

Title (en)

TEMPERATURE CONTROL FOR AN INDUCTIVELY HEATED HEATING ELEMENT

Title (de)

TEMPERATURREGELUNG FÜR EIN INDUKTIV ERWÄRMTES HEIZELEMENT

Title (fr)

REGULATION DE TEMPERATURE DESTINEE A UN ELEMENT DE CHAUFFAGE CHAUFFE PAR INDUCTION

Publication

EP 1625774 B2 20110817 (DE)

Application

EP 03816956 A 20031028

Priority

- EP 0311961 W 20031028
- ES 200301242 A 20030515

Abstract (en)

[origin: WO2004103028A1] The invention relates to a temperature control method for a heating element (3) that is inductively heated by an inductor (6) to which electrical power (P) is supplied via a control circuit (2). The invention also relates to a corresponding control circuit (2), to an induction hob (1) and to an induction oven (19) comprising said control circuit (2). Temperature control is activated at a first point in time (t1). Subject to at least one electrical value (vo, io, P, I) of the control circuit (2) which depends on the temperature (T) of the heating element (3), a reference value (FR) is determined at this first point in time (t1). Subject to the electrical value (vo, io, P, I), a comparison value (FV) and a deviation of said comparison value (FV) from the reference value (FR) is determined at at least one later point in time (t2-t7). Depending on the deviation, the inductor (6) is supplied with power (P) so that the temperature (T) of the heating element (3) is adjusted to a constant value corresponding to the reference value (FR).

IPC 8 full level

H05B 6/06 (2006.01)

CPC (source: EP US)

H05B 6/06 (2013.01 - EP US); **H05B 6/062** (2013.01 - EP US); **H05B 6/065** (2013.01 - EP US); **H05B 6/129** (2013.01 - EP US);
H05B 2213/07 (2013.01 - EP US)

Citation (opposition)

Opponent :

- US 4481639 A 19841106 - ARCHENHOLTZ AKE [SE], et al
- US 5477035 A 19951219 - MATSUMOTO ISAO [JP], et al
- DE 4208252 A1 19930916 - EGO ELEKTRO BLANC & FISCHER [DE]
- DE 916103 C 19540805 - DEUTSCHE EDELSTAHLWERKE AG
- DE 19609930 A1 19970918 - ABB PATENT GMBH [DE]
- DE 19852617 A1 20000120 - AEG HAUSGERAETE GMBH [DE]
- WO 9716943 A2 19970509 - HERCHENBACH WOLFGANG [DE]
- EP 0858722 B1 20000628 - HERCHENBACH WOLFGANG [DE]
- DE 3501304 C2 19910117
- DE 10160087 A1 20020905 - BSH BALAY SA [ES]

Cited by

US8754351B2; US9006622B2; US8598497B2; US9131537B2; EP2164298B1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004103028 A1 20041125; AT E374515 T1 20071015; AU 2003276195 A1 20041203; DE 50308299 D1 20071108;
EP 1625774 A1 20060215; EP 1625774 B1 20070926; EP 1625774 B2 20110817; ES 2246640 A1 20060216; ES 2246640 B1 20061101;
ES 2294371 T3 20080401; ES 2294371 T5 20111129; US 2008121633 A1 20080529; US 7692121 B2 20100406

DOCDB simple family (application)

EP 0311961 W 20031028; AT 03816956 T 20031028; AU 2003276195 A 20031028; DE 50308299 T 20031028; EP 03816956 A 20031028;
ES 03816956 T 20031028; ES 200301242 A 20030515; US 55692903 A 20031028