

# **Solution to DC circulating current in parallel inverter**



## Overview

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However, the parallel connection of inverters produces circulating currents that may result in malfunctions of the system. The proposed control current suppression method for parallel operation of three-phase voltage source inverters (VSI), which may be suitable for modular parallel uninterruptible power supply systems or hybrid AC/DC microgrid applications.

## Solution to DC circulating current in parallel inverter

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### Integrated paralleling of NPC inverters with suppressed circulating

A switching sequence with a small circulating current was selected from the available five-level space vectors, reducing the instantaneous circulating current between the parallel inverters.

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### Circulating Current Control with Loss Reduction for Parallel Connected

Connecting inverters in parallel is a common method for increasing current capacity. Due to the difference in the delay time and on-voltage of the gate circuit.



### Suppression of Circulating Currents in Islanded Parallel Inverters

Nevertheless, the connection in parallel of inverters produces circulating currents that cause adverse effects in the system. In this work, it is presented a control technique for the elimination of the ...

## Advanced Control Strategy to Compensate Power Sharing Error and DC

This paper proposes an advanced control strategy to eliminate both current sharing error and DC circulating current caused by line impedance mismatched and measurement errors in ...



## Review of Methods for Reducing Circulating Currents in Parallel

These harmonic components of circulating current influence the inverter life cycle, and it can limit the power rating of the total parallel-connected inverter. This study analyzes the circulating current ...

## Elimination of circulating current in parallel operation of single

Abstract This paper presents the control strategy for parallel operation of an inverter to eliminate DC & AC circulating current.



## Integral backstepping-ILC controller for suppressing



## **circulating**

In order to illustrate the circulating current effect and the classical solution performance, a simulation of two paralleled three-phase inverters is done under MATLAB/Simulink software.

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### **Reduction of the Circulating Current Among Parallel NPC Inverters**

This article investigates a double-reference pulsewidth modulation (DRPWM) as solution for diminishing the HF-ZSCC in paralleled NPCs. The performance of DRPWM method is confirmed by both ...



### **Aalborg Universitet A Circulating-Current Suppression Method for**

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Circulating-Current Suppression Method  
for Parallel Connected Voltage Source  
Inverters (VSI) with Common DC and AC  
Buses

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### **A Control Scheme to Suppress Circulating Currents in Parallel**

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



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