

Title (en)

Optimal Control of the installed power in domestic induction cooking hobs with re-configurable structure topology

Title (de)

Optimale Steuerung der installierten Leistung bei einer häuslichen Induktionskochstelle mit veränderlicher Strukturanordnung

Title (fr)

Commande optimale de la puissance installée dans une foyer de cuisson par induction avec une topologie reconfigurable

Publication

**EP 0844807 A1 19980527 (EN)**

Application

**EP 97500198 A 19971120**

Priority

ES 9602460 A 19961121

Abstract (en)

This invention concerns the optimal control of a flexible and reconfigurable topology wherein a control strategy of the power semiconductor switches allows separated powering of two coils with regulated power up to their rated values. Furthermore, it allows the utilisation of all the installed power and using it for driving any of the coils. This performance provides ultra-fast heating ability with a power capacity higher than the rated power of the coil without increasing the rating characteristics of the system. In addition, it allows the matching of the installed power to the demands in order to lower the temperature of the electronic power devices, leading to an improving in the system reliability and integrability. <IMAGE>

IPC 1-7

**H05B 6/12**; H05B 6/06

IPC 8 full level

**H05B 6/06** (2006.01); **H05B 6/12** (2006.01)

CPC (source: EP)

**H05B 6/065** (2013.01)

Citation (search report)

- [AD] DE 3601958 A1 19860724 - BALAY SA [ES]
- [A] EP 0100441 A1 19840215 - AEG ELOTHERM GMBH [DE]
- [A] EP 0286044 A2 19881012 - THOMSON BRANDT GMBH [DE]
- [A] US 4920475 A 19900424 - RIPPEL WALLY E [US]

Cited by

EP1931177A1; EP1194008A3; EP1194011A3; AU2003257459B2; CN100450318C; EP0986287A3; JP2017011835A; CN102257876A; CN103444261A; CN102257877A; CN105228280A; EP1951003A1; US7227103B2; WO2012131571A1; WO2019238448A1; WO2012134412A3; WO2004014106A1; US9113502B2; US9113503B2; EP3582587A1; CN112219448A; US2021212174A1; AU2019284796B2; WO2010069825A1; WO2011113660A1; WO2008067999A1; WO2012131528A1; WO2010069616A1; WO2012131563A1; EP2206407B2

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

**EP 0844807 A1 19980527**; ES 2128958 A1 19990516; ES 2128958 B1 20000116

DOCDB simple family (application)

**EP 97500198 A 19971120**; ES 9602460 A 19961121