

Grid-connected resonance suppression of solar inverters

In this paper, the control strategy for the inverter resonance and grid-connected current distortion of a three-phase voltage-source grid-connected inverter under a weak grid is studied.

Finally, simulation experiments are carried out. The results show that this method can effectively suppress the resonance of the multi-inverter parallel system and can significantly improve ...

This article focuses on the resonance suppression approach for LCL-type grid-connected inverters, emphasizes the use of capacitor current feedback as the basis

To suppress grid-connected resonance, the mathematical model, resonance mechanism and resonance characteristics of the cluster inverters are analyzed, and a global resonance ...

This approach effectively mitigates both inherent and interactive resonance, enhances system damping, and offers a novel solution for large-scale grid integration of string solar inverters.

To effectively suppress resonance phenomena in multi-inverter grid-connected systems powered by multiple independent DC sources, this study proposes an active-damping-based ...

By comparing and analyzing the undamped and damped control schemes, it is concluded that the active damping scheme is effective in suppressing resonance in grid-connected inverters.

This study proposes an adaptive control algorithm for grid-connected PV inverters to suppress the resonance condition excited by grid inductance variation, resulting from the dynamic ...

This paper proposes a converter-side current feedback-based control method to enhance the resonance suppression capability of an active damping device in multi-inverter grid-connected ...

In the current era of rapid clean energy technology advances, parallel operation of multiple grid-connected inverters emerges as a leading solution in microgrid

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