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(72) Inventors:
• **Izumi, Hideyuki**
Tokyo 100-8310 (JP)
• **Ono, Yoshihiro**
Tokyo 100-8310 (JP)
• **Kusano, Hideyuki**
Tokyo 100-8310 (JP)

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(74) Representative: **Ilgart, Jean-Christophe**
BREVALEX
95, rue d'Amsterdam
75378 Paris Cedex 8 (FR)

(71) Applicant: **Mitsubishi Electric Corporation**
Chiyoda-ku
Tokyo 100-8310 (JP)

(54) **Refrigeration cycle apparatus as well as air conditioner and water heater having the same**

(57) In a refrigeration cycle apparatus capable of protecting faulty wiring while saving a space and cost necessary for the protection of faulty wiring, a power supply circuit (2) for receiving an alternating voltage from an alternating current source (1) and a communication power supply circuit (3) are installed in a heat source side

unit (51) of an outdoor unit, and a power supply circuit (11) and a zero cross circuit (12) for detecting a zero cross point of the alternating voltage supplied from the heat source side unit (51) are installed in a user side unit (52) of an indoor unit.

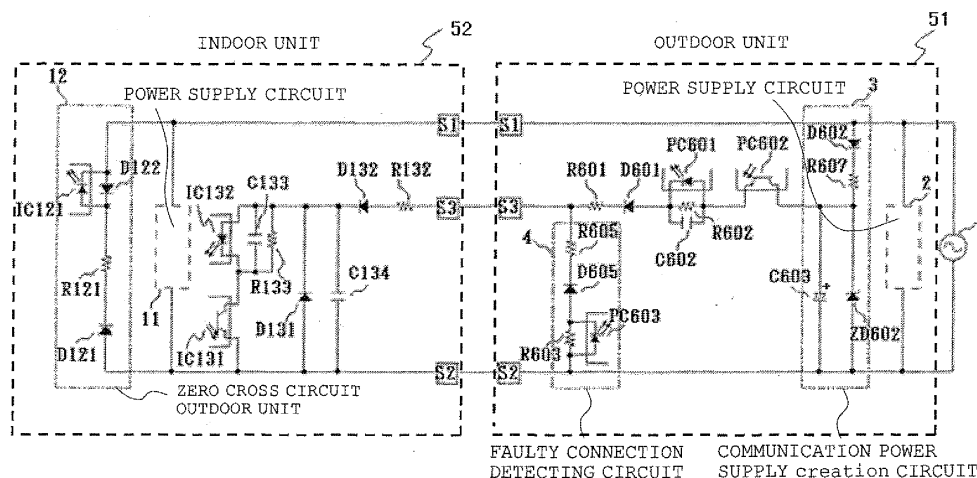


FIG. 1

**PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 62a and/or 63 of the European Patent Convention.
This report shall be considered, for the purposes of
subsequent proceedings, as the European search report

EP 09 16 6564

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	US 2004/027110 A1 (SUE HIROKI [JP] ET AL) 12 February 2004 (2004-02-12) * abstract; claims 1-2; figures 1-7 * & DATABASE WPI Week 200420 Thomson Scientific, London, GB; AN 2004-213391 & US 2004/027110 A1 (CANON KK) 12 February 2004 (2004-02-12) * abstract *	6,9,12, 13	
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			TECHNICAL FIELDS SEARCHED (IPC)
			F24F G06C F25D F25B
INCOMPLETE SEARCH			
The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC so that only a partial search (R.62a, 63) has been carried out. Claims searched completely : Claims searched incompletely : Claims not searched : Reason for the limitation of the search: see sheet C			
Place of search		Date of completion of the search	Examiner
The Hague		9 December 2014	Bejaoui, Amin
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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**INCOMPLETE SEARCH
SHEET C**

Application Number

EP 09 16 6564

Claim(s) completely searchable:
6, 9, 12, 13

Claim(s) not searched:
1-5, 7, 8, 10, 11

Reason for the limitation of the search:

Rule 62a EPC

**ANNEX TO THE EUROPEAN SEARCH REPORT
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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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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82