Grid-connected inverter parallel circulation current suppression

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brid AC/DC microgrid applications. The basic concept of the proposed circulating-current suppression method is to modify the original current references by using the current differenc.

The power handling capacity of a grid connected converter system can be increased by connecting inverters in parallel. It offers advantages such as modularity,

To suppress the circulating current issue among photovoltaic inverters in power systems caused by the impedance differences of transmission lines, the article proposes an improved Grid ...

Therefore, this paper presents a global control strategy for a grid-connected parallel interleaved converter based on the concept of Port Controlled Hamiltonian (PCH). With this ...

This paper establishes a zero sequence circulating model of parallel inverters based on three vectors, and proposes a direct zero sequence current control solution on this basis.

However, the parallel connection of inverters produces circulating currents that may result in mal-functions of the system. In this work, a control technique for the elimination of the low-frequency ...

The proposed neural network control is developed based on the full state-space equation of the grid-connected inverter system and is trained to implement optimal control based upon approximate ...

However, the interleaving of the carrier signals may lead to the flow of circulating current between parallel VSCs and it is highly desirable to avoid/suppress this unwanted circulating current.

Circulating current suppression can effectively improve the reliability and redundancy of parallel inverter systems. The mechanism and influencing ...

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