



A. CLASSIFICATION OF SUBJECT MATTER		
<i>H02M 3/28(2006.01)i, H02M 3/155(2006.01)i</i>		
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 3/28; H02M 7/00; H02M 3/155; G05F 1/44; H02H 9/00		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models Japanese utility models and applications for utility models		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: "bidirectional", "converter", "dc to dc", "transformer", "synchronous rectifier", "isolate"		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6574125 B2 (Nissin Electric Co) 03 Jun. 2003 see the abstract, claims 11-19, column 17 line 35 - column 21 line 37, figures 17-22	1-25
A	US 2008-0309301 A1 (Takae Shimade et. al) 18 Dec. 2008 see the abstract, claims 1-29, figures 1-7	1-25
A	US 2001-0004205 A1 (Peter Miller) 21 Jun. 2001 see the abstract, claims 1-20, figures 1-3	1-25
A	US 7072162 B2 (James D Amato) 04 Jul. 2006 see the abstract, claims 1-13, figures 1-5	1-25
A	H.L. Chan et. al. "An Extended Load Range ZCS-ZVS Bi-directional Phase-Shifted DC-DC Converter" 2000 IEEE, Sep. 2000.	1-25
<input 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 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 29 AUGUST 2011 (29.08.2011)		Date of mailing of the international search report 30 AUGUST 2011 (30.08.2011)
Name and mailing address of the ISA/KR  Korean Intellectual Property Office Government Complex-Daejeon, 189 Cheongsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140		Authorized officer BAE, Jin Yong Telephone No. - 

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2010/061306

Patent document cited in search report	Publication date	Patent family member(s)	Publication date		
US 6574125 B2	03.06.2003	CA 2369060 A1	24.07.2002		
		CA 2369060 C	04.10.2005		
		EP 1227571 A2	31.07.2002		
		EP 1227571 A3	15.09.2004		
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		JP 2003-1 11413 A	11.04.2003		
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		JP 3463807 B2	05.11.2003		
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		US 2002-01265 17 A1	12.09.2002		
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				US 7812575 B2	12.10.2010
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