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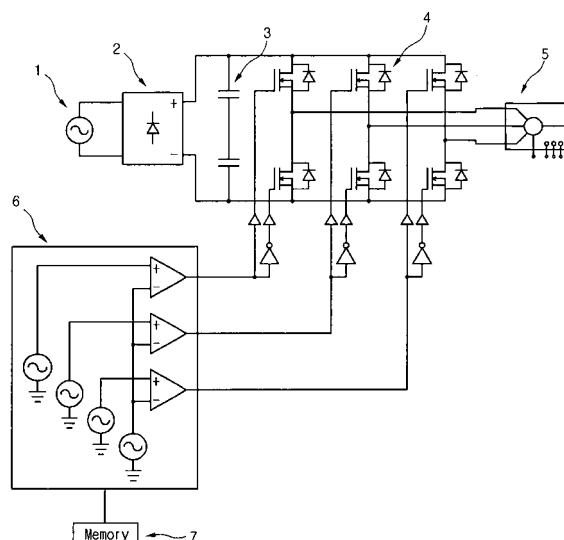
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(54) **Operating apparatus and method of a washing machine**

(57) The operating apparatuses of a washing machine and the methods on that are renovated. The aforementioned washing machine is including: a memory (7) that the reference signals are saved in order to operate a motor (5) in a best condition according to each of the condition of the torque and noise; a control unit (6) which generates the switching signals as calling the reference

signals which are different each other according to the strokes of a washing machine, and comparing with the carrier signals; an inverter (4) which generates a motor operating signal as an external power is switched by a switching signal; a motor which is rotated by a motor operating signal; and a revolving screen of a washing machine which is operated by a motor.

FIG.1





EUROPEAN SEARCH REPORT

Application Number
EP 06 01 6670

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2003/182975 A1 (TOMIGASHI YOSHIO [JP] ET AL) 2 October 2003 (2003-10-02) * the whole document *	1-20	INV. D06F37/30
A	WO 97/50171 A (BRITISH NUCLEAR FUELS PLC [GB]; PROUD NEIL JAMES [GB]; KELSALL DAVID R) 31 December 1997 (1997-12-31) * the whole document *	1-20	
A	WO 92/07130 A (ICOTRON SA [BR]) 30 April 1992 (1992-04-30) * the whole document *	1-20	
A	EP 1 464 749 A (TOKYO SHIBAURA ELECTRIC CO [JP] TOSHIBA KK [JP]; TOSHIBA HA PRODUCTS C) 6 October 2004 (2004-10-06) * the whole document *	1-20	
A	EP 0 903 845 A (MATSUSHITA ELECTRIC IND CO LTD [JP]) 24 March 1999 (1999-03-24) * the whole document *	1-20	
A	EP 0 489 970 A (BSG SCHALTTECHNIK [DE]) 17 June 1992 (1992-06-17) * the whole document *	1-20	TECHNICAL FIELDS SEARCHED (IPC)
A	GB 947 802 A (CONSTRUCTA WERKE GMBH) 29 January 1964 (1964-01-29) * the whole document *	1-20	D06F H02P
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 February 2009	Examiner Spitzer, Bettina
CATEGORY OF CITED DOCUMENTS 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 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			

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

EP 06 01 6670

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
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05-02-2009

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003182975 A1	02-10-2003	CN 1449106 A	15-10-2003
		JP 3789843 B2	28-06-2006
		JP 2003289690 A	10-10-2003
-----	-----	-----	-----
WO 9750171 A	31-12-1997	AU 3183897 A	14-01-1998
		DE 69732701 D1	14-04-2005
		DE 69732701 T2	04-08-2005
		EP 0908002 A1	14-04-1999
		JP 2000513196 T	03-10-2000
-----	-----	-----	-----
WO 9207130 A	30-04-1992	AU 8623791 A	20-05-1992
		DE 69112413 D1	28-09-1995
		DE 69112413 T2	18-04-1996
		EP 0552184 A1	28-07-1993
		ES 2080337 T3	01-02-1996
		TR 26731 A	15-05-1995
-----	-----	-----	-----
EP 1464749 A	06-10-2004	CN 1604976 A	06-04-2005
		WO 03050341 A1	19-06-2003
		JP 3651595 B2	25-05-2005
		JP 2003181187 A	02-07-2003
		TW 254756 B	11-05-2006
		US 2005160771 A1	28-07-2005
-----	-----	-----	-----
EP 0903845 A	24-03-1999	CN 1333398 A	30-01-2002
		CN 1333399 A	30-01-2002
		CN 1212305 A	31-03-1999
		US 6163912 A	26-12-2000
-----	-----	-----	-----
EP 0489970 A	17-06-1992	US 5146146 A	08-09-1992
-----	-----	-----	-----
GB 947802 A	29-01-1964	FR 1284979 A	16-02-1962
-----	-----	-----	-----