

Title (en)

INDUCTION HOB AND METHOD FOR OPERATING AN INDUCTION HOB

Title (de)

VERFAHREN ZUM BETREIBEN EINES INDUKTIONSKOCHFELDS UND INDUKTIONSKOCHFELD

Title (fr)

PROCÉDÉ DE FONCTIONNEMENT D'UNE PLAQUE DE CUISSON À INDUCTION ET PLAQUE DE CUISSON À INDUCTION

Publication

EP 3920661 B1 20230823 (DE)

Application

EP 21176540 A 20210528

Priority

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Abstract (en)

[origin: US2021385912A1] A method for operating an induction hob (100), wherein the induction hob (100) comprises: an inverter (1), which is supplied with a supply voltage (US), at least one capacitor (2, 3), and an induction heating coil (4), wherein the at least one capacitor (2, 3) and the induction heating coil (4) are interconnected such that they constitute an oscillating circuit (5), and wherein the inverter (1) is configured to generate a pulse-width modulated excitation voltage (UA) for the oscillating circuit (5) from the supply voltage (US), wherein the method comprises the following steps: a) generation of the pulse-width modulated excitation voltage (UA) having a predefined voltage characteristic, b) measurement of a resulting oscillating circuit current (iS), particularly by means of the induction heating coil (4), c) determination of electrical oscillating circuit parameters, according to the voltage characteristic of the pulse-width modulated excitation voltage (UA) and the measured oscillating circuit current (iS), d) n-times repetition of steps a) to c) using a different voltage characteristic of the excitation voltage (UA) for the determination of electrical voltage characteristic-dependent oscillating circuit parameters, and e) determination of operating variables of the induction hob (100) from voltage characteristic-dependent electrical oscillating circuit parameters.

IPC 8 full level

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