



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
02.07.2008 Bulletin 2008/27

(51) Int Cl.:
H05B 1/02 (2006.01)

(43) Date of publication A2:
07.09.2005 Bulletin 2005/36

(21) Application number: **05004563.2**

(22) Date of filing: **02.03.2005**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR LV MK YU

(30) Priority: **04.03.2004 JP 2004060138**
25.02.2005 JP 2005049864

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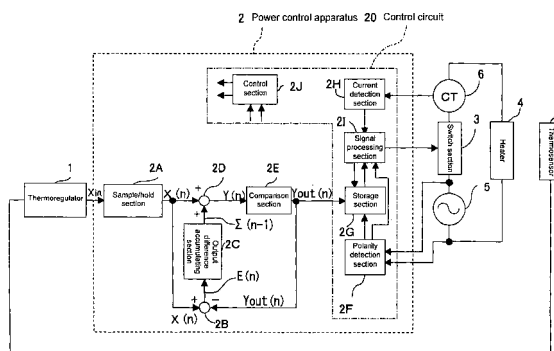
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(54) **Control circuit and power control apparatus having the control circuit**

(57) Providing a control circuit (20) which performs ON/OFF control of a switch section (3) connected between an AC power supply (5) and a heater (4), wherein the control circuit (20) performs control to allow the present turning ON of the switch section (3) when it is determined that an AC power supply (5) waveform (i.e.,

AC waveform) polarity at a previous turning ON at the switch section (3) is not the same as an AC waveform polarity at a present turning ON; and wherein the control circuit (20) performs control to inhibit the present turning ON of the switch section (3) when it is determined that the polarities are the same.

Fig. 1





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 05 00 4563

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
D,A	JP 2001 265446 A (OMRON TATEISI ELECTRONICS CO) 28 September 2001 (2001-09-28) * abstract * * figures 1-3 *	1-7	INV. H05B1/02
D,A	JP 2002 325428 A (OMRON TATEISI ELECTRONICS CO) 8 November 2002 (2002-11-08) * abstract *	1-7	
			TECHNICAL FIELDS SEARCHED (IPC)
			H05B
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 19 May 2008	Examiner de la Tassa Laforgue
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

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EPO FORM 1503 03.82 (P04C01)

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

EP 05 00 4563

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19-05-2008

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2001265446 A	28-09-2001	JP 3899773 B2	28-03-2007
JP 2002325428 A	08-11-2002	NONE	