



(11) **EP 1 524 648 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
24.01.2007 Bulletin 2007/04

(51) Int Cl.:
G09G 3/36^(2006.01) H05B 41/285^(2006.01)

(43) Date of publication A2:
20.04.2005 Bulletin 2005/16

(21) Application number: **04256375.9**

(22) Date of filing: **15.10.2004**

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

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(30) Priority: **17.10.2003 KR 2003072695**
10.12.2003 KR 2003089789

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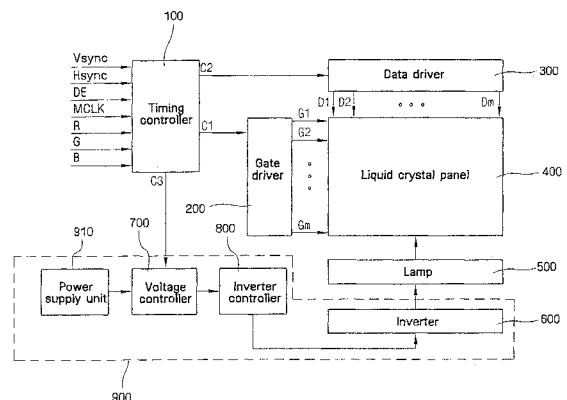
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(54) **Power supply system and liquid crystal display device having the same**

(57) A power supply system has a power supply unit generating a power supply voltage signal, a voltage controller generating a first power supply control signal in response to the power supply voltage signal and a lamp-on/off signal, an inverter controller being driven in response to the first power supply control signal, and an inverter driving a lamp in response to a control signal from the inverter controller. The first power supply control signal prevents the inverter from being shut down. The voltage controller includes a comparator comparing a comparison voltage signal with a reference signal, a switch unit being turned on or off in response to the lamp-on/off signal and an output signal of the comparator, and a constant voltage generator providing a constant voltage signal as the first power supply control signal to the inverter controller. A liquid crystal display device has a timing controller, gate and data drivers, a display panel, a lamp unit, and the power supply system for providing electric power to the lamp unit.

FIG. 2



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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	WO 01/98853 A (INTERNATIONAL RECTIFIER CORPORATION) 27 December 2001 (2001-12-27) * page 7, line 4 - page 8, line 13 * * page 9, line 25 - page 10, line 23 * * page 12, line 25 - page 13, line 11 * * claims 12-14 * * figures 1,3,4,7 * -----	1-19,33	INV. G09G3/36 H05B41/285
X	US 6 281 642 B1 (KONISHI HIROFUMI ET AL) 28 August 2001 (2001-08-28) * column 1, line 29 - column 2, line 36 * * column 3, line 11 - column 4, line 65 * * figures 1-4 * -----	1-19,33	
A	US 6 087 776 A (YAMASHITA ET AL) 11 July 2000 (2000-07-11) * the whole document * -----	1-19	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			H05B
Place of search		Date of completion of the search	Examiner
The Hague		19 September 2006	Silva, João Carlos
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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EPO FORM 1503 03.82 (F04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1 - 19 , 33



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-19,33

Power supply system for a discharge lamp comprising a voltage monitor and an inverter wherein the input voltage monitor detection has hysteresis.

2. claims: 20-32

Power supply system for a discharge lamp comprising a lamp status monitor and an inverter wherein the lamp status monitor is disabled during an initial time or during forced deactivation of the lamp.

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

EP 04 25 6375

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.

19-09-2006

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专利名称(译)	电源系统和具有该电源系统的液晶显示装置		
公开(公告)号	EP1524648A3	公开(公告)日	2007-01-24
申请号	EP2004256375	申请日	2004-10-15
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IPC分类号	G09G3/36 H05B41/285 G02F1/133 G09G3/34 H02H3/24 H02M7/48 H05B41/24		
CPC分类号	H05B41/36 H05B41/2853 Y02B20/186 Y10T307/74		
优先权	1020030072695 2003-10-17 KR 1020030089789 2003-12-10 KR		
其他公开文献	EP1524648A2		
外部链接	Espacenet		

摘要(译)

电源系统具有产生电源电压信号的电源单元，响应于电源电压信号和灯开/关信号产生第一电源控制信号的电压控制器，响应驱动的逆变器控制器第一电源控制信号和逆变器响应来自逆变器控制器的控制信号驱动灯。第一电源控制信号防止逆变器关闭。电压控制器包括比较电压信号和参考信号的比较器，响应于灯开/关信号和比较器的输出信号接通或断开的开关单元，以及提供恒定电压的恒定电压发生器电压信号作为第一电源控制信号到逆变器控制器。液晶显示装置具有定时控制器，栅极和数据驱动器，显示面板，灯单元和用于向灯单元提供电力的电源系统。

FIG. 2

