

Title (en)

METHOD AND SYSTEM FOR CONTROLLING RESONANT CONVERTERS USED IN SOLAR INVERTERS

Title (de)

VERFAHREN UND SYSTEM ZUR STEUERUNG VON IN SOLARUMRICHTERN VERWENDETEN RESONANTEN WANDLERN

Title (fr)

PROCÉDÉ ET SYSTÈME DE COMMANDE DE CONVERTISSEURS RÉSONANTS UTILISÉS DANS DES INVERSEURS SOLAIRES

Publication

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Application

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Abstract (en)

[origin: WO2011102910A1] The present invention proposes a method and a system for controlling resonant converters used in solar Inverters. The resonant converters may operate in one or more pre-defined switching modes such as, but not limited to, a full bridge mode, a half bridge mode, a pulse width modulation mode, a pulse skipping mode, and an AC line voltage pulse skipping mode. The method includes generating a reference current based on values of voltage and current of a Direct Current (DC) voltage source and an output of the solar inverter. The method further includes comparing the reference current and a sensed current, wherein the sensed current is collected from the output of the solar inverter. After this, a plurality of drive signals for controlling the operation of the resonant converter are generated based on the comparison of the reference current and the sensed current. The operation of the resonant converter is controlled by switching the resonant converter in the pre-defined switching modes.

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