

Title (en)
CONTROL METHOD FOR POWER CONVERTERS WITH INVERTER BLOCKS WITH SILICON CARBIDE MOSFETS

Title (de)
STEUERVERFAHREN FÜR STROMRICHTER MIT UMRICHTERBLÖCKEN MIT SILICIUMCARBID-MOSFETS

Title (fr)
PROCÉDÉ DE COMMANDE POUR CONVERTISSEURS DE PUISSANCE AVEC BLOCS D'ONDULEUR AVEC DES MOSFET EN CARBURE DE SILICIUM

Publication
EP 3788703 A4 20211124 (EN)

Application
EP 18917130 A 20180430

Priority
US 2018030083 W 20180430

Abstract (en)
[origin: WO2019212453A1] Systems and methods for operating a power converter with a plurality of inverter blocks with silicon carbide MOSFETs are provided. A converter can include a plurality of inverter blocks. Each inverter block can include a plurality of switching devices. The plurality of switching devices can include one or more silicon carbide MOSFETs. A control method can include providing, by a control system, one or more gating commands to a first inverter block in the plurality of inverter blocks. The control method can further include implementing, by the control system, a gating command delay to generate a first delayed gating command based at least in part on the one or more gating commands. The control method can further include providing, by the control system, the first delayed gating command to a second inverter block in the plurality of inverter blocks.

IPC 8 full level
H02M 1/08 (2006.01); **H02M 1/44** (2007.01); **H02M 5/458** (2006.01); **H02M 7/48** (2007.01); **H02M 7/49** (2007.01); **H02M 7/493** (2007.01); **H02P 9/00** (2006.01)

CPC (source: EP)
H02M 1/44 (2013.01); **H02M 7/4807** (2013.01); **H02M 7/49** (2013.01); **H02P 9/007** (2013.01); **H02M 1/0043** (2021.05); **H02M 5/4585** (2013.01); **H02P 2101/15** (2015.01); **Y02B 70/10** (2013.01)

Citation (search report)

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- [IY] US 2014085954 A1 20140327 - HASEGAWA RYUTA [JP], et al
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Citation (examination)

- JANG YUNGTAEK ET AL: "A novel active-current-sharing method for interleaved resonant converters", 2015 IEEE APPLIED POWER ELECTRONICS CONFERENCE AND EXPOSITION (APEC), IEEE, 15 March 2015 (2015-03-15), pages 1461 - 1466, XP032775251, DOI: 10.1109/APEC.2015.7104540
- SWATHIP R ET AL: "A Novel Three-Phase Interleaved LLC Resonant Converter For High Efficiency Isolated Ac-Dc Converter", 8 August 2015 (2015-08-08), XP093138139, Retrieved from the Internet <URL:https://ijiset.com/vol2/v2s8/IJISSET_V2_I8_112.pdf>
- See also references of WO 2019212453A1

Designated contracting state (EPC)
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