a three-phase grid-connected inverter using a MATLAB simulation. This is ...

In the control strategy of photovoltaic grid connected inverters, traditional centralized control is difficult to cope with grid imbalance and harmonic interference. This study focuses on three-phase T-type three ...

This paper discusses the design of a repetitive feedback controller for a grid-connected two-level three-phase voltage-source inverter connected between a DC source and the grid through an LCL filter.

In this paper, an improved proportional and repetitive control strategy is proposed, which allows grid-connected inverters to adapt to a wider range of impedance changes in the grid, and can ...

This paper explores frequency adaptive repetitive control strategy for grid-interfaced converters, which employs fractional delay filter to adapt to the change of grid frequency.

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Grid-connected PV inverters (GCPI) are key components that enable photovoltaic (PV) power generation to interface with the grid. Their ...

This paper presents the modified repetitive control method for three-phase grid-connected inverters by means of a digital comb filter application. The proposed method provides multiple ...

This article proposes a unified control for such inverters with current control, voltage control, and power control loops, including the PLL impact on - ...

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This project presents modeling, simulation and control of a 108 kW two-stage grid-connected photovoltaic (PV) system using MATLAB/Simulink.

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