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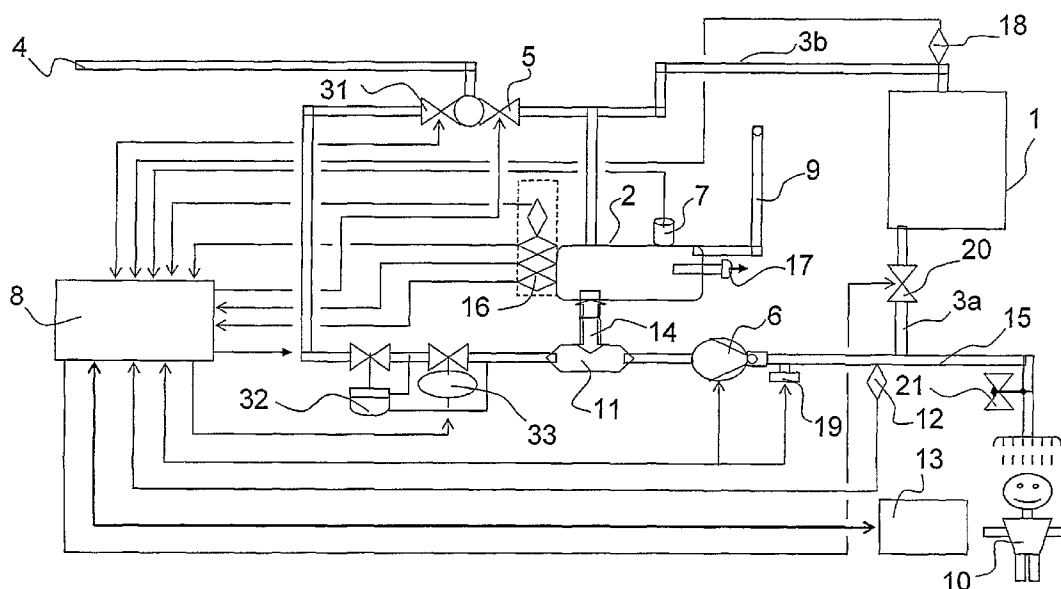
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12 April 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A SOLAR WATER HEATING SYSTEM



(57) Abstract: The invention provides a system for providing heated domestic water. The system comprises a heating structure such as a solar collector and a tank connected by an upstream fluid path and a downstream fluid path. A control system is adapted to interrupt supply of water from a source to the system when the domestic water is delivered to a recipient. The invention further provides a heating system with a tank which is filled to a certain limit leaving a certain amount of free space, e.g. to adjust absorption of energy to a supplied amount of energy or for reserving space for drainage of the solar collector. The invention further relates to a solar collector which is protected against excessive temperatures. Furthermore, the intention provides a method for providing heated domestic water.

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INTERNATIONAL SEARCH REPORT

International application No

PCT/DK2006/000358

A. CLASSIFICATION OF SUBJECT MATTER
INV. F24D19/10 F24J2/46

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)

F24D F24J

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 practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 008, no. 069 (M-286), 31 March 1984 (1984-03-31) & JP 58 217157 A (MATSUSHITA DENKI SANGYO KK), 17 December 1983 (1983-12-17) abstract -----	1,37

☐ Further documents are listed in the continuation of Box C.

☒ 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 document 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

11 January 2007

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK2006/000358

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-28, 37

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-28, 37

A solar domestic water heating system having a solar collector, a storage tank an inlet and an outlet and a control system adapted to interrupt the supply of water from the source when the domestic water is delivered to a recipient.

2. claims: 29-35

A solar domestic water heating system having a solar collector, a storage tank an inlet and an outlet and a control system adapted to fill a main portion of the tank and to reserve an auxiliary portion of the tank as a free space in the tank.

3. claim: 36

A solar domestic water heating system having a solar collector, a storage tank an inlet and an outlet and a release structure for releasing water from the collector upon detection of a precondition.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/DK2006/000358

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 58217157	A	17-12-1983	NONE