

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 1 255 421 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
24.09.2003 Bulletin 2003/39

(51) Int Cl. 7: H05B 6/06

(43) Date of publication A2:
06.11.2002 Bulletin 2002/45

(21) Application number: 02007362.3

(22) Date of filing: 08.04.2002

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR

Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 03.05.2001 IT MI010910

(71) Applicant: C.P.E. Consultants Plastics
Engineering
20090 Limito di Pioltello (Milano) (IT)

(72) Inventors:

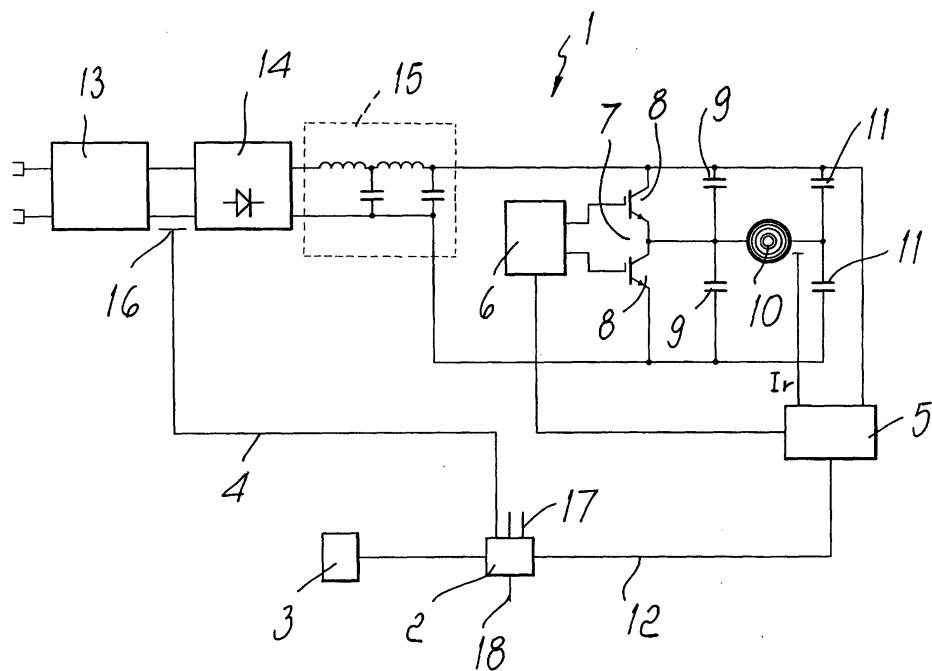
- Raffaeta, Roberto
38080 Carisolo (Trento) (IT)
- Nolli, Gianluca
20060 Pozzuolo Martesana (Milano) (IT)
- Ieva, Francesco
20142 Milano (IT)

(74) Representative: Modiano, Guido, Dr.-Ing. et al
Modiano & Associati SpA
Via Meravigli, 16
20123 Milano (IT)

(54) Induction cooking apparatus with improved characteristics

(57) An induction cooking apparatus (1), comprising an inductor element (10) driven by an inverter (7), which is in turn controlled by a control circuit (6), resonance capacitors (11) being connected in parallel to the inductor element (10); the apparatus further comprises a real-time control unit (5) suitable to detect the resonance cur-

rent of a resonance circuit constituted by the inductor element (10) and by the resonance capacitors (11), and the phase current of the power supply line, in order to send, at each half-cycle of the fundamental wave, a driving signal for the control circuit in order to ensure a perfect resonance condition.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 00 7362

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	WO 93 04527 A (PIPER JAMES WILLIAM) 4 March 1993 (1993-03-04) * page 1 - page 49 *	1,4	H05B6/06
Y	---	2,3	
Y	US 5 648 008 A (BARRITT WILLIAM D ET AL) 15 July 1997 (1997-07-15) * page 1 - page 33 *	2	
X	---	5-8	
Y	EP 0 804 050 A (ILLINOIS TOOL WORKS) 29 October 1997 (1997-10-29) * page 1 - page 13 *	3	
A	US 4 897 518 A (MUCHA GEORGE M ET AL) 30 January 1990 (1990-01-30) * page 1 - page 10 *	1-8	

			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H05B
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
MUNICH	30 July 2003	Kopycki, P	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 7362

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-07-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9304527	A	04-03-1993	NZ	239366 A	27-04-1995
			AU	656803 B2	16-02-1995
			AU	2396692 A	16-03-1993
			WO	9304527 A1	04-03-1993
			JP	6509904 T	02-11-1994
			JP	3178837 B2	25-06-2001
			KR	163412 B1	15-04-1999
			US	5450305 A	12-09-1995
<hr/>					
US 5648008	A	15-07-1997	CA	2145494 A1	24-05-1996
<hr/>					
EP 0804050	A	29-10-1997	BR	9701473 A	08-09-1998
			CA	2201060 A1	22-10-1997
			CN	1168075 A	17-12-1997
			EP	0804050 A2	29-10-1997
			JP	10041060 A	13-02-1998
			US	6043471 A	28-03-2000
<hr/>					
US 4897518	A	30-01-1990	US	4816633 A	28-03-1989
<hr/>					