

Title (en)

DEAD-TIME TRANSITION ADJUSTMENTS FOR SYNCHRONOUS POWER CONVERTERS

Title (de)

STILLSTANDZEITÜBERGANGSEINSTELLUNGEN FÜR SYNCHRONE STROMRICHTER

Title (fr)

AJUSTEMENTS DE TRANSITION DE TEMPS MORT POUR DES CONVERTISSEURS DE PUISSANCE SYNCHRONES

Publication

EP 2181498 A1 20100505 (EN)

Application

EP 08782260 A 20080723

Priority

- US 2008070887 W 20080723
- US 95125907 P 20070723
- US 17676208 A 20080721

Abstract (en)

[origin: WO2009015205A1] A method of operating a synchronous power converter detects when at least one of an upper power switch and a lower power switch of the converter transition to an off state during a dead-time transition interval between the upper power switch and the lower power switch. The method generates a first comparison signal, indicative of a voltage level at a phase node of the converter, in a dead-time adjustment circuit coupled to the converter. The method further detects a body diode conduction level of at least one of the upper and lower power switches in the off state using at least a second comparison signal generated in the dead-time adjustment circuit and adjusts the dead-time transition interval between the upper power switch and the lower power switch using at least one current source from the dead-time adjustment circuit to reduce the dead-time transition interval to a desired dead-time interval.

IPC 8 full level

H02M 1/38 (2007.01); **H02M 3/158** (2006.01); **H03K 17/00** (2006.01)

CPC (source: EP)

H02M 1/38 (2013.01); **H02M 3/158** (2013.01); **H03K 17/165** (2013.01); **H03K 17/6871** (2013.01); **H03K 2217/0036** (2013.01)

Citation (search report)

See references of WO 2009015205A1

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