



- (51) International Patent Classification:
H02M 3/156 (2006.01) *H02M 3/335* (2006.01)
- (21) International Application Number:
PCT/DK2012/000015
- (22) International Filing Date:
20 February 2012 (20.02.2012)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/445,816 23 February 2011 (23.02.2011) US
PA 2011 00122 23 February 2011 (23.02.2011) DK
- (71) Applicant (for all designated States except US): **VKR HOLDING A/S** [DK/DK]; Breltevej 18, DK-2979 Hørsholm (DK).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **SØRENSEN, Alex** [DK/DK]; Marsvænget 66, DK-6710 Esbjerg V (DK).
- (74) Agent: **PATENTGRUPPEN A/S**; Aaboulvarden 31, DK-8000 Aarhus C (DK).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,

CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report (Art. 21(3))
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:
18 October 2012

(54) Title: A POWER SUPPLY COMPRISING A STAND BY FEATURE

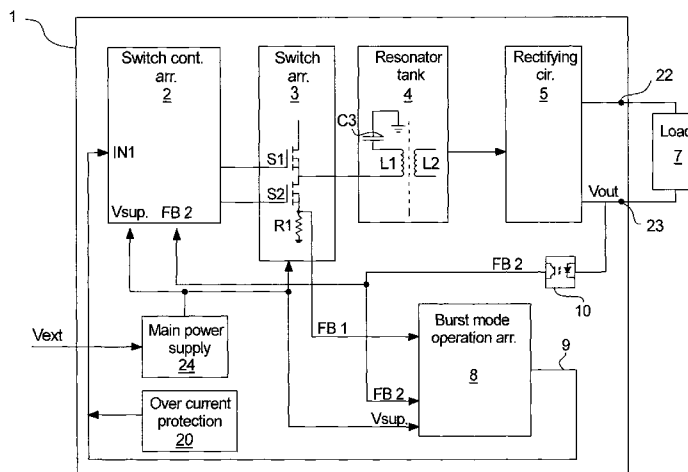


Fig. 1

(57) Abstract: The invention relates to a power supply device comprising: a switch arrangement comprising switches for generating a square wave a switch control arrangement for controlling said switch arrangement, a resonator tank, a rectifier circuitry for rectifying an output from said tank, wherein said switch arrangement is arranged to operate according to an output from said switch control arrangement, wherein said resonator tank is arranged to receive said square wave output, wherein said rectifier circuitry is arranged to provide an output to a potential load, and wherein said power supply device further comprises a burst mode operation arrangement configured to facilitate a standby mode of said power supply, said burst mode operation arrangement comprising a burst mode restriction arrangement configured for receiving and evaluating a first feedback parameter associated with a switch of said switch arrangement and being indicative of the power consumption at said output to said potential load, the burst mode restriction arrangement being configured to disable and enable said burst mode feature based on said evaluation by controlling an output from said burst mode operation arrangement.



INTERNATIONAL SEARCH REPORT

International application No PCT/DK2012/000015

A. CLASSIFICATION OF SUBJECT MATTER INV. H02M3/156 H02M3/335 ADD.				
According to International Patent Classification (IPC) or to both national classification and IPC				
B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) H02M				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EPO-Internal				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 2003/042879 A1 (HUH DONG-YOUNG [KR] ET AL) 6 March 2003 (2003-03-06)	1,30		
Y	paragraphs [0025], [0044], [0080];	2-15,		
A	figures 1-8	19-29 16-18		

X	US 5 995 384 A (MAJID NAVEED [US] ET AL) 30 November 1999 (1999-11-30)	1,30		
Y	figures 2-4	2-15,		
A		19-29 16-18		

X	CN 101 976 959 A (BCD SEMICONDUCTOR MFG LTD) 16 February 2011 (2011-02-16)	1,30		
Y	figures 1-3	2-15,		
A		19-29 16-18		

-/--				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.</td> <td style="width: 50%; border: none;"><input checked="" type="checkbox"/> See patent family annex.</td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C.	<input checked="" type="checkbox"/> See patent family annex.			
* Special categories of cited documents :				
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family			
Date of the actual completion of the international search	Date of mailing of the international search report			
21 August 2012	29/08/2012			
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Kanelis, Konstantin			

INTERNATIONAL SEARCH REPORT

International application No PCT/DK2012/000015

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	US 2010/039836 A1 (GONG XIAOWU [SG] ET AL) 18 February 2010 (2010-02-18) paragraphs [0011], [0028], [0124]; figures 9,12,17,18,27 -----	2-15, 19-29 16-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/DK2012/000015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003042879	A1	06-03-2003	KR 20030018401 A US 2003042879 A1

US 5995384	A	30-11-1999	DE 69805052 D1 DE 69805052 T2 EP 0941573 A1 JP 4430746 B2 JP 2001501439 A US 5995384 A WO 9907061 A2

CN 101976959	A	16-02-2011	NONE

US 2010039836	A1	18-02-2010	NONE
