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(54) **CARBON DIOXIDE BASED AUXILIARY COOLING SYSTEM**

(57) The present application provides a cascade refrigeration system (100). The cascade refrigeration system may include a first side cycle (110), a second side cycle (120) with a second side cycle carbon dioxide re-

frigerant (310), and an auxiliary cooling system (330) to cool the second side cycle carbon dioxide refrigerant in the event of a power outage. The auxiliary cooling system includes an auxiliary carbon dioxide refrigerant.

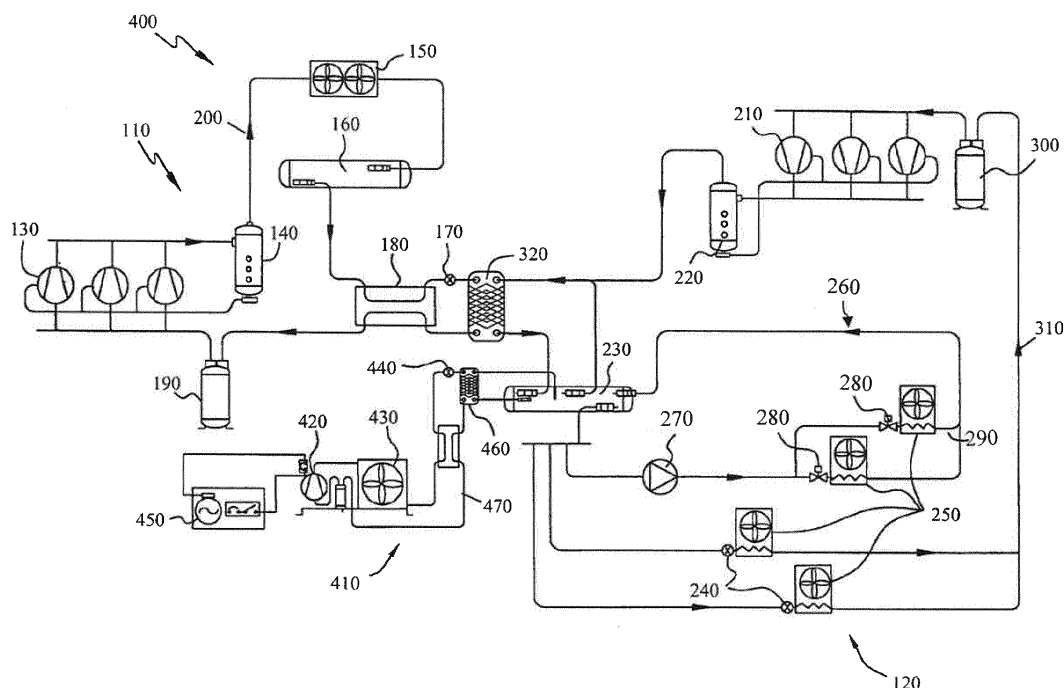


Fig. 2

**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 15 20 2000

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	US 2013/227979 A1 (KASUKA JUNICHIRO [JP] ET AL) 5 September 2013 (2013-09-05) * the whole document *	1,4,6,8,11	INV. F25B7/00 F25B9/00
X	WO 2014/100330 A1 (MARTIN J SCOTT [US]; ZHA SHITONG [US]; NEWEL JEFFREY [US]; LUKES TIMOT) 26 June 2014 (2014-06-26) * the whole document *	1-5,7-11	
A	US 2010/031697 A1 (HINDE DAVID K [US] ET AL) 11 February 2010 (2010-02-11) * the whole document *	1-11	
			TECHNICAL FIELDS SEARCHED (IPC)
			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

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Place of search	Date of completion of the search	Examiner
Munich	23 September 2016	Lucic, Anita
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		

EPO FORM 1503 03/82 (P04E07)

**INCOMPLETE SEARCH
SHEET C**

Application Number

EP 15 20 2000

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Claim(s) completely searchable:
1-11

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Claim(s) not searched:
12-14

Reason for the limitation of the search:

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The search has been restricted to the subject-matter of the first independent claim since the applicant failed to reply to the invitation pursuant to Rule 62a(1) EPC. Thus, the search report has been drawn up on the basis of independent claim 1 and its associated dependent claims 2-10 and of independent method claim 11.

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

EP 15 20 2000

5 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.

23-09-2016

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